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This address disentangles the complex history of the turnpike roads in north-west Herefordshire, demonstrating that, despite the fragmentary nature of surviving records, a great deal can be clarified and demonstrated using newspaper reports and cartographic evidence. In addressing the roads, their operation and their impact on local people, the paper reveals much about social and economic activity during the turnpike era.

The Nine Days' Fair, or St Ethelbert's Fair, or the Bishop's Fair: a History of Hereford's May Fair *by Elizabeth Semper O'Keefe*……. 55
2021 saw the 900th anniversary of the charter for Hereford's May Fair. The Fair's long history, traced in this paper, reflects change, sometimes upheaval, in the social, economic, and political life of Hereford. Glimpses of many people emerge from the sources: bishops, mayors, bailiffs, farmers, traders, people seeking work and even the suffragettes.

Alfred Watkins and the Woolhope Club, 1888-1921: Antiquarianism before *Early British Trackways* (1922) *by David Whitehead*……. 75
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An Early Medieval Fortified Enclosure at Breinton, near Hereford: Exploratory Archaeological Investigations in 2018 *by Keith Ray and Liam Delaney, with a contribution by Stephanie Ratkai*……. 85
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Mediaeval Timbers in the Tower of Cradley Church *by John C. Eisel*……. 107
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The Iconography of the Romanesque Font in Eardisley Church, Herefordshire *by Bruce Coplestone-Crow*…… 116
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Transactions Extra, 2021

Mary Lloyd Wynne of Coed Coch and Alfred Osten Walker of Colwyn Bay: two little known mycologists from North Wales *by John Edmondson*

Dr Edmondson's paper was published in the Club's '*Transactions Extra'* format on the website (https://www.woolhopeclub.org.uk) to coincide with his address to the 125th anniversary conference of the British Mycological Society in April 2022. The illustrations are outstanding, with a fine selection of paintings and photographs.

Even though the paper explores the contribution of two mycologists from North Wales, rather than from Herefordshire, we were delighted to publish it in view of its insight into the development of mycology in the 19th century and the leading-edge role of Dr Henry Graves Bull and the Woolhope Club, before national organisations were established. The Club's innovative introduction of fungus forays acted as a magnet, attracting Mary Lloyd Wynne and a whole network of leading mycologists from Britain and overseas, people who helped create the modern science. The paper complements Edward Blackwell's thorough and enlightening article about Dr Bull and mycology in these *Transactions* (*TWNFC* 58 (2010), pp. 95-125), this time from an external perspective.

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Obituary: Dr Paul Olver, 1948-2021



The loss of Paul Olver, so soon after his third term as President in 2018/19, has been felt keenly, not only by those with a particular interest in geology, in which he was hugely knowledgeable, but also by the rest of the Club.

Since coming to Herefordshire in 1999, Paul had contributed so much. In 2000, he sought other interested people to restart the Club's geology section, once pioneering but long inactive. He wrote for these *Transactions*, engaged energetically in field and other meetings, and joined the publications committee. He acted too as President of the now thriving Teme Valley Geological Society, whose formation was inspired by one of Paul's courses, and as Trustee of the Earth Heritage Trust.

His excitement about geology and the Club's contribution to it came across in his most recent Presidential Address (*TWNFC* 67 (2019), pp. 31-7), where he combined new ideas on the Silurian strata with a powerful appreciation of the work of Rev. W. S. Symonds and the other remarkable Victorian geologists who helped found the Woolhope Club. One of his many innovative ideas was a re-enactment of a Victorian field trip, with participants dressed in costume, riding by steam train and horse drawn carriage, an event filmed and recorded on DVD.

After graduating with BSc (Hons), Paul was awarded his doctorate in 1979. He taught geology and geography for Warwickshire County Council and the WEA, thus beginning a life-long engagement with adult learning. He worked in a leading role in adult education in Surrey and joined Herefordshire County Council in 1999 as Lifelong Learning Development Officer.

From an early stage, he was involved in local geological societies and in running field trips for the Geologists' Association, joining its Council in 2009. In 2019, he received the Association's Foulerton award for his services, at a ceremony attended by the Presidents of both the Geologists'Association and the Woolhope Club.

In Herefordshire, Paul worked tirelessly to communicate about geology with people across the county. He so interested landowners at Martley Rock, in the geology of the extension of the East Malvern Fault Line, that they allowed trenches to be dug over four successive years, thus exposing a more complex geological structure that had previously been recognised.

Many Club members hugely enjoyed the field trips he led to sites of global importance, in France, Germany, Italy and Iceland, especially those with volcanic rocks, in which he had great expertise. His handouts represented a thorough record of the geology of the areas visited.

Paul's interests extended to astronomy, including his own observatory, to philately and to railways. Club members will remember him vividly, as a captivating lecturer or as someone who could simply make rocks come alive. His papers for the *Transactions* covered topics such as continental drift, Old Red Sandstone, trilobites and building stones from the Malverns, with an astronomical paper too in 2015. He was President of the Club in 2004/5, 2005/6 and 2018/19.

Paul Olver will be greatly missed by the Club, many societies and numerous individuals. As a friend said, 'Paul had a belief and a passion in what he did…it's hard to think of anyone I have known that reached out to so many people and engaged them through his teaching'. The Club extends its condolences to Sue, Paul's wife, and to their children, Jonathan and Chris.

List of Officers 2021/22

President	Mr D. A. WHITEHEAD
Vice-presidents	Dr J. C. EISEL, Prof. R. JENKINS, Dr P. OLVER, Dr J. COOPER
Central Committee	Mr I. L. BASS, Mr J. HILLABY, Mr D. LOVELACE, Prof. K. RAY (*to retire 2022*); Mr J. G. CALDERBANK, Mr J. COMBER, Mr J. GRUNDY. Mrs M. JENKINS (*to retire 2023*); Miss A. HARBOUR, Mrs R. A. LOWE, Mrs M. PERCIVAL, Mrs R. E. SKELTON (*to retire 2024*).

Dr P. Olver died in October 2021.
Mrs R. E. Skelton resigned in August 2021.

Hon. Secretary	Dr J. M. ADAMS
Hon. Membership Secretary	Mr I. K. PORTER
Hon. Treasurer	Mr I. K. PORTER
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Hon. Field Secretary	Mrs S. OLVER
Hon. Editor	Vacant*
Hon. Website Manager	Mrs R. A. LOWE

*Mr T. Morgan was appointed for 2022/23 and has acted as editor for this volume.

SECTIONAL RECORDERS

Archaeology	Prof. K. RAY
Botany	Mr S. HEDLEY
Bryophytes	Mr I. DRAYCOTT
Buildings	Mr D. JAMES
Geology	Mrs M. JENKINS
Mycology	Mrs J. WEIGHTMAN
Ornithology	Prof. R. JENKINS

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Kingsthorne	Little Birch	Hildersley
HEREFORD	HEREFORD	ROSS-ON-WYE
HR2 8AN	HR2 8BD	HR9 7NL

Preliminary enquiries about proposed articles intended for inclusion in future issues of the Woolhope Club *Transactions* should be made to the editor via the website. Please request a copy of the *Notes for Contributors to the Transactions* or see the website: www.woolhopeclub.org.uk. Other officers can be contacted via the website.

List of sub-committees 2021/22

GEOFFREY WALTER SMITH FUND

Chairman	Dr J. C. EISEL
Members	Dr J. COOPER, Miss J. R. JONSON, Mr D. A. WHITEHEAD

PUBLICATIONS COMMITTEE

Chairman	Dr J. C. EISEL
Members	Mrs R. A. LOWE, Mr D. A. WHITEHEAD, Mr T. MORGAN

Proceedings 2021

SPRING MEETINGS 2021

Due to restrictions arising from the Covid-19 pandemic all spring meetings were cancelled.

SPRING ANNUAL MEETING AND ELECTION OF OFFICERS

As recorded in the *Transactions* for 2020, all autumn meetings for that year had to be cancelled. Consequently, it was not possible to hold the Winter Annual Meeting in November 2020 to elect officers for 2021-22. Recommendations from the Club committee for the positions were circulated to the membership in a special newsletter in December 2020, with the suggestion that, should it not be possible to hold a meeting to ratify them, then the offices would be filled in line with the recommendations. Because of the ongoing difficulties caused by the Covid-19 pandemic, all arrangements for the remainder of the winter programme for 2020-21 had to be cancelled too, so that the Spring Annual Meeting could not take place. In line with the recommendations, the offices were taken up after that meeting should have been held, as notified in the Spring 2021 Newsletter and as listed in this volume.

FIELD MEETINGS

First Field Meeting

Tuesday 18 May 2021. A walk to examine evidence for the course of the Wye and the underlying geology, from the cliff face below Ross-on-Wye, led by Moira Jenkins and Sue Olver.

The restrictions of the Covid-19 pandemic had so disrupted the Club's normal programme that this was the first field meeting held since June 2019. Eighteen members joined the leaders at the car park next to Wilton Bridge, shared by a Covid-testing station. Most of the heavy showers forecast did not materialise and there was warm sunshine part of the time.

After recent heavy rain, river levels were high and made it impossible to see the gravel bars in the Wye downstream of the bridge. However, from the bridge it was clear that Wilton Castle and the houses on the Wilton bank were built on a river terrace, the former valley floor before the river cut down to its present level. These buildings are now perched a little above the level of the flood plain. The original bridge is said to have been built in 1599, as recorded in these *Transactions* (*TWNFC* (1921), p. 90), although it has been much altered since. The poor building stone no doubt came from the cliffs nearby—although eroded, the stone visible on the downstream side is in fair condition for its age.

The party then walked south-east across the flat land towards the cliffs south-west of Ross. This land floods regularly but above the floodplain are former river cliffs of the Wye, formed from Old Red Sandstone of the Devonian Period. The rocks show evidence of the braided nature of rivers which crossed a semi-arid plain about 400 million years ago, constantly changing their courses, depositing layers of fine sand interspersed with layers of gravel. Sections of the cliff face show layers of smooth sandstone, formed from fine sand deposited during times of calmer river flow, interspersed with 'cross-bedded' layers. These coarser bands with dipping layers show the positions of the front of gravel bars as they migrated downstream.

The group returned to Wilton Road to walk up to Ross town, noting *en route* the flood-relief tunnel that runs under the causeway of Wilton Road. The building material used shows the sandstone 'stripes' so typical of the area, with a red colour, caused by oxides of iron, and a grey-

green colour, caused by ferrous hydroxides of iron, the latter developed in wetter conditions or when there was organic material in the sediment. From the pavement there were good views of the cliff strata. The whole remarkable run of cliffs, leading south-west from near the town centre, is known as Wilton Bluff and has been designated an SSSI for its important geology. It was famously analysed in detail by the geologist J. R. L. Allen.

After crossing the main road to take the road leading uphill to the church, the lunch break was taken at the Prospect, from which the view of the massive meander loop in the Wye was particularly fine. All of the low land visible from the Prospect can be flooded after heavy rain.

After lunch the next port of call was the roadside wall retaining the car park on Edde Cross Street. A stone in the centre of the wall showed sandstone with hollows, created when mudclasts, torn off by the ancient river upstream, were later deposited. Since they are softer than the sandstone they have weathered out of the rock.

Walking northwards down Edde Cross Street, which dives down steeply, it was possible to appreciate that an earlier, abandoned meander of the Wye lay ahead, beyond which the other side of the valley rose steeply. The River Wye once took a very different course to that of today, flowing east to the north of Penyard Park before turning to flow south of Penyard Park and Chase Wood, entering the present course near Coughton.

At the bottom of Edde Cross Street the group took the path towards the Wye, past a small stream, the Rudhall Brook, which now is all that drains the former Wye meander at this point. The party walked back along the riverbank seeing the Wye flowing strongly, swelled by the recent heavy rains, before crossing Wye Street (often flooded) to return to the car park.

Second Field Meeting

Saturday 3 July 2021. Moccas Deer Park, its oak trees and Moccas Hill Wood, led by Rachel Jenkins, David Lovelace and David Whitehead.

Some eighteen wet Woolhopians gathered at Park Cottage, on the edge of the Moccas Estate. This was fewer people than anticipated but there was little expectation of a fine day. In fact, the rain had stopped before the party moved off and spirits improved.

Moccas is a happy hunting ground for the Club. Indeed, several of its founders visited Moccas in 1849 with the Hereford Philosophical Society. Two years later a splinter group of the Society, eager to hold more frequent field meetings, founded the Woolhope Field Naturalists' Club.

For the field meeting in 2021, the Club appreciated the permission granted to visit Moccas Deer Park, a National Nature Reserve but not one open to the public. The Club had visited the park in June 2019 and discovered that all was not well with the veteran trees. Indeed the 'Club Oak', so named by Dr Henry Graves Bull and given to the Club in *c.*1870, had died (see Tom Wall in *TWNFC* 67 (2019), pp. 38-46). It had last been measured in 1998 when it was in robust health. Rachel Jenkins and David Lovelace had decided to seek expert opinion and, before the onset of the Covid-19 pandemic, had been hoping to hold a symposium to discuss the matter, especially as some of the other oaks were going in the same direction.

David Lovelace explained the variety of oak species in the park, saying that *Quercus robur* (Pedunculate Oak) and *Quercus petraea* (Sessile Oak) were both present. As he remembered, the consensus was that *Q. robur* was dominant in most of the park but *Q. petraea* was found in the upper part. Hybrids also occurred but it probably required DNA analysis to be certain about them.

David talked about the dieback of Oak and how the situation at the estate, managed by

tenants, compared unfavourably with that at the Kenchester estate, which was also a deer park but exhibited neither the same problems of overgrazing (indeed it had no cattle, only deer), nor of Oak dieback. He said that a variety of thoughts had already been aired to explain this, which might, or might not, be significant. Moccas Park was intensively grazed by both a considerable number of cattle in the summer months (on the lower slopes) and a large, permanent herd of deer. Unlike many heritage deer parks, Moccas had to pay its way and was integrated commercially into the wider Moccas estate. It had been noticed by many observers that the quality and diversity of the grassland was poor. The sward was not species-rich and, as one member remarked, very little growth of shrubs and self-sown trees was evident. Natural England had, it seemed, been rather inactive, although aware of the problem. It had experimented with bark mulching, visible under a group of trees, but this appeared ineffective.

The complexity of the issues was clear to all, as was the requirement for rapid, collaborative action from the various parties and agencies involved.

Rachel Jenkins has taken on the responsibility of looking after Herefordshire Ornithology Club's nest boxes in Moccas Park. The nest box provision was established by her father in the 1960s, specifically to attract the Pied Flycatcher. The birds arrive from Africa in April, mate and nest in May, produce their chicks in early June, and are generally gone from the park by late June. Rachel noted that, in recent years, the number using the boxes had declined, and suggested that bad weather, habitat loss in West Africa and crossing an expanding Sahara were all causing the birds difficulties.

After inspecting some nest boxes, the party walked back down the slope towards the glacial pools on the estate. Sue Olver outlined the geological factors that had created a series of 'kettle holes', parallel to the Wye, between Eaton Bishop and Moccas.

Before leaving Moccas Park, the party visited the extraordinary 'Stag's Horn Oak', since the demise of the more famous 'Moccas Oak' in *c*.1900, probably the oldest oak in the park and, no doubt, one of 'those grey old men of Moccas' noticed by Francis Kilvert in 1876.

After lunch, with appetites moistened by a little rain, the party followed Rachel to the recently opened car park at Moccas Hill Wood. The drive proved thrilling in itself for those unaccustomed to the winding lane and steep gradient. The wood was part of the Moccas Deer Park until the 1950s, when it was detached and sold to the Forestry Commission, who planted new woodland. The site has now been acquired by the Woodland Trust and given to Natural England to manage. Natural England has felled most of the conifers and replanted with native deciduous trees, grown from seed collected from Moccas Deer Park. Unlike the park below, Moccas Hill Wood is open to the public. It is still enclosed by the great park wall, built in the late 18th century and well restored in recent years by Natural England.

The group set off southwards on a well-metalled track—using slag from South Wales, Sue Olver observed—deep in high bracken, but were soon aware of the wonderful views across lowland Herefordshire towards the Malvern Hills. The other hills to the south-west and in the Canon Pyon area provided clues to help find familiar towns and villages obscured by a mist. Only the polytunnels at Staunton-on-Wye spoilt the idyll.

Rachel Jenkins guided the group down the larch avenue, noting that it had been left to guide the bats that roost in Moccas Park down to the river Dore, where they fed on flying insects. Various theories had been put forward to explain why the bats turned west and ignored the Wye, including a potential connection with pollution. At the end of the larch avenue, it was possible to look through the fence, into the deer park, to a wide-open area, which was cultivated during the Second World War. In the spring, it is covered in a spectacular carpet of bluebells.

The return walk along the western side of Dorstone Hill passed through an area of the medieval deer park, which had originally covered both sides of the hill between Dorstone and Moccas. With the skies brightening a little the view across the Golden Valley was one of 'ravishing varieties'. Nothing jarred from Dorstone down to Dore Abbey. The only man-made objects that impinged upon the scene were the spire of Peterchurch Church and the craggy keep of Snodhill Castle. A seat had recently been placed near the best view and the party lingered there for a while. It was a fitting climax to an excellent day and, for some, a symbolic line drawn under Covid.

Third Field Meeting

Friday 16 July 2021. Visit to excavations at Arthur's Stone and Snodhill Castle, led by Professor Keith Ray of Cardiff University, Professor Julian Thomas of Manchester University and Tim Hoverd of Herefordshire Archaeology.

In the sunshine and roasting temperatures of the 2021 heat wave, sixteen Club members plus two guests arrived at Arthur's Stone. The views across to the Black Mountains were huge and haze free, with the long-sweeping ridges delineated in exceptional sharpness.

What followed was an outstanding day, providing access to leading-edge investigation of the Neolithic period, insight into the deployment of modern surveying techniques, a considerable update on the story of Snodhill Castle and a glimpse of how today's archaeologists approach both the development of skilled people for the future and practical funding for the present.

Prof. Ray began by reviewing the 'Beneath Hay Bluff' prehistory project, which had run for nine consecutive seasons to 2019 and which was continuing with the excavations of 2021. As reported in these *Transactions (TWNFC* 67 (2019), pp. 128-9*)*, discoveries on Dorstone Hill nearby had been of national importance, demonstrating that four early Neolithic mounds had been built end-to-end, and that the core of three of them consisted of the deliberately burnt remains of substantial, rectangular longhouses, among the earliest known examples of such buildings in Britain. Prof. Ray believed that, when in use, the longhouses might have fulfilled the function of some form of feasting hall, and that their deliberate destruction and subsequent covering related to beliefs about ancestors and the dead. The mounds, with the major burial chamber nearby, had been key elements in a large-scale ceremonial landscape on the hill. All the activity had taken place between *c.*3850 and 3400 cal BC.

Prof. Ray explained that the excavations of 2021 were taking place on a ridge not far from Dorstone Hill, in the field adjacent to Arthur's Stone, a chambered burial tomb of the Neolithic period and a scheduled monument, but one whose true extent and connection to Dorstone Hill and the wider landscape remained poorly understood. The current excavations were beginning to address that.

Prof. Julian Thomas, from the University of Manchester, welcomed the party to an area of the field next to the standing remains of Arthur's Stone but on the other side of the roadside hedge. Here student archaeologists from his university, from the USA and from Cardiff University were excavating in the heat.

An area of hard, stony earth had been exposed near the hedge, directly in front of the monument. With an expert eye, sharpened by experience of similar circumstances on Dorstone Hill, Prof. Thomas pointed out key features that were slowly emerging. Traces of a mound and hints of a palisade trench suggested that the monument had originally extended to this area. Additionally, marks were visible that might represent traces of post-holes. At the time of the visit Prof. Thomas was unsure whether they represented part of the monument or an approach to it,

or how far the archaeology might be related to the types of construction found on Dorstone Hill. His next priority was to establish whether some of the marks did indeed represent post-holes and, if so, where they were located and the direction in which they ran. What is certain is that the remaining work of 2021 will have moved understanding forward. The campaign of 2022 will take investigations further.

Earlier, Dr Tom Elliot had demonstrated how sophisticated laser technology was being used to map 330 points very accurately over a much wider area of the site. Associated markers showed precise locations for sample excavation, so that effective coverage could be achieved. The technology facilitated comparison with Ordnance Survey maps and Lidar surveys.

A range of points about the Neolithic period arose in answer to questions, especially relating to the nature of agriculture, relationships between groups of people and the movement of goods. Articles from far afield were evident from the finds—the flints found near Arthur's Stone were most likely to have originated near Brighton, whilst the rock crystals found at Dorstone Hill and at the edge of the Snodhill Castle site were not local either. Such items had certainly been transported, even if the mechanisms of 'trade' or exchange remained mysterious.

After lunch the party re-assembled at Snodhill Castle, where work was being carried out prior to consolidation to make the monument safe for visitors. Tim Hoverd, Archaeological Projects Manager for Herefordshire Council and the project director for the site, provided a comprehensive tour, dealing, in turn, with several discrete excavations.

Earlier work had included the removal, by hand, of eighty-four tonnes of rubble to clear a D-shaped tower in the northern curtain wall. The basement was exposed, and the area was now accessible, with a concrete floor.

A new trench had recently been opened to investigate a possible entrance to the keep from the inner bailey. Work had also taken place on the motte itself and Mr Hoverd explained the complex sequence of repairs to the standing stonework of the shell keep that had taken place between *c.*1100 and 1300. Since the motte had originally been built for a timber structure, most of the masonry had disappeared and slipped down into the deep ditch. In the mid-17th century, there had been a period of formal demolition, with stretches of walling being apportioned to individual purchasers. Mr Hoverd pointed out the storage area that had been used for the recycled stone in the lower bailey.

New stone steps took the party down into the upper ward, still in an elevated position, where work was just commencing on a rectangular room, which projected beyond the south curtain wall, capturing long views down the Golden Valley to Peterchurch and beyond. The quality of the agricultural land associated with the castle was striking whilst immediately below the room, it was suggested, there had been a string of fishponds, a centrepiece of an extensive deer park, whose surviving, stone-built pale could just be made out, high on the escarpment of Vagar Hill to the west.

It seemed that Snodhill Castle had experienced a long and complex life in the hands of the Chandos family, who eventually saw it as a recreational centre; hence the viewing room in which the group was standing. Further proof was provided by the 'pleasaunce'—a free-standing, and sometimes moated, banqueting hall, hidden in the undergrowth near the river to the south-east. Similar features existed at Clun, Raglan and Kenilworth and were designed for *alfresco* banquets in a parkland setting.

The energy, enthusiasm and numbers of the archaeology students, digging at both Snodhill and at Arthur's Stone, made a strong impression on the party, even more so in view of the heat, the unforgiving nature of the work and the necessity to operate under Covid-19

restrictions. With an anticipated relaxation of those restrictions the hard-working diggers were soon to have a well-deserved day off!

Mr Hoverd and other archaeologists explained that students working at Snodhill and Arthur's Stone benefitted from outstanding experience of field work as well as programmes to broaden knowledge, whilst their presence generated funding for excavation. It was evident that securing skilled people for the future, and securing funds to get things done in the present, were both high on the professional agenda of today's archaeologists.

At the end of a day of sustained interest and high quality, the group thanked Tim Hoverd wholeheartedly for his time and expertise.

Fourth Field Meeting

Saturday 11 August 2021. A walk around Hereford with David Whitehead, President of the Club, to explore the early development of the city.

On a temperate, dry day twenty members and visitors gathered at the Pavilion on Castle Green. During the morning, topics centred around the Castle Green, with particular reference to St Guthlac's monastery, whilst in the afternoon the party re-assembled in front of Hereford Cathedral.

On the basis of the history and archaeology the President believed that religious activities commenced on the Castle Green, the high point of the Hereford Terrace, in the 6th or 7th century when a Christian burial ground was established above the Wye. This increasingly sacred site required caretakers and thus, at a later date, encompassed a minster church, later dedicated to the East Anglian saint, Guthlac. Somewhat later this establishment was joined by the minster of St Mary and St Ethelbert, which eventually, in 803, was recorded as the seat of the Bishop of Hereford. This Cathedral would eventually eclipse its more ancient neighbour.

The President explored the archaeological evidence provided by Ron Shoesmith's excavation of 1973, combining this with contemporary historical research on early minsters and, more specifically, the recent monograph published on St Guthlac, whose body (or part of it) had been placed in a shrine on the Green, which survived until it was accidentally burnt in the late 13th century. St Guthlac's Minster, the speaker believed, was the primary church of the southern Marches and came into existence in a sub-Roman/Celtic environment. Vestiges of its pre-eminence survived until after the Conquest in its extensive portfolio of property—much of it subsequently redistributed after the Conquest—and the retention of a monopoly of burial rights in the local area. This prevented the Cathedral from enjoying one of its fundamental privileges until the mid-12th century, when St Guthlac's Minster was humiliated by being re-founded on a new site in the Bye Street suburb of Hereford. Subsequently, it was regarded as a Benedictine priory and a mere cell of Gloucester Abbey. Gloucester, it should be noted, was the favoured repository of orphaned Welsh minsters in the years immediately after the Norman Conquest. Clearly, St Guthlac's was seen in this light. This was the nadir of Hereford's first Christian institution, which suffered a long process of decline until its dissolution in 1536.

In the afternoon the party re-assembled in the busy Cathedral Close. The object of this tour was to investigate the archaeological context of the Cathedral, both in relation to St Guthlac's and the city that emerged in its shadow. Here considerable use was made of Andy Boucher's excavations, ahead of landscaping work, between 2009 and 2011. Reference was also made to other excavations, ranging from those recorded in the 1640s by Silas Taylor, and those relating to the new Library (1993) and the toilet block (2003) in the Chapter House Yard. Mr Whitehead pointed out that the lack of a burial ground left the Cathedral exposed to secular

activities, especially with the foundation of the 'burh' by Aethelflaed, the Lady of the Mercians, in the 890s. The 'close', as it became in the 14th century, was thus the focus of a great deal of ironworking and other quasi-industrial activities, confirming the role of the Church in the struggle against the pagan Vikings. As at Worcester, which was better documented than Hereford, the church became truly militant. The royal interest in Hereford, represented by Aethelflaed, the daughter of Alfred the Great and wife of Aethelred, the Earl of Mercia, also prevented Herefordshire from being re-absorbed into Greater Powys, with which the southern borderland was associated before the Mercian age.

The group finally explored the site of the putative 'great hall' located by Andy Boucher, in St John's Quad, in the shadow of the present Lady Chapel. The afternoon ended with tea in the Chapter House Yard.

Extra Field Meeting

Friday 14 August 2021. A guided geological walk in the Malvern Hills, led by John Payne.

On a warm summer's day twenty Club members enjoyed a day full of interest, both for the experienced geologists in the party and for those with lesser knowledge. John Payne's programme set the scene for lively discussion, whilst the Herefordshire countryside, bursting with the growth of summer, formed the perfect backdrop.

The programme offered every opportunity to reflect, both on the fundamental impact of geology on the landscape and on the time span of geological processes. From the top of Raggedstone Hill the characteristics of Herefordshire on one side of the ridge, and of the Severn Valley on the other, were so visibly different. At the same time, it was striking that, although the Malvern Hills were raised 300 million years ago and last uncovered from overlying rocks relatively recently—about 20 million years ago according to most authorities, but perhaps as recently as 5 million years ago—some of the oldest rocks in England, dating back some 1200 million years, could be found on the ridge.

Middle Hollybush Quarry, the first location visited, illustrated many aspects of the geology of the area. In common with the other quarries nearby it once provided a great deal of material for road building. When no longer in operation, the quarry was used with geology students for instruction and exploration. Although a large tree had recently fallen into the quarry, the cleaning of the previous winter still made the face accessible.

The party appreciated the permission granted to visit the spectacular Hollybush Main Quarry, where the quarry face rises high above the large, crystal-clear pool that has formed below. Part of the rampart that defines the major Iron Age hillfort, covering Midsummer and Hollybush Hills, was visible just above the top of the rock face.

The party ascended the 300 feet to the eastern summit of Raggedstone Hill on a steadily rising path, surrounded by lush bracken and vegetation, with ever wider views over the Severn Valley towards Bredon Hill and the Cotswolds, even if the haze of the day made the distant ridges indistinct. *En route*, and at the top, John Payne explained current views about the geology of the valley and how they had emerged from the very different theories of the 19th century, whilst one member shared a drawing with the group, showing the stratification of the rocks in the area.

At the summit there was much discussion about the development of the Malvern Hills since they were raised 300 million years ago, the way in which geological forces caused parts of the ridge to be offset, and the presence of very ancient rocks, even on the surface.

On the western summit, John Payne recounted the timetable for the Club's excursion to

the area in 1853. Members met at the Green Dragon in Hereford at 06.30, proceeded to Eastnor by brake, held a business meeting, read various papers, joined members of other Clubs and walked at least 10 km in the heat, before further papers and dinner—'with toasts'. At 21.30 they set out to return to Hereford. Presumably they slept on the way home!

During this gathering of 1853, W. S. Symonds addressed members on the value of 'geologic' [*sic*] studies, an example of the Club's pioneering engagement with geology. He was a prominent geologist, a clergyman and an early President of the Club, whose work led him to conclusions about the antiquity of man that contradicted much Christian belief of his time. He famously excavated King Arthur's Cave below the Little Doward, finding evidence of animals and people in distant prehistory that remains nationally important.

Near the summit the party searched for fragments of sandstone on the surface of the hill, eventually succeeding on a slope facing west towards Herefordshire.

Before returning to Hollybush the group descended sharply down the southern end of Raggedstone Hill to arrive at Whiteleaved Oak Quarry, noting *en route* exposed Hollybush Sandstone next to the path. Within the face in the top section of the quarry schists had been identified, formed from rock found lower down by the process known as dynamic metamorphism. John Payne recounted the contribution of the 19th-century geologist, Charles Callaway, who used the quarry to develop his views of the process and may in fact have originated modern theory.

After a pleasant walk around the western slopes of Raggedstone Hill, the party returned to the Hollybush car park. All expressed thanks to John, whose preparation, leadership and energy had made the day so successful.

Fifth Field Meeting

Saturday 21 August 2021. Ice Age ponds in The Sturts Nature Reserve, led by Moira Jenkins and Will Watson.

Although an atrocious weather forecast reduced numbers, ten members met the leaders at The Sturts Nature Reserve, later joined by Steve and Sarah, who graze the land in agreement with Herefordshire Wildlife Trust but who had kindly removed the cattle for the visit. During the day, the party walked around both the North Sturts and South Sturts sections of the reserve.

Will explained that the reserve was one of the sites studied by the project for conserving Herefordshire's Ice Age ponds, a partnership between Herefordshire Wildlife Trust, Herefordshire and Worcestershire Earth Heritage Trust and Herefordshire Amphibian and Reptile Team, funded by the Heritage Lottery. Moira Jenkins distributed a geological map and a leaflet on a new app being developed for visitors. She went on to explain that the landscape had been formed around 25,000 years ago by ice sheets which spread across western Herefordshire.

The Sturts Nature Reserve is in an area where melting ice was dammed by a ridge of moraine, thus forming a lake. As the ice retreated, large blocks became grounded on the lake bottom, and sediment accumulated around them. When the ice melted, ponds formed in the hollows. Several Ice Age ponds formed in this way have been identified in the area. On entering the North Sturts Reserve the characteristic, 'hummocky' moraine became visible, indicating an area of glacial-lake deposits. The hollows contain water in winter but most dry out in the summer. Such subtle features are hard to see but can be recognised because the vegetation within the hollows is distinctive, consisting of water-loving plants.

Steve noted that the area was in the Wye flood plain and that water levels had risen very rapidly on occasion; this seemed to have become more of a problem in recent years. At two sites

in North Sturts Will drew attention to plants which liked to grow in very damp ground, including Water Pepper (*Persicaria hydropiper*) and Water Mint (*Mentha aquatica*).

At the site of an Ice Age pond, in the South Sturts section of the reserve, Moira Jenkins described the characteristic features of such ponds in more detail. She noted that they had a distinct outline, frequently occurred in clusters and were not connected to streams or other drainage. Since over time the water had drained away and the hollows had become filled with sediment, many now appeared as shallow pools. Geophysical investigation at this particular site had shown an infilling of slightly different sediment, eleven metres deep, which indicated the depth of the original pond. Will pointed out the characteristic vegetation.

The group continued to a site where a pond had become infilled and was thus a 'ghost pond'. This had been re-excavated in 2021. The pale-coloured clay layers in the excavated area were pointed out and it was confirmed that water had started to gather in the pool very soon after it was dug out, because the clay did not allow water to drain away. A sample of peat was examined, taken from a core 1.5 metres below the bottom of the excavated base. Thistles were observed, starting to colonise the edge of the cleared ground. Will Watson commented that, within a year, the surrounding area would be covered.

On the party's return to the car park, Sue Olver thanked Steve, Sarah and the leaders for an enjoyable and enlightening day.

AUTUMN MEETINGS

All autumn meetings were held in Hereford Town Hall.

First Autumn Meeting

Saturday 25 September 2021; David Whitehead, President, in the Chair. David Lovelace & David Whitehead gave an illustrated talk on 'The Belmont Parkland: its history and future as Hereford's new wildlife park'.

This was the first indoor meeting of the Woolhope Club since the Covid-19 pandemic prompted the initial lockdown across the UK in March 2020.

First, David Lovelace presented a series of maps showing the boundaries of the Belmont estate and details of areas within it, including one showing Belmont bordered by the royal Forest of Haye. In addition to historical and contemporary maps, Mr Lovelace included three-dimensional maps created by aeroplanes flying low over the land to capture variations in the surface. One of these showed how, since the Belmont Golf Club closed some fifteen years ago, its greens had re-wilded.

All these images were available via digital mapping software, completely free of charge and widely used. Mr Lovelace recommended that all historians acquire QGIS software, which would greatly expand their access to maps. This could be done by downloading the current (as at August 2021) Long Term Release (LTR) version of QGIS (3.16.10) named 'Hannover'.

Next, David Whitehead reviewed the late 18th-century enhancement of the Belmont estate when a new house with landscape gardens was built for John Matthews. Mr Whitehead demonstrated strong evidence that Humphry Repton had come to advise, even though the type of document which Repton so often used to present his design proposals, the Red Book, was missing. Its absence might be explained because Belmont was one of his earliest commissions, taken on before he began producing the famous books.

Mr Whitehead felt that the landscape garden of the 18th and 19th centuries could easily be re-created, with room for a new wildlife park, perhaps utilising some of the National Trust

property on the northern fringes of the estate. Towards the end of his talk, he showed a series of recently discovered images, by the local artist James Wathen. These dated from the late 18th and early 19th centuries and illustrated the nature of the estate at that time. They showed how the amenity land around the house had been fairly limited, with the shrubbery walks occupying the woodland on the slopes of the Wye, to the east of the mansion.

Later in the 19th century the parkland had been extended to the east as far as the Abergavenny Road. The new landscaping, by W.A. Nesfield in *c.*1870, had connected the parkland with the Benedictine priory, later upgraded to the abbey of today. The priory had been established from 1859, following the building of a Catholic church on the estate in 1854 by Francis Wegg-Prosser, the owner of Belmont House by that time.

Second Autumn Meeting

Saturday 2 October 2021; David Whitehead, President, in the Chair. The F.C. Morgan lecture was given by Catherine Clarke, Director of The Victoria County History of England (VCH) and Professor of the History of People, Place, & Community, Institute of Historical Research, University of London.

Professor Clarke presented an illustrated talk entitled 'Pilgrims & Phantoms: St Thomas Way and the Medieval March of Wales'.

Prof. Clarke explained that, in 2019, with the collaborative participation of a number of organisations, a new heritage route, the St Thomas Way, had been created from Swansea to Hereford, inspired by a real medieval pilgrimage made in *c.*1290. Behind that lay a story which, however disturbing and bizarre it might seem to a modern audience, illustrated many themes about medieval belief and the complex, multi-lingual culture and politics of Wales and the Marches. Prof. Clarke's vivid account of the story and analysis of topics arising captivated her audience throughout, as did her comments about action to make history more widely accessible.

She began by outlining the story, whose essentials seemed the same despite a degree of inconsistency between witnesses. Following an attack on Oystermouth Castle, near Swansea, in 1287, the Welshman William Cragh, also known as Scrabby William, had been captured and sentenced to be hanged. After being hanged—in fact twice, since the gallows broke at the first attempt—his body, with its badly distorted facial features, had been taken down and moved to be prepared for burial. Yet Cragh had returned to life, a miracle that he attributed to Thomas Cantilupe, Bishop of Hereford, who died in 1282 and was canonised in 1320.

Prof. Clarke related that even though William, Marcher Lord of Gower, had condemned Cragh, apparently his wife, Lady Mary de Briouze, had prayed to Thomas Cantilupe that he might be spared. Following Cragh's reprieve, the three of them—de Briouze, Lady de Briouze, and Cragh—had set out together on a pilgrimage to Hereford Cathedral to pray at Thomas Cantilupe's tomb, with Cragh wearing, throughout the journey, the noose with which he had previously been hanged. As Prof. Clarke pointed out, to listeners by now somewhat open-mouthed, whether the pilgrimage reflected a sense of religious belief, wonder and thanksgiving, or whether political circumstances had motivated it in some way, the atmosphere between the pilgrims must have been strange indeed.

Prof. Clarke moved on to describe the remarkable surviving record of the events, arising from an enquiry to assess the proposed canonisation of Thomas Cantilupe. About twenty years after the failed hanging, nine accounts of eyewitnesses had been transcribed by papal examiners, whose records remained in the Vatican. William Cragh was himself a witness. Prof. Clarke suggested that since the case was not used to support elevation of Cantilupe to sainthood the

examiners might have been unsure what to make of the 'miracle'. Nonetheless, she demonstrated how the evidence, recorded through the formalised legal procedure used by the Church in these circumstances, reflected so many points of interest: the utter grimness of the execution process; the vivid nature of religious belief, including the significance attributed to visions and the power of saints; the criteria that could qualify people for canonisation; and the complexities of politics and culture in and around Swansea, then a border zone. Tensions between local people and the ruling Anglo-Normans had resulted in rebellions and sometimes uneasy accommodations, whilst different groups in the area spoke and used different languages; certainly, French, Latin, English and Welsh were all current. William Cragh gave his evidence in Welsh.

Prof. Clarke noted that although the precise route of the pilgrimage from Swansea to Hereford was uncertain the party was likely to have stayed in abbeys & priories such as Margam and Ewenny. She showed how the new heritage route, the St Thomas Way, connected places through which the pilgrims might have passed, and which were certainly important in *c*.1300. In addition to distributing a printed leaflet, she illustrated on screen the strongly visual website (www.thomasway.ac.uk) which provided information about the history of each place, its relevance to the pilgrimage and to William Cragh, and also to spiritual belief of the time. For each location activities were suggested, some of them of interest to children as well as to older users, with walking routes supported by maps. As well as Hereford Cathedral, where Cragh and the de Briouzes gave thanks at the shrine of Thomas Cantilupe and made an offering of the noose and a wax model of a man with a set of gallows, locations on the route in or near Herefordshire included Longtown, Patrishow and Kilpeck.

Professor Clarke went on to describe how VCH, founded in 1899, continued to support the famous 'Red Books', or county volumes, whilst publishing 'VCH Shorts', focusing on single towns or parishes, such as that recently published for Colwall. She explained that to expand its reach to as many people as possible and to foster public engagement, the VCH was making extensive use of digital media, including its website, Twitter and smart phone apps.

Third Autumn Meeting

Saturday 13 November 2021; David Whitehead, President in the Chair. Mr Derek Foxton, a member of the club, gave an illustrated talk on 'The Photography of Alfred Watkins'.

After first acknowledging that his subject, Alfred Watkins (1855-1935), needed little introduction, Derek Foxton explained that his talk has been had been stimulated by research for an exhibition on Watkins held in the summer of 2021 in the Woolhope Room and the Museum Gallery in Broad Street, Hereford. This had led him to view over 2,000 images held in the public county collections as well as moving film, in which Watkins was an early pioneer. This exceptional archive provided a rich visual record of Watkins's interests and of life in Herefordshire over more than half a century.

Born at the Imperial Hotel, Hereford, in 1855, Watkins lived in the city until his death in 1935. After leaving school he worked for the family brewing business, which required him to travel around the county taking orders for the Imperial Brewery. He later transferred to work in the family flour mills in Hereford, where his capacity for innovation and for business became apparent through the installation of electric lighting and the replacement of traditional mill stones with a roller-milling plant. He played an active part in many clubs and societies including the Hereford Bee-keepers Association, the Herefordshire Photographic Society and the Woolhope Naturalists' Field Club.

His interest in photography started in his late teens and continued for some sixty years.

One of the most pressing problems for early photographers was calculating the length of time needed for exposure to achieve a successful image and Watkins applied himself to finding a practical solution. By 1890 the Watkins Standard Meter was in production, the forerunner of the better-known Watkins Bee Meter, produced from 1903. The Watkins Meter Company operated throughout the rest of his life, even supplying photographic equipment used in Scott's Antarctic expedition of 1910.

Watkins continued to address technical problems faced by photographers and in 1894 was elected a member of the Royal Photographic Society, becoming a fellow in 1910. In the same year the Society recognised his contribution to scientific research into exposure and development through the award of their Progress Medal, only the eleventh such award in fifty-three years. Today, a separate display at the Kodak Museum of Photography, Rochester, New York, is devoted to his exposure meters and other inventions.

In 1882 some of Watkins's photographs were published in a few special editions of a guide to *Hereford, Herefordshire and the Wye*. Herefordshire Photographic Society held public exhibitions of work from 1898 with Watkins being a regular contributor. He was instrumental in promoting the publication of photographs in these *Transactions.* The volume for 1898/9 included images taken by Watkins of a field trip to the Elan Valley, where the huge dams needed to supply water to Birmingham were being constructed. Thereafter, his photographs were a regular feature, recording the diverse range of the Club's interests and activities including the medieval doorknocker at Dormington Church, and excavations at Craswall Priory (1904) and at Kenchester (1912/14).

In 1922 Watkins published his most famous work, *Early British Trackways*, which outlined his theory of ley lines, supported by selected photographs. In 1930 he published *The Old Standing Crosses of Herefordshire* in association with the Woolhope Club. At the time of his death, he was working on production of a book about the area around Ledbury, inspired by an address by the Poet Laureate, John Masefield, which was to include photographic images taken over many years.

Watkins's commitment to his local community led to service as a County Magistrate from 1907 and he was elected a County Councillor for Tupsley in 1914. During WWI he worked as a recruiting officer and images of Kitchener's recruits are among those he captured on early moving film. In 1928 he was among those appointed to the 'Old House Committee', tasked to turn the Old House, then in use as a branch of Lloyd's Bank, into a museum. Watkins's photographs of the interior provide a record of the museum when it opened in 1929.

A large crowd had gathered to hear our speaker. The close attention of the audience throughout his address demonstrated appreciation of the research he had completed and the care he had taken to fashion a talk that, with the help of so many illustrations, celebrated the photographic archive of a remarkable man and communicated the scope of the record which that archive represented. With typical modesty, our speaker acknowledged his debt to information in recent publications by Ron Shoesmith and recommended those interested to know more of Watkins's life and work to Shoesmith's book *Alfred Watkins' Herefordshire* (Logaston, 2012, 2020).

WINTER ANNUAL MEETING

27 November 2021; David Whitehead, President, in the chair. The officers of the Club for 2021-22 were appointed, to take office after the Spring Annual Meeting, 2022. Mr Neil Kidd and Mr Martin Cook, of the Longtown History Society, then gave a talk on 'Longtown Castle and the

De Lacys'.

The speakers introduced their talk by rehearsing the many theories that had been voiced about the relationship between the large motte at Ponthendre and the castle at Longtown. Did one follow the other or were they operating at the same time? Was the Longtown enclosure Roman and Ponthendre just a viewing platform as Alfred Watkins had suggested? To solve the problems a community archaeology project was organised in 2013 but delayed until 2016-17, when both sites were investigated. The first season was disheartening since no Norman evidence was forthcoming from the motte at Ponthendre and no clear evidence provided for dating the rampart that encloses the area of both the Castle and Castle Green at Longtown, albeit a lot of medieval builders' rubble was recovered.

The second season confirmed the negative evidence at Ponthendre, but more encouraging were the revelations made at Castle Green, where the trench was extended and produced medieval pottery and traces of burning—possibly a forge. The builders' rubble was shown to date from the 12th or 13th centuries and was thought to relate to the truncation of the motte supporting the original timber tower, to build the stone tower on top of it. Finally, in a new trench, evidence of Roman activity was identified: an amphora, perhaps containing traces of oil from southern Spain, slight evidence for a pottery kiln and a scattering of pottery fragments.

After the Roman period there was a hiatus in activity until the 12th and 13th centuries. Lots of medieval material was found, including more pottery, horseshoes and a millstone. It was suggested that Castle Green was then occupied by the village, but the Roman evidence made it likely that the multi-period turf embankment started life as a Roman fort. It was proposed that the fort dated to the 1st century AD—perhaps *c*.50 AD—filling a gap between previously known forts, a day's march to the east and west. It was located on Stone Street, which emerged from the Roman town of Magnis and could be traced as a linear bank as far as west as Bacton.

One issue that needed to be addressed was to explain why the Roman ramparts had been raised to a greater height several centuries later. The speakers speculated that the likely builder was Harold Godwinson, who, having driven the Welsh king, Gruffydd ap Llewelyn, away from Hereford in 1055 and refortified the city with a gravel rampart, did something similar, on a smaller scale, here at Longtown.

Their explanation of next phase of development was similarly speculative but still plausible. The Welsh, after the withdrawal of Harold, might briefly have occupied the enclosure at Longtown, so that William fitz Osbern, the Earl of Hereford, might have felt it necessary to build the motte at Ponthendre, even though it proved superfluous to his needs and remained unoccupied, since he had pushed on to Chepstow, Caerleon and Usk.

But who built the mound and stone tower adjoining Castle Green at Longtown and when? For this a surfeit of suggestions had been made, ranging from that in Robinson, *The Castles of Herefordshire* (1867), who thought the castle built before 1071, to Joe Hillaby's proposal of the much later date of 1217. Thus, the final part of the talk concentrated upon the stone tower, which had recently been re-evaluated by English Heritage. The speakers found the new drawing, that English Heritage had published as a reconstruction, flawed and unsatisfactory in many respects: e.g., holes for hoarding were seen as drainage holes, whilst a spiral staircase, which terminated at ground level, was shown to continue into the cellar. One of the most interesting architectural features was the north window of the middle floor of the castle, whose *voussoirs* were carved with motifs typical of the Herefordshire School of Romanesque Sculpture and were thus likely to date from about the second quarter of the 12th century, even though they had apparently been used for structural purposes only, since the carving could not reasonably have been seen from

inside or outside the building.

On this basis, and because much of the rubble deriving from the building of the stone keep on the motte also dated to the 12th century, the speakers concluded that the tower had been built in the middle of that century and that some unique features, such as the three projecting turrets, were not necessarily incompatible with this date. They admitted that the conclusion went against all previous suggestions, but to support it they cited the example of the round tower at Houdon in Normandy, which Gilbert de Lacy, the heir to the de Lacy properties in Herefordshire, had built before his death in *c.*1163, and, more locally significant, the round chapel which he had built in *c.*1150 in the inner bailey at Ludlow Castle. Gilbert became a Templar knight in *c.*1160 and was last recorded fighting the Saracens in 1163. Thus, the tower at Longtown was probably built by Gilbert between *c.*1150 and 1160.

There were many questions at the end of the talk and the speakers were able to sell several copies of their recent book on the topic.

WOOLHOPE NATURALISTS' FIELD CLUB

RECEIPTS AND PAYMENTS ACCOUNT

for the year ended 31st December 2021

2020					2020	
		RECEIPTS				
27		Interest on investments	Subs Reserve	3		
11			GW Smith Reserve	1		
2192			Charity Bonds	1916		
456			National Savings	6		
	2686				1927	1436
						3882
6775		General Subscriptions		6631		2272
9		Sale of Transactions		0		30316
150		Publishers Licensing Society (Royalties)		77		13000
1205		Gift Aid Tax Reclaim		1215		25000
25000		M. Tonkin - Legacy				1161
						77067
		Field Meetings - Net surplus		12		
	33139				7935	
						258856
	35824				9862	
		PAYMENTS				
37		Insurance		37		
5372		Stationery, Printing & Binding		5631		
		Meeting Expenses		172		
2089		Postage		1735		
426		Subscriptions		426		
130		Materials		74		
422		Website		491		232553
45		Miscellaneous				
1000		Grant for publication (GW Smith Fund)				26303
						258856
	9521				8566	
Surplus	26303		Surplus		1296	258856

BALANCE SHEET AS AT 31st DECEMBER 2021

	ASSETS		
63789	National Savings Investments		63795
85000	United Trust Bank Charity Bond		85000
33000	Cambridge & Counties Bank		33000
	Bank accounts:		
	General	1662	
	Subscriptions	3013	
	GW Smith Account	4189	
	Subscriptions Reserve	30319	
	GW Smith Reserve	13000	
	Library Account	25000	
	Field Meetings	1173	
77067			78356
258856			260152

Note that the following assets of fluctuation or indeterminate value are not included in this balance sheet:

The contents of the library and stock of publications

Photographic and computer equipment etc.

	CAPITAL		
	General Funds		
	Balance brought forward	258856	
	Add surplus in year	1296	
258856			260152

Editorial Message

The *Transactions* play a major role in the Club's efforts to seek and share knowledge about Herefordshire, whether in geology, archaeology, history or the natural sciences, whilst providing a lasting record to inform conservation of the county's precious heritage.

This year's papers demonstrate that spirit of research and enquiry which keeps the Club vibrant, offering many new insights, some of them startling. Another paper, published on-line in our *Transactions Extra* format, offered a vivid glimpse of mycology in the 19th century and the dynamic role that the Club then played at the cutting edge of the science.

For 2021, our high-quality recorders have not only provided an essential record of activity and observations in Herefordshire, this year including an update on bryophytes, but also raised key themes for today: the impact of climate change; practical action to support conservation; methods to communicate with a wide public; and the deployment of new technologies to advance knowledge.

During 2021 researchers often found institutions closed, or open only on a limited basis, whilst Covid-related restrictions similarly hampered investigations in the field. The problems were real, but our contributors found ways to deal with them. The Club is always grateful for their work, but even more so under such circumstances. Thank you to all our contributors!

In my first year as editor, I would also like to thank the Publications Committee for their unfailing support, Roz Lowe for technical advice and know-how, hard won from long experience of editing the *Transactions* and driving the website, and Suzy Craddock, whose careful proof reading and astute suggestions have been very much appreciated.

For the future the Club seeks to build a small team to add further capacity for publications and communications. The flow of proposals for publication in the *Transactions* is good and the online *Transactions Extra* format is working well. The potential to reinforce the *Transactions*, and to support researchers, with on-line records of data too detailed for publication in a journal, is being explored.

In a fast-changing world, the opportunity for the *Transactions* and the Club's publications to make a difference remains strong.

Terry Morgan

Biographical Details of Contributors

Biographical details of the following authors have appeared in previous issues of the Club's *Transactions* as indicated: John Eisel (2005 & 2017), David Whitehead (2015).

Bruce Coplestone-Crow
Bruce Coplestone-Crow is from Kettering, Northamptonshire, but has lived and worked in Birmingham for many years, where he was a manager in the health service. He has researched 11th- to13th-century estate history in Herefordshire, its neighbouring counties and in South Wales for over half a century and has written and published widely on the subject. He is a Fellow of the Society of Antiquaries of London and of the Royal Historical Society.

Elizabeth Semper O'Keefe
Elizabeth Semper O'Keefe has been Archivist at Hereford Cathedral since December 2018. Prior to that, she was an archivist in Herefordshire Archive Service for almost eighteen years, as manager of the service for fifteen of those. During her time with Herefordshire Council, she has also managed the county's Museum Service, Historic Environment Record and the Modern Records Unit. She taught Palaeography and Local History for a number of years via the WEA, and since 2018 has undertaken a range of freelance projects related to local history and archives for a variety of groups and organisations. Her personal research includes house history, the Chave family of Moor House and working with Rotherwas Together on the Roll of Honour for munitions workers based there.

John Edmondson (paper published online in *Transactions Extra*)
Dr John Edmondson studied Botany at the Universities of Durham, Edinburgh and Leicester from 1966 to 1974, and was employed as Research Fellow at the Royal Botanic Garden, Edinburgh from 1975 to 1980 and as an assistant on the 'Flora of Turkey' project. During the 1970s he made botanical expeditions to Turkey, Iran, the U.A.E., Oman, Mexico and New Caledonia. From 1981 to 2008 he worked at the Liverpool Museum (later Liverpool World Museum), part of the National Museums Liverpool, as head of botany and latterly of science, with further field work in Morocco, France and the U.A.E. He is a Fellow of the Linnean Society of London and a former Council member and Officer. On retiring from Liverpool, he became an honorary research associate of the Royal Botanic Gardens, Kew working as co-editor of the *Flora of Iraq*. Although not a mycologist (despite having spent one day in the field with Regius Keeper Douglas Henderson) he organised an exhibition at Liverpool Museum on the renowned Yorkshire fungus artist and author James Bolton (1735-1799). He now lives in North Wales.

Presidential Address 2021

The Presteigne Turnpike Trust

By JOHN C. EISEL

One of the problems in the study of turnpikes is that often the records that survive are fragmentary, and the minute books seldom survive. The reason is not hard to find: usually the clerk to the trustees of the turnpike trust was a local solicitor, who kept the records of the trust. When the various trusts were dismantled by the 1880s there was no requirement for the records to be kept, and no doubt in many cases the space was needed, with the resultant disposal of the records. Consequently, other sources must be used in constructing the history of most turnpike trusts, including newspaper reports and cartographic evidence. As an example of what can be achieved, a study has been made of the Presteigne Turnpike Trust and its derivative, the Staplebar Turnpike Trust, in an attempt to disentangle the very complicated history of the turnpike roads in north-west Herefordshire.

INTRODUCTION

During the Civil Wars of the seventeenth century the roads of Herefordshire were in a particularly poor state. Indeed, the roads throughout the country were generally bad, and after the Restoration of 1660 there was a need for these to be improved, but no political will for this to be embarked on. The need was addressed, slowly, by the establishment of turnpike trusts, which were effectively making private provision to maintain the roads. Each trust was given responsibility for certain defined stretches of roads and given powers to charge tolls for the use of those roads; this enabled the trustees to borrow money to build the necessary toll houses, secured against the income from the tolls. It was left up to the trustees where toll houses were to be sited, but inevitably these were placed to catch the greatest number of travellers. Over the years, as the turnpikes were developed, some toll houses were done away with, and others built in different places. It was customary for the tolls to be let by auction each year, the lessee paying rent in the hope of making a profit from his investment, with the trustees using the regular income to maintain the roads and service the necessary debt.

The first turnpike trust was set up in Cambridgeshire in 1663, and there was a rapid increase in the number of trusts in the following century with some 2,000 being set up between 1700 and 1790, the majority in the second half of the century. Those set up in Herefordshire in that period included Ledbury (1721), Gloucester to Hereford (1726), Leominster (1728), Hereford (1730), Ludlow First (1751) and Second (1756), Bromyard (1752), Kington (1756), Presteigne (1756), Blue Mantle Hall (1758), and Whitney and Bredwardine (1760). It is the Presteigne Turnpike Trust which is the subject of this paper.[1]

BEGINNINGS

Although the usual name of this Trust was the Presteigne Turnpike Trust, Presteigne was at its western extremity and its geographical centre was further east. While the name used now is 'Presteigne', in former times it was used without the final letter and the usage gradually changed in the interim. However, for consistency, the modern spelling is used throughout this paper, except for *verbatim* quotes. The same applies to variant spellings for other places.

The roads which were to be turnpiked were specified in the preamble to the Act of Parliament which set it up in 1756:

> WHEREAS the Roads leading from *The Rye-way*, in the parish of *Yarpole*, in the county of *Hereford*, through *Birchal*, to the *Cock Gate*; and from thence, through the parishes of *Croft* and *Luckton*, to *Mortimer's-Cross*; and from thence, through *Shobdon*, to *Milton House*; and from *Shobdon* to the *Woodhouse*; and from thence to *Staple Bar*, and through *Comb Lane* to *Presteigne*, in the county of *Radnor*; and from thence over *Stapleton Hill*, through *Lingen*, to *Leintwardine*; and from *Presteigne* aforesaid, through *Nash*, to the top of *Trap Hill*, in the county of *Hereford* aforesaid; and from *The Rye-way* aforesaid, by the *Maidenhead*, in the parish of *Orleton*, to the north-west corner of the Lane leading from the *Port-way* to *Comberton*; and through *Comberton* to *Wooferton*, in the county of *Salop*, being the direct High Road from *Presteigne* aforesaid to *London*, are in divers places so bad and ruinous, especially in the Winter Season, that Travellers and Carriages cannot pass without great Danger, and the said Road cannot, by the ordinary course provided by the laws for repairing the highways of this kingdom, be effectually amended and kept in good Repair, unless some provision be made for raising Money, to be applied for that purpose. [2]

The map below (Figure 1) below shows these roads as well as routes added when the Act was renewed in 1778.

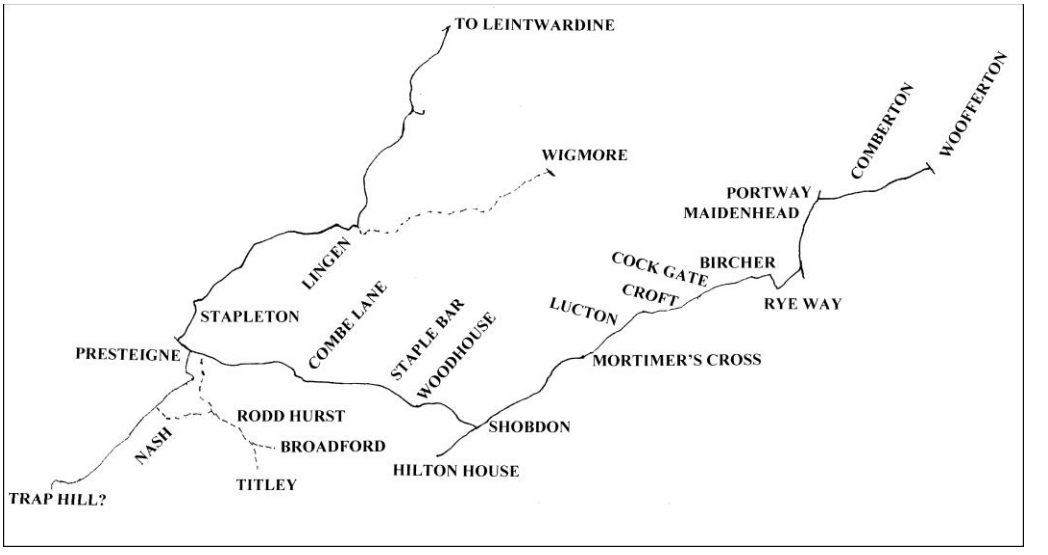


Figure 1. The roads mentioned in the preamble to the 1756 Act are here denoted by the solid lines. Dotted lines mark the routes added in the 1778 renewal of the Act

The 'Rye Way' was to the south-east of Bircher, which is in the parish of Yarpole.[3] Taylor's map of 1754 shows that the road from Lucton and Cock Gate then continued more-or-less straight on at Bircher, passing to the north of Bircher Knoll. However, after this Act the road then followed the course of the present B4362, effectively putting a dog-leg in the road, and passing to the

south of Bircher Knoll. The overview of the route makes it clear that the main line of the turnpike road was roughly east–west, from Woofferton in the east to Presteigne in the west, with a branch from Shobdon to Milton House (where it joined the Kington Trust), a road from Presteigne to Leintwardine via Stapleton and Lingen to the north, and another to Nash and beyond to the south. The name Trap Hill has not survived in the locality: it has been suggested that it was a continuation of the road south-east from Nash to the top of the hill opposite, where it petered out. However, this seems an unlikely road to be turnpiked, and there is strong evidence that the relevant section continued to the south-west past Knill, which is where it is marked on Figure 1. In the 1780s this stretch of road was taken over by the Radnorshire Trust.[4] The other issue is that the name Staple Bar was, at this period, applied to the area of the 'main' road which is now called Byton Hand, but when Budgen's map was prepared in 1815 the name was applied to the area between Byton Hand and Byton, i.e., somewhat to the north.[5] As with all turnpikes there was the provision that the trustees could borrow money on the strength of the tolls that were specified in the Act to improve the road, and also to provide the infrastructure in the form of toll gates by which the tolls could be collected.

How the letting of the tolls by auction was publicised in the early years of the trust is not clear, but the General Turnpike Act of 1773 prescribed how this was to be done, and also required that milestones should be erected at suitable distances from the nearest town.

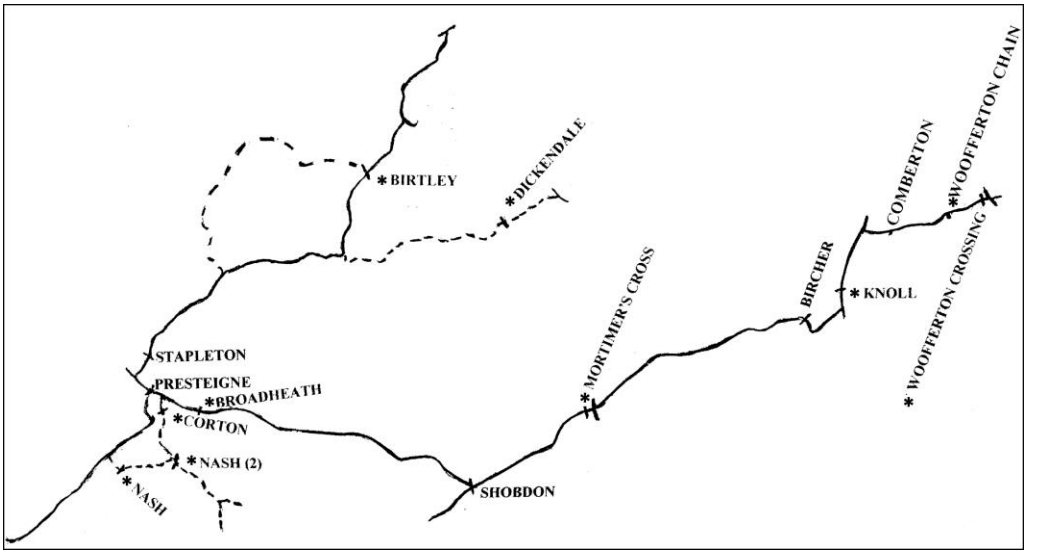


Figure 2. Toll houses of the Presteigne Turnpike Trust. Later additions to those recorded in 1778 are marked with an asterisk. Dotted lines mark additions to the responsibilities of the Trust, including those of 1778 and the road taken over from the Staplebar Trust

Probably as a consequence of this, from 1775 the letting of the tolls of the gates on the Presteigne Trust was advertised in the *Hereford Journal*.[6] The first advert appeared in the issue of 30 November 1775, and informed interested parties that the auction would be held at The Cross, at Mortimer's Cross, on 16 December, the tolls to be let for one year, beginning on 1 January 1776.

Since the auctions were held there regularly, and also other meetings of the trustees, the trust was occasionally called the Mortimer's Cross Trust. There is also one reference to the Presteigne and Yarpole Trust.[7] Two years later the advert for letting the tolls for 1778 listed the toll gates on the Presteigne Trust as being at Presteigne, Stapleton, Shobdon, 'Camerton' and Bircher. 'Camerton' was Comberton, to the north of Orleton.[8] Since these do not cover all of the roads specified in the Act, this suggests that the Trust was struggling to meet its commitments.

It was the norm for turnpike acts to be authorised for 21 years. Unless renewed, they would expire at the end of the session of Parliament in which that anniversary fell. In accordance with this, the Act for the Presteigne Turnpike Trust was renewed in 1778. The preamble to the Act listed the roads that had been turnpiked under the 1756 Act, and added others:

> And whereas the road leading from the turnpike road at Lingen to Wigmore; and also the road leading from the turnpike road near Presteigne aforesaid, by Rodhurst, to Titley; and also the road from Nash Lime Kilns, by Rodhurst aforesaid, to Broadford, in the said county of Hereford, (which roads branch out of the roads directed to be repaired by the said Act) are in a ruinous condition, and cannot be amended and kept in repair by the ordinary course of law; …[9]

These extra roads were added in when the Act was renewed, and the road to Titley via Rodd Hurst, with the branch to Broadford, linked up with the Titley/Stansbatch/Staplebar route of the Kington Trust.[10] This was joined by a section of road from Nash Limekilns to Rodd Hurst, the implication being that this was an addition to the system; had the road to Trap Hill been to the south as postulated then the first section of this added section of road would have already been turnpiked (see Figure 1). Other gates were added, one being at Mortimer's Cross, where the main arterial road of the Presteigne Turnpike Trust crossed that of the Blue Mantle Hall Turnpike Trust, first let in 1778, another at Nash by 1780, and a third at Broadheath by 1782.[11] The impression is that the Trust was gradually developing the infrastructure to meet its responsibilities, although there is nothing to indicate development on the turnpike road to Leintwardine, via Stapleton and Lingen.

THE STAPLEBAR TRUST

Perhaps because the Presteigne Trust was not completely fulfilling its obligations, the Staplebar, Willey's Oak, Kinsham and Walford Turnpike Trust was set up in 1788—for convenience, referred in future as the Staplebar Trust—the enabling legislation being entitled

> An Act for Amending, Widening, and Keeping in Repair the Roads leading from Staplebar to Lingen, and from thence, by Boresford to Willey's Oak; and from Kinsham to the Kington and Radnor Turnpike Roads near the Rodd; and from Lingen aforesaid to Walford, in the County of Hereford; and which said Roads pass, or are intended to pass, through the several parishes of Titley, Staunton-upon-Arrow, Byton, Presteign, Kinsham, Walford, Lingen, Leintwardine, and Brampton Bryan, in the County of Hereford.[12]

This transferred to the Staplebar Trust the responsibility for the turnpike leading north from Lingen to Walford (Leintwardine), as well as turnpiking the road south from Lingen, which divided into two at Kinsham, the eastern section leading to Staplebar, to the south of Byton, and joining the main east-west road of the Presteigne Trust, while the western section went through Combe, and, via a slightly circuitous route, to join the turnpike road near the Rodd, on what is

now the B4355.[13] Although not clearly specified, the mention of the parishes of Titley and Staunton-upon-Arrow implied that the sections of road to the south-east of the Rodd, which were added to the responsibilities of the Presteigne Trust in 1778, were to be taken over as well. Also turnpiked was the section of road from Willey's Oak, and on via Willey Lodge and Boresford to join the Walford road north of Lingen. The reference to the 'Kington and Radnor Turnpike Roads' could be confusing, but the mention of Kington refers to the Kington Trust route from Titley to Staplebar via Stansbatch, which the section of road south-east from the Rodd joined. The connection with the 'Radnor Turnpike Roads' would have been at Nash Lime Kilns, as discussed above.

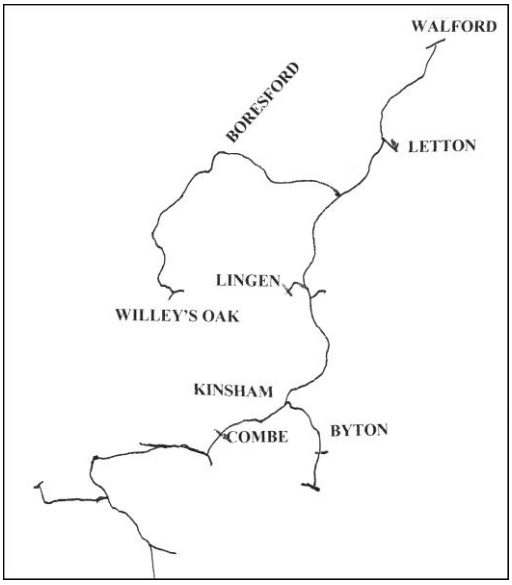


Figure 3 (left). Sketch of the roads of the Staplebar Trust listed in the Act of 1788. The positions of the toll houses set up by the Trust after it was revived in 1810 are also marked. There is nothing to indicate that the Trust ever took over the roads south of the main road from Presteigne to Mortimer's Cross

There is no evidence that this Act was ever implemented until after it was renewed in 1810, and until then the Presteigne Trust would not have been affected.

DEVELOPMENT OF THE PRESTEIGNE TRUST

At a meeting of the commissioners of the Presteigne Trust, held at Mortimer's Cross on 7 November 1790, 'it was unanimously agreed to erect and set up a side gate or toll bar at Corton, and also across the road leading from Presteigne to the Rodd, both in the parish of Presteign and county of Radnor.'[14] Although the wording is confusing, this probably reflects the fact that the Corton gate was at a junction. At this period, for letting purposes, the gates were divided into two groups, one consisting of the gates at Presteigne, Nash, Stapleton and Broadheath, and for 1791 the new gate at Corton was included in this group; a second group consisted of the gates at Shobdon, Mortimer's Cross, Bircher and Comberton. However, for 1792 the toll gate at Broadheath was omitted from the first group, and its name does not occur again, so it is assumed that it was discontinued at the beginning of that year, reducing the number of gates once more to eight.[15] When the tolls for 1797 were advertised to be let by auction at Mortimer's Cross on 26 November 1796, these eight gates were listed, but after that no detailed listing of gates was given in the various adverts for the letting of tolls by auction, until 1831, when the same eight gates were advertised (Figure 2 above).[16]

Meanwhile, in 1800 the relevant Act of Parliament was renewed, and received the Royal Assent on 20 June 1800. This makes it clear that a large amount of money had been borrowed on the credit of the tolls, and that it was still outstanding. Maybe this renewal brought their responsibilities home to the commissioners, and a new gate was soon added to the network. On 1 December 1802 the tolls of the Presteigne Trust were advertised in the *Hereford Journal* to be sold by auction at the house of Edward Bradford at Mortimer's Cross on 18 December 1802

'which Tolls, without the Gate at Dichendall, which will be then added, were last let at the sum of 430*l'*. There was a similar advert the following year, with 'Dickendall' instead of 'Dichendall', so clearly this was a new gate. The more usual spelling is 'Dickendale' and the gate was on the road between Lingen and Wigmore, but closer to Wigmore than Lingen: evidently something had finally been done about this stretch of road. There is no record of any other gates being added on this route. At some point the Dickendale gate, like that at Broadheath, was done away with, and it does not feature in the 1831 list of gates.

Just occasionally there is a glimpse of how the roads of the trust were altered. In the first phase of the Presteigne Trust one of the sections turnpiked was from Presteigne to Nash and onwards. In the second phase, the renewal Act of 1778 added, among others, the road which turned south a little further from Presteigne, later closed by the Corton Gate, and went through Rodd Hurst to Titley, and with a short branch to Broadford. Near to Presteigne these two roads were close together but did not join (see Figure 1). Nash was an important source of lime for improving fields, and proximity to a source of lime was a selling point for farms in the area.[17] On 7 June 1814 a meeting of the trustees of the Radnorshire Trust was held at the Town Hall, Presteigne, for the usual business, including electing new trustees, and to take into consideration two Acts, recently passed, 'whereby the Toll and Duty payable at the different Turnpike Gates, for the Carriage of Lime, used in Husbandry, is exempted, and for other Special Matters'.[18] As usual the result was not reported, but subsequently reduced tolls on lime were charged by the Radnorshire Trust from 1 March to 1 November, a concession that was extended to the whole year in 1829.[19] There is nothing to indicate whether the Presteigne Trust followed suit, but certainly that trust was affected by a consequent disturbance. It appears that tolls were charged on empty waggons returning from liming, which naturally upset those farmers who took advantage of the facility, and it is said that in 1814 the gates at Nash and Walton were destroyed by irate farmers.[20] How this was resolved is not known.

About 1820 the roads were realigned, possibly initiated by the earlier disturbance. Budgen's map of 1815 indicates that while the two branches of the turnpike road at Corton were very close, they did not officially join (Plate 1.1). This was remedied in 1820/1 when the road under Nash Rocks was straightened and extended to join the eastern branch at Corton, and a plan and book of reference, dated September 1821, was deposited with the Quarter Sessions in Hereford. The length of this realigned road from Corton was one mile 829 yards, and it extended as far as the parish boundary between Presteigne and Knill.[21] It is also likely that this was part of an agreed plan of action with the Radnorshire Trust as the accounts for that trust for 15 September 1820 to 21 September 1821 record a payment of £40 'Expended on the New Line under Nash Lime Rocks, and to Walton'.[22] One consequence was that the western branch to Nash, via Broadaxe Lane, was effectively redundant, and Bryant's map shows it as a minor track, marked 'STB' about half way along (Plate 1.2). The most likely interpretation is that this was a side toll bar, placed to stop any traffic along this road which might try and avoid tolls: since there is no documentary evidence of this toll bar it is most likely that it was not manned and just blocked the road.

Notice of an application to renew the powers of the Presteigne Turnpike Trust, as well as the Blue Mantle Hall Turnpike Trust, appeared in the *Hereford Journal* in 1821.[23] This merely copied *verbatim* the preamble to the Act of 1756, which defined the roads that were turnpiked under the first Act of 1756, and still included the section to Trap Hill, which had already been taken over by the Radnorshire Trust, and merely mentions the other roads branching out that had been added in subsequent Acts, without giving any detail.

INTER-RELATION BETWEEN THE PRESTEIGNE AND STAPLEBAR TURNPIKE TRUSTS

This brings the story up to the period when both of these trusts were in operation. As has been noted above, the Act which set up the Staplebar Trust was renewed in 1810, and the notice of the petition which was presented to Parliament stated that it was 'a Bill for Reviving, Continuing, Amending, and making more Effectual' the previous Bill.[24] Evidently little, if anything, had happened under the previous Act and no reference has been found to any activity of this trust before 1810. This time, however, things began to happen, and on 15 December 1810 a meeting was held in the Balance Inn, Titley, to let the tolls of three gates by auction. These were at Walford, Combe, and Staplebar, and the notice of the meeting, which appeared in the *Hereford Journal*, stated that these gates 'would immediately be erected'.[25] Whether this happened and the tolls were actually let on this occasion is not certain, as another meeting was held at the Balance Inn on 10 October 1811 for the purpose of

> putting into execution the several Turnpike Acts relating to the said Roads, for Electing Trustees in the Room of those lately deceased, for Borrowing Money on the Credit of the Tolls, for Examining, Allowing, and Passing divers Accounts, and on other general business.[26]

With this the trust began operations, and the tolls for 1812 were offered to let by auction on 23 December 1811 at a meeting in the Balance Inn, held by 'the COMMISSIONERS of the Walford, Lingen, Kinsham, Byton, Curn [*sic*—should be 'Cwm' or 'Combe'], and Weobley's Ash Roads'.[27] This indicates that the trust was intending to take over the roads around Rodd Hurst, as was originally proposed in 1788. However, it is very doubtful if this happened, as the toll gate at Nash continued to be run by the Presteigne Trust.

By 1813 a gate at Lingen had been added to the Staplebar Trust portfolio, and although no gate was mentioned for Staplebar, a gate at Byton was listed, which is most likely to be the same gate: Budgen's map of 1815 marks a toll gate just south of Byton, at a place then named Staplebar.[28] For the financial year of 1814 there is also a reference to a gate at Kinsham, which may only have been transient as no further reference to such a gate has yet been found (Figure 3).[29]

Budgen's map of 1815 gives a snapshot of the situation at the time that the survey for the map was carried out. For the Staplebar Trust toll gates were marked at Byton (Staplebar), Combe, Lingen, and at Letton. No documentary mention of the latter has yet been found, but it is likely to be significant that there is no toll gate marked at Walford, whereas there was a gate of this name. As a working hypothesis it is suggested that the gate at Letton may well be the one designated as being at Walford. The only difficulty is that the gate is in a position that suggests a side gate, but as the course of the turnpike road in this area is not absolutely sure, this may not be such a difficulty as it appears.[30] Budgen's map of 1815 also marks the position of Dickendale Gate, somewhat to the east of the place from which it took its name. How all this relates to the toll gate to the west of Lingen is unclear. From 1802 it is certain that the line of the road from Willey's Oak to Wigmore was being developed by the Presteigne Trust, with the construction of Dickendale Gate, but that gate was discontinued before 1831. No mention has so far been found of a gate at Lingen which was being operated by the Presteigne Trust, and the only references are in relation to the Staplebar Trust. This may mean either that the toll house at Lingen was built for the Staplebar Trust soon after it had been revived, or that the Staplebar Trust took over a redundant toll house. If the latter, then the toll house was either built prior to 1777, or post 1797,

possibly at the same period as the Dickendale Gate, just before the Staplebar Trust was revived. While it is much more likely that the toll house was built by the Staplebar Trust, there is not enough evidence to be certain.[31] If it was, then its position to the west of Lingen, on a section of turnpike road administered by the Presteigne Trust, implies that the Presteigne Trust had given up its responsibility for the section of road between Willey's Oak and Lingen, and by implication the continuing section from Lingen to Wigmore.

At this period the working of both the Presteigne Trust and the Staplebar Trust would have been affected by the General Turnpike Act of 1822, which received the Royal Assent on 6 August 1822, and which took effect on 1 January 1823. Under this Act a painted table of tolls had to be fixed to each gate or toll house, as well as the name of the toll house, and the names of the gates which were cleared by the payment of the toll. On payment of the toll a ticket was to be given, which gave the name of the gate at which the toll had been paid, and the names of the other gates cleared. There were other provisions of the Act, which were brought to the attention of the trustees of all turnpike trusts in Herefordshire by an advert in the *Hereford Journal* on 18 December 1822.

THE DEMISE OF THE STAPLEBAR TRUST AND THE CONSEQUENCES

The last mention of the Staplebar Trust comes in a notice of the letting of tolls for the year beginning 1 January 1827 that was published in the *Hereford Journal* on 29 November 1826. There were no more adverts. It is clear that the Staplebar Trust was unsuccessful, and that it was allowed to lapse when the relevant Act expired in 1831.[32] Moreover, there is strong evidence that the road from Willey's Oak, sweeping round through Boresford, to the north of Harley's Mountain, and rejoining the Walford road at Birtley Cross, was never turnpiked either. Budgen's map shows the disjointed nature of the roads of this route, and to link them all up would have been a major undertaking. Had this been done it would have helped communication in this area, and immediately after the demise of the Staplebar Trust steps were taken to improve the road. On 5 May 1831 a Special Session for the Highways was held at the New Inn, Lingen, and the two JPs present signed an order

> for diverting and turning, and in some places widening and enlarging and otherwise improving, so as to make the same more commodious to the Public, a certain Road or Highway between a place called Willey (or Willey's Oak) leading to Pant Hall and near to Willey Lodge, through Boarsford Village (on the south side thereof,) in length three miles and a half or thereabouts, situate and being in the Township of Willey in the Parish of Presteign, and in the Township of Boarsford in the Parish of Brampton Brian, in the Hundred of Wigmore aforesaid, in the County aforesaid, …'[33]

This improvement is shown on Bryant's map of 1835, with a continuous road, albeit not marked as one of the more important routes (Plate 1.3).

LATER HISTORY OF THE PRESTEIGNE TURNPIKE TRUST

When the Staplebar Trust expired in 1831, in general the roads which were its responsibility seem to have reverted to being ordinary parish roads and were not absorbed by the Presteigne Trust. No later reference to the toll gates operated by the Staplebar Trust has been found, and the assumption is that their function ceased, and they became ordinary residences.

After 1796 the adverts for letting the tolls of the various gates on the Presteigne Trust did not list the gates in question, until an advert in the *Hereford Journal* on 23 November 1831,

when eight gates were listed (Presteigne, Corton, Stapleton, Nash, Shobdon, Mortimer's Cross, Bircher and Comberton). This is exactly the list that appeared in the late 1790s, and indicates that the Dickendale gate was no longer in operation. Remarkably, Bryant's map of 1835 still marked that gate, and also the gates of the defunct Staplebar Trust (Plate 1.4). For the latter, Budgen's map marked the Combe Gate close to the junction with the B4362, whereas Bryant's map marks it at the present Turnpike Cottage, about 500 yards further north towards Kinsham, perhaps the toll gate at Kinsham that was briefly mentioned in 1813 (Plates 1.5 & 1.6). There are differences in the location of certain of the other gates of the Presteigne Trust: on Budgen's map the Stapleton Gate was clearly marked at the junction of the road to Stapleton and the road to Kinsham, whereas on Bryant's map it is marked closer to Presteigne. There is a similar difference for the Shobdon Gate (Plates 1.7 & 1.8). While it could possibly be due to poor surveying, a more likely explanation is there was some reorganisation and rebuilding of certain of the toll gates of the Presteigne Trust, probably in the late 1820s, a deduction supported by evidence from the Mortimer's Cross Gate, quoted below.

There was soon an addition to the list of gates. On 15 December 1835 a meeting was held at the Mortimer's Cross Inn to let 'the Tolls arising at the several Toll Gates upon the Turnpike Roads in this Trust (except the Birtly Gate)'. The other eight gates were listed, but this is the first mention of Birtley Gate. The fact that it was not included suggested that possibly it was being built or set up, and it was not included in the list of gates to be let until 1838.[34] This gate was at the position where the new section of road from Willey's Oak to Boresford and beyond, ordered in 1831, met the road north from Lingen, and was clearly intended to catch a possible increase in traffic on the improved road.

The number of gates remained the same until 1845, but after that Bircher Gate lapsed.[35] This was not, however, the earlier gate, the location having been changed a number of years before. The earliest evidence of the location of this gate comes in a notice for letting the tolls for the year 1784, which went on to say:

> Notice is hereby also given, That a toll-gate, or side-gate, is proposed and intended to be arected [*sic*] on the west side of the turnpike gate at Bircher, across a certain road leading from Yarpole to Ludlow, in the county of Salop.[36]

Budgen's map shows that the road from Yarpole to Ludlow was an extension of the Rye Way, and this is a logical place to put a side gate. It is doubtful that this proposed side gate was constructed immediately, as on 23 December 1786 the commissioners held a meeting at the Mortimer's Cross Inn, and

> unanimously agreed to remove a Toll-Gate (which has been some years erected on the old road leading from Bircher to the Maidenhead, in the parish of Orlton), nearer to the Green at Bircher aforesaid.[37]

Presumably this was in preparation for the new side gate, which is marked on Budgen's map as a toll bar at the corner of the Rye Way (Plate 1.9).

Soon afterwards there was a move to improve the 'old road', and on 29 September 1821 a plan of reference and a book of reference for various road improvements was deposited with Thomas Bird, the Clerk of the Peace in Hereford.[38] This clearly shows the improvements it was intended to make to the 'old road', but there is nothing to indicate that these ever happened, and

when Bryant's map was published in 1835 it still marked the toll gate in the same position as recorded on Budgen's map. However, by the time the tithe map for Yarpole was surveyed in 1841 the toll house was clearly marked in a different position.

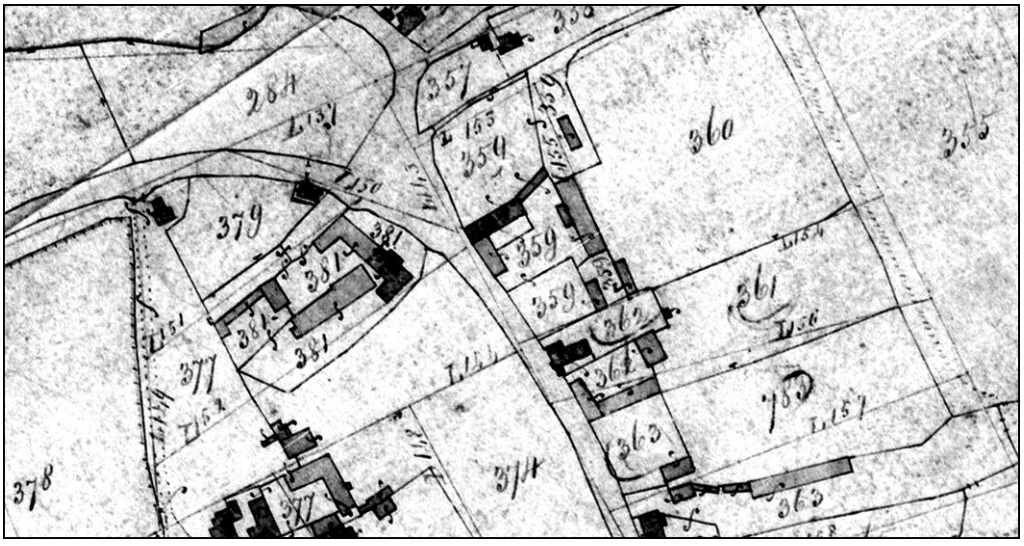


Figure 4. Position of toll gate at Bircher from Yarpole tithe map, X347589 Y265709

Two Incidents at the Corton Gate

In 1843 there were two incidents affecting the Presteigne Trust. The first was a court case which took place at place at Presteigne Petty Sessions in March 1843, when William Williams, the lessee of the Corton Toll Gate, summoned Mr. William Caldicott, a local miller, for evading tolls at the Corton Gate. A workman of Caldicott's had driven a horse and cart over the fields, avoiding paying a toll of 6s. for the horse and cart. It was claimed that this was an established right, and after consideration the Bench dismissed the case.[39]

Later in the same year there was another incident which also affected the Corton Gate. This was the period of the Rebecca Riots, sparked by dissatisfaction with having to pay tolls, with much disturbance, particularly in Wales. The incident, which was apparently not to be taken seriously, took place on 9 October 1843. The report in the *Hereford Journal* of 11 October 1843 seems to support this view, that it was a jape rather than serious trouble.

> PRESTEIGN.—On the night of Monday in last week, a number of persons made an attack upon the Corton Turnpike-house and Gate near Presteign, battering the windows and doors and Gate with stones, to the great terror of the Keeper, a large athletic man, who took refuge under his bed, and only recovered his fright through the accidental circumstance of the assailants having been alarmed by the approach of a carriage, and departed. The miscreants then proceeded to the Gate close to the Town, and having commenced their attack there, the Keeper, a female, gallantly sallied forth, mop-stick in hand, knocked down one of the party, and secured him, whereupon the rest made a hasty and cowardly retreat.—We are happy to say that five of them were recognized by the

> heroine, and have been committed to Presteign gaol: they proved to be (as no doubt the rest were) inhabitants of Presteign. These acts, whether done as a frolic or otherwise, cannot be too much reprehended, as they tend to disturb the public mind, and to promote that sort of mischievous spirit which has spread so widely in the adjoining Counties of Wales.

As a consequence of the Rebecca Riots an enquiry was held, which resulted in 'An Act for the further Amendment of the Laws relating to Turnpike Roads in South Wales', passed in 1847.[40] Because the responsibilities of the Presteigne Trust included a small length of road within Radnorshire, and hence South Wales, provision was made in one of the clauses in the Act.

> XI. And whereas certain Roads or Portions of Road included within the Powers of an Act passed in the Third Year of the Reign of His Majesty King George the Fourth, and intituled *An Act for continuing the Term and altering the Powers of Three Acts for repairing the Roads leading from Ryeway in the Parish of* Yaspole [*sic*] i*n the County of Hereford to* Presteigne *in the County of* Radnor, *and several other Roads therein mentioned in the said County of* Radnor *and in the Counties of* Hereford *and* Salop, are locally situated within the County of Radnor, and it is expedient that certain of the Regulations applicable to the other Roads within the said County should extend to and include the said first-mentioned Roads; be it therefore enacted, That it shall and may be lawful for the Trustees acting under the Powers of the said recited Act to reduce the Tolls payable at any Turnpike Gate on any of such first-mentioned Roads situate within the said County to the Amounts specified in the Second Schedule to the said first-recited Act annexed, and thereupon to agree with the County Roads Board of the said County that all Turnpike Gates upon such first-mentioned Roads shall clear the Turnpike Gates upon Roads within the Jurisdiction of the said County Roads Board which may be situate within the Distance of Two Miles therefrom, and shall be cleared by such last-mentioned Turnpike Gates reciprocally, and in that Case such Distance shall be measured and computed according to the Rules herein-before prescribed for the Measurement of Distances between Turnpike Gates for the Purposes of this and the said first-recited Act.[41]

There is no evidence to show whether any reductions to the tolls were made under this Act.

Further alterations to the infrastructure

After the removal of the Bircher Gate in 1845 the number of toll gates owned by the Presteigne Trust was once more reduced to eight, at which figure it remained until the early 1850s. In 1853 a gate was added at Knoll (sometimes Knowle) which was a replacement for the former Bircher gate, and which continued in use until the trust was wound up.[42] Then on 25 January 1854 a meeting of the trustees was held at the Mortimer's Cross Inn 'for the purpose of making an order for the removal of the present Toll Gate at Comberton to a place to be fixed upon between its present situation and the Salwey Arms Inn, at Woofforton'.[43] This was part of a reorganisation of the trust, and in March 1854 Thomas Sale, a solicitor from Leominster and clerk to the trustees, advertised for plans and specifications for the erection of two new toll houses, one at the Knoll and the other near the railway station at Woofferton.[44] Plans for two toll houses were immediately submitted by Benjamin Lawrence, an architect from Monmouth, although neither was used.[45] The fact that the Knoll gate was advertised as being to let before designs were asked for probably indicates that there was some sort of temporary toll house there, to be replaced by a permanent one, but there is no information as to whose plans were subsequently used. The first series 25-

inch OS map shows that this toll house at Knoll (Knowle) was on the west side of the road leading north to the Maidenhead, to the north of the junction with the old (direct) road from Bircher (Figure 5 below).

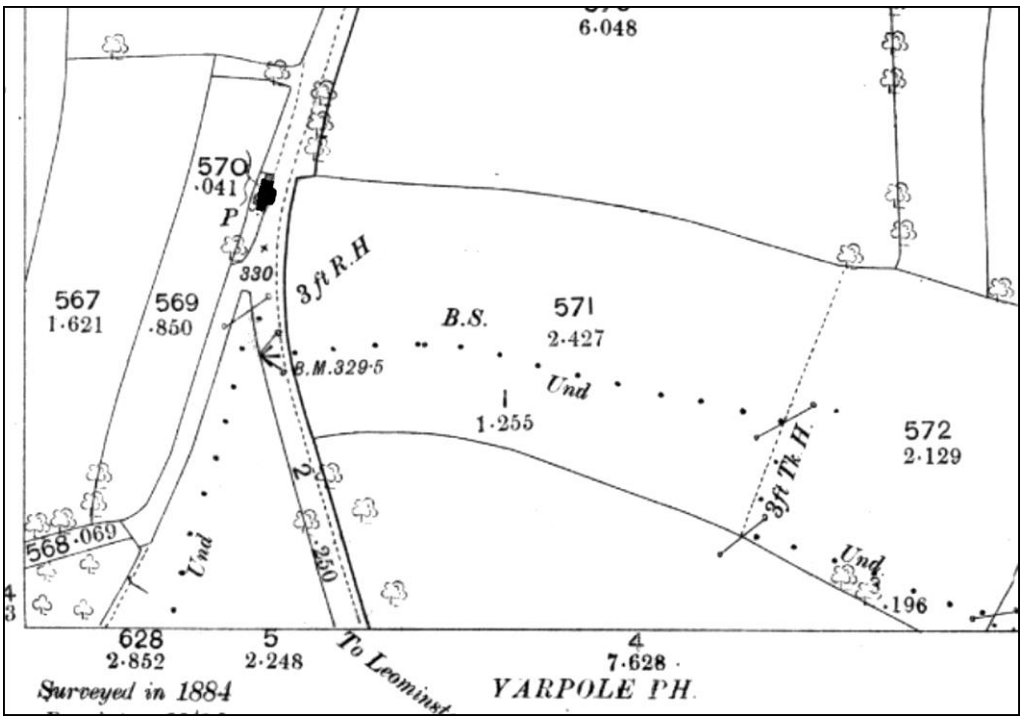


Figure 5. Location of the toll house at Knoll, taken from the first edition 25-inch OS map, X348406 Y266467

On the assumption that both gates were built at this time, the gate near to Woofferton Station can therefore be identified as the existing toll house on the north side of the turnpike road, close to the Salwey Arms at Woofferton Cross, which seems to be the gate later designated 'Woofferton Crossing' (Plate 1.10). Then on 4 March 1863 a meeting of the trustees was held at Mortimer's Cross 'in order to consult about re-erecting a Toll Gate across the said Turnpike Road, on the west side of the Railway Bridge, at the Woofferton Station, in the parish of Orleton in the said county of Hereford'.[46] This use of 're-erecting' suggests that this was considered a late replacement for the Comberton Gate, and certainly a toll house was built, which appears to be the one referred to as 'Woofferton Chain'. There was thus a toll gate on the turnpike road on either side of Woofferton Station, clearly with a view to maximising revenue. From the little evidence available, this is the most likely scenario, the letting of the tolls for 1855 onwards not being advertised in the local press.

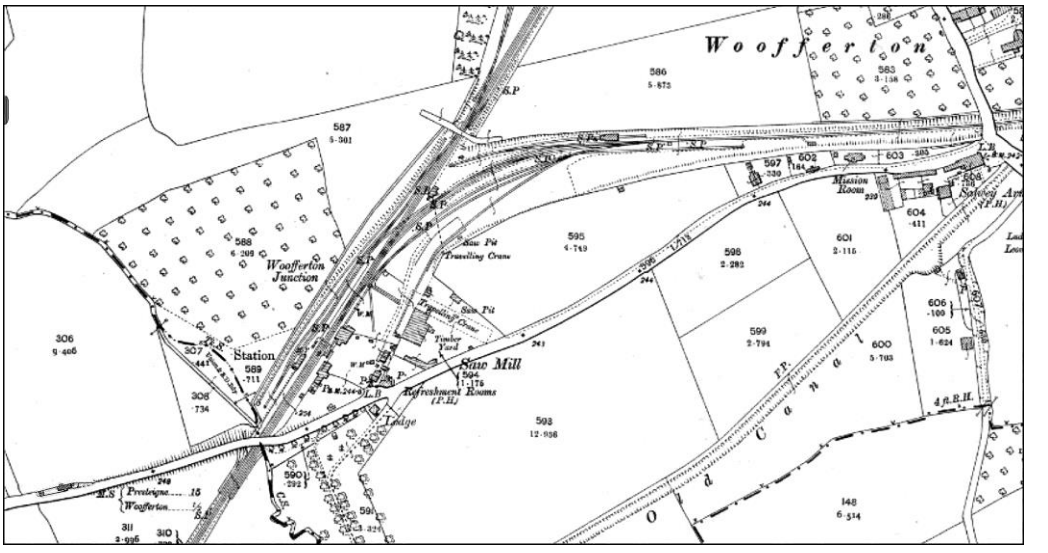


Figure 6. Location of the two Woofferton toll gates from the first edition 25-inch OS map. These were placed to catch traffic to/from the station in both directions and are shown at X351848 Y268470, enclosure 602, on the west side of the Mission room, and X351180 Y268203, to the west of the railway crossing and on the south side of enclosure 306

Meanwhile, there were other changes. In March 1857 an advert appeared in both Hereford newspapers, publicising a meeting of the trustees of the Presteigne Trust, to be held at Mortimer's Cross on 25 March, to consider positioning a new toll gate at Combe's Moor.

PRESTEIGN TURNPIKE TRUST.

NOTICE is hereby given that the Trustees of the Presteign Turnpike Trust will meet at the house of Mrs. Anne Bradford, at MORTIMERS CROSS INN, in the parish of Aymestrey, in the county of Hereford, on WEDNESDAY, the 25th day of MARCH instant, at 12 o'Clock at noon, in order to consult about, and (if determined upon) make an Order for Erecting a Toll-gate or Chain across the Turnpike-road, at or near the Cottage and Premises in the occupation of Edward Manwaring, at Coomb's Moor, in the parish of Presteign, in the said county of Hereford and also for Ordering Tolls to taken at such Toll-gate or Chain, pursuant to the Laws now in force relating to turnpike roads; which said Toll-gate or Chain is intended to free, and be freed, by the Presteign Lower Gate, Corton, and Shobdon Gates, on the said Turnpike Trust.

Dated this Sixth day of March, 1857.

THOMAS SALE,
Clerk to the Trustees.'[47]

This is given in full as it illustrates which other gates were intended to be made free by payment at this gate, or *vice versa*. Whether this was ever implemented is not known, but if so, it probably only lasted a few years at most.

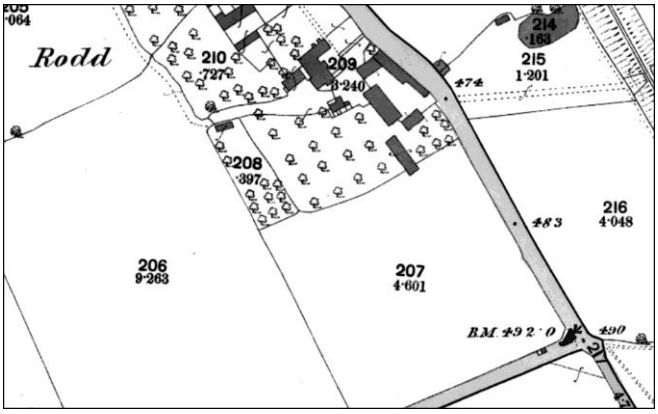


Figure 7. Location of the replacement Nash toll gate taken from the first edition 25-inch OS map, X332384 Y262441

In 1858 there was another alteration: on 17 March 1858 the trustees met at the Mortimer's Cross Inn to consider whether to discontinue the toll gate at Nash and to erect or substitute 'a side Gate or Bar across a certain Highway leading from the said Turnpike Road at the Rodd to Nash aforesaid.'[48] As usual the result was not reported, but on the basis that later maps mark a Turnpike Cottage on the road between the Rodd and Rodd Hurst, the necessary order must have been signed. This was on the north-west corner of the junction and projected into both roads (Figure 7). It is suggested that this was still called Nash Toll House as, when the trust was finally wound up, one of the assets sold was a toll house at Nash, but certainly none called either Rodd or Rodd Hurst.[49]

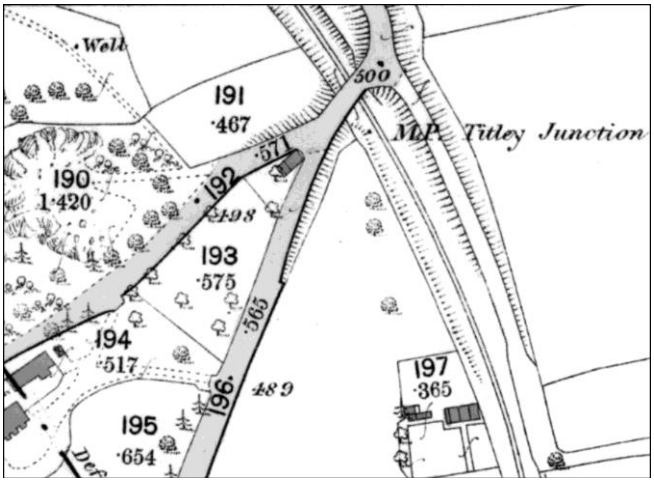


Figure 8. Location of the replacement toll gate at Corton from the first edition 25-inch OS map. The roads here have been remodelled in modern times, and there is now an island in the approximate position of the former toll house located at X332097 Y263420

The latest alteration that has been traced relates to Corton Gate, a story best told in these

Transactions in 1996:

> Correspondence from 1 April to 12 August 1873 between Sale (clerk to the trustees) and R. D. Green Price (Presteigne Turnpike Trust) shows the coming of the railway and the road to be changed at Corton. It was stated that a new toll-house should be built before the old one [was] 'interfered with.' The railway company were prepared to build a new house or give the trustees £70 to build their own.

The former toll house lay directly on the line of the new railway, and subsequently a new toll house was rebuilt not too far away at the junction between the B4362 and the B4355, centrally placed so that it commanded both roads (Figure 8). When it was valued for sale on 4 October 1877 it was described as a 'new Stone built house.'[50]

Maintenance of the roads

All these alterations would have been under the general supervision of the surveyor to the trust, but little is known of the holders of the post. In the Parliamentary Returns for turnpike roads for the year 1839 it was stated that the surveyor was John Marple Clarke, and that he was paid a total of £50 p.a., £30 by the Presteigne Trust and £20 by the Blue Mantle Hall Trust, which worked closely together. John Marple Clarke died on 10 January 1845: no advert to appoint a successor has so far been traced, and nothing further is known of the holders of the office until 1853.[51] In that year a Mr. John Harris, of Liskeard, Cornwall, who for the previous two or three years had been working as an assistant surveyor in Newport, was appointed to the post of surveyor to both the Presteigne and Blue Mantle Hall Trusts.[52] These two trusts were run in parallel, with the same clerk and meeting place (Mortimer's Cross Inn), and usually holding their General Annual Meetings on the same day. Assuming that John Harris took up this post, the following year he must have been involved in a controversy about the stone which was used to make the surface of the roads. Until the summer of 1854 the stone used for the roads around Presteigne came from the limestone quarries at Nash, where it was broken by prisoners who had been sentenced to hard labour. Because of the hard nature of the stone it was costly to break and uneconomic, the prison authorities losing money for each ton sold, and in the summer of 1854 the visiting magistrates decided to use the material from the quarry at Corton, which was much easier to break, and could be sold at a cheaper rate and even make a profit, but was not nearly as suitable for the roads.[53] In January a petition was signed by most of the principal inhabitants of Presteigne, and forwarded to the chairman of the Presteigne Turnpike Trust, a copy of which was published in the *Hereford Journal* on 31 January 1855:

> *To the Chairman of the Presteign Turnpike Trust, at Mortimer's Cross.*
>
> We, the undersigned inhabitants of Presteign, beg to state that the present mode of repairing the roads with Corton stone, which, from the nature thereof, will turn to mud, and be scraped off in about two years, and thereby attended with a loss of at least 30 per cent, to the Trust funds; whereas, if lime-stone was used, it would make a good road for five or six years. And we are also of opinion that the Surveyor should be resident at Shobdon or Presteign.

A similar complaint was made against the Radnorshire magistrates because this inferior stone was being used to repair the streets of Presteigne.

A week later a letter was published over the name of the Rev. W. Jones Thomas, of

Newcastle Court, Kington, a resident magistrate for the county of Radnor, who defended the actions of the visiting magistrates, pointing out the savings to the county rates, and complaining that the petition reflected on the character of the surveyor of the trust. In the next issue this was disputed by Cecil Parsons, who pointed out the false economics of using inferior material, going on to say:

> I have reason, too, to believe that the present Surveyor of the Trust intends to desist from the inexpedient practice; and the same practice will in future, I hope, be discontinued as regards the repairing the streets of the town by the District Surveyor.

Nothing further appeared in the press, so whether the prisoners continued to break the stone at Corton, and so lost the business of the Trust, or went back to breaking the Nash limestone is unknown. Also, it is inferred that John Harris did not live in the area which was served by the Presteigne Trust.

The next reference to the surveyor of roads is in February 1866 when the post of road surveyor of the Presteigne and Blue Mantle Hall Trusts was advertised in the *Hereford Journal*, and the advert helpfully stated that the length of roads was 38 miles, and the salary was £80 *per annum*.[54] The successful candidate seems to have been William Jones, who may have wished that he was not! The following letter appeared in the *Hereford Times* on 23 February 1867:

> PRESTEIGN AND BLUE-MANTLE HALL TURN-PIKE TRUSTS.
>
> *To the Editor of the Hereford Times*.
>
> SIR,—It is currently reported that I have received moneys from the Trustees of these roads, which I have misapplied, to the neglect of the roads and to the cruelty and injury of the workmen, several of whom were two months in arrear of their wages:—but the truth is, the Trustees have never advanced to me snfficient [*sic*] money to carry out the necessary repairs required on these roads.
>
> I have paid all my private funds to the workmen, as far as they would go, and when I applied for re-payment it was deferred, and I was necessitated to give security to the Worcester City and County Bank for a small advance of cash for my daily wants. In justice to myself, if you will insert this letter in your next paper, I shall always be your grateful and obedient servant,
>
> WILLIAM JONES,
> Broadheath, Presteign.
> Surveyor of Roads.

Clearly the two trusts were strapped for cash, and there is evidence that the roads were in a poor state.[55] The roads between Presteigne and Woofferton had been indicted by the government inspector on behalf of the General Post Office for their unsatisfactory state, the ruts in many places being knee deep. One reason for the lack of money was that certain parishes were not paying their contribution towards the upkeep of the roads and consequently the treasurer and clerk of the Presteigne Trust made an application to the Wigmore magistrates at their fortnightly meeting on 2 April 1867 for payment by the parishes of Shobdon, Walford, Lingen and the township of Willey of money owing for the upkeep of the turnpike roads. This was objected to by the various waywardens on the basis that only a fraction of the money that was collected was spent on the roads. In evidence it was stated that there were nine gates in the trust, which was

responsible for upwards of twenty-six miles of roads. Captain Lewis Demay, who was stated to have acted as surveyor of roads for the previous year, acknowledged that the roads were in a very bad state.[56] The stone used on the turnpike road in Shobdon parish (one of the main objectors) was principally from Rock Hall, Aymestrey, while roads closer to Ludlow were 'were stoned with the Clee Hill Dhu stone, and were very much better than those towards Presteigne, on which a different material was used'. This matter was adjourned until 16 April so that the former surveyor could attend with his books, which were still in his possession. What happened when the hearing resumed was not reported, and how it was resolved is not recorded.[57]

However, the legislative background to this case is of interest. While it was expected that turnpike trusts would have sufficient income to maintain the roads under their care, without recourse to the highway rate, as the 19th century progressed it became apparent that this increasingly was not so. In 1839, as part of a raft of legislation about roads, a general Highways Act came into law, subsequently renewed, the relevant part of which was quoted in the *Hereford Times* on 19 October 1839:

> It empowered Justices at Special Sessions for highways, upon information of the clerk or treasurer of any turnpike trust, that the funds of such trust were insufficient for the repair of turnpike roads in any parish, to examine the state of the revenues and debts of such trust, and to apportion, if necessary, a part of the highway rate to the trustees of any turnpike road; such money to be actually laid out in the repair of the turnpike road within the parish from which it was received.

The reporting of the case above indicates that there had been a levy from the highway rate for the several parishes through which the Presteigne Trust's roads ran. However, the legislation made clear that this levy should be used solely towards repairing the roads, and this was the basis of the arguments of the waywardens in the above case, that the money had not been used for the purposes for which it had been allocated.

THE END OF THE PRESTEIGNE TURNPIKE TRUST

This trust was one of the last to be wound up: the toll houses for the Leominster Trust were sold by auction on 6 October 1869, the Ludlow Acts expired on 1 January 1873 and the toll houses were sold, including one in the parish of Brampton Bryan.

The end of the Presteigne Turnpike Trust came in 1877, in a letter from the Local Government Board, Whitehall, dated 16 August 1877:

> I am directed by the Local Government Board to inform you that, by virtue of "The Annual Turnpike Acts Continuance Act 1877" the Local Act for the above named Trust will expire on the 1st day of November next, and they request that the Trustees will make the necessary arrangements for pulling down and removing the several Toll-Gates, Bars &c and, if required, the Toll houses also, and for disposing of the Trust Property previously to such date.[58]

As part of the winding-up process Thomas Sale, as clerk to the trustees, placed an advert in the *Hereford Times* on 25 August 1877, repeated a week later, informing anyone who had a claim with respect to any principal moneys or interest secured on the tolls that any such claims should be made by 1 November 1877, otherwise they would be extinguished. On 4 October 1877 the ten toll houses then being operated by the Presteigne Trust were valued by H. Hamer of Kington, his valuation including a detailed description of each toll house. When a trust was being wound

up it was a general requirement that when toll houses were sold, they were first offered to adjoining landowners, and most of the toll houses of the Presteigne Turnpike Trust were disposed of in this way, the buyers being noted on Hamer's valuation. This would appear to be the reason why their sale was not advertised in the Hereford papers. Although draft conveyances were drawn up in January 1878 it was not until 28 June 1878 that a meeting of the trustees was held to sign the conveyances.

No final accounts are known to survive, and so the final disposition of the assets is not known, nor is it known whether those who lent money on the security of the tolls were ever reimbursed in full. However, Hamer's valuations of the toll houses and the sales prices achieved were as follows:

Table 1. Toll Houses of the Presteigne Trust at the time of its closure in 1877

Name of Toll House	Valuation	Sale price	Survival?
Birtley	£12	£12	Yes
Corton	£120	£87	No
Knowle (Knoll)	£30	£5	No
Mortimer's Cross	£25	£25	Yes
Nash (Rodd Hurst)	£40	£40	No
Presteigne	£30	£30	No
Shobdon	£20	£11	No
Stapleton	£35	£28	No
Woofferton Chain	£45	£45	Yes
Woofferton Crossing	£35	£35	Yes

Of these toll houses, it was stated that the Shobdon Gate had been bought by Lord Bateman and was going to be removed.[60]

SURVIVING TOLL HOUSES

As well as providing information about valuations and sales prices, the table above shows that four toll houses from the former Presteigne Turnpike Trust survive. Three more from the former Staplebar Trust also survive, as noted below:

Table 2. Toll Houses of the Staplebar Trust at the time of its expiry

Name of Toll House	Survival?
Byton/Staplebar	Yes
Combe	Yes
Letton / Walford	No
Lingen	Yes

In total, there are thus seven surviving toll houses from the two trusts, some of which can be dated accurately. The earliest of these were apparently at Combe and Byton (Staplebar) where in 1810 it was stated that the toll gates were about to be erected. However, the houses that were used in association with these gates are clearly two-storey domestic dwellings, unlike the more usual toll houses, and it seems that either the former toll houses have been much altered and extended, rebuilt, or, possibly, that an ordinary house was adapted.

Of more certain date are the two toll houses at Woofferton, that closest to the Salwey Arms being built *c.*1855, and the other post 1863 (as described earlier), to a somewhat similar design (Plate 1.11).

When the stone toll house at Mortimer's Cross was sold in 2019 it was claimed to have been built in 1827. However, investigation proved that this dating was made on the basis of a coin dated 1827 which was found during the renovation in recent years. On stylistic grounds the building dates from the early 19th century; it is, of course, possible that the coin was buried in a foundation stone, in which case it would give a precise dating, the coin being little worn. There is nothing in the local press that refers to the building of this toll house, but it is worth noting that Budgen's map of 1815 shows that its predecessor was much closer to the Mortimer's Cross Inn, while Bryant's map of 1835 shows it in its present position (Plate 1.12).

Other survivals are the toll houses at Birtley and Lingen. The insubstantial remains at Old Shop, Lingen (identified by Mr. Harley Thomas) are either from pre 1775 or, rather more likely, erected by the Staplebar Trust in the 1810s: there are no features that allow a firmer dating (Plates 1.13 & 1.14).

When the toll house at Birtley was surveyed in 1877, the surveyor's report stated that it was a stone-built house with a slated roof, a small kitchen and chamber adjoining. As it was in a poor state of repair it was only valued at £12, and it was subsequently sold for that sum to the Rev. S. Edwards.[59, 60] The first edition 25-inch Ordnance Survey map, which was published in 1886, marks a small L-shaped building in the relevant position at Birtley Cross. By the time the second edition was published in 1903 this had either been rebuilt or, more likely, extended to the rear so that the building then had a rectangular footprint. There was also a range of buildings to the rear, connected with what appears to be a lobby or vestibule, and the complex was marked as a Post Office.

The third edition OS 6-inch map published in 1930 still has the same footprint, but that of 1953 shows that the footprint had been increased by additions to the south-west. Thus the toll house has been subsumed into a much larger building, but is still evident on the roadside. This was visited by members of the Woolhope Club on 25 August 1931, when it was reported that:

> At the roadside cottage that was formerly used as a toll-house, the party were shown a square aperture in the wall, from which the toll-keeper in the old days used to hand out the keys for opening the gate, to save himself the trouble of coming out to open them himself.[61]

The cottage was also visited by the Archaeological Research Group of the Woolhope Club in 2003. The square aperture referred to above has now been blocked up but is visible to the right of the present front door to the building.

ACKNOWLEDGEMENTS

Thanks are due to the staff of HARC for their unfailing help during my research for this paper in the second half of 2019. The owners of the Mortimer's Cross toll house kindly allowed me internal access and showed me the coin that had been found by the previous owners of the toll house. Dr. Paul Olver kindly obtained from Dr. Arthur Tinsley a specialist view of the suitability for road maintenance of the stone from Corton Quarry.

I am also grateful to Rosalind Lowe and David Lovelace, for supplying most of the images which illustrate this paper and enhance it so substantially, and to Rosalind Lowe for using her considerable skills to make the quality of the images suitable for publication.

REFERENCES AND NOTES

[1] Summarised, with amendments and additions, from M. Tonkin, 'Herefordshire Toll-Houses—Then and Now', *TWNFC* Vol. XLVIII (1996), pp.388-401.
[2] This Act and the renewal Act of 1778 were reprinted by Thomas Davies, at the Britannia Printing Office, Hereford, in 1815.
[3] *Living History*: Newsletter October 2008 pp. 8-12 contains an article which identifies the Rye Way. Living History Newsletters (yarpole.com) Accessed 14 Oct. 2019.
[4] A series of milestones have been recorded, measured from Presteigne, as far as the five-mile mark, which implies that these were placed on a road that was the responsibility of the Presteigne Trust and the road to Trap Hill was the only road in this area at the time that has not been identified. On 18 Sept. 1783 a notice appeared in the *Hereford Journal* (henceforth *HJ*) stating that an application would be made to enlarge the term and powers of the Act of 1767 by which the Radnorshire Trust had been set up 'and for adding and including in the intended new Act, the road leading from Walton, in the said county, to Knill and Nash Limekilns; and from Knill aforesaid to Rushock in the county of Hereford'. That the Trust did take over is clear, as the accounts for the Radnorshire Trust for the year 1811-12, which were published in *HJ*, 17 Jan. 1816, record a payment for repairs to this section of road. After taking over, the Radnorshire Trust erected milestones, marking the distance from Kington, as was usual in this part of its territory. Walker, R., 'Herefordshire Mile Markers and their Makers,' *TWNFC* (2013), p. 60. It is postulated in this present paper that routes labelled **PR** 2 and **PR** 10 in that paper are identical. Also, since the turnpike road did not go through Orleton village, route **PR** 11 should be deleted.
[5] One of the routes of the Kington Turnpike Trust was from Kington via Titley and Stansbatch to Staple Bar, which makes more sense if Staple Bar was then on the 'main' road. David Viner, 'The Kington Turnpike Trust (1756-1877) and the Kingswood tollhouse', *TWNFC* XLV (1967), p. 735.
[6] The nearest newspapers, apart from the *HJ*, established in 1770, were *Berrow's Worcester Journal* and the *Shrewsbury Chronicle*, the first issue of the latter being 23 Nov. 1772, the former much older. Both have been checked for the 1770s, but there is nothing about the Presteigne Turnpike Trust that predates the publicity in the *Hereford Journal*, indicating that the publicity in 1775 was a new departure. This suggests that earlier publicity was by the local distribution of handbills.
[7] *HJ* 27 Aug. 1823.
[8] *HJ* 5 Dec. 1776. The turnpike road did not go through Orleton itself.
[9] This Act and the renewal Act of 1778 were reprinted by Thomas Davies, at the Britannia Printing Office, Hereford, in 1815, from which this is taken.
[10] The short section of road joining Broadford to Weobley Ash was destroyed when the Kington/Presteigne railway was built in the 1870s.
[11] *HJ* 14 Jan. 1779, 9 Nov. 1780. Budgen's map of 1815 records the Nash toll gate at the junction to the south of the small settlement of Nash, and so far no evidence of any earlier location has been found. The Presteigne tithe map of 1845 shows a small building at this junction, occupying about half of the road, clearly a toll gate. TNA IR 30/55/47.
[12] Quoted in *HJ* 13, 20 & 27 September 1809.
[13] Although Weobly Ash is not mentioned in the definition of the roads covered by the Trust after the Trust had been revived in 1810, when a business meeting of the trustees was held at the Balance Inn, Titley on 10 Oct. 1811, their responsibilities were said to be 'Trustees of the Turnpike Roads leading from Staplebar and Weobly's Ash to Lingen and Walford' (*HJ* 2 Oct. 1811).
[14] *HJ* 19 Jan. 1791. It is thus absolutely certain that the Corton Gate was set up by, and belonged to, the Presteigne Turnpike Trust, and not the Radnorshire Trust, as stated by K. Parker in *A History of Presteigne* (1977), p. 97. This statement is quoted in Walker (2013), p. 58. In reference to that statement, the toll gate at Rodd Hurst was post 1858, and also belonged to the Presteigne Trust.
[15] *HJ* 26 Oct. 1791, 5 & 12 Dec. 1792.
[16] *HJ* 23 Nov. 1831.
[17] See, for instance, two such adverts in *HJ* 6 March 1816.
[18] *HJ* 4 May 1814. The advert refers to the Radnor and Hereford Trust, but there is little doubt that this was the Radnorshire Trust. It was placed by Thomas Meredith of Knighton, and other adverts make it clear that he was the clerk of the Radnorshire Trust. This style was probably used because the Radnorshire Trust overlapped into Herefordshire.
[19] *HJ* 10 Dec. 1828.
[20] Parker (1997), pp. 97-8. While there is no reason to doubt this story, it has not been located in the *Hereford Journal* so I am unable to confirm it.
[21] HARC Q/RWt/14.
[22] *HJ* 21 Nov. 1821.

[23] *HJ* 5, 12, 19 & 26 Sept., 3 Oct. 1821. The Act was renewed again in 1864 and the notice of application for the latter only mentions the Act of 1822 and not one in the intervening time. *Hereford Times* (henceforth *HT)* 7, 14, 21 & 28 Nov. 1863.
[24] *HJ* 13, 20 & 27 Sept. 1809.
[25] *HJ* 5 & 12 Dec. 1810.
[26] *HJ* 2 Oct. 1811.
[27] *HJ* 18 Dec. 1811.
[28] *HJ* 23 & 30 Dec. 1812.
[29] *HJ* 1 & 8 Dec. 1813.
[30] Not to be confused with Letton near Eardisley, Herefordshire. Letton and Walford are both townships in the parish of Leintwardine, as is Newton, south of Letton. Also, gates in the district of the Presteigne Turnpike Trust are not always close to the place from which they take their name. So, for instance, Stapleton Gate was somewhat to the south of the settlement of Stapleton.
[31] The Lingen toll gate was marked on Budgen's map as being to the west of Lingen, at a place called Old Shop, and so not close to the line of the main north-south route of the Staplebar Trust. It has always been thought that the building called the Old Shop, demolished many years ago, was the toll house in question, but recently Harley Thomas has identified a small, derelict, building on the opposite of the road as the toll house in question. H. Thomas, 'An unrecorded toll house', *TWNFC* Vol. 67 (2019), pp. 87-91.
[32] www.legislation.gov.uk/changes/chron-tables/local/7, accessed 3 Sept. 2019. '[1810] c.xcviii Staplebar, Willey's Oak, Kingsham [*sic*] and Walford Roads (Herefordshire). (expired).'
[33] *HJ* 15 & 25 May, 1 June 1831.
[34] *HJ* 11 & 18 Nov. 1835, 17, 24 & 31 Oct. 1838. The rent of Birtley Gate for 1838 was only £25, very low in comparison with the other gates, indicating that there was not much usage of this stretch of turnpike.
[35] The advert for letting by auction the tolls of the Presteigne Trust for 1846 appeared in *HT* 1, 8, 15 & 22 Nov. 1845, also *HJ* 5, 19 & 26 Nov. 1845, and this stated that for the Bircher Gate 'no Tolls will be taken for the next year.' When the tolls for 1847 were advertised in *HJ* 21 & 28 Oct., 4, 11, 18 Nov. 1846, also *HT* 24 & 31 Oct., 7, 14 & 21 Nov. 1846, there was no mention of Bircher Gate, nor indeed any later mention.
[36] *HJ* 2 & 16 Oct. 1783.
[37] *HJ* 28 Dec. 1786.
[38] HARC Q/RWt/14.
[39] *HJ* 22 March 1843.
[40] 10&11 Victoria Cap. 72
[41] www.welshlegalhistory.org › research-turnpike-local-act Accessed 22 Oct. 2019.
[42] *HJ* 23 & 30 Nov., 7 & 14 Dec. 1853; also *HT* 19 Nov., 3, 10 & 17 Dec. 1853. This part of the turnpike system is somewhat complicated: the southern part of what is now the back road from Leominster to Ludlow, as far north as the Maidenhead at Orleton, was the responsibility of Leominster Trust, while from the Maidenhead north through Richard's Castle and on to Ludlow was the responsibility of the Ludlow First Trust. Thus, this short section of the Presteigne Trust overlapped both trusts' responsibilities, and yet a toll gate was positioned here. Perhaps the two trusts had abrogated to the Presteigne Trust responsibility for this short section of overlap. This new gate was first discussed at a meeting of the trustees at the Mortimer's Cross Inn, on 30 Nov. 1852. *HT* 13 & 20 Nov. 1852, *HJ* 24 Nov. 1852.
[43] *HJ* 11 & 18 Jan. 1854; also *HT* Sat. 14 Jan. 1854. The building had been demolished by the time that the area had been surveyed in 1884 for the first series 25-inch OS map.
[44] *HJ* 8 March 1854, *HT* 11 March 1854.
[45] *HJ* 8 March 1854; also *HT* Sat. 11 March 1854; Lawrence's plans were dated 17 March 1854. HARC W24/1-3. For an illustration of the plans see Tonkin, M. 'Herefordshire Toll Houses—Then and Now' *TWNFC* Vol XLVIII (1996), p. 415, Fig. 8.
[46] *HJ* 14 Feb. 1863.
[47] *HT* 7 & 14 March 1857; *HJ* 11 & 18 March 1857.
[48] *HJ* 24 Feb. & 3 March 1858; also *HT* 27 Feb. 1858.
[49] While the 1888 6-inch OS map shows the footprint of the two toll houses, by 1902 a house was built more or less on the site of the earlier of these, while the one between the Rodd and Rodd Hurst was demolished post WWII.
[50] M. Tonkin, 'Herefordshire Toll Houses——Then and Now' *TWNFC* Vol XLVIII (1996), pp. 408-9. This is based on uncatalogued correspondence etc. in HARC N41/Box 2515. In Aug. 1853 the Woolhope Club held a Field Meeting in this area, meeting at Corton Gate. This would, of course, be the old gate, a short distance to the north-east of the replacement gate, on what became the line of the new railway, now defunct.
[51] *Parliamentary Papers*, Vol. 27 (1841). The report of his death in *HJ* 15 Jan. 1845 states that he was 'for many years surveyor to the Leominster, Weobley, Presteign, and other Turnpike Trusts.' As indicated in the text, the 'other Turnpike

Trusts' included Blue Mantle Hall Trust.
[52] *Monmouthshire Merlin*, 24 June 1853. This particular Newport was Newport, Mon.
[53] Nothing has been published about the geology of this area since James Edward Davis, 'On the Age and Position of the Limestone of Nash near Presteign, South Wales', *Quarterly Journal of the Geological Society* v.6 (1850), pp. 432-439. The stone from the Corton Quarry is Folly Sandstone of the Lower Silurian or Llandovery series. Reference and identification p*ers. comm*. Dr. Arthur Tinsley, who adds that the stone would not be good for road building as it would not crush down evenly.
[54] *HJ* 24 Feb. & 3 March 1866.
[55] On 18 Nov. 1863 the trustees had applied to the Home Department to reduce the rate of interest paid on the mortgage debt secured on the tolls of the roads administered by the trust. The reduction from 5 per cent to 4 per cent p.a. had been agreed by the persons entitled to more than two-thirds of that debt, and a provisional order was signed on 3 Dec. 1863, with effect from 1 Oct. 1863, subject to ratification by Parliament. *HT* 12 Dec. 1863.
[56] It is most likely that William Jones was the contractor for repairing the roads, while Demay was the paid surveyor. Captain Lewis Sondes Demay lived in Leominster, and in Littlebury's directory of 1867 was listed as a private resident at Rose Bank, and not given in any professional capacity. He also acted as surveyor to the Leominster Turnpike Trust. *HT*, 6 July 1867.
[57] *Shrewsbury Chronicle*, 5 April 1867. The hearing and any follow-up session was not reported in the Hereford papers. The money which was sought was clearly arrears for the previous year: orders for rates for 1867 were made to the relevant sessions of the magistrates at Wigmore (20 April 1867), Leominster (28 March 1867), and Kington (10 May 1867), the levy totalling just over £310. In the same bundle of papers there is an estimate of £603 10s. 10d. for necessary work on the roads of the various parishes, signed by Lewis S. Demay as surveyor of the district. Captain Demay resigned as surveyor to the Presteigne Trust on 27 July 1869, the envelope which contained his resignation now being empty, but a note of its substance being made on its front. HARC N41/Box 2515.
[58] HARC N41/Box 2515.
[59] *Ibid*.
[60] In the local collection, formerly in Hereford Library but now in the Record Office, is a fine photograph of a toll house, which was formerly identified as being of Birtley toll house. However, the building depicted had a thatched roof, and the walls appear to have been rendered and insubstantial in nature, so evidently the identification is incorrect. Circumstantially this fine photograph, the negative of which is undated and uninscribed, was probably taken by Alfred Watkins in the 1870s, when he was known to have been photographing in this area. A print of the photograph appears in HAN 74 (2003), p. 7.
[61] *TWNFC* 1930-2, LXIII.

‘The Lord Bishop of Hereford’s Fair, commonly called St Ethelbert’s Fair’[1]: a History of Hereford’s May Fair

by ELIZABETH SEMPER O’KEEFE

This year, 2021, marks the 900th anniversary of the granting of the charter for Hereford’s May Fair, a fair granted by King Henry I to Bishop Richard de Capella of Hereford in the spring of 1121, ‘for three days at Hereford from the feast of St Ethelbert the martyr’.[2] A range of events under the ‘May Fair 900’ banner celebrated the anniversary including exhibitions, guided walks, talks and social media content. Underpinning these celebrations was research into the history of the fair collected over several years, now forming the basis of this paper. It traces the history of the May Fair, from a type of gathering that was important in the medieval economy and operated by the bishop, to the modern pleasure fair and fairground rides, held under the jurisdiction of Herefordshire Council, with the civic ceremony organised by Hereford City Council. Over the centuries that history reflects change, and sometimes upheaval, in the social, economic and political life of Hereford, the latter often characterised by tensions between the authority of the bishop and that of the city. Numerous sources illustrate the changing nature of the fair and open glimpses into the lives of many people: bishops and lords, farmers and traders, bailiffs and mayors, people seeking work, the travelling showmen of recent centuries and even the suffragettes, whose stall made such an impact in 1912. References to the pleasures and energy of the fair abound, as do concerns about drunkenness, brawling and pickpockets. The history of the May Fair and the history of Hereford are closely intertwined.

ORIGINS AND THE FIRST ONE HUNDRED YEARS

Sadly, the original charter is no longer extant among either the cathedral records or the diocesan records. There is, however, an *inspeximus* within the 18th-century volume of Bishop Humphreys which enables us to have the wording, at least (Plate 2.1).[3] The direct address of the grant to all barons and burgesses is unusual. The king was inviting all to come to the fair and ‘to have there as good customs as in any fair in England’;[4] apparently a good time was guaranteed at Hereford’s May Fair! Earlier the same month (April 1121) the king had addressed a notification of the fair to Adam de Port, who held the Manor of Kington, and to Walter of Gloucester and all his lieges of Herefordshire. This earlier document does however quote the date for the fair incorrectly, saying that the feast day was 13 June.[5] Hillaby believes that the grant was probably a confirmation of an existing fair, rather than the granting of a new one, based on evidence including the description of Hereford as a *port* (marketplace) in the Domesday Book and because the fair was granted to be held on the patronal feast day of the cathedral, 20 May.[6]

If it was a pre-existing fair, the question of where it was held arises. There is some debate about the layout of Anglo-Saxon Hereford, but following Shoesmith’s plan,[7] with the city divided into quadrants by the north-south route of Broad Street to the palace ford, and an east-west route of Castle Street and King Street, markets or fairs may have taken place in this east-west crossing. However, excavations in the Close have so far found no physical evidence of such a street, running alongside the putative precinct of the Anglo-Saxon cathedral in the south-east quadrant,

although construction of the new cathedral in the 12th century, a little further north, might have obliterated most traces of it.[8] Keith Ray (*pers comm.)* suggests that Anglo-Saxon markets could instead have occupied an area at the north of today's Broad Street, perhaps most likely at the Norgate, inside or outside the northern wall of the city, or both. Post-Conquest, Bishop Walter de Lorraine negotiated a land swap with fitz Osbern, the first Earl of Hereford, who had been granted Hereford in 1067, and fitz Osbern established his own market in the High Town area. It has been suggested that when de Capella arrived in Hereford for his consecration in January 1121, he became aware of the economic threat of the new market and of the difficulties of accessing his fee within the city. Therefore, he sought to strengthen his own economic jurisdiction by obtaining a formal grant for the existing annual fair.[9] In any event, during de Capella's time as bishop, the bridge over the Wye was built (as referenced in the *Itinerary* of John Leland).[10] This changed the north-south route, so that it ran from Broad Street via King Street to Bridge Street, whilst also opening up a new routeway from the south into the city.

The granting of the fair brought with it significant financial benefits from the tolls taken at the city gates and the fees from stalls, revenues that were soon being shared across the cathedral establishment. In the late 12th century, Bishop William de Vere confirmed earlier grants made by his predecessors, including the granting of the tithes of the fair at Hereford to the Bishop's Chapel, dedicated to St Mary Magdalene, which once stood in the grounds of the Bishop's Palace.[11] The canons were to appoint a proctor, to attend each day of the fair and to collect, at the time of the daily accounting, their tenth of the day's takings.[12] At the turn of the century this is further confirmed by an *inspeximus* of Hubert Walter, Archbishop of Canterbury,[13] and again by Bishop Giles de Braose.[14] A cartulary of Hereford Cathedral, now at the Bodleian, includes a copy of Walter's *inspeximus*, as does a partial transcript of the cartulary, once at Longleat but now in the British Library among the Harleian papers.[15] The Rev. Canon Bannister summarised the transcript for the Woolhope Club's *Transactions* in 1917.[16]

Other financial transactions were also dealt with at the time of the fair. The cathedral archives hold some twenty-five documents, dated between 1198 and 1300, which stipulate that the rent on various pieces of land (at Breinton, Allensmore, Stretton, Clehonger, Holmer, Eggleton, Ledbury and Hereford) should be paid at the time of the fair: I speculate that this may be because people from all around the county were heading into Hereford for the fair, making it a convenient time to effect payment, without requiring a separate journey. A number of these deeds pertain to land transactions involving William de Evesham, one of the Vicars Choral at the cathedral, possibly the Custos.[17] In most of the cases the rent was not a payment of money but of spices: cloves or cumin or pepper or cinnamon (Plates 2.3 and 2.4). Spices were commonly used as a monetary substitute at this time and accepted to pay taxes, tolls and rent, partly because of a coin shortage.

THE 13th CENTURY: GROWING TENSIONS

It was not until a charter dated 23 March 1227, over 100 years after the formal granting of the fair to the bishop, that the citizens of Hereford were granted their own three-day fair, on the feast of St Denis (9 October) and the two days following. The original charter is held at Hereford's Town Hall.[18] Shortly thereafter, further grants made to the then bishop, Peter Aigueblanche, extended his fair and his rights. On 6 May 1241 (i.e., just in time for the bishop to capitalise on the extension for the forthcoming fair), Henry III made a grant which increased the period of the fair by three days to six.[19] The wording of the grant also gives a clear explanation of the days on which the fair had formerly been held, *viz.*, from noon on the vigil of St Ethelbert's feast, on the

feast day itself and the three days following—which already seems to be an extension of the original three-day grant! Then, in 1261, Henry III granted a monopoly on trade during the time of the Bishop's Fair, allowing no other transactions within five leagues (fifteen miles) of the fair, unless it was for another fair or business that had been granted by royalty.[20]

It was perhaps inevitable that these generous rights and privileges granted to the bishop would cause contention with the city officials and thus it proved. Particularly during Aigueblanche's bishopric, there are many recorded incidents of dispute between the citizens and the bishop, over a number of issues including the fair. First, in 1241, two named citizens, Richard Moneywood and Walter le Wanter, whose names appear in the list of chief bailiffs of Hereford in later years,[21] were summoned, with others, by Bishop Aigueblanche because they had been selling goods in their houses during the Bishop's Fair. The citizens argued that before the grant of the fair to the bishop they used to sell goods from their houses, but they also acknowledged the bishop's right to all fees from the fair.[22] This acknowledgement, in the form of a pledge, was formally made on 26 September 1241 and later recorded in the register of Bishop Swinfield.[23]

Twenty years later saw another dispute. The incident is transcribed in a manuscript volume held in the county archives, a volume that includes 'extracts from various authors and copies of original papers relating to the County and City of Hereford',[24] as collected by John Allen jnr in 1818. Johnson's *Ancient Customs of Hereford* also gives the details of the incident: that Aigueblanche accused the citizens of ringing the common bell and shutting the gates of the city against the canons and the bishop, not allowing them to go in or out, nor even allowing their servants to bring them food. This time an agreement was made in which 'the citizens swore to behave themselves honestly towards the bishop, church, and dean and chapter, never seeking to rise against them or do them harm'.[25] The citizens also 'granted the king's pillory and tumbrel within the city of Hereford, as well in the fair time of the bishop as out, to do his executions [that is, to enact his judgements]. And the pillory which the bishop had erected within the city was taken down'.[26] It seems clear that the bishop was keen to have the means of punishing wrongdoers within his area of the city, and also the rest of the city during the time of the fair, when he had jurisdiction over the whole, so he had erected his own pillory, in addition to the prison within the Palace complex. This pillory became redundant when the citizens allowed the bishop to use the city's pillory and tumbrel throughout the year. The cathedral records include a royal mandate to enrol the ensuing agreement between Bishop Aigueblanche and the citizens.[27] The incident is also recorded in the Patent Rolls,[28] with the full text of the agreement later written up in Bishop Cantilupe's register.[29] Further confirmation of the agreement was given in 1394 in an *inspeximus* of Richard II.[30] It is interesting to observe that these particular disputes occurred at the fair during each year that the bishop's rights were extended—were the citizens making their feelings known about these extensions to the bishop's rights and powers, extensions that they may have felt were to the detriment of the city?

It wasn't just the citizens that Bishop Aigueblanche was in dispute with. In 1252/3 there is also recorded a disagreement between Aigueblanche and the dean and chapter, over the matter of non-payment of the tithes from the fair. This dispute was referred to the Papal See and three arbitrators were appointed. The notarial instrument records the dispute and gives the judgement: that the bishop should pay to the dean and chapter the tithes of the fair.[31] However, the bishop may not have been very swift to pay what he owed, since the codicil to his will in 1268 gives instructions for any arrears outstanding on the tithes of the fair to be paid to the chapter of the cathedral.[32]

Disputes and disagreements between bishop and city over the fair continued. A letter

dated 1276 in Bishop Cantilupe's register was sent to the city bailiffs because they refused to hand over the keys to the city during the fair (Plate 2.2).[33] And then, in 1346, Bishop Trillek's register records his threat to excommunicate anyone who infringed his liberties regarding the fair.[34] Interestingly, this document records that, by this date, the fair began on the eve of the feast of St Ethelbert and continued for nine days.

The liberties or rights referred to in the various disputes included the right to all the tolls received at the city gates from those travelling into Hereford during the fair. This right was also challenged. The parishioners of Lugwardine complained about the bishop's right to take tolls from them when they came to his fair, as referred to in the Camden Society's publication of the *Roll of the Household Expenses of Richard de Swinfield 1289-90*, which in turn refers to a section in the Hundred Rolls of Edward I.[35] Interestingly, in this particular year, as detailed in the household roll, the bishop was not in Hereford at all during the fair: on 19 May (the eve of the feast of St Ethelbert) he was at Eye, at Leominster on 20 and 21, at Kingsland on 22, Pembridge on 23 and 24, Presteigne on 25, Old Radnor on 26 and Kington on 27 May.[36] Presumably, the bishop entrusted the task of the fair to his bailiff, whilst the bishop himself was not required to take any part in the ceremonies surrounding it.

The receipts generated by fairs could seemingly be quite significant. *The Story of Hereford* says that, in 1275, the bishop received £20 from his fair, although no documentary sources are given to confirm this.[37] To give a comparison, some surviving city records, calendared in the *Manuscripts of Rye and Hereford Corporations,* give information about the receipts of tolls at each of the city gates throughout various periods in the 13th century, including through the period of the city's St Denis's Fair. These records show that the tolls across the city gates varied from week to week and that in the account rolls of John le Gaunter, Chief Bailiff of Hereford, receipts from St Denis's Fair in 1287 amounted to 9s. 11d., whilst in 1291 receipts from the fair's stallage were 10s. 5d. and from fines 24s. 6d. In 1319, however, stallage receipts from St Denis's fair were only 4s. 6d.[38]

During this period, the right to hold the Bishop's Fair included the right to hold pie-powder courts. They were a court of instant jurisdiction during fairs for the settlement of debts and disputes among people who were unlikely to be in the city beyond the time of the fair. The existence of these courts is referenced in a transcript of a letter from 1704, from the city's Deputy Steward to Bishop Humphreys, in which the role of the bishop's bailiff is outlined: 'wheras the Bishops Bayliff was not much more than Receiver of the Bishop's Rents and Stewards of the Bishops Pye Powder Courts and Court Baron'.[39] The name, pie-powder, comes from an anglicisation of the French phrase *pieds poudres*, meaning dusty feet: it is a court of those who have travelled and so their feet are dusty; or of such rapid proceeding that there is no time to shake the dust from their feet. Pie-powder courts were also granted to the city during their fairs, confirmed in charters of Elizabeth I, James I, William and Mary, and William III.[40]

THE 16th CENTURY: MARKETS, FAIRS AND MORE DISPUTES

No specific references to the fair have been found for the next two centuries, but the next incident in its history is yet another dispute between the bishop's authorities and those of the city. Allen again includes a transcript of a document relating the incident in his volume, and Johnson also includes the same details in *Ancient Customs of Hereford*.[41] Johnson gives the date as '*temp* Eliz. 1', though the transcription in Allen states it as the 5th year of Mary's reign, that is 1557. The item itself is the response of Walter Carwardine, late mayor of Hereford, to an accusation against him by the bishop's bailiff, Thomas Wenlack. A list of mayors in Johnson's *Ancient Customs of*

Hereford confirms Walter Carwardine as the Mayor in 1557.[42] Besides the details of the episode itself—that the bishop's bailiff had accused Carwardine of trying 'to stir Discord Variance and Strife between the Bishops of Hereford, and the Mayor and Citizens of the s[ai]d City where for Truth the said Mayor & Citizens at no time meant to do'[43]—the document is useful in giving greater details about the arrangements for the fair and the rights of the bishop and his bailiff. Provisions included: that the fair began at 9am on the eve of the feast of St Ethelbert, and continued for the next eight days; that pleas for actions under the value of 40s. were to be held in the Bishop's Palace during those nine days; that the bishop was to have the fines from such actions; that fines for trespass or affray went to the bishop's bailiff, whilst those for bloodshed went to the mayor; that tolls from strangers at the fair were split, with two thirds to the bishop's bailiff and the final third to the mayor for the benefit of the city; and that, at the end of the nine days, the mayor would make a proclamation at the gate of the Bishop's Palace that the fair should cease and that any remaining unresolved actions were to be handed over to the city court. Elizabeth I's charter to the city officials in 1597 confirmed the rights of the citizens to three weekly markets and two annual fairs (in June and at the feast of St Denis in October), but also clarified that the rights in the city charter did 'not extend in anything to the prejudice, loss or detriment of the said Bishop, Dean and Chapter or any of them or any of their successors' including, of course, the rights connected with the Bishop's Fair.[44] These rights were further confirmed by James I's charter of reincorporation in 1619, in which clause thirteen safeguards all the rights belonging to the bishop and the dean and chapter of Hereford.[45]

A BRIEF INTERREGNUM

The rights of the bishop were swiftly removed, however, during the civil war and commonwealth period, when the episcopacy was abolished in October 1646 and when Parliament passed an ordinance in November of that same year for the sale of the manors, lands and possessions of the bishops. Around twenty men were listed as trustees for the possessions of the bishops and any five of them were authorised to dispose of the bishops' lands if there were purchasers. Col John Birch had been involved in the plot to take Hereford in December 1645 and he subsequently became the Parliamentarian governor of Hereford. Thus, he was well placed to purchase various of the former bishop's lands, buying the manor of Whitborne before April 1649,[46] and then the Bishop's Palace, with the manors of Shelwick, Barton, Tupsley, Eaton Bishop, Hampton Bishop and Sugwas, for £2,475 12s. 5d. on 22 February 1649/50.[47] Five years later he bought more of the former property of the Bishop of Hereford. Included in the sale, which totalled £121 9s. 4d., were the rights to the May Fair (Plate 2.5). The relevant clause, which lays out all the associated rights and benefits, says:

> And all that Fayre with the Appurtenances commonly called the Nine Dayes Fayre to be kept yearly from tyme to tyme within the month of May and within or neare the said Citty of Hereford for all manner of goods Cattel and Merchandize which was heretofore usually and Accustomedly bought and to be bought and sold within the said fayre. And all manner of Toll money pitching pence and other Tolls Customes Piccages Passages Tollages Stallages Courte of Pipowder and other profits with them and every of their appurtenances which does or ought to belong to the said fayre with full and free liberty power and Authority to collect gather recover and receave the same and all and every of them and every parte and parcel of them and every of them which said rente and profits of the premisses are in the particular thereof mentioned to be of the yearely value of Two pounds.[48]

BISHOP HUMPHREYS'S BOOK AND THE 18th CENTURY

All Birch's purchases were of course nullified at the restoration of the monarchy in 1660, the Convention Parliament deciding that all crown and church lands should revert to their original owners without compensation to the purchasers. The rights to the fair thus returned to the bishop.[49] Some forty years later, in the early 18th century, Bishop Humphreys (1701-1712) began some investigations to establish the extent of his rights and those of the city officials, and his discoveries were recorded in a manuscript book now held within the cathedral archives, the same volume which, as we have already seen, contains a transcript of the original grant from 1121.[50]

One of the documents, entitled 'The uninterrupted Manner of Holding the Lord Bishop of Hereford's Fair commonly called St Ethelbert's Fair in the City of Hereford and the advantages thereof' sets out the broad position concerning the fair in Bishop Humphreys's time (Plate 2.6).[51] It explains that the bishop's fee within the city is exempted from the jurisdiction of the city and that the fair begins on the 19 May and continues for nine days. It goes on to describe an opening ceremony which must have been an impressive, public demonstration of the rights of the bishop, exercised through his bailiff:

> The Bayliff and his Steward in the Morning come to the Pallace and there call the Resiants of the said Fee by their names to appear and give their attendance on the Bayliff in proclaiming his Fair. The Bayliff most commonly rides about the City to proclaim it. When the Inhabitants are called, the Bayliff and Steward with a Mace before them and perhaps an hundred or two hundred Horse attending them ride around the Fee and from one Gate of the City to another till they have gone to every Gate, and at each Gate the Bayliff appoints a Porter for the 9 days and the Steward gives him a proper Oath, and then they ride to the High-cross and there the Fair is proclaimed very solemnly and most commonly by the City Cryer.[52]

It further explains that the bishop's bailiff takes the toll of all the city gates and, via the steward, the toll of the market. The bailiff also takes the 'pitching pence' and fees from the erection of stalls, and he can weigh the butter and confiscate any that fails to meet the standard. The final detail is that during the fair, the mayor's representatives 'execute no process without the leave of the [bishop's] Bayliff'.[53]

Amongst other items, this volume includes a note that the bishop had a set of stocks within the palace complex, as well as the prison for criminals from his fee within the city.[54] It also reiterates the dispute and agreement between Bishop Aigueblanche and the city authorities, including granting permission to the bishop to use the city's pillory and tumbrel and remove the same that the bishop had erected.[55] It further transcribes a letter from a former bishop's bailiff, Samuel Gauler, who had collected recollections of the customs and rights 'before the Civil Warrs [*sic*]' which include a few incidents at the time of the fair: 'That when Mr Hum. Gullipher was Bayliff he sent a Ballad singer to the Palace Prison for singing Ballads in ye 9 days Fair' (I assume that the Ballad singer didn't have a licence to sing, not that the quality of his singing merited imprisonment!); 'That Mr Peter Jones when he was bailiff sent in his 9 days Fair a person to the Palace Prison for some offence that he had forgot'; and 'That in the 9 days Fair the Mayors Serjeants assert neither the person or goods of anyone without the Bayliffs leave'.[56] Even allowing for the vagueness of Mr Peter Jones's recollection, the men seem to be at pains to make clear that the bishop's authority (through the person of the bailiff) during the fair was absolute. The role of the bailiff was key to the holding of the fair, and *The Hereford Guide* of 1808 states that during the fair 'according to ancient custom, [he] acts as civil magistrate, and on the Sunday

preceding, attends the Cathedral and Palace, with a mace bearer, and other officers in procession'.[57]

However, sometimes the bishop's bailiff may have exceeded the rights allowed to his role. There is another document transcribed in John Allen's volume, entitled 'A Copy of a Record touching Payments of the Bishop to the Officers of the said City'. It is a memorandum regarding an episode during the reign of Henry VIII—that William Lawrence, described as 'the Keeper of the Bishops Palace & Customer of the said Bishop during the Fair of St Ethelbert', withheld the customary payments during the time of the fair to the King's Customer and to each porter and serjeant. After applying to the Bishop's Auditor, the matter was resolved in favour of the City's officers who were to receive the accustomed fee and the back payments due to them, as it was found that William Lawrence had received the money to pay these fees but had withheld it.[58] The officers of the city and the officers of the bishop each guarded their rights and customs jealously and ensured to challenge the other as necessary, which evidence no doubt assisted Bishop Humphreys in his enquiries.

THE 19th CENTURY: AN ERA OF CHANGE

The bishop appears to have succeeded in re-establishing his various rights and customs, including the fair, as it continued throughout the 18th century, and, by the early 19th, was one of six annual fairs in Hereford. The city had received the right to hold fairs in February, at Easter, June (which was actually held in July by the 19th century) and October through various city charters that are still held at the Town Hall. Added to these was a fair in December, that began as a Great Market in 1790, to fill the gap in fair-times between the existing opportunities of October and February.[59]

Early in the century, the fairs in February and at Easter sold livestock, hops, and small goods, the June/July fair sold wool as well as the livestock and goods also sold at the fairs earlier in the year, whilst the October fair was the largest fair of the year and sold oxen, horses, hops, butter and cheese.[60] There were various areas of the city that sold particular goods: wool at the Market House, hops at the Market House and Old Gaol, cattle in Broad Street and King Street, horses in St Owen's Street and butter and cheese near St Peter's Church.[61]

An article in the *Hereford Journal* in 1809 reported an intention, supported by thirty-three signatories, that livestock would be sold on the first day of the May Fair that year, being a practical opportunity between the Easter and July fairs.[62] The May Fair also sold butter, poultry and other produce throughout the nine days, but was becoming known as a pleasure fair too. In fact, the associations of the May Fair with having a good time led to a local dialect word: '*Maffering'* meaning 'Mayfairing', as collected by Andrew Haggard during the first half of the 20th century. This could be used specifically of attending the May Fair or, in a more general sense, of going out to enjoy oneself.[63] It seems that King Henry I was not wrong when he promised that all who attended Hereford's May Fair would have a good time!

The attractions of the fair were captured in a ballad sheet entitled *The Humours of Hereford Fair O!*[64] printed by T. B. Watkins of Hereford, who had premises in Church Street and then High Town between 1812 and 1836. The delights mentioned include 'roundabouts, wild beasts and monkeys…giants and masculine witches...fairings of every kind…a great many slight-of-hand tricks'. However, Watkins hadn't composed this ballad as an original piece about Hereford—in fact it was a direct copy, changing only the title and opening lines, of a ballad called *Bartholomew Fair or the Humours of Smithfield.*[65] Nonetheless, it seems to capture the spirit of the 19th-century May Fair with its mix of rides and sideshows, including the risk of

thieves and pickpockets. A warning against pickpockets can be seen in a Bustin photograph of the May Fair in Broad Street *c.*1900 (Figure 3 below),[66] and the newspaper reports of May fairs around the county often referenced the presence or absence of pickpockets and other trouble. For instance, an article in the *Hereford Times* of 11 May 1867 says that 'The conduct of the people attending the [Hereford May] fair presents no feature for comment, further than to say that the cases requiring the interposition of the officers of the law were somewhat below the average' (Plate 2.7). In the same newspaper we see reports of seven pickpockets acting at Leominster's May Fair that month, although the following week's edition reported 'not a single case of pocket picking or robbery of any kind' at Crickhowell's May Fair that year.[67] Ten years previously, the *Hereford Journal* had noted that on the evening before the fair 'there was a large arrival of "very queer fish" indeed; the sight of whom made discreet persons instinctively button up their pockets'.[68]

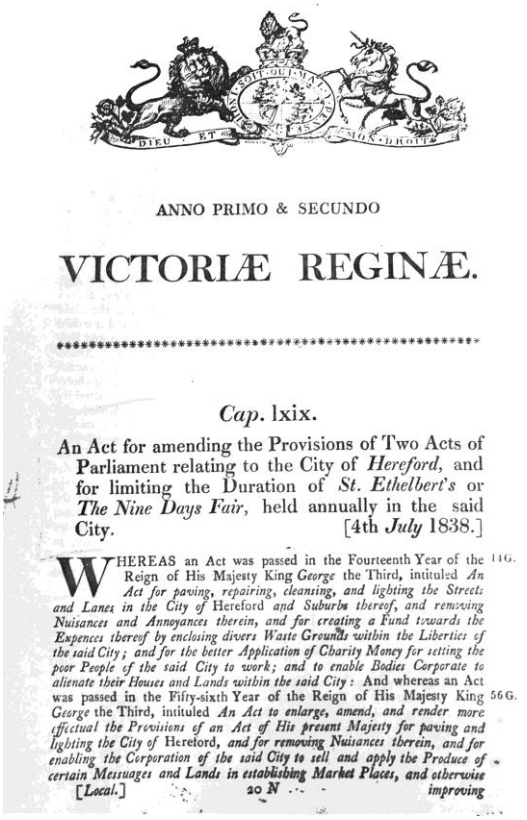
Besides the pleasurable elements of the fair, and the sales of produce and cattle, there was a further element; that of the hiring or Mop Fair. Such fairs had originally begun across the nation with the 1351 Statute of Labourers and although most statute fairs (or 'Mops' as they were known in the Midlands) were held at Michaelmas, (i.e., after harvest), the Mops in the Welsh Marches took place in May, also a fairly quiet month on the farm. At these fairs workers had the opportunity to meet prospective employers and agree a contract of employment for the coming year, a type of arrangement that continued until the late 1800s. The May Fair seems to have become combined with a Mop element in 1825.[69] There are newspaper reports of a delightful ceremony, organised by Thomas Cooke, a local auctioneer,[70] in which Hereford's first Mop Fair was proclaimed by 'King Mop', a local man, dressed in green silk robes and sporting a large hat with feathers, who paraded on horseback accompanied by six attendants carrying mops. He stopped at the Kings Head Inn to drink a pint.[71] The same article referenced the *Hereford Independent* which noted 'there was a good attendance of servants at the fair and the hiring seemed to go on briskly'.

The convergence of large numbers of workers seeking employment, and the opportunities for enjoyment provided by the fair, at times made for a rowdy environment which did not go unnoticed by 19th century moralists and journalists. In 1834, an article in the *Hereford Times* reporting on that year's fair, spoke of never before witnessing 'more blackguard scenes, than we did in Broad-street on Monday evening last'.[72] Then in 1837, the newspaper acknowledges that 'this fair has of late become a hiring fair for servants, particularly agricultural servants; latterly female domestics have "stood the market"', but further comments that 'we do not think it tends to promote their respectability and efficiency'.[73] The concerns over the mop or hiring element of the fair seem to have been shared. There is a pamphlet in Herefordshire Libraries, entitled *Old Mops mended not thrown away,* in which the (unknown) author outlines the evils that they see arising from the occasion of the Mop Fair: 'the enticements of drinking, the low company, the foul language' leading to 'good principles weakened, of modest habits undermined', also that servants are being 'picked out in the street like a bullock or a sheep, … to be put to paces like a cart colt, to have points examined like a calf or a filly…This must…damage the relation between masters and servants'. So, the author seeks reform of the Mop Fairs, offering suggestions including organised games, strict enforcement of laws against drunkenness and bad language, and the implementation of a registration office to match up those seeking employees with those seeking employment.[74] There were attempts to organise the Mop element of the fair: in 1882 an advert in the *Hereford Evening News* explains that the mayor had offered the Guildhall for hiring and requested 'that servant girls will assemble at the Guild

Hall…instead of standing in the streets, and Mistresses requiring servants are invited to meet and engage them there'.[75] However, the attractions of the fair may have proved to be too enticing and these attempts may only have met with limited success, as an article in the *Hereford Times* the following year says that many of the girls 'stood about the doorways apparently loath to get out of hearing altogether of the sound of the fair'.[76] In the end, it was the shift from rural to urban employment and the agricultural depression that finally brought about the end of the Mop Fairs.

THE END OF THE BISHOP'S JURISDICTION

The 19th century brought the greatest changes to the organisation of the fair. After seven centuries of being under the bishop's jurisdiction and with the date tied to the celebration of the cathedral's patronal feast day in May, all was to change. On 1 January 1838, the city council resolved to ask to 'transfer the Nine Days Fair from Broad Street to the New Markets and to enable the Council to take the Tolls therefrom for the benefit of the City'.[77] The following month, they resolved to limit the duration of the fair to two days, although they had previously agreed that it should only be one day.[78] In April, they reported that the bishop was to be offered an annual sum of five pounds in compensation, but that the bishop had requested a corn rent instead. So, it was decided that the mayor would 'negotiate with his Lordship and endeavour to induce him to agree to a fixed Rent in Money otherwise that the whole arrangement relative to the Fair be abandoned'.[79] However, this firm stance was to no avail as it was reported at the following council meeting that the bishop had not changed his mind. Instead, the council agreed to an annual payment of as many bushels of wheat and oats that five pounds would buy.[80] This quantity of wheat was to be fixed for twenty-one years and then varied as necessary, though I have not yet found any evidence that the quantity was altered in subsequent years.



ANNO PRIMO & SECUNDO

VICTORIÆ REGINÆ.

Cap. lxix.

An Act for amending the Provisions of Two Acts of Parliament relating to the City of *Hereford*, and for limiting the Duration of *St. Ethelbert's* or *The Nine Days Fair*, held annually in the said City. [4th *July* 1838.]

WHEREAS an Act was passed in the Fourteenth Year of the Reign of His Majesty King *George* the Third, intituled *An Act for paving, repairing, cleansing, and lighting the Streets and Lanes in the City of* Hereford *and Suburbs thereof, and removing Nuisances and Annoyances therein, and for creating a Fund towards the Expences thereof by enclosing divers Waste Grounds within the Liberties of the said City; and for the better Application of Charity Money for setting the poor People of the said City to work; and to enable Bodies Corporate to alienate their Houses and Lands within the said City*: And whereas an Act was passed in the Fifty-sixth Year of the Reign of His Majesty King *George* the Third, intituled *An Act to enlarge, amend, and render more effectual the Provisions of an Act of His present Majesty for paving and lighting the City of* Hereford, *and for removing Nuisances therein, and for enabling the Corporation of the said City to sell and apply the Produce of certain Messuages and Lands in establishing Market Places, and otherwise improving*

[*Local.*] 20 *N*

Figure 1. Title page, 1838 Act. (Herefordshire Archive Service CA38/1)

On 13 June 1838 the whole act was read and approved by the city council[81] and *An Act for amending the Provisions of Two Acts of Parliament relating to the City of Hereford, and for limiting the Duration of St Ethelbert's or The Nine Day's Fair, held annually in the said City* was entered on the statute books on 4 July that year (Figure 1). The introduction to the Act clearly sets out the intentions of the city council:

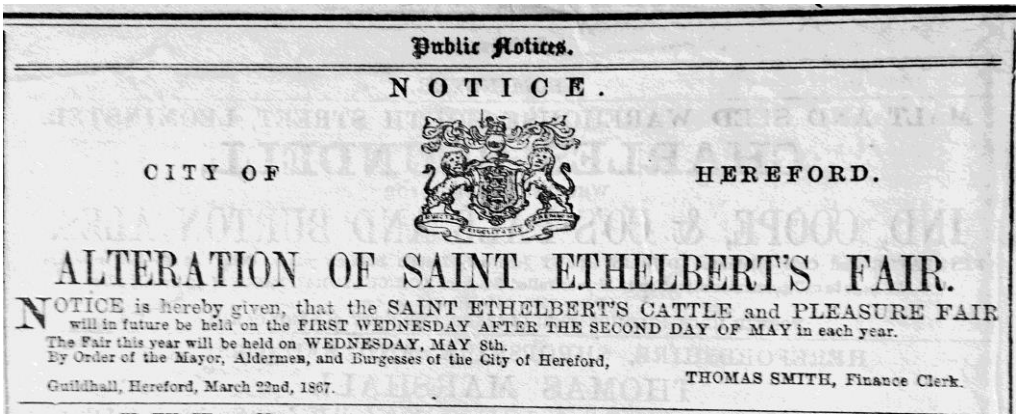
> And whereas a Fair called Saint Ethelbert's Fair has been heretofore holden every Year within the said City, which said Fair has been held since the Time of His Majesty King Henry the Third from the Ninth Hour of the Eve of Saint Ethelbert until the Eighth Day next following: And whereas the Rights, Privileges, Tolls and Jurisdiction of the said Fair have heretofore been vested in the Lord Bishop of Hereford for the Time being: And whereas it would greatly tend to the Advantage of the said City, and to the Improvement of the Morals of the Inhabitants thereof, if the Time for holding the said Fair in future was limited to Two Days; and it would be of great public Advantage if the Tolls and Jurisdiction of the said Fair were transferred from the Lord Bishop of Hereford to the Mayor, Aldermen, and Burgesses of the said City; but the Objects aforesaid cannot be effected without the Aid and Authority of Parliament: May it therefore please Your Majesty that it may be enacted; and be it enacted by the Queen's most Excellent Majesty, and by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the Authority of the same.[82]

Therefore the jurisdiction of the fair duly passed from the bishop to the city council and the fair was reduced to two days, beginning 'on the same Day on which the said Fair usually heretofore began to be holden' (i.e., 19 May) and ending 'on the Day next immediately following'.[83] The details of the Act also made clear that all rights and fees associated with the fair were now to pass from the bishop to the mayor, aldermen and burgesses of the city, and specified that the quantity of wheat to be paid on the eve of St Ethelbert (19 May) to the bishop was twelve and a half bushels, though the Act did also allow for a monetary equivalent to be paid instead.[84] To date, I have been unsuccessful in finding any documents among the diocesan collection that give any details of this changeover in jurisdiction from the bishop's viewpoint.

In 1854 the Hereford Improvement Act repealed the 1838 Act (together with three other acts that were not related to the fair) but retained the liability of the city to compensate the bishop regarding the fair. It confirmed that the city council could 'maintain and regulate the Fair held in the City in such Manner as they from Time to Time think proper' and could 'appoint such Places in the City, and Times for the holding of such Markets and Fairs respectively, as they from Time to Time think Proper'.[85] The Act also confirmed that 'until the Corporation otherwise appoint, the existing Markets and Fairs shall be held on the now accustomed days'.[86] This Act also included a schedule of tolls, which detailed that for each stall for the sale of goods on a market day, the fee was 1s. 6d., but for the same stall on a fair day, the fee was 2s.[87] William Collins, in his book *Modern Hereford*, calculates that the expenses incurred by the city council for procuring the Hereford Improvement Act (including the parliamentary agent's bill and the lithographer's bill) came to a total of £1,862.[88]

The right of the Corporation, under the 1854 Act, to change the site and date of the fair, was soon to be acted upon. In 1862, the *Hereford Journal* made reference to 'a recent bye-law of the Mayor and Corporation' that moved the fair to the third Wednesday in May,[89] and a brief article in 1861 was 'anxious to remind our agricultural friends that the Hereford May Fair will commence on Wednesday, the 15th instant, and *not* on the 19th as heretofore'.[90] Then, local newspapers in the spring of 1867 carried public notices declaring the 'Alteration of Saint Ethelbert's Fair', explaining that from that year, the fair would now be held on the first Wednesday and Thursday after the second day of May, so that the fair in 1867 was to begin on Wednesday 8 May (Figure 2).[91] An article in the *Hereford Times* on 4 May 1867 explained the reasons for the change in date: bringing it forward would mean that it was one of the first May fairs to be held in the local area, so that those attending would have plenty of money to spend,

instead of having already spent their money at other fairs by the time the Hereford fair came round mid-month.



Public Notices.

NOTICE.

CITY OF HEREFORD.

ALTERATION OF SAINT ETHELBERT'S FAIR.

NOTICE is hereby given, that the SAINT ETHELBERT'S CATTLE and PLEASURE FAIR will in future be held on the FIRST WEDNESDAY AFTER THE SECOND DAY OF MAY in each year.

The Fair this year will be held on WEDNESDAY, MAY 8th.

By Order of the Mayor, Aldermen, and Burgesses of the City of Hereford,

THOMAS SMITH, Finance Clerk.

Guildhall, Hereford, March 22nd, 1867.

Figure 2. Public notice about a change of date for the May Fair, *Hereford Times*, 6 April 1867. (Herefordshire Libraries)

An article the following week reported on the fair itself: the business fair and the pleasure fair. The business fair, it said, 'was a full average one for May—larger indeed than we expected after the occurrence, at so recent a date, of the Easter fair'.[92] Indeed, Easter that year was on 21 April, allowing only two and a half weeks between the fairs. The opinion of the journalist was that attendance at the pleasure fair was lower than in previous years and that 'our tradesmen have not done the stroke of business which was anticipated by reason of an earlier fixture'.[93] In fact, they believed that 'fairs make but little difference to our tradesmen generally', partly because the railways afforded the opportunity for those living in the country to come more frequently into the city (Plate 2.7).[94]

Somewhat bizarrely, despite the change in date of the fair, the *Hereford Times* also reported later that month about a May Fair, held on the more usual date of St Ethelbert's feast and the following day, in an article entitled 'A SECOND MAY FAIR' and stating that 'we had our May Fair repeated on a small scale in the Cattle-market, consequent upon some shows, roundabouts, &c., arriving here from Hay'.[95] It seems as though not all of the showmen had received the message that the date of the fair had been altered.

Some of the city councillors determined to make further changes. At a meeting of the Markets Committee on 25 May 1887 the committee resolved to seek the price of Miss Bulmer's meadow which adjoined the cattle market. They intended to buy it to build both an agricultural produce market and a horse fair and run, and to hold the May and October fairs there.[96] They did subsequently agree to buy Miss Bulmer's meadow at a meeting on 14 June 1888, but there was no success in moving the fair there, although at a meeting on 7 June 1887, the Mayor, Alderman James, had proposed 'That it is desirable that the holding of a pleasure fair in the streets of the city should cease'. However, the attempt was unsuccessful.[97] His argument, and that of other Councillors, referenced an earlier attempt to move the fair in 1876 which had been referred to a May-Fair Committee. This committee had concluded that the Council had the power to move

the fair to any other property of the city and to purchase property on which to hold the fair, but not to lease such property. However, there was no property which the committee could recommend as a site for holding the fair, nor was there anything that they could recommend that the Council purchase. Despite this stalemate, the matter was brought forward to a council meeting at which a petition was presented, signed by 2,300 people, in favour of retaining the fair in the streets, so the Council dropped the matter.[98] Councillors tried again in 1892—Alderman Scobie and Councillor Humfrys proposed and seconded a resolution that 'the holding of St Ethelbert's Fair in the streets of the city is both an obstruction to traffic and a source of danger, and should therefore cease'.[99] The original resolution suggested that the fair should be moved to the meadow adjoining the cattle and produce market (presumably that formerly known as Miss Bulmer's meadow), but this was amended to propose that no steps should be taken for the removal of the fair until a direct vote of the burgesses was taken. The vote on the amendment divided the council: eleven votes for the amended proposal and ten votes against.[100] William Collins reports that the publicans were against the removal of the fair from the streets and that the council was flooded with petitions.[101] No further reference in the council minutes was made to the topic of moving the fair at this time, but Collins made his own feelings clearly known in another of his books, *Modern Hereford*, published in 1911:

> May Fair is still held in the High Town and Broad Street, and has degenerated into a three days revelry which the authorities are not strong enough to remove, because the interests of the brewers and publicans are supreme, or thought to be supreme in the Council Chamber. All candidates for a seat in the Common Council, who were supposed to be in favour of its abolition, or removal to another site, have ignominiously failed at the polls. The citizens appear to be resigned to this old custom, mainly because it provides a fund of amusement to country folk and children.[102]

This is in contrast with his view of the medieval fair in what he terms 'the good old days', as published in his volume *A Short History of Hereford*:

> How Pedlars' Stalls with glittering Toys are laid
> The various Fairings of the Country Maid,
> Long silken Laces hang upon the twine,
> And rows of pins and amber Bracelets shine.
> Here the tight Lass, Knives, Combs, and Scissors spies,
> And looks on Thimbles with desiring eyes.
> The Mountebank now treads the Stage, and sells
> His Pills, his Balsams, and his Ague Spells;
> Now o'er and o'er the nimble Tumbler springs,
> And on the rope the vent'rous Maiden swings;
> Jack Pudding in his party-colour'd jacket
> Tosses the Glove and jokes at every Packet;
> Here Raree-Shows are seen, and Punch's Feats,
> And Pockets pick'd in Crowds and various Cheats.[103]

INTO THE 20th CENTURY: A PLEASURE FAIR

Even with his rosy-coloured view of the fair's entertainments, Collins does concede that rioting and gambling and fighting were common, necessitating the use of the pie-powder courts. The fair attractions changed rather over the years, from talking pigs and fortune-telling horses to the

introduction of steam-powered rides in the mid-19th century. An article in the *Hereford Times* in 1878 observed that 'one of the roundabouts was driven by steam, another worked by crank hand power, and a third was revolved by means of a black pony'.[104] From the early 1900s phonographs and gramophones started to appear, and a bioscope (an early form of cinema) too. In 1907 the *Hereford Times* reported a new attraction—Sidney White's chute, a helter-skelter.



Figure 3. The May Fair in Broad Street, Hereford, *c.*1900, with a sign, partly obscured by the lamp post, warning of pickpockets. From the collection of photographs by W. H. Bustin and Son (Herefordshire Archive Service G36/A/129)

Sometimes the sideshows were quite different from the usual. In 1912, after their newspaper *Votes for Women* was banned from the Reading Room of the Hereford Free Library, a group of suffragettes took a stall at that year's fair to sell their newspaper and other books and pamphlets (Plate 2.8). An article from an unidentified newspaper gives this delightful description:

> This year the W.S.P.U. have taken a stall in the centre of the fair, where from four tall corner posts the purple, white and green flags of the union flutter. The framework of the stall has been covered with a profusion of purple lilac and white hawthorn…[and] two huge posters…inviting the public to "buy our wonderful paper, *Votes for Women*, tabooed by the Hereford Library Committee".[105]

The paper *Votes for Women* itself then reported on the banning and the subsequent stall, saying that there were 'brisk sales of the banned paper at the WSPU stall at Hereford Fair'.[106]

Almost two decades later there was another unusual sideshow at the fair when the recently closed gaol on Commercial Road was opened to fairgoers. An advert appeared in the *Hereford Times* on Saturday 3 May 1930 saying 'Visit Hereford's Old Gaol before Demolition. Open Daily 2pm-9pm Until Further Notice. Admission 6d. 1/3 of proceeds to Herefordshire General Hospital'. Above the prison entrance was a notice reading 'See the Old Gaol before Demolition. Try going to Gaol of your own accord'. This can be clearly seen in Figure 4, as well as a sign with the admission price of 6d. and a further sign explaining that the gaol was 'OPEN UNTIL AFTER MAY FAIR 2.0 TO 9.0 PM'.[107] The *Hereford Times* further reported that demolition of the gaol began the day after the May Fair.[108] One of the gaol keys is held in the Herefordshire Museum Service collections, given by a donor whose mother toured the gaol as a child (presumably at this open event in 1930) and took the key home as a memento.[109]



Figure 4. The Old Gaol, opened during the 1930 May Fair. (Herefordshire History Li1407)

The same question of moving the fair from the streets arose again in 1937. *The World's Fair*, a UK publication for the travelling-fairground industry, reported that councillors had voted on a report from the Market and Fairs Committee which stated that the South Wales section of the Showmen's Guild thought the fair was 'more satisfactory when being held in the streets than in the Edgar Street Car Park'.[110] Some discussion ensued as Councillor Franklin reminded the

council that when the Chamber of Commerce had asked those traders who had the fair in front of their premises about moving the fair, there was a two-thirds majority in favour of the fair being moved out of the streets. He thus moved an amendment that negotiations should be begun to hold the 1938 May Fair in the car park instead. However, Alderman Langford said that 'the Council had done nothing but wobble at the question'.[111] He explained that the car park was used by over five hundred vehicles every Wednesday and that the removal of those vehicles would be strenuously opposed by the Markets and Fairs Committee. He went on to say that 'In his view there was no alternative under present conditions if the fair was not held in the streets, [but] to abolish it altogether, and that would mean an Order of the Home Office'.[112] When finally put to the vote, the original report from the Markets and Fairs Committee was adopted by seventeen votes to two, so that the 1938 fair remained in the streets as it is to this day.

At this time, despite all the controversies and disagreements, some of the pleasure rides could exhibit great period charm. Plate 2.9, a beautiful and atmospheric watercolour dating to 1939, seems almost to represent a world which the Second World War would sweep away.

This anniversary year, 2021, and last year, were notable for many in that the fair was cancelled due to the pandemic, a situation which caused some to say that it was the first time in its history that the fair had been cancelled, a statement which was patently untrue. Common sense tells us that it is unlikely that the fair went ahead for example during the period of the civil war, or during the time of the plague outbreaks across the country, even if we do not have documentary evidence to confirm this directly. We do have records, however, that tell us that the pleasure fair was cancelled in 1896 due to an outbreak of smallpox at Gloucester[113] and then again during both world wars. An article in the *Hereford Times* in 1919 talks of it being 'a novel experience after four years of prohibition of unshaded lamps to see the brilliant electric lights, and in one way it was a relief to hear the brazen voiced organs again'.[114]

In the Second World War, the Markets Committee discussed a letter from the Ministry of Home Security with the conclusion that any pleasure fairs had to close at lighting up time 'in order to avoid infringements of the Lighting (Restrictions) Order 1939'.[115] They needn't have worried—further committee meeting reports and an article in the *Hereford Times* report that there was no fair in 1940, but, as the *Hereford Times* explained, its absence that year wasn't 'directly due to the war'.[116] In fact the Showmen's Guild had offered a rent of £350 for a reduced wartime festival, which was to be held in the Edgar Street car park, but the council had turned down their offer.[117] Instead, there was only one stall in High Town on Wednesday 8 May, the usual date of the fair, 'in order that the Charter Rights of the Corporation might be safeguarded', a situation that seems to have also occurred in 1941 when the Showmen's Guild had not offered a fair at all and the committee decided upon 'the erection of one small booth in the High Town …to preserve the Fair rights of the streets'.[118] I have not found any other reference to these charter or fair rights in this respect, nor is there anything in the 19th-century Acts of Parliament which implies that the fair had to be held each year to keep it from falling into abeyance, so these assertions are rather a mystery.

The annual payment of compensation to the bishop was commuted in 1971,[119] though the re-enactment of handing over the bushels of wheat continues as part of the traditional opening ceremony in which the bishop says to the mayor: "Before you declare and proclaim this fair…our records say that you must pay me for the rights of this fair 12 ½ bushel measures of the best wheat". To which the mayor replies: "my dear bishop. We acknowledge the debt. Our ancient quarrels are forgotten and I will ask the Chairman of Herefordshire Council to hand you the measure of best wheat".[120]

Also in 1971, just months after the change to decimal coinage, the suggested prices for the rides at the fair were reported and approved at the meeting of the city council on 1 April. The prices were: up to 7pm, 5p. per person; after 7pm, children 5p. and adults a maximum of 10p.[121] At the same meeting, permission was denied for the showmen to give goldfish as prizes.[122] Later that year, it was agreed that for 1972 the fair would expand into Bridge Street, using the west side only, with the east side having one way north-to-south traffic. Therefore in 1972 the fair was to be held in Bridge Street, King Street, Broad Street, High Town and Commercial Street.[123] For the 1973 fair, the Markets Committee discussed whether the High Town pedestrian precinct should be made available for the fair and consequently they received two tenders from the Showmen's Guild: one made on the assumption that the High Town area would be available, the other, that it would not. The resolution was that High Town could be used 'for siting heavy machinery and equipment', but later that year when they were inviting tenders for the 1974 fair, 'only 'light' amusements or stalls' were to be permitted in the High Town precinct.[124]

There had also been some discussion about the safety of rides in meetings in 1972, with an oblique reference to 'an incident at Battersea' that year.[125] Councillors had been assured that the Showmen's Guild machines were regularly inspected, and certificates of fitness produced, but a report into their rights and liabilities advised them to ensure that the successful tenderer had public liability insurance.[126] In 1981 they published a set of byelaws relating specifically to the pleasure fair, which were for the regulation of:

> the hours during which the pleasure fairs may be open to the public; for the securing of safe and adequate means of ingress to and egress from pleasure fairs; for the prevention and suppression of nuisances and for the preservation of sanitary conditions, cleanliness, order and public safety at pleasure fairs; for the prevention of outbreaks of fire which might endanger stands, stalls or other structures, including caravans used or intended for use as sleeping accommodation.[127]

The byelaws ended by stating 'Any person offending against any of the foregoing byelaws shall be liable on summary conviction to a fine not exceeding £200'.[128]

1985 saw another Act of Parliament which included reference to the fair. The Hereford City Council Act confirmed that the city council held the jurisdiction of the fair and the right to 'maintain...the May Fair…as they think proper' and added the detail that 'the May Fair shall not be held on Sunday, or any public holiday', again confirming the dates of the fair as being 'the now accustomed days, that is to say, on the Tuesday after the first Monday in May and on the next two days in each year'.[129] This represents a change from dates set previously; the third Wednesday in May set in 1861[130] and, from 1867, the 'first Wednesday and Thursday after the second day of May'.[131]

In slightly more recent times, there has been further controversy about the role of the church in the fair. In 1986, following a request from Bishop Eastaugh, the cathedral chapter agreed to have Mr Abe Morris's fairground ride, the *Trabant* or *Satellite*, in the close at the west end of the cathedral, but the chapter act book records that they received a lot of criticism for this.[132] Over the next few years, the chapter act books record that they then refused a number of further requests, including from the mayor, to have a 'fairground machine' in the close.[133] Finally, after vehemently refusing any fairground rides in the Close for seven years, in 1994 the chapter act books record approval, without any explanation for their change of heart, for a 'Victorian-style carousel only' to be sited in the close but make it clear that permission was for one year

only.[134] The one-year rule wasn't kept to though as the next reference in 1998 agreed that Gallopers might be in the close 'as before'.[135] This was agreed again in 1999, with the proviso that 'permission was not to be taken as a precedent'. It was also stated that 'the erection of railings would alter the situation'. This is presumably a reference to the Close Project, whereby railings were added to delineate the close, thus making the area inaccessible for a large fairground ride.[136]

CONCLUSION

It will be seen that, in the nine centuries since the granting of the charter for the May Fair, the nature of the fair, its duration, and its significance for the people of Hereford have been subject to many changes, a reflection of social, economic and political change over that long history. There have nonetheless been a number of recurring themes: the frustrations of the city traders at the disruption to their trade during the fair; the desire to move the fair out of the city-centre streets; the behaviour of the fair-goers; and disputes between the church and the city authorities over rights and jurisdictions, summed up by Canon Capes in his introduction to the printed Register of Thomas Cantilupe: 'the exclusive privileges of the Bishop's Fair, were in Hereford, as were the like elsewhere, a constant source of irritation to the trading classes of the town. …[and] the natural resentment of the town's folk found expression at this time'.[137] Today, those who live in Hereford may not identify themselves as King's Men or Bishop's Men, based on the area of the city in which they live; those distinctions are long gone. Nonetheless, there is still a sharp divide between those who enjoy the May Fair and all that it brings and those who view it less favourably. Whatever your view, there is no denying that in the previous nine centuries the May Fair has enjoyed a fascinating history, and, as the lone survivor of what were once six annual fairs in Hereford, it deserves its place in our calendar.

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Alfred Watkins and the Woolhope Club, 1888-1921: Antiquarianism before *Early British Trackways* (1922)

BY DAVID WHITEHEAD

The following text was prepared for the Watkins centenary exhibition in the Summer/Autumn of 2021, which was held in the City Museum and Art Gallery, Broad Street, Hereford. The text was far too long for the purposes of the exhibition and considerably curtailed for the four storyboards displayed in the Woolhope Club Library. The tale of Watkins's long association with the Woolhope Club has already been told by Ron Shoesmith in his two excellent biographies of Watkins.[1] *The present writer's more modest objective was to examine his appearances in the Club's Transactions and try and pick out some themes in the development of his antiquarianism and, perhaps, any underlying tendencies, which were ultimately to be displayed in his popular writings after 1922.*

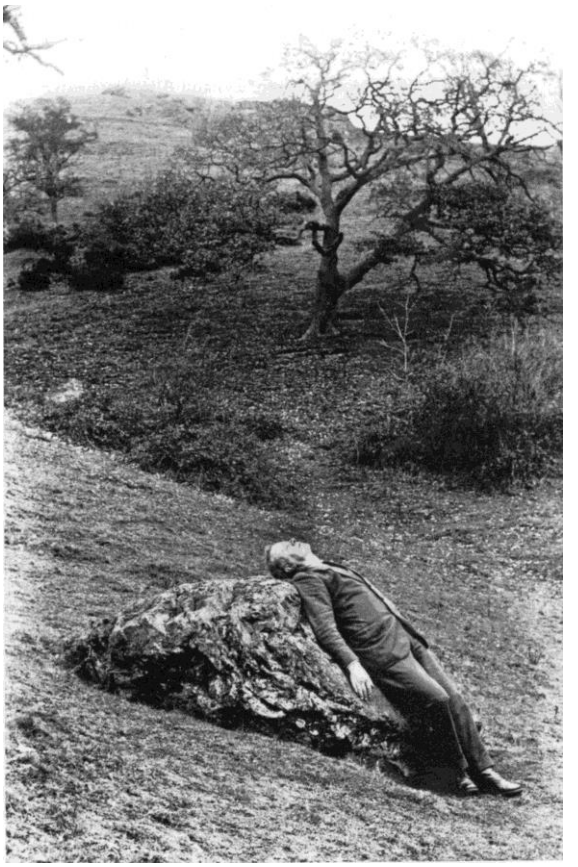
The Woolhope Club had been founded in 1851 as a 'field club'—an active, investigative, learned society. Its principal interests were geology and natural history. Using the expanding railway system and horse-drawn carriages the Club managed to reach the remotest corners of the county in pursuit of its interests. Watkins was officially welcomed as a member of the Club on 24 May 1888 on a visit to Old Radnor. This was a typical early visit for the Club, with a strong emphasis upon geology. As was the usual practice, after visiting two quarries in the morning, the members gathered above Stanner Rocks, two miles north-west of Kington, for a business meeting, at the end of which four new members were elected including Alfred Watkins.[2]

However, it was not until the first field meeting in the following year, on 18 June, that we find Watkins and his wife Marion present. It was Ladies' Day when the all-male Club invited their womenfolk to attend. These occasions were generally less rugged with shorter walks, less geology and an emphasis upon landscape, history and flora. Ladies' days were very popular and Marion, from the Home Counties, had recently arrived in Hereford, marrying Watkins in 1886. Thus, it may have been Marion's influence that persuaded Watkins to join the Club. His failure to attend any meetings until the first Ladies' Day is suggestive.



Figure 1. The Woolhope Club—and ladies—at the Light Spout Waterfall on the Long Mynd, Shropshire, July 1895

That Ladies' Day included visits to two veteran oaks at Newland; a tour of St Briavel's Castle and Church and an exploration of the scowles in the area, hollows where worked-out iron-working sites were observed. With less serious geology and botany this may have been a more attractive day for Watkins and his wife. Marion attended other Ladies' Days including a day at Church Stretton in July 1894 which involved a scramble up to the Long Mynd to see the Light Spout Waterfall, where the company took a break and were photographed, perhaps by Watkins, albeit not credited in the *Transactions*. Marion is presumably in this photograph (Figure 1).[3]



Watkins, without his wife, was present at the fourth field meeting in August 1889, which visited the Malvern Hills. It was well attended since the Club joined forces with the Malvern Field Club. The day included a visit to the British Camp and, on its slopes, the 'Sacrificial Stone', which later figured in one of Alfred's most famous photographs (Figure 2). There was also a serious aspect to the meeting, which would have struck the right chord for Watkins. The Society of Antiquaries in London was urging local field clubs to be more vigilant in protecting ancient monuments. The message was brought by the veteran Woolhopian, Thomas Blashill, a London architect and early member of the Club, who shared Alfred's views on the protection of ancient sites and buildings.[4]

Figure 2. A re-enactment at the British Camp on the 'Sacrificial Stone' found on the western slopes, 1924. The 'victim' is presumably Watkins's colleague, Mr A. H. Mackay. (HARC, Watkins Collection)

The Club's *Transactions* at this time were poorly illustrated and Henry Graves Bull (1818-85) had tried to persuade the Club to illustrate articles with photographs. Subsequently, in 1889, his widow presented the Club with his photographic collection but the *Transactions* for 1886-9 contained only one photograph; a rather lonely image of the Bacton chalice and paten. The only relief from endless text were the plans of ancient monuments provided by the stone carver, Robert Clarke, which were charming but naïve.[5] However, all this was to change with the publication of Watkins's first paper, printed in the *Transactions* for 1890-92. On the evening of the 10 April 1890, following the retiring President's address, 'Mr Alfred Watkins by means of the oxy-hydrogen lantern produced upon the screen a series of photographs, the results of many

years' observations, representing the pigeon houses of Herefordshire' (Plate 3.1). Sadly, only twenty members of the Club were present for this landmark occasion. Two of his photographs of recently demolished pigeon houses, at Putson, near Hereford, and Wigmore Grange, were published as frontispieces of the 1890-92 *Transactions* accompanied by eleven further examples, converted into drawings for the *English Illustrated Magazine* published by Macmillan & Co. As the editor of the *Transactions* noticed, the long list of lost pigeon houses recorded in the appendix to the talk were 'evidence of careful observation in [Watkins's] travels over the county'. He had, it seemed, made good use of his tedious chores, delivering his father's ales to remote hostelries. A similar article was also published in the *Transactions of the Birmingham and Midland Institute*—later the Birmingham Archaeological Society—in 1893-4.[6]

Watkins's paper on pigeon houses was an object lesson for the Club; not only in the need for illustrated articles but also the urgent need to systematically record the minor antiquities of Herefordshire, which many Woolhope members took for granted. Watkins made two more appearances in the *Transactions* for 1890-92. One of these was on a fungus foray in south-west Herefordshire in October 1891, which would appear to be the sort of event Watkins would avoid, but it marked another occasion when Thomas Blashill was in attendance and was booked to give a paper on Rowlstone Church and its Romanesque sculpture. Blashill, an architect, was an authority on what became known as the Herefordshire School and had recently given the same paper to the British Association when it held its itinerant conference in Hereford. Watkins had presumably missed this. The Rowlstone meeting was also the occasion when the prospectus for a projected archaeological map of Herefordshire was launched and Watkins was the one local antiquarian who could do this justice, as it required an encyclopaedic knowledge of the county. He probably hoped to be involved.[7]



Figure 3. The Eastwood Oak, on the road to Ledbury, to the east of Tarrington, 1897. (HARC, Watkins Collection)

Nevertheless, Watkins's attendance at meetings remained irregular. We catch a glimpse of him in August 1892 when he was found on a special train, which delivered the energetic members of the Club to Torpantau for a walk along the Brecon Beacons. Marion also joined him on a Ladies' Day in April 1893, which explored the cascade at Water-break-its-neck at New Radnor, and then on a trip to Ashperton and Stretton Grandison, which was very much a meeting for the growing number of antiquarian enthusiasts joining the Club. At this meeting his name was announced as a member of the Club's Central Committee.[8]

Notwithstanding that he was now an official of the Club, Watkins's business concerns and the Hereford Photographic Society (founded 1895), as well as his domestic life, made heavy demands upon his time; hence we only get an occasional glimpse of him in Woolhope circles between 1895 and 1900. Slowly, photographs appear in the *Transactions* but none are attributed to Watkins until 1899, a volume copiously illustrated by a variety of photographers, including Watkins. He joins in the recording of 'remarkable trees' including an image of the Eastwood Oak, near Tarrington (Figure 3 above) which is attributed to him, but the text speaks of the revered officer, Cecil Moore, as the author. An errata slip was hurriedly inserted into the bound volume for 1898-9.[9] However, Watkins's skills were required in 1897 when an academic speaker from Sheffield University came armed with lantern slides of marine animals. Watkins provided and managed the projector.[10] Later in the year he put the cat among the pigeons when it was noted that he had protested at the delay of two or three years between each issue of the *Transactions* and insisted that the annual *Transactions* should appear as soon as possible after the year ended. The publications committee was asked to respond to this, and, in February 1898, it reported that it could not 'see its way to adopting Mr Watkins's proposal'. However, in the index of contributors to papers, Watkins is added for 'Various photographs'.[11] After nine years as a member he was beginning to make his mark.

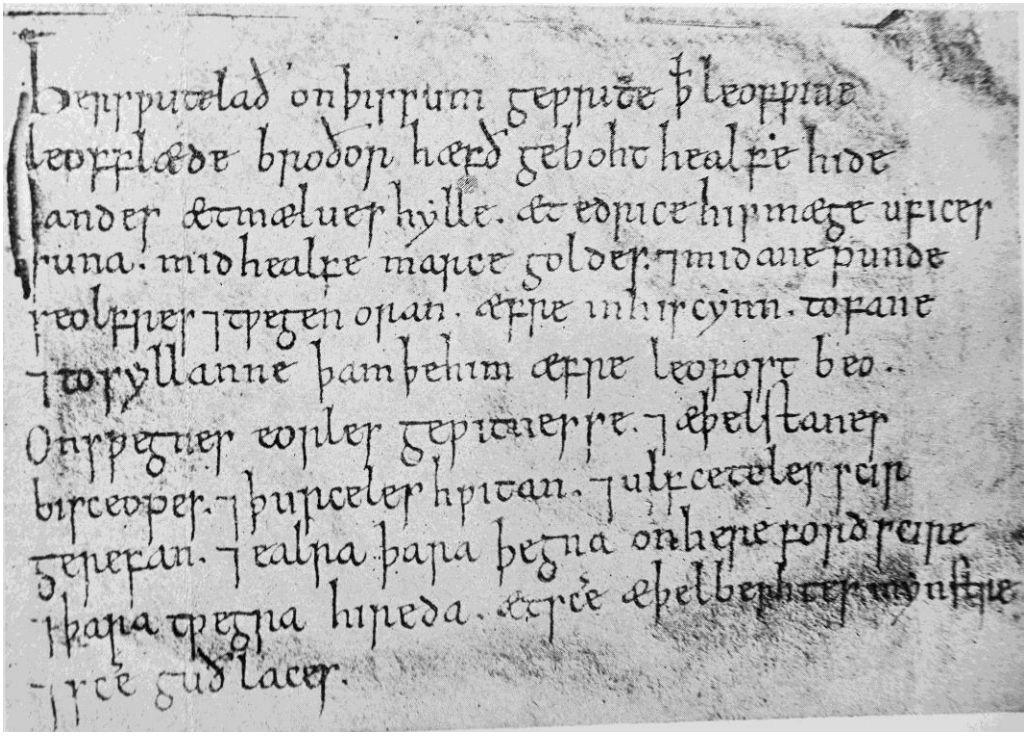


Figure 4. An example of Watkins's archive photography. Part of a document recording the transactions at a shire court held on Aylestone Hill in the reign of King Cnut, *c.*1016-35. (*Transactions* (1908) facing p. 109)

From *c.*1900 Watkins's photographs become ubiquitous in the *Transactions*, although occasionally the editor favoured other photographers: for example, Robert Clarke seems to have abandoned his sketch plans for the camera and on a trip to Richard's Castle in 1902 two virtually identical photographs of the church are reproduced side by side as plates—one by him, the other by Watkins. However, Watkins's versatility was frequently on display: for example, with a collection of very sharp photographs of medieval documents from Hereford Cathedral, taken by him to illustrate a talk by the Dean.[12] Among the documents reproduced was a note added to a 9th-century gospel book on a decision made by a shire court, held at Aegelnoth's Stone, presumably Aylestone Hill, in the reign of Cnut, and the Bromyard charter of *c.*840, both of which are relatively easy to read on Watkins's images (Figure 4 above).

Equally impressive for the time are the brightly lit interior features such as the Romanesque door knocker at Dormington and the cast-iron fireback at Whitchurch. More surprising are the misty panoramic views taken on the outing to Richard's Castle, the castle itself sitting in a broad setting and the all-embracing vista looking down the Mary Knoll Dingle, which would later, no doubt, make a 'ley' hunter's heart miss a beat.[13]

In the first two decades of the 20th century Watkins's photographs dominated the Woolhope *Transactions*, indicating his comprehensive knowledge of the nooks and crannies of Herefordshire. His images were taken at the height of the agricultural depression, making Hereford look verdant and picturesque, although in reality it was depopulated and impoverished. During this era the Club was also going through a time of transition. Apart from Thomas Blashill the first generation of active Woolhopians had passed on; membership was declining, as was attendance at lectures and field days, albeit Ladies' Days remained popular.[14]

The interests of the Club were also changing. The allurements of geology and natural history were still strong but the large numbers of clergymen members were keen to make the history of their churches the focus of field days, thus generating interest in architectural history. Parallel with this there was also a growing interest in landscape history and, in particular, exploring linear features like Roman roads and earthworks such as dykes. The new Ordnance Survey maps enabled the region to be studied as a whole and their surveyors, by identifying different classes of ancient monuments such as mottes, moats, tumuli etc., added grist to the mill for local antiquarians trying to impose order on the English landscape (Plate 3.2). Of particular interest for certain prominent Woolhopians were the incomplete Roman roads and dykes found on the surveys. The doyen of linear studies in this era was George James Wood, a geologist, who was very keen to complete the alignment of Offa's Dyke across lowland Herefordshire. Indeed, he claimed in 1902 to have found traces of the Dyke close to Watkins's house, Vineyard Croft, in Hampton Park Road.[15]

In 1904 Watkins entered the discussion with a paper on 'Offa's Dyke: the Gap in the Weobley District'. This was based upon some thorough fieldwork, which enabled him to add a short stretch of bank in Yazor Wood to the Dyke previously recorded on the Ordnance Survey plan. But the gap remained unexplained, notwithstanding his thorough investigation. His article stimulated contributions from two 'experts', Cecil Moore and, of course, George Wood. The latter, with a firm grasp of Welsh antiquarian sources, wished to flag up the defensive character of the Dyke, which Watkins was reluctant to support from his fieldwork.[16] One feature of this ongoing discussion was the cavalier use of place names before the emergence of the scholarly English Place-Name Society. However, all three men, with Offa's Dyke in mind, were seeking rational explanations for random landscape features, which, it seems to this writer, was only a short journey from *The Old Straight Track.*

There was another research tool, which was being developed in this era. This was informal archaeology, epitomised by the comprehensive clearance of the site of Craswall Priory by Club member, C. J. Lilwall of Cusop. Watkins visited the site with the Club in June 1904 and produced a comprehensive photographic record of the results. Although it is never explicitly recorded in the *Transactions*, there was a sense of shock among the visitors at the extent of the excavation, and the Club proceeded, but with little success, to launch a public appeal to raise money to preserve what they saw.[17] Lilwall's enthusiasm 'for digging-over' ancient monuments was shared by other amateurs. In 1908 Watkins reported on a dovecote found in the ruins of Llanthony Abbey, which had been discovered during informal excavations the previous year (Figure 5). Two years later the Club visited the Roman fort at Brecon Gaer and the tenant farmer, Mr Jones, obliged the inquisitive Club with some instant archaeology and dug out the south gate in front of them. Apparently, Mr Jones had only recently 'become quite enthusiastic about archaeology'.[18] A few years later in 1912 Kenchester was extensively dug by G. H. Jack, the City Surveyor and Engineer of Hereford—well qualified it may have seemed at the time—and, in the report published in 1916, Watkins was thanked for his 'excellent photographic record'. We might speculate that archaeology reinforced Watkins's view that, beneath the apparently *ad hoc* arrangements of the early 20th-century countryside, there were secrets that were awaiting discovery and classification, thus unlocking a more joined-up approach to history.[19]

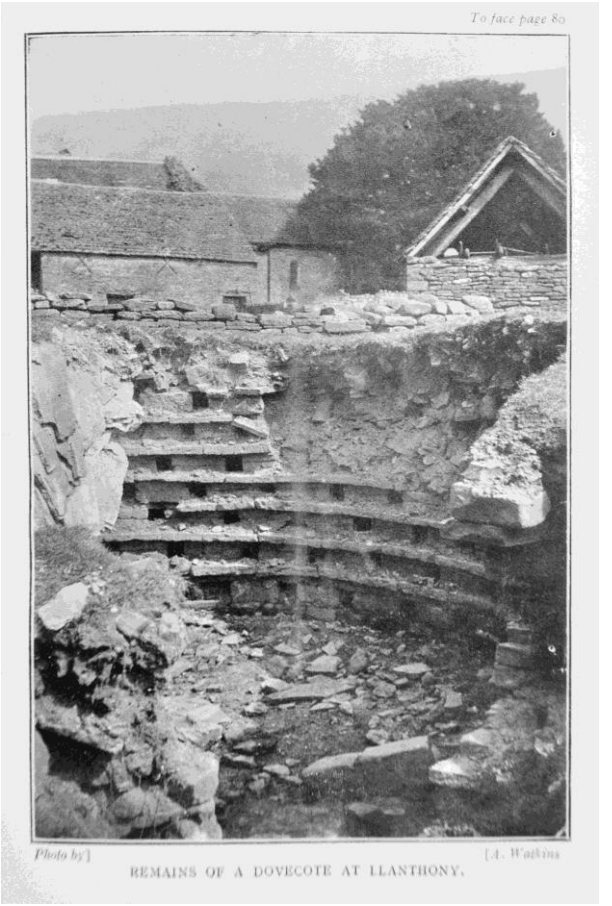


Figure 5. In October 1907 the landlord of the Llanthony Inn began excavating 'a heap of building stones and found the remains of a dovecote'. (HARC, Watkins Collection. Also *Transactions* (1908) facing p. 80)

Whilst Kenchester was being excavated, Watkins was pursuing his own archaeological investigations on the western slopes of Eign Hill, not far from his house at Vineyard Croft. The name 'Scots' Hole', for a deep declivity above The Steppes (later the Salmon Inn), attracted regular attention. A passage and an archway were reported in the local paper in 1844. This had been reinforced when the new Hampton Park Road was made in *c.*1860. Other reports came in

1869 and 1891. The popular view was that this was an underground passage used by the monks of St Guthlac in Commercial Road (Bye Street) to access their vineyard on the slopes above. Monks, of course, did not want to advertise their appetite for wine! A conjectural route had even been marked on a map. Watkins was convinced that something was going on and carefully assessed the folk history and the site. He concluded that what was being observed were natural cavities in the glacial drifts laid on Eign Hill during the Ice Age (Plate 3.3). He persuaded the City Surveyor, on a day off from Kenchester, to examine the site and he supported Watkins's suggestion. Watkins realised that, although it was natural, like many features in the landscape, Eign Hill/Scots' Hole was bound to have impinged itself on the consciousness of early man, thus giving rise to the folk history that survived until his time.[20]

When the First World War broke out in September 1914 Watkins was approaching sixty years old. He was now one of the vice-presidents of the Club and on its editorial committee. The future of the Club was in doubt as many members failed to renew their subscriptions and attendance at field meetings had dropped considerably. However, a small core of elderly members kept the Club ticking over and in 1918 a relatively slim volume of *Transactions* was published for 1914-17. Watkins's photographs were ubiquitous throughout the volume and he produced an occasional article, e.g., on the chapel at Wisteston, Marden, where he had lived briefly as a teenager.[21]

It was clear that he was trying to order his antiquarian endeavours and, in December 1915, following the example of his earlier paper on pigeon houses, he announced that he was conducting a 'barge board survey' and appealed to members for interesting examples. Now on the editorial committee of the Club, Watkins was perhaps conscious of the shortage of new papers. However, we hear no more of this, but after a field day in the Golden Valley in July 1916 the members gathered at the Red Lion in Madley and he read a paper on the churchyard crosses of Herefordshire, which featured the story of the Madley cross. Its head had been carved with a scene of the crucifixion, which had been removed and buried in the churchyard to avoid Reformation iconoclasts. Much later it was rediscovered, spent some time on a rock garden in the city of Hereford, and had other adventures before it was placed back on its original shaft in Madley churchyard.[22]

In the following year Watkins gave a short talk on 17th-century Herefordshire pottery, having been invited to examine a kiln site in a wood above Whitney-on-Wye. This was the beginning of another enthusiasm that lasted for the rest of his life.[23] For his next exercise in classification he returned to medieval crosses, this time those found outside churchyards at crossroads or by the wayside. He delivered his paper to the Club in June 1917 at the Radnorshire Arms in Presteigne. In his conclusion, reflecting upon the many crosses that had disappeared but were memorialised in place names and pub signs, he gave special meaning to his recent antiquarianism, reflecting on a recruiting meeting he had attended in 1914 at the Golden Cross in Sutton St Nicholas. At this meeting young men were persuaded to join the Herefordshire Regiment and found themselves, like their ancestors on the First Crusade who would also have gathered at the Golden Cross, fighting against the Turks to regain the 'City of the Cross', Jerusalem (Plate 3.4). In the appendix to this paper Watkins appended a long list of local place names indicating the presence, in the past, of standing crosses. They were soon to play a significant part in establishing 'sighting points' on 'ley lines'.[24]

Watkins had spent his whole life living in Hereford and must have been conscious that, although the Club had become preoccupied with antiquarianism, it had ignored the City of Hereford. In 1919 he was President of the Club and set out to put this right with a walk in

September 1919 dedicated to tracing its medieval walls, an event which spawned several other papers on the antiquities of the city. One of these, first a walk and subsequently a paper, highlighted the 'timber halls' of the city. This had been prompted by the near demolition of an exceptional building, hidden behind later encroachments, at the eastern end of High Town, which Watkins demonstrated was the late medieval 'booth-hall'. A file of letters, still preserved by the Society for the Protection of Ancient Buildings in London, demonstrates Watkins's heroic endeavours to save the building, for which he recruited a team of eminent local architects to carry out the restoration free of charge.[25] Rather fittingly, his last talk as president, which he shared with George Marshall, was entitled the 'Preservation of Ancient Cottages'.[26] During 1920 Watkins continued to promote the city of Hereford, leading a walk in September which investigated the hidden gems of Widemarsh Street, ending at the Blackfriars. He also wrote a pioneering archaeological paper on the 'King's Ditch', a lost but persistent topographical feature, a few yards from the west end of the cathedral.[27] The year ended with Watkins's 'Sectional Report' on archaeology, which heralded some new thinking. He drew attention to the 'twt' (tump) on the golf course at Holmer, which, he surmised, had been a watchtower on an ancient roadway.[28] The speculations here epitomised the language of *Early British Trackways, Moats, Mounds, Camps and Sites* (1922). His moment of revelation, according to Watkins, came the following year on 20 June 1921, when, on a visit to Blackwardine, near Leominster, he noticed an 'alignment', beginning with Croft Ambrey hillfort, passing through the Roman site where he was standing, and, according to the Ordnance Survey map, continuing through Stretton Grandison, another Roman site. He quickly found that other sightings from high points 'to my amazement pass(ed) over and over again, through the same class of objects'.[29] Three months later, by design or accident, the Club, without Watkins, was also at Blackwardine, where, aided by some local labourers, several members carried out an informal excavation in a 'root field' under the guidance of G.H. Jack, the civil engineer/archaeologist.

Watkins's ideas developed very rapidly and, within three months, on 29 September 1921, a special meeting of the Club was called where he presented his revelations. It began at 2.00 pm and was attended by forty-three members who gathered at Holmer, under the guidance of Mr W. M. McKaig (the manager of the Watkins Meter Company). This was close to Watkins's childhood home at Holmer Hall (Plates 3.5 and 3.6)**.** Here the members were introduced to 'early British Trackways, sighting ponds, and paved causeways' scattered across some unprepossessing countryside to the south and east of Holmer Church. With hardly a pause, in late afternoon they were back in the Woolhope Room for Mr Watkins's talk. Only a brief précis was provided in the *Transactions* since a footnote informed the reader that 'Mr Watkins has elaborated his thesis in a book', which was to be published in the following year, price 4s. 6d. The account in the *Transactions* reads like a solemn declaration of a new religion. Fittingly, there seem to have been no questions from the audience and the chairman, no doubt bowled over by what he had heard, thanked the speaker with *non sequiturs*, hoping the audience would 'use their eyes…and study the subject upon which Mr Watkins had spoken'.[30] In these disciplined and formal circumstances a revolutionary movement had been born!

The impact of Watkins's talk upon the Club is difficult to measure. He continued to serve the Club on its central committee and its editorial committee. His photographs were regularly used as illustrations albeit photography was being taken up by other amateurs including the Hon. Secretary, George Marshall, who became President in 1922 and remained the lynchpin of the Club until his death in 1950. Marshall was a prolific and orthodox antiquarian, well versed in the new discipline of ecclesiology.[31] He seems to have collaborated with Watkins, apparently without

any disagreements, even sharing some of the older man's enthusiasms, e.g., dovecotes. Watkins presumably encouraged his professional colleague, Mr A. H. Mackay, to join the Woolhope Committee, and evidence for his energy and management skills is evident in the *Transactions*, especially on field days. Watkins continued to put together the annual archaeology reports providing useful vignettes on historic buildings, sightings of Hereford's town wall and investigations of miscellaneous earthworks.

He clearly had his eye open for potential trackways. Excavations for utilities in and around the city led to several discoveries, suggesting that Watkins had the ear of the City Surveyor. A hole at Hunderton in 1922 produced a section of a gravel path, which Watkins quickly placed in a 'ley' sighted on Pen-y-Cader but starting at Castle Hill, Hereford. Other trackways were discovered in 1923. One was found in St Martin's Avenue, on the footpath approaching the Victoria Bridge, which he claimed was orientated on the lower ford across the Wye at Hereford and conveniently passed through a standing stone adjoining the outbuildings of Bartonsham Farm, over the river.[32] It seems that the fame of *Early British Trackways* stimulated reports from other members of the Club, for which Watkins was happy to find sightlines. These signs of public enthusiasm presumably made it difficult for any sceptics on the central committee of the Club to express doubts. This probably persuaded the new President in 1923, George Marshall, to devote his presidential address to promoting active archaeology among Club members, urging them, among other recommendations, to study roads and trackways. He chose two potential sites: the first running on the crest of the hills between the Wye and the Golden Valley and, secondly, the Stockton Ride, near Leominster, running from Risbury to Ashton Camp. Even the main road from Hereford to Ledbury started life, he speculated, as an 'ancient ridgeway'.[33] It seems that the Hon. President, a Fellow of the Society of Antiquaries, had joined the Old Straight Track Club! However, there may have been some dissenting voices, for during a discussion in October 1922 (published in 1924) on the recent excavations at Ariconium, near Ross-on-Wye, Watkins intervened and raised the issue of communications, which was noted in the *Transactions* report with a touch of sarcasm: 'Mr Watkins brought his favourite theory of ancient trackways to bear on the theme'.[34]

There were other occasions when Watkins abruptly introduced his unorthodox enthusiasms into the Club's conventional antiquarian agenda. At the winter AGM later in 1922 the President outlined the proceedings of a week spent in Hull as delegate to the British Association for the Advancement of Science. This was followed by a wide-ranging forum on miscellaneous antiquarian matters including the perennial problem of a use for the funds raised for the continuation of Duncumb's *History of Herefordshire*, the possibility of a future paper on the Dorset Oolite, which was vetoed by the President, and talks on the Cistercians and the perry pear, which were welcomed. Out of the blue Watkins contributed a macabre speculation about human sacrifice on the Malvern Hills. He had noticed that the rays of the midsummer sun at 6.00 am precisely fell on the throat of a sacrificial victim, prostrate on the Slaughter Stone. He provided the famous photograph with Mr Mackay—in modern dress—playing the role of the victim. Reading the *Transactions* suggests that this revelation was received in silence and that the discussion moved on to the stuffed birds required for completing a display in the Museum.[35] It seems that the central committee of the Club were happy to give Watkins an opportunity to air his views and even to record them in the *Transactions*, but they took them with a pinch of salt. As the contents of the *Transactions* from 1924 to 1935 indicate, there were some very good pieces of conventional research, in archaeology and local history, still to come from Watkins. In 1935 George Marshall wrote a long and generous obituary for Watkins in the *Transactions*,

briefly mentioning his 'later years' when he took up the study of ancient trackways, for which 'the arguments he brought forward in support of these did not always commend themselves to the more sceptical archaeologist' albeit *The Old Straight Track* 'left behind much food for thought, and a wealth of illustrations which will be a source of pleasure and instruction for years to come'.

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[3] *TWNFC* (1889), p. 338; *TWNFC* (1894), opposite p. 222.
[4] *TWNFC (1889)*, pp. 376-37; for Blashill see Henry Connor & David Whitehead, 'Thomas Blashill junior (1830-1905): architect, antiquarian and prominent Woolhopian' in *TWNFC* 63 (2015), pp. 140-166.
[5] *TWNFC* (1889), p. 311 for the presentation of Dr Bull's photographic collection; for Clarke's sketches see *TWNFC* (1886) p. 60, *TWNFC* (1887) p. 120, etc. He had carved some of the figurative work on the Hereford Free Library, Broad Street c.1871: see Jean O'Donnell, 'The Hereford Free Library 1871-1912' in David Whitehead and John Eisel (eds.), *A Herefordshire Miscellany* (Lapridge, 2000), p. 131.
[6] *TWNFC* (1890), pp. 2, 9-22 plus six plates including a frontispiece; see also Shoesmith, *Watkins* (1992), pp. 89-92; *Trans. Birm. Midland Institute* 19 (1893-4), pp. 8-21.
[7] *TWNFC* (1891), 247-51; *TWNFC* 63 (2015), pp. 151-53, for Blashill's expertise.
[8] *TWNFC* (1892), pp. 349-53; *TWNFC* (1893), pp. 43-46; *TWNFC* (1894), prelims - list of officers.
[9] *TWNFC* (1898) has the photographs between pages 110-13.
[10] *TWNFC* (1897), p.301.
[11] *Ibid., p.* 304; *TWNFC* (1898), p. 1; *TWNFC* (1899), p.250.
[12] *TWNFC* (1901), pp. 107-122.
[13] *Ibid.*, between pp. 30-31, facing p. 22 and between pp. 164-65.
[14] *Ibid.*, p. 234. At the Winter AGM in 1901 there were only fifteen members present.
[15] *Ibid.*, pp. 123-51— there were a cluster of papers on Offa's Dyke and other linear earthworks. More speculations from George Wood were reported in *TWNFC* (1902), pp. 29-30.
[16] *TWNFC* (1904), pp. 230-54 with further Dyke papers, including Watkins's contribution, pp. 246-50.
[17] *Ibid*, (1904), pp. 267-79, 346-347.
[18] *TWNFC* (1908), pp. 80-1; *TWNFC* (1909), pp. 99-101.
[19] *TWNFC* (1912), pp. 1-5, 29-31; *TWNFC* (1913), pp. 93-95, 157-239.
[20] *TWNFC* (1912), pp. 26-30.
[21] *TWNFC* (1914), pp. 25-29.
[22] *TWNFC* (1916), pp. 114-119.
[23] *TWNFC* (1917), pp. 280-81.
[24] *Ibid.*, pp. 249-60.
[25] *TWNFC* (1919), pp. LXI-11, 159-172.
[26] *TWNFC* (1920), pp. LX1X-LXX.
[27] *Ibid.*, pp. 249-258.
[28] *Ibid.*, pp. 264. The site is (as at Sept. 2021) about to disappear beneath a housing estate.
[29] Alfred Watkins, *Early British Trackways, Moats, Mounds, Camps and Sites* (Hereford, Watkins Meter Co, 1922), p. 9.
[30] *TWNFC* (1921), XXXII -XXXIV.
[31] For a brief biography and tribute to Marshall see Frank Pexton 'George Marshall' in *TWNFC* (1991), pp. 18-23.
[32] *TWNFC* (1922), pp. 156-57; *TWNFC* (1923), pp. CXXVI, 174-77, 286-89.
[33] *TWNFC* (1923), pp. XCIX.
[34] *TWNFC* (1922), LXXXII.
[35] *Ibid*., LXXXIV-LXXXVII.

An Early Medieval Fortified Enclosure at Breinton, near Hereford: Exploratory Archaeological Investigations in 2018

by KEITH RAY & LIAM DELANEY
with a contribution on the ceramic and fired clay finds by Stephanie Ratkai

An appraisal of recent Lidar coverage of an area adjacent to the River Wye, two miles west of Hereford City, led to the discovery of a ditched enclosure concentric with, but larger than, the well-known 'camp' next to the parish church of St Michael at Breinton. This enclosure apparently pre-dates the building of the present church in the 12th century and was seemingly sited to overlook a fordable crossing point of the River Wye. An exploratory excavation in the grounds of Breinton House (where the enclosure ditch has been best preserved, in the principal garden terrace) took place in September 2018, under the direction of the co-authors of this article, to try to establish when the fortification had been built and had been in use. The clay-and-turf defensive bank of the enclosure was revealed in the single modest-scale trench excavated. Stones from what is interpreted as a collapsed stone facing to the bank were found where they had fallen onto the inner lip of the surrounding ditch. Among the debris accompanying the stonework were rough lumps of moulded clay and a sherd from a late Saxon pottery vessel. This article reports upon the excavation and includes a specialist report on the ceramics by Stephanie Ratkai; this supports the idea that the site had been in use during the late Saxon period, and that there was subsequent domestic occupation nearby during the medieval period. The key conclusion of the paper is that a feature of both local and national significance has been identified: a purpose-built Anglo-Saxon fort, in the sense of a carefully sited and deliberately constructed, small-scale, defended enclosure. The co-authors draw out the implications of this discovery for the way in which the Mercian-Welsh frontier was organised in the Hereford district, possibly from as early as the reign of King Offa of the Mercians (late 8th century), but more certainly from the late 9th century.

INTRODUCTION

'Breinton Springs' is a well-known location (and National Trust property, with its own visitor car park) adjacent to the north bank of the River Wye (flowing eastwards at this point) in Lower Breinton, approximately two miles (3.2km) to the west of Hereford. The spring itself is a natural spout situated at the junction between more resistant and more permeable red-sandstone rock only five metres above the mean winter level of the river. The bluffs overlooking the river here rise some 25 metres above the riverbank (at about 50m OD) to approximately 75m OD, so that there is a commanding prospect southwards (and, perhaps more importantly, up and down the river) from the upper edge of a steep south-facing bank descending to the river (see Figure 1, Breinton location plan). The much-restored medieval parish church of St Michael is situated on the bluff, above and to the north-east of the spring, at SO 47253955.

Although it is not specifically mentioned in the survey of 1086, Breinton is nonetheless thought to have been closely associated with the neighbouring hamlet of Warham, which is situated within the south-eastern extremity of present-day (and medieval) Breinton parish at SO

48623925 (Warham Court Farm Manor House). In the Domesday survey the relevant entry reads: 'In Werham 2 ½ hides which pay tax. 8 villagers with 4 ploughs. The value is and was 30s.'[1] There was a parish church in Breinton from at least late Norman times and it retains some contemporary fabric.[2] Breinton Manor (situated in Upper Breinton) potentially dates from the same period. Warham was held by 'the Church of Hereford' and its secular canons at the time of the revised Herefordshire Domesday *(c.*1160-70), and neighbouring (Stretton) Sugwas was apparently part of the same late Saxon holding belonging to the church.[3]

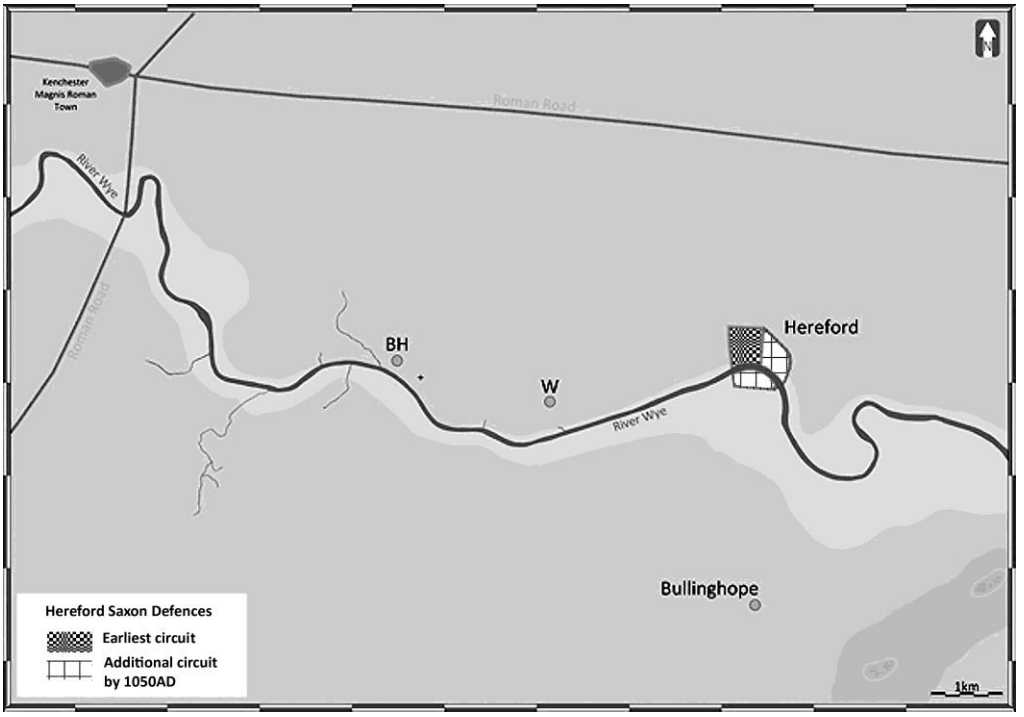

Figure 1. Breinton location plan. 'BH' shows the site of the excavation at Breinton House in 2018 and 'W' that of Warham Court Farm. 'Bullinghope' represents the site that has produced the earliest evidence so far (6th to 7th century) for Anglo-Saxon settlement locally. The lines are Roman roads. At Hereford, both the initial extent of the Anglo-Saxon walled area and the late Saxon defensive circuit are shown, the latter including the area south of the Wye that may only have been included in the mid-11th century. (Plan, Simon Mayes)

The origins of Anglo-Saxon Breinton have not been especially well illuminated either, through the published explanations of the place name. The attested versions *Bruntune* or *Breuntuna* (*c.* 1200AD), *Broyntun* (1242) and *Brahintone* (1252) have been assumed to have derived from *Bryning(a)tun* ('settlement of Bryni's people').[4] However, another listing of eleven versions of the name, as recorded between 1200/1219AD and 1377AD, involved the suggestion that the preferred DEPN version 'does not suit the spellings'.[5] An alternative 'very tentative suggestion' was therefore made that the derivation could have been topographically inspired. The 'Primitive

Welsh' word element *brez* was speculatively thought to have become translated into Old English *braeg*, and such a name might be treated as a weak noun, giving a genitive **Braegan*.[6] This would have produced a name that translated as something like 'settlement at a hill brow called *Braege*'. While the topography, featuring a high bluff overlooking the river, might seem appropriate to such a naming, there is nothing to distinguish the location concerned as particularly prominent, since practically all the riverside bluffs overlooking the north bank of the Wye in present-day Breinton parish fit such a description.

Meanwhile, examination of William Rees's map of *South Wales and the Border in the Fourteenth Century* reveals that, despite all these medieval references, another version again may once have been current.[7] Rees marked Breinton as 'Burgnton' or 'Burghton' on his map, which would place it in the 'Burton' category of place names. These are not, however, by any means representative of a fortified enclosure in every case, as is sometimes assumed.[8] Although Rees's sources are unknown, the Tithe Map of 1840 and a plan of 1783 also show names of this type—'Burford Close' for an area incorporating Breinton Camp and 'Burfields Close Orchard' for an area immediately adjacent to it. These examples are discussed further below, but the presence of these names, and now the structural evidence arising from the survey and excavation work described in this paper, create a strong argument that in this location the name once related either to a 'burh-settlement' or to a fortification associated with such a place: and this is a point that will be returned to towards the end of this article.

To the north-east of the spring there is a modest, quadrangular, earthwork enclosure with a ditch and embankment. This enclosure site has long been known as 'Breinton Camp'. Historic maps indicate that the virtually square, equal-sided enclosure had until relatively recently been surrounded on all four sides by a modest, dry (or at least only seasonally water-filled) moat.[9] Archaeological excavation in the early 1960s located a narrow stone-built enclosure wall with stone-founded buildings within it and an elaborate (if hardly defensible) stone-built towered gatehouse.[10] Abundant pottery found within this enclosure demonstrated that the building complex was occupied from at least the 12th century, but did not continue in use beyond the medieval period (see below).

The parish Tithe Map of 1840 (Figure 2 below) shows both the Church of St Michael and Breinton House, but the field systems (showing, principally, a series of orchards located to the west of the church) do not make direct reference to any wider enclosure feature. The 'Breinton Camp' tump is located somewhere within the parcel labelled 'Burford Close', while the church is shown on the margins of its own field.

The 1st Edition Ordnance Survey map (1885: 1:2,500 scale; Figure 3) clearly shows the earthworks of the camp, along with St Michael's Church and Breinton House. What was formerly shown as a north-south trackway had by this time become a steeply cut ravine leading down (southwards) to the River Wye. Further earthworks north of the 'Camp' are not shown, but today include, within the orchard adjacent to the school and vicarage, a major west-facing earthwork lynchet. Close to the corner of that feature there is a significant building platform that may once have been the site of the medieval vicarage (see below).[11]



Figure 2. Breinton Tithe Apportionment Survey map, 1840. This is an extract from the redrawn and annotated version by Geoff Gwatkin, from the collection held at the Herefordshire Historic Environment Record, Herefordshire Archive and Records Centre (HARC). The name 'Burford Close' can be seen to the left of the church and Church Field

A pictorial map was produced for land sales to the west of Hereford by John Haywood and was dated 1783. It is labelled 'A plan of the Freehold and Copyhold lands and also the Leasehold lands held under the Dean & Chapter and Custos and Vicars of the Cathedral Church of Hereford late in the possession of Richard Aubrey Esq.'[12] This plan represents the earliest record of several of the features of historic interest in the locality and is especially important here in showing the environs of the church and Lower Breinton before the more recent erosion had taken place. The relevant extract from Haywood's plan is included as Plate 4.1.

Several buildings that were present in the late 18th century (for instance in 'Upper Broad Close Orchard' at top left of Plate 4.1) have since disappeared. 'Camp' is written inside the then-complete quadrangular enclosure bank, and another building (a former barn) is shown attached beyond the ditch on the northern side: this is also no longer extant. The former lane down to the riverbank and the riverside meadows is shown, as is the former roadway leading eastwards from that lane to the parish church.

Perhaps the most significant named plot of land however is 'Burfields Close Orchard' since this again makes reference to—in a context up to a thousand years after the possible existence of a 'burh' (in the 'defended enclosure' sense) at Breinton—the former existence close-by of that very enclosure. Of interest also, in the version of the plan at the Herefordshire Archives and Records Centre, is an annotation in pencil in 'Lower Broad Close Orchard' of a roughly drawn rectangle indicating the projected site of what is now Breinton House, which was built soon afterwards, in the period 1800-1810.

Significant erosion has taken place since the creation of this map, with the edge of the scarp overlooking the River Wye from the north having regressed a considerable distance northwards. What is now a modern ravine was apparently the product of relatively recent downcutting of the trackway that originally provided access down to Breinton Springs and the riverside meadows.

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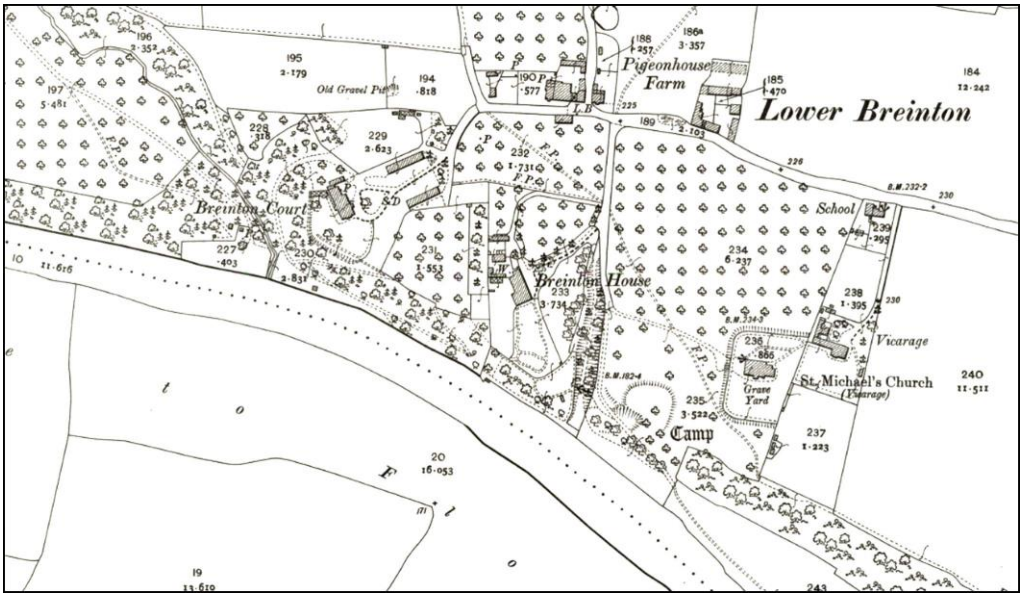

Figure 3. Extract from a scanned version of the Ordnance Survey 1:2500 First Edition (1885) map. (HARC)

TWENTIETH CENTURY EXCAVATIONS AT BREINTON CAMP

Two previous excavations have taken place at Breinton Camp, both focused on the 'Tump', by which has been meant the prominent, embanked, earthen enclosure and the continuous ditch

surrounding it, which latter feature now survives on the western, northern, and eastern sides only. The first investigation was undertaken by George Marshall in 1922 on behalf of the Woolhope Naturalists' Field Club and is described in a Field Meeting note of Tuesday 4 July 1922.[13]

The report reported the cutting of a trench in these terms:

> …a section through the vallum (had) disclosed that it was strengthened inside by two parallel stone walls 19 inches high. At two points of the ditch, he had reached the bottom at about 6 feet and 6 inches below the present level of the ground. A trench across the middle of the enclosure had yielded only ne gative results. From the fragments of pottery, consisting of coarse black Romano-British ware and coarse red ware with tough glaze mottled green found in the vallum and ditch at all points opened, and the absence of anything attributable to the Roman period, and the peculiar construction of the vallum, he was of the opinion that the entrenchment may be assigned to a Saxon date, and that it was an outlier of Credenhill to guard the line of the river.

The second investigation, conducted by F. G. Heys, was undertaken at weekends, intermittently from 1952 to 1962, on behalf of the Hereford Archaeological Research Group.[14] Despite its sporadic nature (a 'full week' of excavation took place in April 1961) Heys's investigation was conducted at a significantly larger scale than the work of 1922. The aim of the investigation was to date the structural remains on the Breinton Camp tump and five trenches were opened, with several 'cuttings' that were indicated on his site plan (Figure 5). It was nonetheless considered that the archaeological exploration of the site was still 'in its exploratory stage' when the project was abandoned due to the excavator moving away from the district.[15]

The internal dimensions of the 'central enclosure' were given by Heys as 120ft by 80ft (37.5m x 24m), a structure surrounded by a low perimeter bank and with a ditch on all sides except the south, where the ground fell away steeply to the riverbank, and where, erroneously, and despite the inclusion of a simplified part of Haywood's 1783 plan, which shows the ditch to the south (top left in Figure 4), Heys suggested that 'defensively it was unnecessary' there.[16] On the east side the ditch, originally 3ft 4in (1.02m) deep, was found to have been recut and was 6ft 3in (1.9m) deep and 17ft (5.2m) wide in its final form.[17] The excavator suggested that the site had been abandoned 'some time in the 13th century' due to partial collapse of the main building, and that it might later have been used as animal pens.[18]

Heys's reconstruction of the history of the site from available documentation arguably led to confusion rather than clarification concerning the identity either of the enclosure or the stone-founded buildings he recorded within it.[19] He began by distinguishing between earthwork terraces to the north-west of the churchyard (including, as noted above, a major lynchet and at least one level building platform, both of which remain clearly evident today) from the 'Breinton Camp tump' ditched feature, located on the highest part of the site directly above the river. The latter he interpreted (from his excavation discoveries as well as documentary references) as the location of the fortified house belonging to the Dean and Chapter of Hereford Cathedral and occupied by the Treasurer of the Cathedral as a summer residence between *c*.1150 and 1250AD.[20]

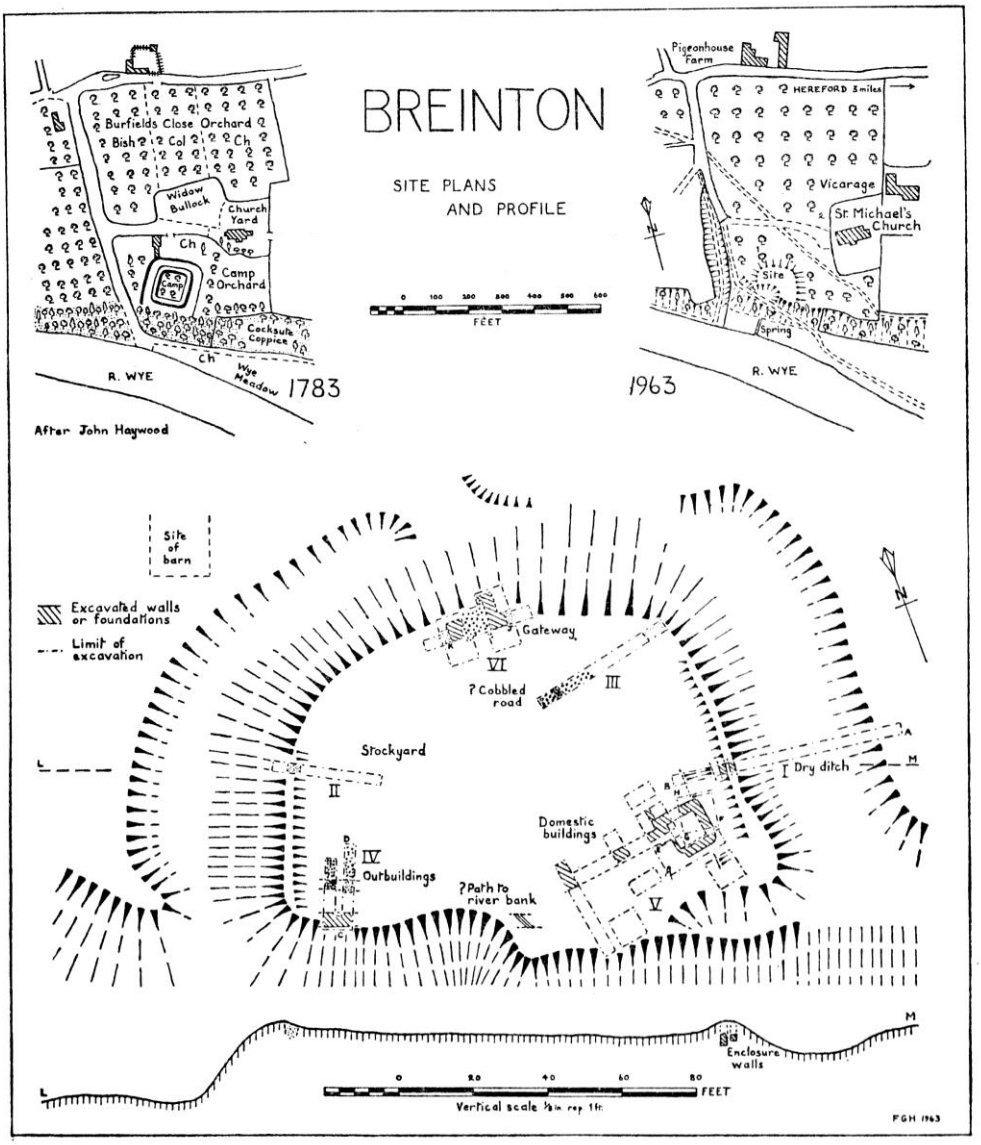

Figure 4. Location and site plan for excavations undertaken between 1959 and 1963. (Figure reproduced from the report in the *Transactions* of 1963)[21]

Logically, Heys's interpretation would mean that the building platform to the north by the church was the site of the documented medieval vicarage. However, he then suggested that:

> It has already been noted that the church and earthwork seem to have originated in the same period and from their very situation, taking the scattered settlement pattern of Breinton into

> account, are closely associated. There are, therefore, grounds for suggesting that the earthwork and its buildings was the first vicarage of the priests of St Michael's Church.[22]

He went on to note that, given that occupation of the defended site appeared to have ended in the late 13th century, the building occupying the platforms to the north-west of the church could be identified as 'the second vicarage' which was said to have been located 'near the western angle of the churchyard'. This later vicarage 'had become ruinous and had been demolished by 1783'.[23]

One problem with this interpretation—that the defended site known as 'Breinton Camp' was the site of the first, perhaps 12th-century, vicarage—is that although the excavated building was relatively slight in construction, it appears far too elaborate and grand a structure, at least in appearance, complete with gatehouse, to have been an accommodation solely for a priest (or two). Moreover, the floor-tile fragments are arguably indicative of a relatively high-status building instead.[24] Meanwhile, the oxidized, reddened-fabric, pottery (Hereford type A7b) that was the most common form recovered from the trenches of 1959-63 (along with grey Malvernian wares, the use of which spanned the entire Medieval period), and which Heys dated on knowledge then current to the 12th to 13th century, has since been shown to have spanned instead the 13th to 15th centuries.[25]

Another documentary source may shed some further light on the occupation-span of the ditched, structural complex at Breinton Camp, as the summer residence of the Treasurer of Hereford Cathedral. In 1525, the then Treasurer obtained from the Dean and Chapter use of a residence in Broad Street in Hereford 'in place of his ancient house at Breinton which was described as *ruinam*…'.[26] This suggests that the active occupation of the property had ceased some time before this, but not as long before the 16th century as the 13th century.

LIDAR SURVEY MAPPING IN 2017[27]

The context for examination of the available Lidar data for the Breinton area was a field study being conducted in 2016-17 by one of the present authors (KR) to try to disentangle the sequence of early field systems traceable on the ground at various points within Breinton parish. These included both obvious traces of former ridge and furrow cultivation, especially, but not exclusively, on the floodplain of the River Wye, and the more subtle, broad linear banks that clearly underlay modern field boundaries, but were of uncertain relationship to the presumed medieval furlongs.

In the area around the church, the mapped Lidar images then produced by the other author (LD) revealed a surprise: a larger enclosure ditch could readily be recognised that encircled the central 'tump' on three sides (Figure 5). This feature had not been noted previously and is not readily evident on the ground due to subsequent land-use and the former presence of post-Medieval farm buildings. It is only traceable after its location and course has been understood from the Lidar mapping. Its enclosed area extends some 200 metres east to west (compared with the area of 25 metres east to west enclosed within the ditch of 'Breinton Camp'), and up to 75 metres north-south (although erosion will have reduced this significantly). The broad surrounding ditch is consistently 20 metres across on all three sides.

This much larger enclosure surrounds the central 'Breinton Camp tump' on three sides, extending to the edge of the bluff above the River Wye to both east and west of that earthwork. As the central tump has been shown to have lost its southern ditch by comparing earlier with more recent maps, it could be presumed that this feature had been eroded away on the river-

facing side in much the same way. However, the angle at which it approaches the scarp edge, and the fact that on the eastern side it dips steeply downwards towards that edge, appears to indicate that (for whatever reason) it was deliberately left open on the side facing the river

Of significant interest is the apparent situation, that the western end of the nave of St Michael's Parish Church can be seen to have been built up to, and possibly partly across, the lip of the north-eastern angle of the 20-metre-wide ditch of this larger enclosure: or even to have been built down into the eastern side of the ditch profile. This alone would seem to indicate both that the ditch predates the build-date for the church (*c.*1150AD), and that the ditched enclosure had been abandoned by this time.



Figure 5. Lidar image of Breinton reproduced in sharp relief. (As produced by Liam Delaney)

In Figure 5, both 'Breinton Camp tump' and the larger ditched enclosure surrounding it can be seen in the lower, central part of the image, above the river. Note that the modern churchyard-boundary ditch crosses the line of the north-east angle of the larger enclosure, and that at the

time of the creation of the Lidar survey (national mapping) the north-western angle of the ditch surrounding the latter enclosure was extremely well-defined in the grounds of Breinton House; the interpretive plot of Plate 4.11 shows this very clearly. Note also the banks of early field systems (as at Little Breinton in the upper-right corner of this plot) that may predate the medieval ridge and furrow evident elsewhere in the parish.

EXCAVATIONS IN SEPTEMBER 2018

The location chosen for the exploratory investigation was on the eastern side of the garden to the south of Breinton House, where the possible line of the enclosure bank could still be discerned following recent landscaping, and where the apparent line of the outer lip of the enclosure ditch was evident across the lawned area (Plate 4.2). The excavated trench measured 4m north to south by 2m east to west and was positioned to provide a short transect across part of the northern circuit of the putative enclosure bank and extending towards the presumed southern edge of the enclosure ditch. The trench was excavated to a maximum depth of 1.10m down to the natural subsoils at the northern end of the trench.

The Progress of the Excavation

After careful removal and storage of the surface turf, the north-south curvature of the bank was immediately evident in the southern one-third of the trench (Plate 4.3). A concentration of small, rounded stones, in a matrix that included some larger stones, appeared consistent with a consolidated deposit which might have formed a light metalling for an east-west pathway; a path might account for the bank's survival here. North of this feature, it was soon evident that there was a substantial deposit of made ground, comprising debris of bricks and mortar, tiles and garden soil, that had clearly been dumped to create a level lawn which extended northwards from the consolidated bank towards the very slight, and very straight, south-facing scarp immediately in front of the southern side of Breinton House (Plate 4.4).

The depth of this made ground (over a metre deep from ground-level at the northern end of the trench) was such as to indicate the former existence of a significant east-west hollow, extending some distance to the north (the 20 metres that corresponded to the apparent width of the inferred ditch visible on the Lidar plot). The soft character of parts of this deposit had proved conducive to former inhabitation by rabbits after the landscaping which followed the construction of Breinton House (see below). The character of the bricks and building debris suggested that the infill was from construction debris associated with the construction of the house and its outbuildings early in the 19th century.

In the southern part of the trench, underneath the putative 'metalling' of the inferred former path, the bank was seen to comprise a hard clay core with a matrix that again included large stones. The deposits covering the northern flank of this bank comprised looser soil that in places could clearly be seen to have been laid in horizontal 'bands' comprising alternate lenses of finer soils and thin bands of fine gravel, such as forms naturally at the base of turves. Meanwhile, following excavation of all the dumped material at the northern end of the trench, an extremely dense deposit of burnt clay was found, immediately overlying a layer of rounded large stones (Plate 4.5). This deposit was carefully recorded including by photogrammetry (Plate 4.6).

A small area of the stones towards the centre of the northern end of the trench was then removed, primarily to reveal the gently sloping edge of what was (and is) taken to be the southern edge of the ditch (Plate 4.7). South of this, the apparent 'stacked-turf' deposit was removed

across half of the east-west extent of the trench, back (southwards) to the clay-and-stone core of the bank (on its northern side). Further excavation into the bank itself met with inconclusive results, although it is possible that a small circular feature, filled with darker (and looser) soil, could represent a point where a vertical wooden post had once stood.

THE STRATIGRAPHIC SEQUENCE

The different stratigraphic contexts (layers and cut features) encountered in the excavation are detailed below, so that the sequence encountered and recorded is clearly specified. Context numbers mentioned below correlate to those in the section drawings shown in Figure 6.

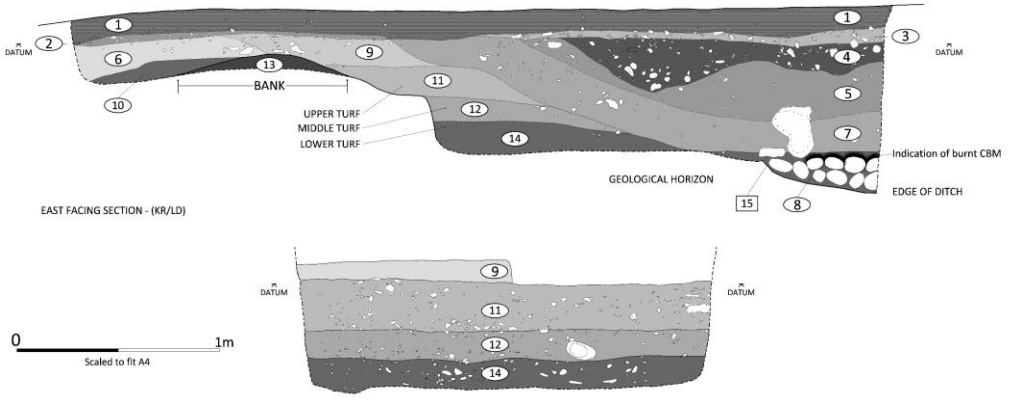

Figure 6. Top: east-facing section through deposits, with numbered contexts. Below: north-facing half section through the centre of the trench. Contexts 10 and 13 comprise the core of the bank; contexts 14, 12 and 11 are successive layers of turf. Layers 4, 5 and 7 are levelling deposits placed to infill the ditch. Layer 8 and the burnt-clay deposit above it represent collapse from the front of the bank onto the edge of the ditch. (Drawings: Liam Delaney and Simon Mayes)

The stratigraphic sequence of deposits encountered within the excavated trench comprised first a superficial deposit of modern turf and topsoil (001), consisting of a dark brown, loamy soil, with occasional inclusions of small, rounded pebbles. It extended to an average depth of 0.10m and overlay (002), a stone-filled and compact layer of silty clay, light reddish-brown in colour, that covered the southern end of the trench to an average depth of 0.4m. This upper level also overlay (003), a light to mid-reddish-brown, silty loam, moderately compact with inclusions of modern construction debris, glass, and ceramic building material (CBM). This deposit was of an average depth of 0.5m and was located at the northern end of the trench. Both (002) and (003) possibly represented some hard surface capping and/or levelling layers when the Georgian landscaping was undertaken.

The northern end of the trench was found to comprise a series of deposits which contained much modern material and had experienced some root penetration. It had also suffered bioturbation from animal (rabbit) burrowing. In this midst of this deposit, at the centre of the trench, was found an abandoned nesting chamber of a rabbit burrow, with access tunnels of small diameter leading into it. The deposits that were excavated, described in sequence downwards, were as follows: (004), a disturbed and mixed deposit featuring a silty, stony matrix, dark

reddish-brown in colour, containing much modern material, including some bone, metal and crushed CBM; and (005), a layer with a dark brown, silty, compact matrix with further inclusions of relatively modern CBM. This deposit had also been affected by rabbit disturbance from burrowing and was around 0.30m thick. Underlying this was context (007), a loose deposit, dark reddish-brown and very silty, around 0.18m in thickness and again affected by burrowing and containing CBM.

At the base of the ditch cut [015], context (008) represented a primary infilling of the ditch. This fill contained large river cobbles that had accumulated on the upper, inner edge of the ditch on the southern side. The cobbles were found in a dark red/brown matrix of silty clay with a sticky compaction, forming a clear horizon that separated it from the other ditch deposits that had been encountered above it. This stratified and wholly *in-situ* deposit (context 008) was unaffected by rabbit disturbance (see Figure 7 below and Plates.4.6 to 4.9).

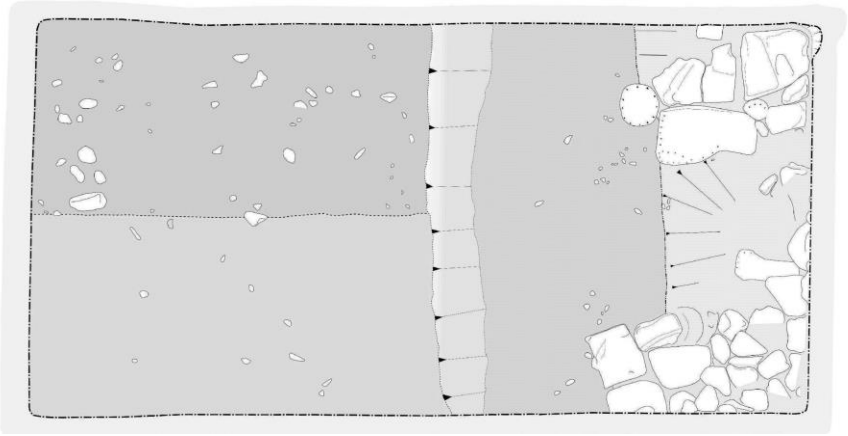

Figure 7. Plan of the trench illustrating (to right/north) the edge of the ditch with stones collapsed over it; at centre the line of undisturbed turves with levelling deposit formerly to the left (south); and the core of the clay bank to left. Length of trench 4m. As photogrammetrically recorded and drawn by Simon Mayes. See also Plate 4.6.

This primary ditch deposit (008) contained a concentration of burnt clay lumps, which, during the excavation, were thought most likely to be structural debris from corn-drying ovens. However, subsequent work showed that they appear closely to parallel rough clay ‘slabs’ found in the 8th- to 9th- century layers at Victoria Street in Hereford, there interpreted as baking slabs. This is reviewed in more detail in the discussion section below and in the specialist report by Stephanie Ratkai. Plate 4.7 shows the deposit where the burnt clay lumps were found, viewed from the south-west, and Plate 4.8 the same deposit viewed in close-up in the south-facing section. Its compaction onto the large river cobbles meant that (008) was full of CBM and charcoal and had some pottery on top of, in-between, and below the river cobbles. Contexts (004) (005) (007) and (008) therefore all represent different phases of ditch infill, with (008) being a primary ditch deposit. The collapse of the front of the bank may have taken place soon after the abandonment of the fortification (see the discussion section below), while the subsequent

dumping may have been in two stages.

Context (007) may represent subsequent infilling of the ditch, although its mixed contents were no doubt attributable to the rabbit-introduced bioturbation and localised mixing of deposits, while contexts (005) and (004) were more certainly the product of deliberate levelling operations using building debris to create a substrate for the level lawn present today. The disturbed nature of (004) (005) and (007) make any secure dating of these deposits very difficult, although the presence of 18th-century brick and tile indicates the likelihood of late infilling of what, in the orchard that preceded the building of the house, would have been a marked linear depression over which the orchard trees had grown.

To the southern side of the trench, over the bank, context (002) overlay (006) and (009) which themselves butted up against each other (so that the exact sequence of their deposition is uncertain). Context (006) was a reddish-brown layer of sandy silt, of an average depth of 0.11m, with a hard compaction, and with frequent mixed inclusions of late (probably 18th-century) CBM and stones and featuring frequent evidence of animal-burrowing activity. In contrast, (009) was a solid, compacted, silty clay, red-brown in colour, that had either slumped onto the turf-stacking layers of the bank front or had been deliberately laid upon them. However, as with context (006) this could also represent an amount of redeposited bank material, or redeposited turves, which had been used to create a levelled deposit for landscaping.

The contexts at the southern end of the trench, underlying the levelling and landscaping deposits represented by (006) and by (009), were those associated with the clay core of the bank. The upper of these deposits (010) was a grey-brown stony deposit laid against the south-facing side of a more pronounced, compacted layer of orange-brown clay (013) that formed the principal matrix of the bank; this can be seen in profile in the upper part of Plate 4.10, where minimal excavation into it had taken place along the east-facing profile of the trench.

Underlying (009) was found a series of horizontally laid turf deposits that were stacked or built up against the northern side of the more solid bank material (013). The tertiary turf stack (011) was dark brown, with a medium-solid composition of silty clay/loam. This was full of roots and had inclusions of smaller round stones at around 0.14m depth. Below this was (012), which was around 0.11m in depth and comprised a dark brown, silty clay/loam. It was well compacted, and featured inclusions of smaller round stones. There was also some evidence of localised rabbit disturbance (i.e., tunnelling activity).

Beneath this deposit was another distinct turf layer (014) which was again a dark brown, silty clay, with solid compaction but friable texture, full of small stone inclusions. This was about 0.15m in depth and was found to be a basal deposit above natural geological deposits unaffected by human activity. These three deposits—(011), (012), and (014)—constituted a turf-stacked front to the bank that receded further onto successive cut ‘ledges’ or ‘steps’ to take the successive turf layers. However, such a bank front of horizontally stacked turves could never have been stable, and the simplest explanation for its situation as encountered in the excavation is that the cobbles now located on the southern edge of the ditch represent the collapse of a stone front to the bank into which the individual stones had been placed (see discussion, below).

DISCUSSION: THE INTERPRETATION OF THE SITE SEQUENCE AND FINDS

The earliest activity on the site is represented by the digging of the ditch and construction of the clay core of the bank (Plates 4.9 and 4.10, Figure 7). The ditch would appear to have had a smooth and relatively shallow profile, and on present evidence it can only be assumed that it was dug in a single operation. This created a defensive feature 20 metres or so broad, extending to a

depth potentially of around 3 metres at its (10 metre) mid-point, as judged from both the Lidar mapping and the position of the scarp terrace on its northern side.

The bank material was tightly compacted and consolidated, except where a possible (substantial) posthole was identified, 'standing' vertically within the bank matrix.[28] If such a posthole did stand here, then the relatively slight bank could have been reinforced upwards by a timber palisade (see below). The clay bank material had presumably been derived from the digging of the ditch immediately to the north. The bank was apparently fronted first with a turf component, comprising turves laid in layers that had been emplaced by progressively cutting back the front of the clay bank, thus forming horizontal ledges upon which the turf could be stacked. There was no neat front to this turf revetment. This is one reason to suppose that the rounded river-cobble stones and natural slabs, found in the base of the trench at its northern end, were simply affixed onto the turves during the original build, and held in place by gravity as each 'tier' of turves receded upwards, thus producing a kind of battered front with the appearance, if not the solidity, of a stone wall. Below the site today such stones and slabs can readily be seen in the riverbed; the builders of the wall may have lifted them from the same location.

It is not possible to be entirely certain whether the stone front had simply slipped and eventually collapsed or had been deliberately slighted. We would be inclined towards adopting the latter interpretation, given that the stones were found accumulated as a group in the ditch rather than also being scattered throughout the deposits derived directly from the turves. This possibility could be explored by further excavation, given that the trench excavated in 2018 involved examining only a very small percentage of even this part of the defensive circuit of the enclosure. The impression of slighting is potentially reinforced by the fact that the dense layer of burnt clay—which we now know contained pottery and fragments of fired clay slabs of Early Medieval (pre-Norman) as well as Medieval date (see below, and Appendix)—was apparently dumped directly over it.

Among the finds, the most important for the understanding of the origins and early use of the defended enclosure are two sherds (a rim sherd and an abraded body sherd) of Hereford type D1 ware of probable late Saxon date (Appendix, Tables A and B), and a group of lumps of lightly fired clay with rounded, soft-sandstone inclusions that are thought to closely parallel rough clay 'slabs' from 'late 8th to 9th century' levels at Victoria Street, Hereford, 'found as packing materials in post-holes' but interpreted there as representing 'baking slabs'.[29]

IMPLICATIONS

Implication 1: The Identity and Chronology of the Breinton Enclosure

The discovery of a previously unsuspected fortification, apparently located to guard a vulnerable fording-point across the River Wye west of Hereford, was, by any reckoning, a considerable surprise. Whatever the date of abandonment of the former medieval house of the Treasurer of Hereford Cathedral, with its moat and walls, on the site known variously as 'Breinton Camp' and 'The Tump', it had been presumed that the house and St Michael's Parish Church were built on a shared site because the springs offered an abundant and convenient water source to both.

The simple operation of reviewing and mapping of the available Lidar data revealed an entirely new dimension to the settlement history here. It also provided an explanation of the name 'Burfields' and 'Burford' on the relevant historical maps, and ultimately also, in all probability, for the place name 'Breinton' itself. The relation of the church to the former ditch of the large enclosure pointed to the possibility that the latter pre-dated the construction of the church at

around 1150AD. Although it would not be difficult to suppose that the building of the church occurred some while after the abandonment of the defensive enclosure, it remained to be established at what point the enclosure became obsolete, or indeed when it had first been built. This provided the chief justification for the excavation in 2018.

The excavation confirmed the military character of the enclosure, as an installation defined and defended by a bank and ditch of uncertain proportions, but likely to have comprised a shallow-profile ditch, 20 metres across, with a bank of indeterminate original breadth and height but formerly turf-revetted, with a stone facing. The form of the structure betrayed some similarities with some of the early defences around Hereford, especially as recorded on the western side of the city; however, it lacked the developmental complexity of the Hereford sequence and appeared to have been a single-phase structure.

The collapse of the front of the bank and the tumbling of its stone components onto the inner edge of the ditch could have occurred due to the gradual decay of the earthwork, but two factors are adduced here to suggest that it resulted from a more deliberate slighting or destruction episode. The first is that the stones were not found amongst the turves as well as upon the lip of the trench: in all cases they were accumulated together in the ditch. They appeared not to comprise a deliberate fill either, but rather an unsorted pile that had formed as the collapse occurred. The second factor was the presence of the deposit of baked clay fragments that contained a single sherd of abraded late Saxon pottery as well as abraded medieval sherds.[30]

More extensive investigation of this deposit could establish whether an early medieval phase and a medieval phase to this deposition can be distinguished, but given the abrasion it might be simpler to regard the whole deposit as resulting from destruction and mixing of materials as the site was landscaped, either during or after the medieval occupation of 'the Tump' ('Breinton Camp'). In that case, both the late Saxon and the medieval ceramic material would have to be regarded as residual in the context in which it was found, in the sense that it had undergone some erosion and sorting before its redeposition in the slighting or initial landscaping event. What the ceramics and CBM do testify to, however, is the fact of medieval domestic occupation, and of late Saxon activity contemporary with activity close to the western defensive circuit of 8th- to 10th-century Hereford.[31]

The question of when the enclosure originated is more complex. The presence of 8th- to 10th-century artefacts establishes that it was in use probably by the 9th century but does not date its construction. Indeed, a significant problem for the dating of pre-9th-century activity anywhere in the Marches is that there is no attested use of ceramics in the early to middle Saxon period (or indeed in 'British' Wales) until significantly later. It is entirely plausible, therefore, that the military works in evidence in the early phases of fortification at Hereford, and at this enclosure at Breinton, are of late 8th-century origin, built as part of the frontier established by Offa and his successor Coenwulf.[32]

Implication 2: The Character of 'Early Breinton'

The implications of these fieldwork results for the early history of Breinton itself are intriguing. As noted above, unless Breinton is one of the 'unidentified' (but named) Domesday locations in the county (which is thought unlikely given that Warham, as 'Werham', is named), Breinton is nowhere mentioned either as a place or as a manor in Domesday Book entries for Herefordshire.[33] Accordingly, the defended enclosure that has been discovered, and whose form approximates the western and northern defences of late Saxon Hereford, represents 'the first Breinton', a place named from the 'burh' established by the later Mercian kings or their English successors.

Whether the defended enclosure contained within it—or was a neighbour to—a domestic settlement remains to be determined.

The discovery therefore begs the question as to whether more traces of 'Saxon Breinton' exist nearby. No discovery of artefacts contemporary with those from the Breinton House excavation have so far been made, or at least reported. However, there is a feature that may repay some further examination, in a location immediately adjacent to Breinton Camp. This is a broad linear bank sited on the very edge of the crest of the south-facing scarp overlooking the river. It runs eastwards from the eastern line of the ditch of the large enclosure, in the direction of Warham, and is some 5 metres in width. It is in places still standing to a metre and a half in height; and, extending for some 200 metres at that scale, it is traceable (albeit in a degraded form) all the way at least to the ravine south of Warham House.

The form and topographical location of this substantial linear feature is not incompatible with lengths of Offa's Dyke elsewhere in its extremely long course.[34] However, we should exercise caution in too readily ascribing it this origin. It does nonetheless open up the possibility that rather than being an isolated feature, the Breinton enclosure could have been but one element in a wider, organised, frontier landscape.

Implication 3: Hereford and the emerging Mercia-Wales frontier

According to the Anglo-Saxon Chronicle entry for 917AD, Hereford provided, along with Gloucester, troops that fought and defeated a Viking army that had sailed from Brittany to raid along the coast of the Severn estuary.[35] By that time, there can be no doubt that Hereford was not only a Diocesan centre but was also a very considerable fortified settlement and trading place. However, it is worth highlighting this particular passage of the Chronicle, to demonstrate how this gathering of defensive forces was portrayed:

> …the whole (Viking) host went inland (from their ships stationed in the Severn Estuary) with the intention of renewing their raids in the direction of Archenfield: they were opposed by the men from Hereford and Gloucester *and from the nearest fortresses* who fought them and put them to flight.[36]

This makes clear that the 'fortress-building' with which thegns and other landholders were required to provide assistance (according to the routine provisions of Mercian and West-Saxon charters) did actually take place and that fortresses existed alongside fortified towns.[37]

Archaeologically, the sequence of development of the defences of Hereford is comparable with that of other major, defended, Mercian localities, such as Worcester, Winchcombe, and Tamworth.[38] However, the Breinton enclosure represents the first 'hard' evidence for the presence, form and location of such an 'ancillary' fortification that may have been deliberately operated as part of a defensive network, in this case overlooking the Wye and the frontier between Mercia and Wales, perhaps in the context of a frontier system that also included Offa's Dyke.

Implication 4: Later Anglo-Saxon Military Sites

The presently reported discovery at Breinton raises a fourth point, yet wider than fresh insight into the development of the Mercian-English frontier with Wales; it is possible that the Breinton enclosure is the first purpose-built, minor fortification of the Anglo-Saxon period to have been recognised archaeologically. This is perhaps surprising, given for instance the recent publication

of a major review of constructions in the Anglo-Saxon landscape.[39] What has been termed, perhaps correctly, an 'Age of Installations' in the countryside of the 8th and 9th centuries was characterised by the construction of 'the enclosures and forts, the corn dryers and mills, the smithies and kilns that are the conspicuous and in some ways defining features of the age'.[40] After 920AD, in contrast, defence, industry and commerce were said to have become concentrated in the 'incipient towns'.[41]

While there is plenty of evidence for the defences around towns in western Mercia, at least from the 10th century onwards, it is only in Wessex that a network of strongholds, attested by the 'Burghal Hidage' document of King Alfred's reign, can be seen to have existed; that included smaller-scale forts (and among them, potentially purpose-built enclosures). The problem is that none of these sites have yet been shown to have been created *de novo* as deliberately planned and sited strongholds—certainly of the kind we have revealed existed at Breinton. John Blair has nonetheless perceived the creation of a system in both Mercia and Wessex of 'burh-tun' places that were 'a particular kind of satellite, indicating centres that were especially important in communications, administration and perhaps defence' and suggesting that place names that include the element 'burh' were 'a key to at least one category of places that were of military or strategic importance in the Mercian age'.[42] To that extent, the Breinton enclosure would fit very well within such a system, acting as it no doubt did as a strategically sited satellite to the larger administrative, ecclesiastical and communications centre, represented by Hereford itself, only two miles away.

CONCLUSIONS

The trench was opened and excavated to test the proposition that a feature visible at Breinton, on images produced from available Lidar-survey data, was potentially an early medieval fortification located adjacent to Breinton's parish church. The excavation confirmed that what was thought from the mapped Lidar information to be a substantial earthwork, featuring a defensive bank and ditch, was indeed such. The bank had a clay core, a turf component facing forwards, and had apparently been faced further with an un-mortared stacking of river cobbles. These latter had subsequently either been cast, or had fallen, into the enclosure ditch, which appeared to have been broad but probably shallow.

This small scale and exploratory, but closely targeted investigation has left us with a considerable amount to contemplate. It has uncovered a so far unique feature, of both local and national significance: a purpose-built Anglo-Saxon fort, in the sense of a carefully sited and deliberately constructed, small-scale, defended enclosure. It is important to acknowledge that this identification of the site represents something of a breakthrough in Anglo-Saxon archaeology. It may well facilitate the recognition and exploration of some among the undoubtedly many such sites that have so far escaped observation. At the same time, however, the results must be regarded as provisional, not least because the excavated trench represents only a small sample of the site. Clearly, therefore, more research is required, at Breinton itself as elsewhere, to confirm and more fully understand the significance of these remarkable initial findings.

ACKNOWLEDGEMENTS

The excavation directors and authors of this article, Keith Ray and Liam Delaney, wish, first and foremost, to acknowledge the assistance and co-operation of the landowners, Martin and Pat Churchward of Breinton House, for access, patience, and the considerable interest they expressed in the light that such a limited exercise could throw upon the early history of Breinton. We would also like to acknowledge that the fieldwork was supported by a generous donation towards the cost of specialist reporting, by Stephen and Victoria Wegg-Prosser of Warham House, administered via Breinton Parish Council (Parish Clerk, Graeme Adkin). We also thank the members of the Breinton Parish Council committee (Chair, Dr Tony Geeson) for their keen interest in and support of the venture.

We thank Kate Bain and Emil Morfett for volunteering and assisting with fieldwork, and Simon Mayes for undertaking photogrammetry and illustration. Tim Hoverd provided crucial help in excavation, guidance, and the loan of equipment. Stephanie Ratkai kindly brought her comprehensive knowledge of the ceramics of the West Midlands and Gloucestershire (including late Saxon wares) to bear on the pottery and CBM analysis.

We are also grateful for receipt of comments and constructively critical observations from the Editor of these Transactions (Terry Morgan), from David Whitehead MA, President (2021-2) of the Woolhope Club, and from two anonymous referees.

APPENDIX: BREINTON HOUSE (BHB18) POTTERY, CERAMIC BUILDING MATERIAL AND OTHER FINDS

By STEPHANIE RATKAI

Overview

A small assemblage of pottery, ceramic building material (CBM) and miscellaneous items were submitted for analysis. All the finds were recorded, and the pottery and CBM counted and weighed. The pottery was matched to the Hereford pottery type series.[43]

The pottery consisted mainly of very small sherds which were usually abraded, sometimes very heavily—the hallmark of pottery that has been weathered and disturbed before its final deposition. The date of none of the pottery was later than the 15th century (apart from a 19th- or 20th-century sherd from the topsoil (001). The largest number of sherds were in Hereford fabric A7b, mainly a glazed ware, dating from the mid-13th to 15th century (see Table A).

The earliest pottery consisted of a rim sherd and a body sherd in Hereford fabric D1. This is a fabric with oolitic limestone temper dating to the Late Saxon period and perhaps continuing to a limited extent into the post-Conquest period. These sherds are very significant is relation to some of the CBM (see below). The rim sherd from the possible bank make-up (006) can be paralleled by a rim sherd from Hereford.[44] The D1 body sherd was found at the base of the ditch (context 008). Two other fabrics were present; Malvernian cooking pot ware (Hereford fabric B1) and later Malvernian ware (Hereford fabric B4). Both fabric types are common in Herefordshire.

	qty	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*
Context	**A7b**	**A7b**	**B1**	**B1**	**B4**	**B4**	**D1**	**D1**	**Total**	**Total**
002	2	10							2	10
003	3	27							3	27
004	3	38			1	2			4	40
005	4	18							4	18
006	1	24	1	1			1	12	3	37
007	7	46	2	39					9	85
008	2	3	2	6			1	6	5	15
010	1	3							1	3
Total qty/wght	**23**	**169**	**5**	**46**	**1**	**2**	**2**	**18**	**31**	**235**

Table A: Quantification of early medieval and medieval pottery (weight in grammes)

The ceramic building material (CBM) was also often heavily weathered, although the flat roof tile fragments were in reasonably good condition. Flat roof tiles were in a local, finely sandy, micaceous, orange fabric (the equivalent of Hereford CBM fabric A7)[45] and were 13-15mm thick. As there were only small roof tile fragments (see Table B) no other dimensions could be recorded. Small fragments such as these are difficult to date, even more so when so much of the ceramic material appears to have redeposited; they could be medieval or post-medieval but perhaps the balance of probabilities favours a medieval date.

At the base of the ditch, in fill (008), were large lumps of fired clay containing rounded lumps of fine-grained sandstone 'pebbles'. They had evidently never been fired to a high temperature, since the 'lumps' could be easily scratched with a fingernail. One of these fragments had a rather crude, flattened but uneven surface. The softness of the clay body, the rather amorphous character of the 'lumps' and the appearance of the one finished surface seems to preclude the fragments coming from bricks. Daub is a possibility, but the fragments look surprisingly similar—and seem to have a similar fabric—to fired clay slabs, interpreted as a baking trays, found at Victoria Street, Hereford[46] in a Late Saxon context. The two Late Saxon sherds, noted above, therefore take on a greater significance, especially as one of them was found in fill (008). Further similar fired clay fragments were found in ditch fill (007), presumably disturbed from (008) immediately below, in ditch fill (004) and bank make-up (009).

There were also some brick fragments; these were hard fired and had a similar clay body to the roof tiles. These fragments were found in late layers (002) and (003) and in possible bank layer (006) where an 18th- or 19th-century flowerpot rim was also found. Further late material was represented by drainage pipes, one fragment of which was found in bank layer (010) along with a clay pipe stem and a residual medieval sherd. A large lump of what appeared to be a coarse red mortar was found in layer (003). Red mortar is often associated with the earlier medieval period, but the identification of this item is not certain and the dating, therefore, uncertain also.

	qty	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*	*qty*	*wght*
Ctxt	**roof tile**	**roof tile**	**brick**	**brick**	**burnt clay/daub**	**burnt clay/daub**	**burnt clay/daub?**	**burnt clay/daub?**	**drain pipe**	**drain pipe**	**coarse red mortar**	**coarse red mortar**	**Total**	**Total**
001	1	99											**1**	**99**
002			2	68					1	68			**3**	**136**
003	4	63	2	65							1	327	**7**	**455**
004	1	15			19	245			1	10			**21**	**270**
005	4	162			1	16							**5**	**178**
006	1	9	5	109									**6**	**118**
007					6	61							**6**	**61**
008					7	506							**7**	**506**
009					3	252							**3**	**252**
010									1	146			**1**	**146**
012							1	10					**1**	**10**
Total qty/wght	**11**	**348**	**9**	**242**	**36**	**1080**	**1**	**10**	**3**	**224**	**1**	**327**	**61**	**2231**

Table B: Quantification of CBM (weights in grammes)

Conclusion

Although the 2018 archaeological intervention only produced a few finds, many of which were very worn and clearly redeposited, the potential Late Saxon occupation at the site and evidence of culinary practices peculiar to that period and to the Hereford area locale, is of very great interest both locally and nationally. In addition, the Late Saxon pottery may point to very early links between Hereford Cathedral and its property at Breinton.

RFERENCES AND NOTES

[1] A. Williams and R. W. H. Erskine, *The Herefordshire Domesday* (London, 1988), *f*.7; F. & C. Thorn. *Domesday Book Herefordshire*, vol. 17 in series, J. Morris. (ed), *Domesday Book: A Survey of the Counties of England (*Phillimore, Chichester, 1983), 2. 38.

[2] Alan Brooks, *Herefordshire, Pevsner Architectural Guides: Buildings of England* (Yale University Press, 2012), pp. 126-7.

[3] The Herefordshire Domesday noted that King William ('the Conqueror') had restored Sugwas (later combined with the Domesday settlement of Stretton, to the north) to 'Bishop Walter'. See F. & C. Thorn, *Domesday Book Herefordshire*, 2. 37.

[4] E. Ekwall, *Concise Oxford Dictionary of English Place-names* (DEPN), (1960), p. 62.

[5] B. Coplestone-Crow, *Herefordshire Place-Names* (2nd edition, Logaston Press, 2009), p. 53.

[6] *Ibid*. On p. xi in the 'Notes' in the Preface, the meaning of the asterisk is clarified for the non-specialist as follows: 'The use of an asterisk before a word (e.g., **ecles*) or a personal name indicates that the item is not recorded, but is inferred from place-names or other philological evidence.'

[7] W. Rees, *South Wales and the Border in the XIV Century* (1933), BL. Maps 28. B. 30.

[8] S. Draper, 'The Significance of Old English Burh in Anglo-Saxon England', in S. Crawford and H. Hamerow (eds) *Anglo-Saxon Studies in Archaeology and History* 15 (Oxford University School of Archaeology, 2008). pp. 240-53.

[9] Named 'Moated site SW of the church', the site is an Historic England Scheduled Monument (1001740). However, the

Scheduling document for the site is blank and no detail is recorded. According to the Herefordshire Historic Environment Record (HER) data (accessible on-line at http://htt.herefordshire.gov.uk) it has nonetheless been identified as 'a ringwork protected on south side by steep riverbank. Level interior, oval in plan 34m x 20m, rising 0.2-1.5m above surrounding sloping ground. Perimeter bank with entrance in north rises 0.4m above interior. External ditch 10m wide remains on east and west sides. Holloway immediately to west leads down to former crossing of Wye' (HSM 928).

[10] F. G. Heys, 'Excavations on a Medieval Site at Breinton, Herefordshire' in *Transactions of the Woolhope Naturalists' Field Club.* 37 (1963), pp. 272-95.

[11] The incomplete squared circuit of the ditched wall surrounding the church demonstrates the impact of the building of the new (Victorian) vicarage, which took the eastern part of the churchyard into its grounds.

[12] Herefordshire Archives and Record Centre (HARC), Archives R28/L.C. 11,254.

[13] G. Marshall, 'Second Field Meeting. Tuesday, July 4th, 1922, at Eaton Bishop and the Neighbourhood', in *Trans. Woolhope Natur. Fld Club* (1922), pp. LXVIII-LXIX.

[14] Heys, 'Excavations on a medieval site at Breinton'.

[15] *Ibid*., p. 281.

[16] *Ibid*., p. 274.

[17] *Ibid*., pp. 286-7.

[18] *Ibid*., p. 288.

[19] See also record HSM 928 in the Herefordshire HER and end note 9 above.

[20] Heys, 'Excavations on a medieval site at Breinton', p. 286.

[21] *Ibid*., Figure 1.

[22] *Ibid*., p. 287.

[23] *Ibid*.

[24] *Ibid*., pp. 290-2.

[25] A. G. Vince, 'The Pottery', in R. Shoesmith, *Hereford City Excavations Volume 3 The Finds*, (CBA Research Report 56, 1985), pp. 43-4. Note also that this was also the most common among the medieval pottery finds from the excavation reported in this paper: see also Appendix.

[26] D. Whitehead, 'St Ethelbert's Hospital, Hereford' in G. Aylmer and J. Tiller (eds), *Hereford Cathedral: A History* (London and Rio Grande, The Hambledon Press, 2000), pp. 599-609.

[27] The mapped representation of Lidar survey data for Breinton parish was requested by Keith Ray and was undertaken by Liam Delaney in November 2017. The aim was to locate and record relict features and field systems to improve the interpretive information in the Historic Environment Record.

[28] This would seem the most plausible explanation for the circular vertically sided feature with firm edges that was encountered here. However, given that the fill of this feature was relatively loose and that there had been animal disturbance elsewhere within the trench, it is impossible to rule out that it was another tunnel. In practice, it could be the result of both processes: a less compact fill to a former post-hole would have made it easier for the animals to burrow through.

[29] A. G. Vince, 'Fired daub and clay objects' in R. Shoesmith *Hereford City Excavations Volume 3: The Finds, (*CBA Research Report 56, 1985), p. 70 (Table 24), p. 72 (Fig 64, item no.16) and p.73 (Fig. 65, photograph of item no. 16).

[30] The other late Saxon sherd, an abraded but diagnostic rim fragment, was found redeposited in a probable landscaping layer sealing the bank (context 006).

[31] R. Shoesmith, *Hereford City Excavations Volume 2. Excavations on and close to the defences*. (CBA Research Report 46, 1982); K. Ray. 'Anglo-Saxon Hereford' in A. Johnson. and R. Shoesmith. (eds), *The Story of Hereford*, (Logaston Press, 2016) pp. 15-19 and 21-4; and see below.

[32] See below, for discussion of how the site may have fitted within a network of fortified sites.

[33] F. & C. Thorn, *Domesday Book Herefordshire*, 2, 38.

[34] See, for example, K. Ray. and I. Bapty, *Offa's Dyke: Landscape and Hegemony in Eighth Century Britain* (Oxford, Windgather Press,2016) pp. 174-213.

[35] G. N. Garmonsway, *The Anglo-Saxon Chronicle* (London, Dent, 2nd edn, 1972), p. 98.

[36] *Ibid*. Emphasis added in italics..This 'opposition' to the raiding force plausibly therefore took place in the lower Wye valley or what later became the Forest of Dean.

[37] For the responsibilities for fort-building expressed in charter clauses, see R. Abels *Lordship and Military Obligation in Anglo-Saxon England* (Berkeley and Los Angeles, University of California Press, 1988); and Ray and Bapty (2016), pp. 222-4. The emphasised reference here to fortresses located specifically in the (broad) lower Severn area has been neglected not only in accounts of Aethelflaed's battles against the Viking raiders in the years immediately preceding her death in AD 918, but also more widely. The reference is significant in pointing to the existence of the very type of fort that we have demonstrated existed at Breinton, but it also indicates that many more such forts must have been in operation across parts at least of western Mercia, provided with troops stationed ready for just such rapid responses to armed

incursions.
[38] S. Bassett, ‘The Middle and Late Anglo-Saxon Defences of Mercian Towns’ in S. Crawford and H. Hamerow (eds) *Anglo-Saxon Studies in Archaeology and History* 15, (Oxford University School of Archaeology,2008), pp. 180-239.
[39] J. Blair, *Building Anglo-Saxon England*, (Princeton University Press, 2018).
[40] *Ibid.*, p. 232.
[41] *Ibid.*
[42] *Ibid.*, p. 197.
[43] Vince, 'The Pottery', pp. 35-66.
[44] *Ibid*, p.55, Fig 45,5.
[45] A. G. Vince, 'Roof furniture and building materials', in R. Shoesmith *Hereford City Excavations Volume 3: The Finds*, (CBA Research Report 56, 1985), pp. 65-9.
[46] Vince, 'Fired daub and clay objects ', p. 72 (Fig 64, item no.16) and p.73 (Fig. 65, photograph of item no. 16).

Mediaeval Timbers in the Tower of Cradley Church, Herefordshire

By JOHN C. EISEL

One of the most interesting features of the church of St. James, Cradley, is the two timber-framed walls in the lowest part of the west tower. Various theories have been suggested as to why these were built. This paper explores the relationship between the earliest timber structures in the tower and calls attention to the redundant mediaeval bell frame which still survives. It demonstrates that there is no structural connection between these elements in the tower. For context and completeness the paper also summarises how the design of mediaeval bell frames developed, with particular reference to Herefordshire and the surrounding counties.

BACKGROUND

The church of St James, Cradley, Herefordshire, was much restored in the middle of the 19th century, when it was largely rebuilt. The chancel was rebuilt in 1867-8 under the supervision of G. G. Scott, while the nave was restored and the north aisle was added in 1869-70 by A. E. Perkins.[1] During the restoration all the roofs of the church were replaced.

The least altered part of the church is the large west tower, the two lower stages of which are Norman, while the belfry stage is described by Alan Brooks as 'Perp'; the Royal Commission on Historical Monuments is more specific and states that the belfry stage dates from the late 14th or early15th century (Plate 5.1).[2] While the roof of the tower incorporates older timbers, these are unlikely to be as old as the tower.

Internally, the most notable feature of the tower is the two timber-framed walls, built parallel to the north and south walls, but away from them, partitioning off spaces which are bounded on the east by the return of the tower arch and on the west by the west wall of the tower. In the space divided off on the north side there is a two-train clock by Joyce of Whitchurch, undated, but for which a faculty was obtained in 1919, the clock being a war memorial, as recorded on a tablet above the doorway which gives access to this space. Access to the upper part of the tower is gained by modern ladders located in the south space, either internally by using the door at the west end of the timber-framed wall, or externally by the external door at the west end of the south wall of the tower.

This lower chamber acts as the ringing room for the ring of bells which hangs in a modern frame in the intermediate chamber above. Above that is the former bell frame, which was made redundant when the bells were hung in a new frame in 2000, but which was left *in situ* because of its age and interest: it is this redundant frame and its supporting timbers which are the main focus of this paper.

OUTLINE HISTORY OF THE BELLS

For most churches, the first written record of the bells in a tower is usually the entry made in the inventories of church goods, taken in 1552 and 1553, by the royal commissioners of Edward VI. Transcripts of the surviving membranes for Herefordshire were published in Stanhope & Moffatt, *The Church Plate of the County of Hereford* (1903), pp. 205-43. Unfortunately, those for Cradley are not known to have survived, and none of the damaged membranes which lack

the name of the parish to which they refer can definitely be ascribed to Cradley, although there are one or two possibilities.

Part of the story is told by the bells themselves. In 1724/5 a ring of six bells was cast at the Rudhall foundry in Gloucester, then in the hands of Abraham Rudhall II, and recorded, without comment, in the Rudhall bell list of 1751.[3] Of this ring the four smaller bells bore the usual generic inscriptions of the period, while the fifth bell recorded the name of the churchwarden. The tenor (largest) bell bore the name of Dr Thomas Bisse, the rector at the time. The fifth bell was cast in 1725, a year later than the other five bells, and this may mean that the bell was unsatisfactory and had to be recast under guarantee, or that the casting was carried out in stages at the end of 1724 and beginning of 1725.

This ring survived unaltered until 1884, when the tenor bell was recast at Loughborough by John Taylor and Co. after becoming cracked. An incised (and hence later than the casting) inscription informs the reader that the bell was dedicated on 14 October 1884.[4] John Taylor and Co. also recast the second bell in 1935, when the bells were rehung.[5] As a millennium project, in 2000 the bells were rehung in a new frame at a lower level in the tower, leaving the old frame *in situ*, and two smaller bells were added to make a ring of eight bells. This work was also carried out by the Loughborough bell foundry.

BASIC INFORMATION ON THE DEVELOPMENT OF BELL FRAMES

The development of the old bell frame at Cradley is not the main theme of this paper but will be discussed for the sake of completeness. In order to understand this, it is first necessary to give some background information, on what is a very specialist subject. Figure 1 below gives an idea of the commonest form of mediaeval frame.

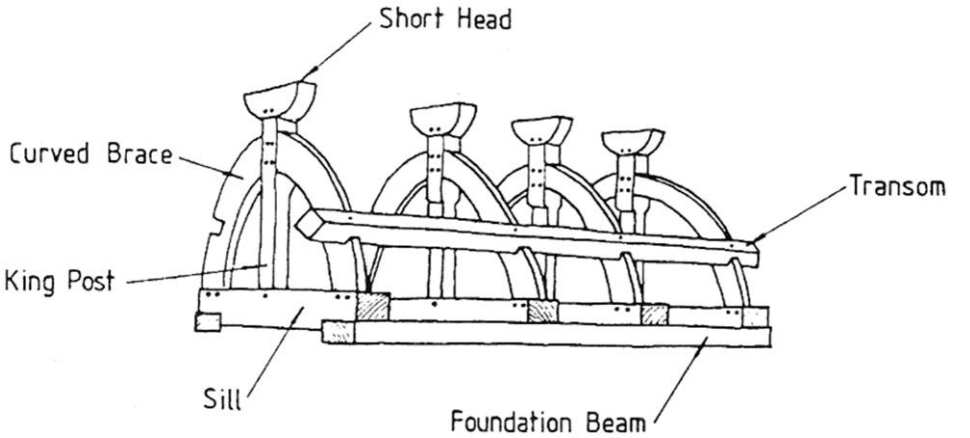

Figure 1. Typical mediaeval bell frame, with the various elements labelled. The term ‘bearer’ is used in preference to ‘foundation beam’ as this defines its function more closely. (Chris Pickford)

This type of frame consists of several parallel and symmetrical trusses, of braced king-post form, supported by bearers (labelled as foundation beams, but more usually referred to as bearers), to which the sills of the trusses are connected by some form of lap joint. To maintain the spacing of the trusses and to provide lateral stability there is a transom on either side of the trusses.[6] This

is either notched over each brace or set into a notch in each brace—or both—and then pegged into the outer face of the brace. On top of each king post there is a short frame-head into which the bearings for the gudgeons (pivots) of the stocks of the bells are let. The form of the braces varies: they can be curved to a greater or lesser degree. So, for instance, the braces of the small mediaeval frame at Stanford Bishop are quite curved, as are the braces on a surviving truss of a mediaeval bell frame at Orcop, while the braces of the rebuilt mediaeval bell frame at Stretton Sugwas are straight, as are those of the mediaeval frame at Dinedor: there appears to be no significance in the type of brace that was used. While the frame illustrated here is of the most general type, there are very many variations in all elements of mediaeval bell frames. For instance, in the Midland counties there are a number of frames with queen posts instead of king posts, while in East Anglia it is common for trusses to have internal scissor braces instead of king posts. Later mediaeval frames of short-headed form are of increasing complexity, and there is a very good example of this at St. Peter's, Hereford.[7]

In the earliest type of mediaeval frame there was no horizontal member across the top of the king post, and the bearings were let directly into the end-grain of the king post. This was unsatisfactory, and within a short space of time a short, horizontal frame-head was superimposed on top of the king post, and only a few of the earliest form survive, including those at Acton Round and Cardington, both in Shropshire. However, short-headed bell frames had their own problem in that, as bells began to be swung higher, there was a tendency for the frame-head to rock on the king post, and the next generation of frames were constructed with long frame-heads that completely spanned the truss, supported by posts at the outer ends. An example of these first-generation long-headed frames is still in existence at Llanwenarth Citra, near Abergavenny (Figure 2 below). This incorporates second-hand timber, almost certainly from a former rood screen, and probably built in the second half of the 16th century.

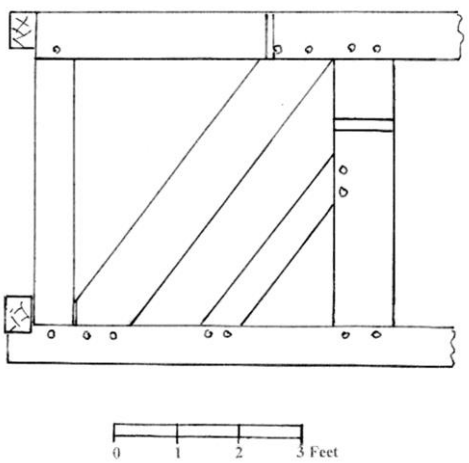

Figure 2. A typical half-truss of the late 16th-century bell frame at Llanwenarth Citra, of first-generation long-headed form. The trusses are tied together with a timber notched over the trusses, but it was more usual for the lower elements of the frame to be tenoned together on the level, so that the whole frame sat on the supporting floor. There is also an extra brace to the king post

Many short-headed frames were adapted to long-headed frames of this type and the transoms removed, typically in the 17th century, when it became customary for bells to be rung full circle. The story of bell frames is one of gradual development, with the king post falling out of use, the universal use of straight braces, and a reduction in height: early frames were tall in comparison with the bells that were hung in them, and thus less able to restrain the forces generated by the

swinging of bells. Also, the layout of frames was gradually developed, both to make a better use of the space available and to load the thrust of the swinging bells more evenly on the tower. This process began in late mediaeval times and is evident in the fine frame in St. Peter's, Hereford, where, most unusually, the formerly short-headed frame had a transverse pit constructed as part of the primary phase of the bell frame.[8]

THE OLD BELL FRAME AND SUPPORTING FLOOR

Supporting floor

The former bell frame at Cradley rests on a floor, the primary stage of which consists of four large east-west beams, spanning the tower and built into the walls, and roughly equally spaced. These four timbers are of varying sizes: that against the south wall is about $13^1/_2$ins. (34cm) wide by 13ins. (33cm) deep, while the others gradually increase in section to the north, until that against the north wall is about $14^1/_2$ins. (37cm) wide by 16ins. (41cm) deep. These span the tower, which measures internally about 20ft. 10ins. (6.35m) east-west and 21ft. 5ins. (6.53m) north-south. There evidently has been a problem with the northernmost timber, and the middle section has been reinforced by an applied timber along the centre of its south face. There is no evidence of disturbance in the stonework around the ends of the beams, leading to the conclusion that the beams are contemporary with the stonework into which they are built. Across these were laid seven north-south joists, and the floor was completed by two-inch-thick floorboards laid east-west. The joists were about 10ins. (25cm) deep but of varying width. However, there has been damage to the joists against the east and west walls, parts of which are missing, whilst the central sections of the joists, which would have been loose to allow the bells to have been raised into the bell frame, are also missing. In addition, some shorter joists have been inserted from below in the region of the bearers of the bell frame. Because it was not possible to access the ends of the joists, it is not possible to say whether the joists were built into the walls, as would have been expected.[9]

The old bell frame

The former bell frame at Cradley began as a typical mediaeval king-posted short-headed frame, of at least four parallel pits, with the bells swinging east-west, with the widest pit on the north side and the others in order of width to the south. Of the five existing trusses, that on the south side has been completely rebuilt, and the gradation of the pit-widths makes it most likely that it was rebuilt in the same position. That being so, there may well have been another pit on the south side, as there is a rope hole outside the south truss, an indication that there was formerly a bell hung in this position (Plate 5.2).[10] An alternative possibility is that the original truss was further to the south so that the rope hole fell within the pit, but the evidence was destroyed when the bearers were shortened in comparatively recent times (Plate 5.3).

While the transoms have been removed, the redundant peg holes in the outer faces of the braces to the king posts provide evidence of their former existence. Although the trusses were subsequently modified, they are still at their original spacing, and the widest pit could take a bell of about 16cwt (813kg) and about 46ins. (1.17m) in diameter), somewhat larger than the present tenor bell, which is $42^1/_2$ins. (1.08m) in diameter. As usual with mediaeval frames, it would have been placed centrally in the tower, with the bearers resting directly on the supporting floor. It is worth noting that the grading of the pits in the bell frame, with the largest bell on the north side, and a gradual reduction in the width of the pits to the south, reflects the similar gradation of the primary timbers of the supporting structure.

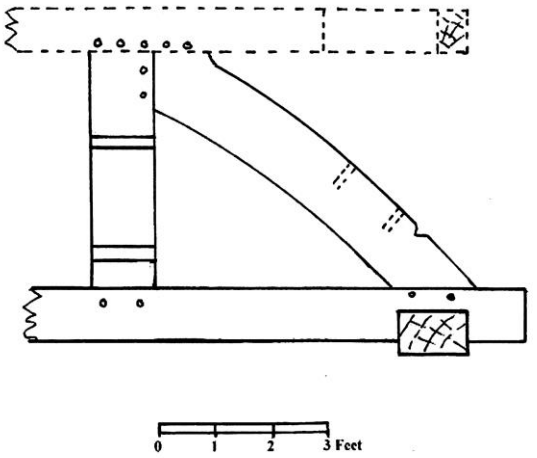

Figure 3. Scale drawing of the mediaeval timbers of the second truss from the south. Later timbers are indicated by dotted lines, and only half of the truss is drawn because it is symmetrical. The pegholes for the pegs that formerly secured the transoms are indicated by dotted lines. In order to maximise the width of the pits, the centre section of each of the king posts is reduced to about the same thickness as the braces. It is possible that the king post was slightly reduced in height when the frame was remodelled into long-headed form

To make the frame more stable for bells being swung through a greater arc of a circle, it was modified by a conversion to long-headed form, with the fourth truss from the north being extended to the east by a second-hand piece of timber extending the sill to the east, and fifth truss from the north being completely replaced and the pit extended to the east, to accommodate two bells, to swing in mouth-to-mouth, with a pair of straight braces under each bell, implying that at the time the frame was remodelled there was a ring of five bells: the two curved braces from the replaced truss were incorporated in the east extension of the fourth truss from the north (Plate 5.4). If there was a further truss to the south it was removed at this time. So, certainly at the time the frame was converted to a long-headed form there was a ring of five bells. Normally a mediaeval frame sits in the middle of the tower, but in this instance it is displaced about 15ins. (38cm) to the west, and this may well have happened when the frame was remodelled, to ensure that the pit on the south side was long enough for two bells to swing mouth-to-mouth. The sills of the frame are tied down to the lower structure by keyed through-bolts, and this could not have happened until the frame had been moved: in any case, that is not a mediaeval practice (Plate 5.5). It was possibly at this time that some of the short sections of joists were inserted under the floorboards below.

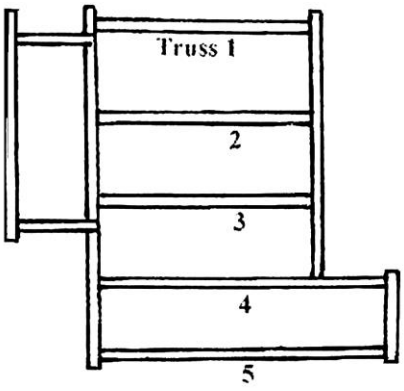

Figure 4. A sketch plan of the bell frame at frame-head level, north to the top. The lack of a floor beneath most of the frame makes access too dangerous for a scale drawing to be made

Subsequently a transverse pit, of somewhat flimsy and crude design, with a pair of straight braces of slight section, was built on the west side of the fame, with the bell swinging north-south. This pit was evidently unstable, and the frame-heads were braced in the horizontal plane from the main part of the frame, and a long brace inserted in a vertical plane against the west wall (Plate 5.6).[11]

The remodelling of the mediaeval frame to long-headed form probably took place in the 17th century, while the most likely date for the addition of a sixth pit is 1724, when a ring of six bells was cast for the church. Such is the design of this pit that it is extremely unlikely that a professional bell-hanger built it, and most likely that it was constructed by a local carpenter who did not regularly carry out this sort of specialist work. There is also the possibility that the bells had been augmented to a ring of six previously to 1724, and that the complete ring was recast in 1724/5 because the augmentation had proved unsatisfactory, but whatever were the true circumstances, the transverse pit was in existence by 1724.

When the bells were rehung at a lower level in 2000, the volume of sound outside the tower was reduced, and to improve this most of the floorboards were removed, with only some of the boards remaining on the south side, although covered by modern, probably 19th century, softwood floorboards, and also by short sections of boarding sandwiched between the joists and bearers of the frame. This makes current access to the frame extremely difficult.

It is also worth noticing that the condition of the four primary timbers, where they are embedded in the east and west walls, has in the past given cause for concern. At each side they are supported by an RSJ against the wall, off which they are packed up and secured to the RSJ by brackets. The RSJs are each supported by two cast-concrete corbels, and because the RSJs are not built into the north or south walls, each end is supported by a diagonal RSJ, built in across the corner of the tower. Logically, the diagonal RSJs were installed first, the RSJs against the walls were then placed in position, and the four primary timbers were supported by packing pieces underneath the ends, resting on the RSJs. The detail of the corbels suggests that these were cast after the RSJs were in position (Plate 5.7). It seems most likely that this remedial work was carried out when the fifth bell was recast in 1935. However, the relevant day book entry at Loughborough, which itemises the work carried out, does not record this work, which could have been carried out by a local builder.[12] Until further evidence is found, this must remain unclear.

DISCUSSION

As indicated above, one of the most remarkable elements within the lowest section of the tower is the two timber-framed walls, running east-west from the returns of the tower arch. These walls were well described in these pages in the 2019 volume, where it was demonstrated that they were constructed prior to 1530/40, and most likely in the 15th century.[13] Since no documentation has survived, the exact period can only be found by the use of dendrochronology.

Over the years there has been much speculation over the purpose of these walls. Even during a recent visit it was suggested to me that they were the remains of a former timbered tower, the predecessor of the present tower. This idea has been current for many years, but the form of the walls proves otherwise, and there is absolutely no evidence of weathering on the outer elevations. Another theory was promulgated by the RCHM in unpublished notes on the tower, quoted in the article referred to, which state that '… the tower was strengthened in the 17th century by the building of two internal timber-framed walls apparently to stiffen the structure and obviate shaking due to the ringing of a peal of bells.' This was quite correctly dismissed as far as stiffening the structure, but the theme of support during the ringing of the

bells was developed and it was suggested that the stress from the ringing of the bells was carried down to this lower level while the slow-setting lime mortar of the tower was hardening. However, consideration of the evidence proves conclusively that this cannot be so.

Firstly, it should be noted that when bells are swung, there are two varying components to the stress on the tower, one vertical, which is easily contained, and one horizontal, which is the one that causes the problems. The higher the bells are swung the greater the stress. The timbered structure in the base of the tower is not designed to withstand any sort of horizontal force, either along or across it. None of the elements appear to have been built into the tower walls; if that is the case it is effectively a free-standing structure. Also, there are no braces which might stiffen the structure.[14] Had any horizontal force been applied to it, it would have acted like a battering ram on the walls. Moreover, there has been instability in the past and there is a crude brace between the south elevation of the southern timber-framed wall, and the south wall of the tower, even without the need to restrain any force occasioned by the swinging of the bells.

Secondly, for this lower structure to have provided the support postulated, there must have been some sort of mechanical connection between the structure and the primary timbers of the floor below the bell frame, which would necessarily have been in the form of posts and braces. Even if removed, inevitably there would have been evidence left, most likely in the form of redundant mortices. Because the timber-framed walls have been raised (or altered) at a later date, any evidence there might have been there has either been covered up or destroyed.[15] That is not so in the case of the upper part of this theoretical structure, which remains much as it was when the upper stage of the tower was built. Inspection of the lower faces of the four primary beams supporting the mediaeval bell frame reveal there is no such evidence, and no unexplained marks, and the conclusion must be that these timbers were never supported from below.[16] Here it should be pointed out that, although very rare, there are a few instances of bell-frames being supported by a timbered structure within a stone tower, and one need to go no further than Almeley for such a case. That is completely different to the structure at Cradley: at Almeley the structure consists of a post in each internal corner of the tower, and lateral stability is obtained by a system of braces.

Thirdly, the two primary timbers of the structure that supports the bell frame divide the internal space roughly into thirds, and do not lie vertically above the timber-framed walls. Also, the rope hole on the south side of the frame has been used, and assuming that in mediaeval times the bells were rung from the base of the tower, as is most likely, the rope would fall approximately in the line with the southern of the timber-framed walls, implying that the bells were being rung before the timber-framed wall was inserted. The alternative is that the timbered-framed walls supported a floor, and that the bells were rung from this loft. If so, why go to all this bother, when a simple floor could have been installed, similar to that supporting the bell frame? Also the loft would have been too close to the bells for comfort, and access would have been an issue, as the upper stages have to be reached by ladder.

CONCLUSION

The conclusion is that the timber-framed walls in the base of the tower of St. James's Church, Cradley, never supported the mediaeval bell frame in that tower. Thus, the reason why they were built has yet to be deduced. A programme of dendrochronological dating may be able to establish the age of the timbers of the primary floor in the belfry stage of the tower, and in the timber-framed walls, to see if they are contemporary, even though they are independent structures. Dating of the bell frame itself would also be of interest, to see if it was contemporary with the

supporting floor or installed a few years later. There is nothing about the bell frame which is inconsistent with a date in the early 15th century.

NOTE: ARCHAEOLOGICAL SURVEY

While the main phases of the development of the bell frame at Cradley are discussed and analysed above, it should be emphasized that the fine detail can only be put in by a full archaeological survey. Currently, this is not possible because of the limited and dangerous access.

ACKNOWLEDGMENTS

Grateful thanks are due to Chris Pickford, Hon. Archivist of Loughborough Bellfoundry Museum, who has provided relevant information from the Taylor archives and also gave permission to use the illustration in Figure 1, which is based on a drawing by the late Ranald W. M. Clouston; to the late Ron Cooper who gave access on 1 March 1991; and to Chris Roberts who gave access to the tower at Cradley on 11 and 19 August 2021.

REFERENCES AND NOTES

[1] Brooks and Pevsner, *Buildings of England. Herefordshire*, (2012), p. 182. The work to be carried out under the supervision of Mr. Perkins was detailed in a report in the *Worcestershire Chronicle*, Wed. 26 May 1869, and included the removal of a west gallery, thus throwing open the Norman arch into the base of the tower. This opening up of the tower arch was stated to 'bring into view a neat perpendicular window in its western wall,…' This report also stated that the walls of the chancel had been recased, rather than rebuilt. The tracery of the west window has now been replaced.

[2] Brooks and Pevsner, *Buildings of England. Herefordshire*, (2012), p. 182. *Royal Commission on Historical Monuments*, Vol. II East, (1932), p. 61.

[3] For some of the rings of bells listed further details are given, such as the names of donors. Taken from a photostat of the bell list in the author's collection, from an original in the Bodleian Library, Ref. PH/PB/9650.

[4] The official reopening of the restored ring took place on 7 Oct. 1884, on the occasion of a bazaar in aid of the restoration of the bells. See *Bell News*, Sat. 18 Oct. 1884.

[5] The inscriptions of the bells are given in F. Sharpe, *Church Bells of Herefordshire*, Vol. 2 (1969), p. 115, where the date of the recast second bell is said, incorrectly, to be 1925. The bell was cast on 11 December 1935. Its predecessor weighed 5 cwt 2 qr 4 lb, and was used in the cast, which included two large bells of 43 and 65 cwt for the Ann Arbor carillon, so allowing for overplus the amount of old metal in the new bell must be rather less than 5%. Loughborough Bellfoundry Museum, Furnace book, ref. JT 6/2/6/7 p. 232. The specification for the inscription is given in the inscription book, ref. JT 6/2/3/11 p. 54. Both references per Chris Pickford.

[6] Earlier writers call these 'rope transoms', a terminology derived because the transoms were sometimes utilised as the support for rope rollers which were fixed onto the tops of the transoms. However, this was a later use, and the primary, and most essential, function was to provide the stability of the frame.

[7] Variations on truss types and other significant features of mediaeval frames can be found in Chris Pickford, (compiler), *Bellframes. A practical guide to inspection and recording* (1993), pp. 22-3, 42-8. There are other sections dealing with later frames. The researches of the present writer are incorporated in this manual.

[8] There is also a mediaeval frame of this type of layout at Mansel Lacy, now much rebuilt.

[9] Only a full survey of the supporting joists would tell the full story, but since they are inaccessible from above this is not possible. It was usual for the joists to be built into the walls at their ends, which, with the floorboards and supporting timbers, effectively forms a diaphragm within the tower, and resists the bell-related forces in both north-south and east-west directions.

[10] The mediaeval floorboards still exist on the south side of the bell frame, but are now covered with softwood floorboards, and the rope-hole can only be seen from below.

[11] The southernmost truss also evidently had problems, and a cross-shaped element was nailed against the south elevation in an attempt to restrain the lateral force placed on the truss by the swinging bells.

[12] Loughborough Bellfoundry Museum, ref. JT 4/7/1/21 pp. 20-21, per Chris Pickford. There is no relevant material listed in the on-line catalogue of the parish records (accessed 15 August 2021) and so for the moment the point must remain unclear.

[13] Duncan James, 'Buildings', *TWNFC* 67 (2019), pp. 151-3.
[14] The plate at the top of the lower section of the timber-framed walls is the only one that is accessible, but where it abuts the west wall it has been plastered over and is thus not visible, so it is at least possible that it was built into the wall.
[15] The upper section of the timber-framed wall has been raised, but it is not known when it happened. While the vertical elements are of oak, the upper rail is of softwood, and hence of no great antiquity. It may well have been adapted during the nineteenth-century renovations.
[16] The extreme ends of the primary timbers are covered by the packing between the lower faces and the RSJs, and tied down to the upper face of the RSJs by angle brackets. While the vertical faces are partially covered by the brackets, had there been a concealed mortice, it would be expected that the joint would have been double pegged, and that at least one peg would be visible. Moreover, vertical posts would not restrain the horizontal movement without a brace to triangulate the corner, and there is absolutely no sign of any such on any of the primary timbers.

The Iconography of the Romanesque Font in Eardisley Church, Herefordshire

By BRUCE COPLESTONE-CROW

The visitor to the church of St Mary Magdalene at Eardisley today will see a large but not particularly distinguished church, architecturally speaking, and mainly 13th century in date (Plate 6.1).[1] *Inside, however, one will see in its font almost certainly the greatest surviving example of the sculpture of the so-called 'Herefordshire School of Romanesque Sculpture' (Plate 6.2).*[2] *It was probably commissioned by Robert III de Baskerville, who was lord of Eardisley between 1137/9 and 1175, from the Chief Master of the school who carved it c.1150. The intensity and vigour displayed in the carving is unmatched in any other surviving examples of the School's work. It may once have been but one part of a sculptural scheme for the entire church in which it stood and which, sadly, no longer survives. If you could move the font to the present church at Kilpeck in the same county, which is another of the School's master works, you might get some idea of the original situation here, but that is not going to happen, so one is left to imagine it the best one can. Regarding the font, no explanation of the message being imparted to the people of Eardisley of the day (remembering that culturally it was even closer to Wales than it is today) by its iconography—Christ's crucifixion and death and his descent into Limbo—has so far been attempted, and this paper is an attempt to remedy that situation.*

ICONOGRAPHY AND THE GOSPEL OF NICODEMUS

The iconography of the font can be divided into four sections as follows:

First, a benevolent-looking lion, symbolic of Christ as the Lion of Judah (Figure 1). This is a feature used in other surviving examples of the work of the so-called Herefordshire School. In particular, the font in the church at Shobdon has four similar lions around its stem and one of the capitals of the west door at Leominster has two more of them.[3]

Secondly, a 'Harrowing of Hell' scene first used by the same master on a tympanum at Shobdon. Its sole source is the apocryphal gospel of Nicodemus which, though scarcely known today, in medieval times had a popularity almost rivalling that of the four canonical gospels. In this scene (Figure 2) Christ is seen hauling a miniature Adam, followed by all the saints and doctors of the church (not shown but integral to Nicodemus's description of the Harrowing of Hell), out of a frightful tangle of fronds or tentacles which, from its context, we can be sure represents the temptations of evil and snares of Hell. Adam has his hand over his heart for love of his Saviour. Christ bears the dove of the Holy Spirit[4] on his shoulder and in his right hand he has a staff with a cross at its head that he is planting firmly in the mouth of Hell—or he would be if the sculptor had not run out of space. The Hell-mouth appears more clearly on the Shobdon tympanum (Plate 6.3).[5]

Thirdly, a male figure is shown hurrying in the direction of Christ (his Saviour) and the Harrowing of Hell scene and holding a book. In medieval iconography his book and the nimbus about his head mark him out as either a doctor of the church or, more likely, a gospel writer (Figure 3).

The fourth section shows a seemingly enigmatic 'Fighting Knights' scene. They are dressed in typical Norman fashion, with mailed or quilted hauberks and conical helmets with nasal guards; one wields a sword while the other thrusts forward with a spear (Figure. 4).



Figure 1. The Lion of Judah



Figure 2. The Harrowing of Hell

One significant feature of all four scenes needs explaining before we attempt to interpret them in the Christian terms demanded by their situation on the font. That feature is the significance of the fronds or tendrils that go round the whole font. The lion is shown either free of these tendrils or daintily stepping out of them. They avoid Christ but engulf the small figure of Adam who is being pulled clear of them by Jesus. Christ himself is avoided as is the gospel-holding figure. As the fronds or tendrils avoid all these scenes except the one in which Adam is being pulled from them, they clearly represent the coils of evil. In the Fighting Knights scene, however, a more subtle interpretation is required because they entangle the left-hand knight more closely while the right-hand one appears to be stepping out of them.

Leaving out the lion, symbolic of Christ as the 'Lion of Judah' and not in question, the significance of the remainder of the font's sculpture requires interpretation. The key lies in the book-holding figure separating the Fighting Knights scene from that of Christ and the Harrowing of Hell (Figure 3). This is Nicodemus, author of an apocryphal gospel that was almost as popular in the medieval period as the four canonical gospels, but which is barely known today. His appearance on the font is unique, so far as is known, and relevant for three reasons. First, because it was to him, a member of the Sanhedrin, that Christ spoke of the need for spiritual regeneration or rebirth through the sacrament of baptism; secondly because he assisted Joseph of Arimathea in taking Christ down from the cross and preparing him for burial in a tomb of Joseph's;[6] and thirdly and most importantly because his gospel is the sole source of the Harrowing of Hell story. This is described in the second of the two parts into which his gospel is divided, this being the account of Christ's descent into Hades (Limbo), his Harrowing of Hell and his saving of Adam and the souls of all the saints and doctors of the church. On the font Nicodemus stands between this scene, depicted on the viewer's right-hand side, and the Fighting Knights scene on his left. Reading left to right the Fighting Knights scene comes before the Harrowing of Hell so, logically, if the Harrowing of Hell is from the second part of Nicodemus's gospel, then the Fighting

Knights must represent the first. This part (which is known separately as *The Acts of Pilate*) deals with the trial, crucifixion and death of Christ.[7]



Figure 3. Nicodemus the gospel writer

How could the scene of the two Fighting Knights represent Christ's Passion to the people of mid-12th-century Eardisley? To answer this, we need to begin with a detailed examination of how it is composed. This is very careful and deliberate and shows the Chief Master's absolute mastery of his subject. Starting at the top (Figure. 4) and moving in a clockwise fashion, the attitudes of the two knights can be seen to emphasise two points within the whole scene. Beginning with the head of the right-hand figure, this is inclined sharply forward so that his line of sight falls on his spear thrust. The viewer's eye is taken down through this figure to the bottom of the scene and then across to the leg of the second knight. Here we see that this leg is being pierced right through by the spear of the first knight. Moving in a clockwise direction again, the eye is taken up the second figure's body and along his right arm to the mighty sword he is holding. The point of this sword is directed at his head and, through it, to his line of sight. This falls on his left hand, which

is about to be entangled in the tendrils that pass through the scene and which we know represent the forces of evil.



Figure 4. The Fighting Knights

The lines of sight of the two knights, therefore, give us two points of reference within the scene: first, the spear thrust, and then the fronds entangling the hand. From these key features we may conclude that the first action is the cause of the second: the spear thrust of the right-hand knight through the thigh of the left-hand knight has caused the latter to become entangled in the fronds. To make this conclusion more certain, the sculptor has depicted the sword-wielding figure more closely entwined in the fronds than his spear-thrusting companion, who seems, indeed, to be stepping out of them.[8] These same knights can be seen standing, one above the other, on the left-hand portal of the south door of the church at Kilpeck (Plates 6.4 and 6.5). Here, the lower knight holds the sword and is more entwined within tendrils, while the upper one bears a spear (with a cross piece that seems to convert it into a cross) and has no tendrils about him. Both are weather worn but these features are still visible.

CULTS, LEGENDS, ROMANCES AND THE FIGHTING KNIGHTS SCENE

Even though the Fighting Knights scene must represent Christ's Passion, to do so it uses a subject that derives from legends and romances whose origins are much older than the 12th century and

which are strongly connected with Wales and the Forest of Dean. Over time they developed into the cycle of grail romances, versions of which were already well known in the Eardisley area by the time the font was carved. Themes of loss and renewal are always present, along with symbols related to the lance and the Holy Grail that emerged in Arthurian legend. The origins and development of these themes are outlined carefully below so that, towards the end of the paper, it becomes possible to assess their relationship with Christian belief and the gospel of Nicodemus, and to suggest how it was that the Chief Master came to use such themes in representing the trial, crucifixion and death of Christ, renewal through baptism and the promise of the Second Coming.

The people of 12th-century Eardisley would have been familiar with the belief, deriving solely from the gospel of Nicodemus, that the lance or spear thrust into his side was the cause of Christ's death, not the act of crucifixion. As we will see later, this plays a central role in the iconography. However, though hardly known to the modern observer, there is one feature of this scene that would have been immediately familiar to the Anglo-Welsh population of Eardisley. The piercing of a thigh or thighs by a lance or spear would immediately have reminded them of their folk hero Bran, one of whose names, 'Bran the Blessed', makes him a Christ figure, the man who first brought Christianity to them according to Welsh legend. His suitability as both a folk hero and a Christ figure for the Chief Master to include in his carving on the font is therefore clear. He was pierced through both thighs by a spear in a battle with the Irish. In this instance, however, the sculptor of the font was constrained by the curvature of the surface to show only one thigh being pierced.[9]

The piercing of his thigh(s) relates to fundamental story much older than the 12th century. This is demonstrated in a poem of Llywarch Hên, who may have lived in the 6th century but whose works are now known from a 14th-century manuscript. The poem is written to his son Gwên and refers to him as 'Gwên whose strong thigh was pierced'.[10] There was also an Echel Morddwyd Twll (Echel 'pierced-thigh') who was a knight of Arthur's killed in the hunting of Twrch Trwyth episode in the *How Culhwch Won Olwen* tale associated with the Mabinogion, which may date from the 11th century.[11] He was also a chieftain of Arthur's Court in the ninth of the Welsh triads in the earliest, 13th-century, manuscript.[12] The legendary figure of Bran, however, had developed over time from the Irish god Nuadu (Nodens in Welsh), who had a temple at Lydney in the Forest of Dean in late Roman times. It was from the cult of Nuadu that developed the cycle of grail romances that became attached to the court of the legendary King Arthur, a cycle that was, even in the 12th century, in wide circulation in Wales and its border with England.

In origin, Nuadu was the king of the Tuatha Dé Danann, the Irish gods. Irish mythology says that he was a giant who led the gods across the sea in an invasion of Ireland, which was then held by the Fir Bolg. It says also that before they went they had four talismans, three of which are relevant here: the spear of Lugh—battle would never go against him who had it in hand; the sword of Nuadu—no man could escape from it, when it was drawn from its battle-scabbard there was no resisting it; and the cauldron of The Dagda—no company would go away from it unsatisfied.

In the First Battle of Moytura, the battle that saw the expulsion of the Fir Bolg, Nuadu lost his left arm which was cut off by Sreng, the champion of the Fir Bolg. Nuadu's loss of an arm meant that he was unfit to rule, so Bres, king of the Formorians, or the people of the Otherworld, replaced him. In the meantime, Dian Cecht the physician made an arm of silver for Nuadu, 'with the full activity of any arm in each finger and in each joint' after which he was

known as Nuadu Airgetlám or 'Nuadu of the Silver Arm'. When the temple of Nodens/Nuadu at Lydney was excavated in 1928-9 a votive offering in the form of a small, bronze, hollow left arm was found. The index finger and thumb of the hand were flexed as if to grasp something between them. This was probably an apple, a symbol of health and healing.[13]

The rule of Bres proved oppressive for the Tuatha Dé Danann, so he was deposed and Nuadu, with his renewed arm, returned as their king. Bres and the Formorians then raised an army against him, and a battle ensued—the Second Battle of Moytura. Lugh was the leader of the Tuatha Dé Danann in this battle and they had the help of a miraculous well in which dead men were brought back to life. Those revivified in this way, however, were dumb and unable to tell anyone of what had happened to them. Balor of the Evil Eye, leader of the Formorians, cut off Nuadu's head and was then himself slain by Lugh. Lugh then replaced Nuadu as king of the Tuatha Dé Danann.[14]

Virtually all that is known of Nuadu's story in the form of Bran is contained in the *mabinogi* of *Branwen Daughter of Llŷr*.[15] In this tale Bran is a giant as well as king of Britain. One day the king of Ireland crosses the sea seeking the hand in marriage of Branwen, Bran's sister. Bran allows the wedding to take place and at the marriage feast offers the Irish king a magic cauldron as part of her dowry. This cauldron is capable of reviving dead warriors, but those so brought back to life are unable to speak.[16] The Irish king accepts the cauldron and returns home with Branwen. Soon, however, Branwen is being treated as little more than the king's slave, so Bran assembles an army with which to rescue her. While his army crosses the Irish Sea in boats Bran wades across ahead of them, thus showing that he was both a giant and a sea god. The cult figure of Nodens/Nuadu at Lydney was both the lord of the sea and a navigator, a mosaic found at the temple site having a frieze of sea monsters and fish and an inscription mentioning the Roman navy.[17] When the armies of Bran and the Irish king clash, Bran seizes his sister and cries out to his opponents—who are using Bran's magic cauldron to revive their warriors as soon as they are killed[18]—to beware Morddwyd Tyllion or 'Pierced Thighs', a reference to himself and his god-like powers.[19] During the battle, however, Bran is mortally wounded in the foot by a spear, and, knowing himself close to death, he tells his followers to cut off his head and carry it back to Britain so that it can be buried in a mound in London. Bran tells them that on their journey to the mound his head will supply them with everything they need, however long it takes. On arriving back in Britain, Branwen is so broken hearted at the devastation she has caused that she dies. The journey to the mound takes eighty-seven years but in all that time Bran's head does indeed supply his followers with everything they require. His head is equivalent to the Holy Grail in the Arthurian romances, which continues to nourish the Fisher King as he lies wounded in the Grail Castle. If, on seeing the grail procession, the grail hero had asked "whom does the grail serve" the Fisher King would have been cured, but he does not, so he continues to languish and, like Christ, he fails to return to the world.

A scene from the Late Iron Age Gundestrup Cauldron found in Denmark in 1891 is relevant here (Plate 6.6). A giant (The Dagda/Bran) is seen plunging dead men into his cauldron (rather than a well) of revivification. To represent the 'healing' of the lost life a figure of a dog is shown below the cauldron. Dogs lick their wounds to heal them. Several small model dogs have been found at Lydney. The reborn men are on horseback, which is in keeping with an alternative name for Dagda—Eochaid Ollathair or 'Eochaid great horseman'. To make the revivification message clear a line of dead soldiers marches towards The Dagda and his cauldron with, by contrast, the reborn men riding away from him over a Tree of Life and towards men

who sound wolf-headed horns to welcome them back to life. As Jesus said to his disciple John: 'I am the resurrection and the life. Whoever believes in me, though he die, yet shall he live.'[20]

In the *mabinogi* of *Branwen Daughter of Llŷr*, Bran can wade across to Ireland because he is a giant. His army follows him in boats. The last of the file of men marching towards the cauldron does not carry a shield, apparently because his left arm is missing. It was Nuadu's left arm that was cut off in the fight with the Fir Bolg, so this is a clear gnostic reference to him.

Bran's origins in the mythology of Nuadu are thus clear. Both he and Nuadu were god kings whose wounding, in the arm in Nuadu's case and foot in Bran's, led to their withdrawal from the world until their wound was healed. Their absence caused destruction to their lands and great tribulation to their people. There, however, the parallel stops. In Nuadu's case his wound was healed before he was killed by Balor. Lugh then kills Balor and replaces Nuadu as king, so bringing an end to the suffering of his people. In Bran's story, however, he is left with his wound unhealed and his realms of Britain and Ireland lying waste. His story, therefore, is incomplete, and a reason for this will be suggested towards the end of this paper.

This theme of a land lying waste—a 'Waste Land'—is one that occurs in the stories of the grail that were reaching their completed form in the south-Welsh-border area at the very time when the Eardisley font was carved; it is no coincidence that the font is chalice shaped. Since many aspects of these romances indicate that their origins lay in the cult of Nuadu/Bran, it is no coincidence either that a study of their geography, where given, shows that they take place almost exclusively in a great wood or forest on the west bank of the River Severn towards its mouth; in other words in the Forest of Dean, the location, indeed, of Nuadu's temple.

We know these romances were already in circulation at this time because Geoffrey of Monmouth (both Eardisley and Lydney lie only a few miles from Monmouth), the arch-romancer, includes a version of it in his fabulous *History of the Kings of Britain*, written in about 1135. In this book Geoffrey has a certain Belinus compete with his brother Brennius (Bran), his twin or other self, for the throne of Britain. Although they wish to fight for the supremacy, friends of the brothers persuade them to divide the realm between them. In the division Belinus takes England and Brennius the rest. After a while, however, Belinus attacks Brennius and drives him into exile on the continent (or across water into the Otherworld). Brennius spends many years wandering overseas before returning to Britain with an army. Once again, the brothers square up for a fight, but their mother persuades them to unite in peace and amity.[21] In Geoffrey's version of the tale no wounding of Brennius occurs, but he is driven across the sea into the Otherworld, just as Nuadu/Bran retires to a chamber under a hill or mound symbolic of that world. Similarly, no wasting of his realm is mentioned, but his return and unification with his brother or double is cognate with Bres/Lugh replacing Nuadu/Bran, by means of which the realm is brought back to productive life.

Geoffrey's Belinus appears as Balaain in an early 13th-century version of the grail legend called the *Suite du Merlin*. This story includes the grail, the lance and the Fisher King (here called Pellehan), who first appear in Chrétien de Troyes's *Perceval, the Story of the Grail* of *c.*1175-85.[22] It has Merlin informing Balaain, the grail hero, that he will bring great calamity on three realms in his quest for the grail. Nevertheless, Balaain approaches the castle in which the grail is kept, and which is the home of King Pellehan. As he nears it Garlan, brother to the king, comes out to meet him and in the ensuing fight is slain by Balaain. King Pellehan then attacks Balaain and shatters the hero's sword with his own mighty weapon. The grail hero then runs through the castle looking for a weapon with which to ward off Pellehan's attacks. He comes to a richly decorated chamber in which there is a vessel of gold and silver (the grail) and standing within it,

point downwards and apparently without any means of support, is a lance that drips blood into the vessel. Ignoring a voice (Merlin's) warning him of the consequences of his touching it, Balaain seizes the lance and thrusts it through the thighs of the advancing Pellehan in the first occurrence in Arthurian romance of what became known as the 'Dolorous Stroke'.[23] At once the castle collapses in ruins (Figure 5).[24] Merlin, however, rescues Balaain and Pellehan and, as he departs the scene, Balaain notices that in Pellehan's realm (the three realms of Merlin's prophecy; that is, England, Wales and Ireland) trees have fallen, crops have been destroyed and the people killed. The kingdom is henceforth known as the 'Waste Land' and Pellehan lies there, wounded through or between the thighs, until the grail hero returns to heal the wound, succeed him as king and restore the realm to fruitfulness.[25]



Figure 5, left. Lancelot Speed's depiction of the 'Dolorous Stroke' for Sir James Knowles's *Tales of King Arthur and his Knights* (1912). Source: Wikipedia Commons

Though they are given a specifically Christian context in the grail legends, the lance (remembering that in medieval times it was believed that the lance thrust to Jesus's side was the cause of his death rather than the act of crucifixion) and the grail (the grail being the cup or chalice of the Last Supper into which flowed the blood and water coming from Christ's side after the spear thrust[26]) both have Celtic origins. In the Irish story called *The Three Sons of Turenn*, before the Second Battle of Moytura Nuadu sends the three 'sons', one of whom is named Brian or Bran, to fetch a spear called Slaughterer from the king of Persia (that is, a fabulous, far-away kingdom cognate with the Otherworld). Once acquired, this will be the spear that Lugh, leader of the Tuatha Dé Danann, will take into the battle. They reach the king of Persia's palace, and a fight takes place in which the king is killed. They then go into the palace looking for the spear. They find it in a certain room, suspended point downwards into a cauldron of water which hisses and bubbles, kept in that fashion, they are told, to stop it burning down the palace.[27] In other words, a blow from the spear would bring destruction on the scale caused by Balaain's blow to king Pellehan in the *Suite du Merlin*.[28] This cauldron of water is clearly the magic cauldron (well) of the Tuatha Dé Danann and cauldron of Bran but, in this tale, it has been transformed into the Holy Grail of the grail stories. Brian seized the lance nevertheless and took it back to Ireland for Lugh to use.

Behind all these stories lies the widespread belief that the health of a chief or king's land and people required his strength and virility to be unimpaired. Any suggestion of weakness meant

his banishment and his people suffering the wasting of their lands until he could return in renewed health and vigour.

In certain of the grail romances the spear—or lance—thrust that causes the god king's maiming is called (for obvious reasons) the 'Dolorous Stroke'. In Chrétien's *Perceval* the receiver of the Dolorous Stroke is the Fisher King.[29] He rules his kingdom from the grail castle, within which he keeps two talismans—the grail and the lance. When the Fisher King ('Rich Fisher' in other versions of the tale) is smitten though or between the thighs with the lance his kingdom becomes the 'Waste Land'. He then lies in his castle, being fed with marvellous food from the grail (an obvious parallel to the head of Bran), awaiting the coming of the grail hero.

Wolfram von Eschenbach's version of *Perceval*, written about thirty years after the original, is the most explicit concerning the nature of the Fisher King's wound. Here it is said that the spear thrust dealt by the grail hero was 'Through his testicles…', and so rendered him infertile.[30] Any mention of wounding in a thigh or thighs, therefore, is a euphemism for the Fisher King's loss of his generative power leading to an inability to propagate his line. So, in the *Perceval* of Chrétien there is a direct link between the blemishing of the ruler (emasculation) and the infertility of his realm, the cause of that infertility being termed the Dolorous Stroke. Nuadu, of course, received the original Dolorous Stroke (the loss of his left arm), so the Fisher King or Rich Fisher is Nuadu in another guise.

Like the grail and the lance, the mighty sword attributed to Pellehan also has a Celtic origin. In the tract known as the *Four Chief Treasures of the Tuatha Dé* there is 'the sword of Nuadu: no man could escape from it; when it was drawn from its battle-scabbard there was no resisting it'. Also included is 'the spear that Lugh had: no battle would ever go against him who had it in his hand'.[31] Nuadu's sword (like the Excalibur of Arthur, its more famous counterpart) is a typical Celtic 'sword of light'. In the *Dream of Rhonabwy*, one of the Welsh tales that developed in parallel to the *mabinogi*, Arthur's sword is so wondrous 'that it was hard for anyone to look at it'.[32] In Chrétien's *Perceval* the Fisher King keeps a powerful sword in the grail castle as well as the grail and the lance. All these swords are symbolic of their owners being sun gods, the blinding light emitted by them being equivalent to the light of the sun. At Lydney, a votive offering from the temple of Nuadu (a name that translates as 'hunter' or 'fisher'[33]) shows him being drawn along, Apollo like, in a heavenly chariot and brandishing a club symbolic of all the powers attributed to solar deities.[34]

The marvellous spear possessed by Lugh also represents the lightning weapon of a solar deity.[35] Lugh's name means 'flashing, light', and the fiery-headed lance obtained for him from the king of Persia is cognate with lightning. In the First Battle of Moytura the man who wounds Nuadu in the arm is called Sreng, but he is merely a doublet of Lugh, for he has as his weapon 'thick-shafted javelins…keen edged…Woe to him whom they should smite… Death is in their mighty blows, destruction in but one descent'[36]—lightning, in other words. In the *Suite du Merlin*, Lugh's place is taken by Balaain and in Geoffrey of Monmouth's *History* by Belinus, both these names having their root in Apollo Belenos, the Celtic sun god.[37]

The fight between Nuadu and Sreng during the First Battle of Moytura is a duel between two sun gods. One of them, however, is also the lord of the Otherworld, as shown by his withdrawal, because of his wound, to a hollow under a hill or mound. A version of this theme is contained in the early 13th-century *Perlesvaus* or *The High Book of the Grail*. In this romance Llacheu (whose name, like Lugh's, means 'gleaming, flashing' and who wears a golden circlet representing his solar nature) or Loholt is a son of Arthur. One day he meets Logrin, a giant of darkness who is filling the world with his destructive ravaging. Llacheu/Loholt promptly slays

him and then sleeps on his corpse, thus becoming one with the vanquished lord of darkness. Kei, one of Arthur's companions, finds Llacheu/Loholt in this position and treacherously kills him. Then he cuts off Logrin's head and brings it to Arthur so that he can claim all the glory for bringing light back into the world.[38] In Lugh's challenge to Balor, Llacheu's to Logrin, Balaain's to Pellehan and the grail hero's to the Fisher King (even Mordred's to Arthur, in the 'Battle in the West'), therefore, we see the solar deity overcoming the lord of the Otherworld, the dark divinity. But the dark divinity is a double of his opponent, so he returns as a sun god to bring back the light of the sun. Like Nuadu/Bran, Lugh was a wounded god, having received a spear thrust in his side. In the last battle, King Arthur drove a lance right through the body of Mordred, his natural son, 'below the shield'.[39]

There is a clear, ancient and timeless meaning to all this: in essence it is a representation of a fertility cult. The sword-bearing sun god is smitten by his double, the possessor of the lightning spear of the gods and, having been blemished in some way, retires to become the lord of darkness. After a while, however, his wound is healed and he rises again to do battle with the spear bearer who, in his turn, is wounded and becomes the lord of darkness. We see in this the circle of daylight becoming night and the fruitfulness of summer giving way to the barrenness of winter.

We can see this cult represented in the Fighting Knights seen on the font. The left-hand knight is Nuadu/Bran/Fisher King/Arthur and their cognates who, by the spear thrust through the thighs from the right-hand knight, Lugh/grail hero/Mordred and their cognates, is becoming the ruler of the Otherworld, symbolised by his increasing entanglement in the fronds. His companion, by contrast, is seen with the fronds falling away from him, just as darkness falls away at the coming of the sun and the barrenness of winter gives way to the fruitfulness of summer. The true skill of the sculptor is shown by his use of the knights' sight lines to unlock the meaning to the scene: 'Look', he is saying, 'because of this (the wounding through the thighs), this (the dragging down or withdrawal of the sun god into the darkness of the Otherworld) is happening'.

THE OVERALL ICONOGRAPHY OF THE FONT: AN INTERPRETATION

As has already been suggested, however, this scene must also represent the content of the first part of Nicodemus's gospel, the Crucifixion and death of Christ. The only possible parallel with this is the piercing of a body by a spear or lance. It is interesting to note that although Nuadu/Bran's wound was through the thighs, that of Lleu Llaw Gylles, the Welsh version of Irish Lugh, was in the side.[40] In Christ's Passion on the cross a lance or spear pierces his side, of course, but, as we have seen, the 12th-century observer would have known something else about that event that is derived only from Nicodemus's gospel: that, according to medieval belief, it was the lance thrust to his side that was the cause of Christ's death and not the act of crucifixion. Though not recognised today, that belief was widespread in the Middle Ages and is the central theme of the iconography of the font. The same gospel also gives us a name for the Roman soldier who thrust the death-dealing lance into his side, and that is Longinus. The equivalence in the medieval mind between his lance and the spear of Lugh, the prototype grail hero, is brought out in Chrétien's *Perceval*. Here, the lance, kept in the grail castle, which the grail hero thrusts between the thighs of the grail king, delivers the Dolorous Stroke:

> …[it] is the very lance with which the Son of God was struck in the side, right to the heart, on the day when he hung on the cross. The one who struck him was called Longinus. Ever since that day it has bled constantly, and it will shed blood until the world's end.[41]

To Christians of the 12th century the most 'Dolorous Stroke' of all was this piercing of Christ's side by the lance since this had robbed them of the living presence of God.

A description of the result of this Dolorous Stroke is given exclusively in the second part of Nicodemus's gospel, the part from which the Harrowing of Hell scene on the font is taken. After his death Christ descends into Limbo. Hell sends out Satan, 'the prince and chief of death' to contend with the 'King of Glory' for supremacy over the world of darkness, death and sin. After a struggle Christ thrusts Satan into Hell and binds him there with chains forever. Christ then takes Adam by the right hand and hauls him and all the saints and doctors of the church out of Hell and into Paradise. Then, to celebrate his triumph over sin and death, Christ sets his cross in the mouth of Hell as a permanent reminder to all mankind of his victory.[42]

On the font Christ can be seen drawing Adam out of the snares of Hell by the right hand and planting his cross in its mouth: no Hell-mouth is shown here, but as noted before there is one in the same scene on the tympanum at Shobdon Church. In that scene, the tip of Christ's staff is a cross in the form of a sun disc with four radiating arms. The tip of the staff on the Eardisley font, by contrast, has only the radiating arms, but here the Nuadu/Bran figure bears a mighty sword that, in Christian terms, equates to the all-powerful nature of the word of God, shining like a sun in a dark world of unbelief. In the second part of this apocryphal gospel of Nicodemus, therefore, Christ is seen as a sun deity gaining victory over Satan, the lord of darkness and the one who caused his death by spear thrust. In this balance of Christ with Satan, good with evil, there is a hint of the Cathar, Manichaean or Albigensian belief that they have equal authority over the world.[43]

In the stories concerning Nuadu/Bran/Fisher King the god's realm lies desolate after he is wounded and forced to retire from the world. This is paralleled in Christian doctrine by the barrenness of a world robbed of the quickening power of the Living Word of God after the wounding-unto-death of his son, Jesus. And yet he has promised to come again into the world, just as Nuadu/Bran, his wound healed, returns once more to rule his kingdom. Nuadu ('fisher') and the Fisher King are obvious parallels to Christ, who was the King of Kings and the greatest 'fisherman' of all. In his temple at Lydney, Nuadu's inner sanctuary was divided into three *cellae*,[44] showing that he was worshipped in a three-fold form. Irish mythology gave names to these forms, Nuadu Finnfael ('white light'), Nuadu Airgetlám ('silver arm') and Nuadu Necht (water)—representing Nuadu in the sky (the sun), on the earth and in the sea. In Christian terms we have the equivalent of God the Father in Heaven, God the Son on earth and God the Holy Spirit. In this last, water is symbolic of the presence of the Holy Spirit in the sacrament of baptism, the Christ figure on the font having the dove of the Holy Spirit on his shoulder. In his first form Nuadu was the king of all the gods, the Tuatha Dé Danann, just as God the Father rules all. In his second form he was a god of healing, as shown by the 'healing' of his left arm with a silver replacement (and by cult objects found at Lydney[45]), and God the Son came to earth as the healer of immortal souls. As a sea god Nuadu was a navigator, whose guidance on earth was sought in drug-induced sleep in the *abaton* at Lydney[46] and who guided the dead to the Celtic Hades. Christ is spiritual guide and navigator to all mankind, in this world and the next.

When Christ instituted the sacrament of baptism, he enjoined his disciples to baptise in the Threefold Name—Father, Son and Holy Spirit. Baptism (received by adults in the early

church) washes away sin and cleanses the soul ready for its 'death' and 'rebirth' in the life in Christ. When Christ spoke for the first time on the need for spiritual regeneration it was to Nicodemus that he said:

> Truly, I say to you, unless one is born of water and the Spirit, he cannot enter the kingdom of God. Do not marvel that I say to you "you must be born anew".[47]

Later, St Paul defined the symbolic nature of baptism in a letter to the Romans:

> Do you not know that all of us who have been baptised into Jesus Christ were baptised unto his death? We were buried therefore with him by baptism unto death, so that as Christ was raised from the dead by the glory of the Father, we too walk in newness of life.[48]

Baptism at the font, therefore, is symbolic of the soul's death and burial as well as its rebirth in the newness of life. It is interesting in view of this that when (in past or present times) an adult was to be baptised, he or she was immersed in water backwards, thus making their metaphorical 'death' more explicit via baptism in water.

This ability to regenerate life is shared by Nuadu/Bran's cauldron of revivication. Once mortally wounded men were placed within its waters they were immediately revived, although they were then struck dumb and unable to speak. This motif is paralleled in Nicodemus's gospel in that the account of the Harrowing of Hell that forms its second part was derived from the testament of two men who claimed to have been raised from the dead at Christ's Resurrection. Their testimony had to be written down, however, because they had been struck dumb by the glory they had seen.[49]

In the grail romances the cauldron of Nuadu/Bran has become the Holy Grail, the vessel in which was captured the blood and water flowing from Christ's side after Longinus's spear thrust. In these stories the grail is apparently empty, although it was able to maintain the Fisher King until his wound was healed. However, with the lance bleeding with Christ's blood suspended above the vessel, it seems clear that we are meant to draw the conclusion that within the vessel blood is mingling with water (in the 'Three Sons' story the cauldron contains water). In other words, the Fisher King's life is sustained by the body and blood of Christ, just as Christian life is sustained through the sacrament of Holy Communion, when both elements are present.

At Eardisley the cauldron of Nuadu/Bran and the grail of the Fisher King have become the Christian font: the sculptor has deliberately made it cauldron or (with its stem) chalice-shaped (Plate 6.2) to convey this idea. The people of Eardisley could therefore view the font in their church as both the cauldron of Nuadu/Bran, with its power to revive the dead, and as the Holy Grail, symbolic of the renewal of life obtainable via baptism. At the font, man's old, sinful, life dies before it is reborn through baptism. After this, the body and blood of the Crucified Christ sustains him as he strives to live a life pleasing to God. On the surface of the font the sculptor has shown the figure of Bran being wounded through the thigh(s) by the spear of Lugh, resulting in his forced retirement to a chamber under a hill. His absence will cause a devastation of his land and a misery to his people that is symbolised by the encroaching tendrils. In the light of the grail romances—versions of which were circulating in the Eardisley area—the spear of the grail hero (Balaain, etc.) is seen as the lance of the Passion wielded by Longinus. After the lance killed Christ, he was put in a rock-cut tomb and as a result the world is enduring an era of dark

barrenness (deprived as it is of the living presence of God) until his 'rebirth' at his Second Coming. But just as Bran/Nuadu/ Pellehan/Fisher King lies wounded and his kingdom a waste land awaiting the coming of the Grail Hero, so Christ has yet to be healed of his wound, so that he can return to reign in glory as he has promised. With this knowledge, we can probably view the fact that Bran's story ends with the burial of his head in the Otherworld (as outlined earlier) as recognition of the fact that Christ's Second Coming has not yet occurred.

The story is also that of the mythical King Arthur, the 'once and future king'. He bore Excalibur, a mighty sword of light, and received a 'Dolorous Stroke' from Mordred, his nephew or double. After this he was taken across water to Avalon (the Otherworld) to await the healing of his wound and his return (rebirth) at Britain's hour of need. The three queens in the boat taking Arthur to Avalon weep, not just for his passing, but also for the trials and tribulations that his land and people will endure before he returns. So, Arthur's story is that of Bran and the Fisher King's, both of which are versions of Nuadu's.

SUMMARY

To summarise what has been said: through his expert carving on the font in Eardisley Church, the Chief Master of the so-called 'Herefordshire School of Romanesque Sculpture' cleverly succeeded in representing to the people of mid-12th-century Eardisley, in pictorial form, Christ's Passion and death, the rebirth of the soul through baptism and his promised Second Coming. The Chief Master achieves his purpose by skilfully combining themes from the Gospel of Nicodemus—with its narrative of Christ's Harrowing of Hell and the belief that Christ's death was caused by the lance thrust of Longinus, not the act of crucifixion—with stories of death and renewal well known to the people, such as the tale of their folk hero Bran and contemporary versions of Arthurian and grail romances with their symbolism of the lance and the Holy Grail. The origin of these stories lay in the distant past, in the cult of Nuadu at his temple in the Forest of Dean, long before the font was carved. The crucial scene is that of the fighting knights, where the left-hand knight (Nuada/Bran/Fisher King) remains entrapped in the fronds. He is yet to be healed of his wound, so that he can rise and bring renewal to the world by his presence. His story is incomplete, so through his chosen iconography the sculptor is reminding the people of Eardisley (and us) that Christ has not yet returned to the world. But we live in hope.

REFERENCES AND NOTES

[1] A. Brooks & N. Pevsner, *The Buildings of England: Herefordshire* (Yale University Press, New Haven and London, 2012) the 'Pevsner Guide' pp. 214-5.

[2] The School's greatest exponent today is Professor Malcolm Thurlby of York University, Ontario: *The Herefordshire School of Romanesque Sculpture* (Logaston Press, 2013), *passim*. Eardisley occurs on pp. 195-201.

[3] J. Hillaby & R. Boulton, *The Sculptured Capitals of Leominster Priory* (Friends of Leominster Priory Church, 1993), unpaginated. West Portal Capital 5.

[4] John the Baptist said to Jesus 'I have baptized you with water; but He will baptize you with the Holy Spirit': Mark 1:8.

[5] The Romanesque church at Shobdon was demolished in the 18th century and parts of it (now known as the 'Shobdon Arches') were set up in the grounds of Shobdon Court. Inevitably, they are now quite badly worn, so the illustration given here is from a drawing of it made by G. R. Lewis in 1852 and published as *The Ancient Church of Shobdon, Herefordshire* (Pelham Richardson, London), Plate 14.

[6] John 3: 1-10 & 19:38. This is most clearly seen in an illustration in a 'Book of Hours' emanating from Brittany *c.*1465, Morgan Library and Museum, Medieval and Renaissance MS M.84, fol.52r at icu.themorgan.org/manuscript/page10/76829.

[7] Nicodemus's gospel is most easily available in an edited version by M. R. James, *The Apocryphal New Testament* (Clarendon Press, Oxford, 1924, repr. 1983), pp. 94-165. Christ's descent into Hell is told to Nicodemus and others, by

two men who, they say, were resurrected with Christ, were struck dumb by what they had seen and so had to write down their account.

[8] Plate 6.5 is from G. R. Lewis, *Illustrations of Kilpeck Church* (London, 1843), no page or plate numbers.

[9] Helaine Newstead, *Bran the Blessed in Arthurian Romance* (Columbia University Press, New York, 1939), pp. 21-2; R. Bromwich (ed. & trans.), *Trioedd Ynys Prydein*, (University of Wales Press, Cardiff, 1978, repr.1991), p. 285.

[10] J. Carey, *Ireland and the Grai*l (Celtic Studies Publications, Aberystwyth, 2007), p. 56.

[11] S. Davies, (trans.), *The Mabinogion* (Oxford World Classics, Oxford University Press, 2007), p. 211. Koch equates Echel with Achilles (from whom his name seems to derive) who dies after being wounded in the heel before the walls of Troy: J. Koch, *Celtic Culture: A Historical Encyclopaedia*, Vols. 1-5 (ABC-CLIO, 2006), p. 1301. It is doubted, however, whether Welsh authors were able to reference the classics at this early date (Carey, *Ireland and the Grail*, p. 57 note 49). If allowed, however, this would make an interesting parallel with Bran in the *mabinogi* of *Branwen Daughter of Llyr* where he dies after being wounded in the foot: see below.

[12] Bromwich (ed. & trans.), *Trioedd Ynys Prydein*, p. 16 and note, pp. 335-6.

[13] R. E. M. Wheeler & T. V. Wheeler, 'Report on the Excavation of the Prehistoric, Roman and Post-Roman Site in Lydney Park, Gloucestershire', *Reports of the Research Committee of the Society of Antiquaries of London,* ***9,*** **(**1932), p. 41 & Plate 26.

[14] R. A. S. Macalister (ed. & trans.), *Lebor gabála Érenn: The Book of the Taking or Ireland*, Part IV, (Irish Texts Society, 1941), pp. 107-119; W. Stokes, 'The Second Battles of Moytura', *Revue Celtique*, **12** (1891), pp. 57-107.

[15] Davies, *The Mabinogion*, pp. 22-34. The most exhaustive study of Bran is in Newstead, *Bran the Blessed in Arthurian Romance*.

[16] In Nicodemus's 'Gospel', the two men who were brought back to life with Christ were struck dumb by what they had seen.

[17] Wheeler & Wheeler, Report on the Excavations…in Lydney Park, p. 66, pp. 102-4 and Plate 19A.

[18] Wheeler & Wheeler, Report on Excavations…in Lydney Park, p. 89 & Plates XXV,XXVI).

[19] Davies, *The Mabinogion*, p. 32.

[20] John 11:25

[21] Geoffrey of Monmouth: *The History of the Kings of Britain*, L. Thorpe trans. (Penguin Books, Harmondsworth, 1966), pp. 90-6.

[22] trans. B. Raffel (Yale University Press, New Haven and London, 1999).

[23] E. Vinaver, 'The Dolorous Stroke', *Medium Ævum*, **23** (1956), pp. 175-180.

[24] It is tempting to ascribe the collapse of the temple of Nodens/Nuadu at Lydney (before it was rebuilt on slightly different lines: Wheeler & Wheeler, Report on the Excavations…in Lydney Park, p .26 and Plate 11), as the origin of this part of the story of the Fisher King and his cognates.

[25] D. S. Wilson-Okamura, 'Adultery and the Fall of Logres in the Post-Vulgate "Suite du Merlin"', *Arthuriana*, **7**, pt.4 (1997), pp. 20-2.

[26] This connection is first made by Robert de Boron in his Joseph of Arimathea, written c. 1191. See N. Bryant (trans.), *Merlin and the Grail: Joseph of Arimathea, Merlin, Perceval: The Trilogy of Arthurian Romances Attributed to Robert de Boron* (Boydell and Brewer, 2001), p. 20.

[27] P. W. Joyce (trans.), *Old Celtic Romances* (Longmans, Green & Co., London, 1920), pp. 71-4.

[28] G. Paris & J. Ulrich, *Merlin, roman en prose de 13e siècle…de Robert de Boron d'après un manuscript appartenant à Alfred H. Huth* (2 vols, Société Anciens Textes Français, Paris 1886),ii, pp. 22-3. 'At this instant the castle walls began to totter and fall…' A. C. L. Brown, 'The Bleeding Lance', *Publications of the Modern Language Association of America*, **25(i)** (1910), pp. 46-7.

[29] Chrétien de Troyes: *Perceval, the Story of the Grail* (trans. N. Bryant, Bury St Edmunds, 1982), p. 147.

[30] E. H. Zeydel & B. Q. Morgan, *The "Parzifal" of Wolfram von Eschenbach* (University of North Carolina Press, 1951), p. 219, pp. 479:12.

[31] R. A. S. Macalister (ed. & trans.), *Lebor gabála Érenn: The Book of the Taking or Ireland*, Part IV (Irish Texts Society, 1937), p. 107, p. 169.

[32] Davies, *The Mabinogion*, p. 220.

[33] W. A. Nitze, 'The Fisher King and the Grail in Retrospect', *Romance Philology*, **6** (1952-3), p. 14.

[34] Wheeler & Wheeler, 'Report on the Excavation… in Lydney Park, p. 90 & Plate 27.

[35] R. S. Loomis, *Celtic Myth and Arthurian Romance* (Columbia University Press, 1926, repr. St Edmundsbury Press, 1993), p. 45.

[36] J. Fraser, 'The First Battle of Moytura', *Eriu*, **8** (1916), p. 23.

[37] Loomis, *Celtic Myth and Arthurian Romance*, p. 197; K. Smith, *Guides, Guards and Gifts to the Gods*, (BAR British Series, **422** 2006), pp. 59-84.

[38] N. Bryant (ed.), *The High History of the Grail: A translation of the 13th Century Romance of Perlesvaus* (D. S. Brewer,

Woodbridge, 2007), p. 136. Llacheu's story was probably known in Eardisley in the 12th century, since a district south of the River Wye not far from the village was called, in Welsh, 'Maes Mael Llochou' or 'Field of the Followers of Llacheu'. Its modern form is Mawfield: B. Coplestone-Crow, *Herefordshire Place-Names* (2nd ed., Logaston, 2009), pp. 21-3.

[39] *Malory's Le Morte d'Arthur* (ed. K. Baines, New American Library, 1962), p. 499.

[40] Bromwich, *Trioedd Ynys Prydein*, p. 421; Davies, *The Mabinogion*, p. 61.

[41] Chrétien de Troyes: *Perceval, The Story of the Grail*, pp. 131-2.

[42] James (trans.), *Apocryphal New Testament*, Part II: Caps. I-XXXI.

[43] A. P. Smith, *The Lost Teachings of the Cathars: Their Beliefs and Practices* (Duncan Baird Publishing, London, 2015), *passim*. A neo-Manichaean heresy at Orleans in 1022 resulted in fourteen people being burnt to death: D. C. Douglas, 'The Ancestors of William fitzOsbern', *English Heritage Review*, **59** (1944), pp. 62-3. William fitzOsbern was earl in Herefordshire 1067-71.

[44] Wheeler and Wheeler, Report on Excavations…in Lydney Park, p. 43, figs. 2 & 3.

[45] *Ibid.*, pp. 40-3.

[46] *Ibid.*, pp. 51-2 and plan fig.2.

[47] John 3:1-11,

[48] Romans 6:3-4.

[49] James, *Apocryphal New Testament*, Part II, I:3.

Recorders, 2021

Archaeology

By KEITH RAY

This Report provides a summary of information concerning archaeological fieldwork and research carried out in the county in the past year. However, unlike that for 2019 and previous years, it includes few development-related reports or accounts of research investigations. As was the case for 2020, this is largely due to the continuing effects of the Covid pandemic upon commercial activity and building construction works, most research projects, and reports of casual finds made by the public and reported to the Portable Antiquities Scheme. There has also been disruption caused by staff absences and changes in personnel in several organisations, including Herefordshire Council's archaeology service. The present Report provides short reports on the results of conservation and planning-related projects, and research excavations in the Dorstone area.

Throughout this 2021 Report, each site-based entry is identified by city, town, or parish, and the site name is provided along with a grid reference where appropriate. Many of the entries relate to the unpublished internal reports of organisations (grey literature), which may be consulted in the Herefordshire Historic Environment Record database maintained by the County Archaeology Service at the Herefordshire Archive and Records Centre at Rotherwas. Others are available on the internet. The Herefordshire Historic Environment Record number, where known, is prefixed by HSM and Scheduled Ancient Monument numbers by their SM number.

I would like to offer an expression of gratitude on behalf of the members of the Woolhope Club to the staff of all the organisations who have willingly provided the information that has hopefully made this report a reasonably up-to-date and useful source of information about archaeological work carried out, or reported, in the county during 2021.

RESEARCH AND CONSERVATION PROJECTS

HEREFORDSHIRE ARCHAEOLOGY

Herefordshire Council's County Archaeology Service, Herefordshire Archaeology, has continued to provide routine case-work advice (development management and countryside matters), together with HER maintenance and updating duties. In addition, it has been involved with a number of community and agency-based projects. The principal project in 2021 again comprised further work at Snodhill Castle; despite the pandemic, the Covid 19 Risk Assessments and safe working protocols that were established in May enabled activity to take place there.

PETERCHURCH: ***A Programme of Archaeological Research Investigations at Snodhill Castle, Herefordshire (SO 3223 4038); [EHE80341, HSM 155, SM 1015168]***

Further archaeological excavation and recording was undertaken at Snodhill Castle. Excavation teams comprised skilled staff, volunteers and students shared with the 'Beneath Hay Bluff' prehistory project, run by the University of Manchester in partnership with Herefordshire Council and Cardiff University as described under 'Dorstone' below. The excavations were undertaken throughout July and into early August.

A series of trenches were opened within the outer bailey to investigate an unusually level area close to the present road at the northern side of the castle. In addition, a series of trenches were excavated within the inner bailey to establish whether any of the surface topography related to buried wall lines or whether it was due to the deposition of spoil as part of the post medieval demolition of the castle walls.

Excavations within the outer bailey revealed that the area had been levelled during the post-medieval period and that medieval deposits had been heavily truncated. A series of truncated post-holes were recorded, which had been cut into the bedrock and still contained packing stones, along with a small number of truncated pits containing medieval pottery. A broken fragment of worked flint and a sherd of rock crystal were also recovered from a pit. It would appear that the whole of this part of the outer bailey was levelled down in the 17th century so that the ashlar and other high-quality stonework taken from the castle at that time could be stored here prior to sale. Large areas of levelled bedrock and marl were exposed. The remains of a stone-founded structure were recorded within one trench which was dated by pottery to the 17th century. Plate 7.1 shows a view of the trenches in the outer bailey.

Four trenches were excavated within the inner bailey, located to achieve two objectives: to cut across linear surface features, to assess their make-up and formation process; and to attempt to connect previously recorded features in order to understand them better.

An "L" shaped trench, located within the north-western corner of the inner bailey, confirmed that the linear surface features were indeed spoil and small stone fragments resulting from the demolition of part of the curtain wall; however, this had sealed well-preserved and complex medieval deposits including window glass and lead cames, pottery and a copper pin.

A trench close to the rear of the north tower revealed the foundation for a large wall. This was faced with small stones on the western side and is believed to be part of the solar block. How it relates to the north tower is as yet unclear.

A trench over half of a roughly circular feature at the base of the motte revealed that this was material left from the robbing of an entranceway / gatehouse which provided access, presumably via steps, to the keep gatehouse.

A trench located between the base of the motte and the south-eastern bastion revealed a substantial wall which appeared to connect to the southern wing wall and to form the northern wall of a building which ran parallel to the south curtain wall. Two large fragments of archway were recovered as were quantities of painted wall plaster and tufa. It is suggested that this, together with the south-eastern bastion, was the chapel (see Plate 7.2). The building is aligned east / west and the bastion forms an apse-like structure at the eastern end. Further investigation is planned here during 2022.

T. Hoverd and S. Mayes, forthcoming (Herefordshire Archaeology Report series).

DORSTONE: ***Arthur's Stone (SO 319 431)***

Fieldwork in the vicinity of the megalithic tomb of Arthur's Stone, overlooking the Golden Valley, took place in July 2021, co-directed by Professor Julian Thomas of Manchester University and Professor Keith Ray of Cardiff University (former County Archaeologist for Herefordshire). This work was an extension of the 'Beneath Hay Bluff' project, which had already undertaken nine seasons of excavation at Dorstone Hill nearby (*TWNFC* 67 (2019), 129-32). It was staffed by students from Manchester and Cardiff universities, and by American students from various colleges under the aegis of the Institute for Field Research (IFR, California, USA). The students participated in three field projects (at Arthur's Stone, Snodhill

Castle, and Urishay) on a rotational basis, together with local volunteers.

In 2021, fieldwork near Arthur's Stone consisted of two elements: a grid of one-metre square test pits at five-metre intervals, to identify concentrations of artefacts in the topsoil in the fields immediately to the south of the monument; and a trench, 15 x 10 metres in extent, immediately to the south-east of the Scheduled Area surrounding the megalithic chamber, beyond the footpath and field boundary. Plate 7.3 provides an aerial view of the site, showing the chamber and the trench, within which post-holes, exposed by excavation and described below, are visible. Plate 7.4 shows the monument in a wider landscape context and also the location of some of the test pits.

Arthur's Stone has generally been viewed as an outlier of the Black Mountains group of Cotswold-Severn long cairns, and indeed it is positioned so as to command a spectacular view of the façade of the Black Mountains to the west and south. The chamber, with its massive capstone, is somewhat atypical in this respect, but it has usually been assumed that the megalithic elements of the structure are set within a trapezoidal cairn, with a façade and forecourt contained within the area enclosed by the hedge and footpath to the south, and a tail running under the road to the north. Surprisingly then, the trench revealed a series of features located outwith this area. In the north-west extremity of the cutting, part of a low turf mound was identified, stratified beneath the field boundary. The turf mound had been contained within a palisade slot that had held a series of upright posts marked by distinct small-diameter post-holes. A number of large stones on the surface of the mound suggested that it might have been capped with a cairn, disturbed by subsequent activity. The palisade slot was located axially in the centre of the south-eastern facing end of the presumed elongated, sub-rectangular mound. A line of nine larger post-holes marked the course of an alignment of formerly substantial timber posts that had been aligned onto the south-east corner of the turf mound. That they had been erected subsequently to the creation of the turf mound was indicated by the fact that one of them was shown to have been cut through the palisade slot.

The implication of these findings is that, in its initial form, Arthur's Stone was composed of a turf mound with a rounded terminal, extending southwards around eight or nine metres beyond the present fenced area around the principal stone components of the monument. This mound may later have been capped with stone. It is probable that the line of postholes cutting through the palisade slot represents one side of a timber avenue running toward the monument from the direction of the valley, added at a stage when the initial palisade revetting the turf mound had rotted out. The relationship between these features and the megalithic elements of Arthur's Stone remains to be determined, but it is notable that the chamber, the upright stones immediately to the south of it, and the passage on the northern side all share the same alignment as the post line. This may indicate that they too were added to the initial turf and timber mound. The primary monument at Arthur's Stone therefore bears a striking resemblance to the three Neolithic long mounds on Dorstone Hill, and particularly to the central mound, which was also revetted by a timber palisade. This similarity prompts the speculation that Arthur's Stone, like all three of the Dorstone long mounds, may have been constructed on the site of an earlier wooden building of primary Neolithic date.

URISHAY: ***Urishay Court Farm (SO 3225 3725)***

An archaeological investigation was undertaken at Urishay Court Farm in July 2021, directed by Dr Nick Overton (University of Manchester) assisted by David Jennings (University of York) and Nathaniel Bidgood-Shelley (Pre-Construct Archaeology), as part of the ongoing 'Beneath

Hay Bluff' project.

No prior archaeological excavation had been undertaken at Urishay Court Farm, so the 2021 season was undertaken to assess its archaeological potential, informed by an earlier archaeological reconnaissance survey produced by Professor Keith Ray in 2020. Excavation focused on three 'mound' features identified in this survey, which had the potential to be Bronze Age round barrows, representing an extension of the known barrow group on Urishay Common (HSM 4235 and HSM 4236), directly to the west of Urishay Court Farm.

The first possible mound, at the western extent of the farm, was investigated with a single 15 x 2 metre trench, running from the centre of the rise to the south-eastern edge. These excavations revealed that the rise was not archaeological, with topsoil and subsoil overlying a natural rise in the mixed bedrock and clay geological substrate.

The second possible mound, located in a field towards the centre of the farm, was on the south-facing side of a valley, running down to a small watercourse which bisects the farm, running broadly west to east. Two 10 x 2 metre trenches were laid north-south over this potential mound, offset at the central point, to create a continuous 20 metre section over the feature. Initial removal of the turf revealed two large bedrock outcrops running across the trenches, one close to the centre, and the other towards the southern end of the southern trench. Beneath the turf, a subsoil with very frequent inclusions of large angular stones was initially interpreted as a regolith, overlying bedrock. However, once the surface of the subsoil had been exposed across both trenches, it was apparent that the stone within the subsoil formed clear concentrations; one spanning the area where the two trenches joined, and a second lying between the two bedrock outcrops identified in the southern trench. Further excavation revealed that these were not regolith deposits, but instead two structures or stone platforms.

The northern trench was extended to the south, and the southern trench to the north, to leave an open area over the concentration of stone that spanned the meeting of these two trenches (hereafter 'Structure 1'). Further excavation removed multiple layers of looser angular stone, revealing a rectangular structure. This consisted of two roughly squared stone ends, each with stone-block walls running across the width of the structure, with rough stone flooring in between. The southern stone end, which was more fully excavated, was demonstrated to be sitting on the ancient land surface, making the initially identified 'mound' a natural topographic feature. At least two courses of walling from the south-east corner were identified tipping off the corner stone, suggesting that this structure may have been left to fall into a state of abandonment after use; similarly, the layers of rough stone deposit sealing the structure may also relate to collapse. Between the two squared stone ends, a rougher stone layer, which may represent a floor surface, was found to be sealing two rectangular pits, each the width of the structure, sitting at the north and south ends of the space between the stone ends. Both pits had layers of stone flooring or capping within the top of them, which may have been laid recessed into the pits, or had sunk into the pits after deposition. Due to time constraints, only the northern of the two pits in Structure 1 was excavated. This was rectangular in plan, with steep sides and a flat base, *c.*70cm deep, filled by a mottled purple deposit which had stained the clay into which it had been cut. This staining suggests that the pit may have been related to some form of industrial activity involving chemicals, possibly tanning or dye production, or to other activities that led to waterlogging of the deposits, as subsequent 'gleying', which may also account for the colouration. Plates 7.5 and 7.6 show the main area excavated from the east and the south respectively.

In the southern trench, the second concentration of stone (hereunder 'Structure 2') was less formal in its construction than Structure 1. Directly to the south of the central bedrock

outcrop a large rectangular cut (*c.*4 x 2 metres) had produced a level platform in the slope of the hill, into which a deposit of stones was placed. This platform was found to have been heavily truncated by a modern intrusion, but the southern end of the stone deposit survived, showing a clear eastern edge, south-east corner and southern end, formed by substantial angular stones. Hints of features within the stone platform were visible, including a row of on-edge stones running across the centre of the platform; however, the disturbance to the area, and time limitations, restricted any further investigation and interpretation.

Although material culture recovered from these structures was relatively sparse, a small ceramic assemblage, made up of Severn Valley Ware and Malvernian Ware, suggests that these structures are Romano-British in date. The ceramics were accompanied by a number of small iron nails, a glass/mineral bead and a small ceramic 'tag' or 'token', all recovered from Structure 2.

The remains uncovered and part-investigated at Urishay Court Farm suggest that this was a site of Romano-British occupation and industry. Without further excavation, it is difficult to assess the specific uses of the two structures uncovered in the 2021 season (although Structure 1 appears to have been used, at least in part, for craft/industrial activities). The lack of clear walls along the edges of either structure may suggest that they were open-sided, akin to stables, animal pens or workshops. It is likely, however, that they are part of a larger complex of structures. A third possible 'mound' in the adjoining field, also intended to be investigated in 2021, was not excavated, but it too appears to represent a platform cut into the hillside, with a north-south orientation similar to that of Structures 1 and 2. Further assessment of these fields allows the observer, with the eye of faith, to identify at least another two possible platforms, leaving the tantalising possibility of a larger-scale site wrapping around the south-facing slopes of this valley.

GROUP AND UNIT REPORTS

BORDER ARCHAEOLOGY Ltd

WEOBLEY: ***Land to the north of the Red Lion Hotel Weobley (SO 40201 51773)***

A programme of strip, map & record excavation was undertaken in connection with the proposed construction of a new residential property. This followed a programme of field evaluation undertaken in 2018 which revealed features and deposits, together with pottery, confirming the presence of medieval activity likely to relate to the burgage plots known to have occupied the site.

The earliest activity, represented by a post-hole and the two large pits, remained undated, although the latter's stratigraphic relationships with another ditch provided a *terminus ante quem* of the post-medieval period—these features cut by the ditch must themselves have been dug at some point in time before *c.*1550AD. The general size and characteristics of these features suggested they were clay extraction pits—the excavated material possibly being used to produce pottery at the Weobley kiln (List Entry Number: 1005313) or bricks. A third pit was identified and is thought to have served a similar purpose. This, together with a pit that truncated it, produced a few sherds of pottery dating from the 13th to 15th centuries, possibly providing a timeframe for the clay extraction taking place on the site as there was no obvious ceramic evidence for earlier activity.

Two further pits were also of probable 13th- to 15th-century date but, unlike the clay extraction pits, these were more regular in construction, having near-vertical sides that suggested

a structural function; indeed, the worked stone recovered from one of the pits may indicate that the feature was once stone-lined, although no further dressed stones were recovered from the site to support this theory. The remaining features of medieval to post-medieval date are likely to represent former boundary ditches and gullies associated with the tenement plots known to have occupied the site until the early 19th century.

The palaeoenvironmental assemblage largely contained domestic material, which, aside from the noted instances of deliberate dumping, probably entered the features through the gradual accumulation of their fills. Likewise, the post-medieval pottery assemblage represented domestic wares, while the recovered animal bone assemblage was indicative of the initial processing of complete carcasses, with processed elements being taken elsewhere for secondary butchery or for use in other industries. Commercial and industrial activities were, however, being carried out in close proximity to the site, as evidenced by the quantity of recovered slag, the large number of dress pins and the presence of a cloth seal, although this material may have been disposed of on-site when the former 'vote houses' in this area were demolished.

The modern disturbances seen on site may be attributed to the construction of the Weobley and District Bowling Club's Clubhouse and associated green in the 1950s.

HEADLAND ARCHAEOLOGY (UK) Ltd

Compiled by Laura James MRes, Senior Archaeologist, Headland Archaeology (UK) Ltd.

HEREFORD: ***Stonebow Unit, Hereford Hospital (SO 51570 40251)***

(OASIS Ref: headland3-411938). Project Manager Ailsa Westgarth, excavated by H. Bryant Buck for Headland Archaeology (UK) Ltd.

Headland Archaeology (UK) Ltd was commissioned by Design Buro Architects to undertake a series of archaeological works on land adjacent to the Stonebow Unit, Hereford Hospital. Archaeological input was required due to the location of the works within the Hereford Area of Archaeological Importance (AAI) and the high potential of archaeological remains relating to the medieval and post-medieval periods. St Guthlac's Priory and its associated cemetery is known to be in the vicinity of the development area.

During the archaeological watching brief, the remains of a wall were recorded. Subsequently, the scope of works was broadened to incorporate a strip, map, and record excavation which identified a second wall. Investigation suggests that the walls formed part of a leat which would have fed a mill located under the current Morrisons supermarket to the north of the site. Large amounts of finds were retrieved including pottery, bone, metal objects, and CBM (ceramic building material) indicating a medieval date. Further stripping of the overburden deposits also revealed linear and pit features of post-medieval date, probably associated with Victorian or 20th-century activity.

WORCESTERSHIRE ARCHAEOLOGY

LEYSTERS: ***Building recording at Cinders Farm (SO 58631 64681)***

A building recording project was undertaken at Cinders Farm, Leysters, Herefordshire. It was commissioned by Mike Humphries on behalf of All Weather Developments in advance of conversion of the buildings to dwellings. A planning application has been granted subject to a programme of building recording.

The recording was limited to the brick floors, part of a wider farmstead which is considered to have had 14th-century origins. The floors were located in the oldest surviving

elements of the farmstead, but they are thought nonetheless to be of 17th-century origin. Among these early elements was a probable cow house, associated with a threshing barn. Examples of pre-19th-century cow houses are rare in a national context, and accordingly these brick floors are of considerable importance. The cow house and threshing barn were linked together in the 18th century by a shelter shed for the housing of cows, along with a further shed added to the southern side of the threshing barn. A large proportion of the buildings within the farmstead were of broadly 18th-century date, suggesting an expansion at that time.

Botany 2021

By STUART HEDLEY

I have tried to drive plant recording in Herefordshire forward on several general fronts this year. Wherever I have had an opportunity, I have begun to record quadrat samples of the typical semi-natural vegetation of the county in order to provide a context for wild-plant documentation which is relevant to the 21st century; more of this below, and I hope more still in the years ahead. One advantage is that the study brings vascular-plant botany alongside bryology, which is where it should be, and I am delighted to see that Ian Draycott is now writing a sectional record for the Club's *Transactions* (see below). I am also pleased to say that after a mini recruitment-drive in the late winter, fourteen people stepped forward to help with the business of continuing to make records for a new Flora. Plenty of room for more though. Wild plant recording brings many rewards (Plate 8.1).

In the course of the year, I was surprised to find that there is no up-to-date list of the vascular plants recorded in the wild in our county. Lilian Whitehead's checklist is now forty-six years old, and although the BSBI[1] has a facility for downloading such a list on its webpages, this has not been maintained. Conscious that this is the type of bean-counting I thoroughly disapprove of, I was thus forced to set about compiling this most basic of inventories for myself. I found the business a humbling can of worms. One has to grapple with synonymy (two names on a list might represent the same taxon, one referred to by its modern name and another by the name in use two decades ago), the weeding out of obvious mistakes and the parking of those that need further checking. Then there's the fact that new plants are still being discovered all the time, and the issue of what *types* of bean we're counting. Species? Sub-species? Hybrids? Varieties? All may be recorded by recorders with varying interests and expertise and all have a claim to be included.

Anyway, we now have a working, current list. At late 2021 we have around 1,784 higher plants in the wild in Herefordshire, with hybrids and infra-specifics swelling the ranks to around 2,163 taxa. I suspect these totals will be smaller than those of some neighbouring counties but that we can console ourselves that the proportion of native to introduced species is likely to be greater here. Again, hopefully more of this in future, but now onto the Character Area[2] roundups**.**

BLACK MOUNTAINS AND GOLDEN VALLEY

Last year I wrote of proposals to subject a small sample of our crab apples[3] to molecular analysis. The results are in, and they are good news. Three of the five samples we were able to have checked out proved to be pure *Malus sylvestris*, with only two of them hybrids with the cultivated apple. Two of the good trees were from the Olchon Valley, and a third, sourced by David Williams, from the Birches Nature Reserve. These results confirmed that trees with glabrous leaves and petioles are likely to be the true, wild tree, so this continues to be the best way of singling out the probable native species from what is likely to be a much larger population of hybrids. If there's anyone out there with fundraising experience and time on their hands, please write to me: we need to profile further trees in different parts of the county but looking at DNA costs a small amount. Somehow, in a county of apples, one might think there's a funder out there to try and help us get a handle on how the true wild apple of Europe is faring in the modern landscape of the Marches.

This year Natural England allowed me to make a third-party assessment of the state of three grassland SSSIs along the fringe of the Black Mountains which lack public access. The results were a mixed bag. Olchon Farm Meadows were very clearly unfavourable, since a switch from hay to pasture several years ago, coupled with neglect of drain maintenance, had pushed the former meadow back to a coarse, M23 rush pasture ('M23' is explained further on the following page). This poses interesting questions. Much is written at present about re-wilding—allowing natural processes more scope to deliver wildlife and human benefit in the modern countryside—but here at least is one example of how re-wilding has led to species and habitat *loss.* It reminds us how many, perhaps most, of the meadows in Britain's uplands were dependent on drainage, in tandem with application of farmyard manure, to grow any crop of hay at all in the wet, nutrient-poor soils of the mountain fringe. Such practices have lost their agricultural imperative as support payments have replaced actual forage in the barn as the means of subsistence, and it would appear that overworked civil servants have been unable to manage the transition between the two effectively, in spite of reams of guidance issued. Fortunately, most of the uncommon species of this SSSI are still present in the corners, including all three of Herefordshire's native Lady's Mantles, *Alchemilla filicaulis, A. glabra,* and *A. xanthochlora.* This is perhaps the only field in our county where they all grow together.

Traditional meadow management is still being undertaken at Pikes Farm and Caeiron further up the valley, where Wood Bitter-vetch *Vicia orobus* is just hanging on alongside globeflowers, *Trollius europaeus,* and Fragrant Orchid *Gymnadenia conopsea* ss. Both these SSSIs hold small, peaty lenses with Purple Moor-grass, *Molinia caerulea.* I made a bee-line for that at Pikes Farm, strongly suspecting it to be the last known locus in the county for both Lesser Butterfly-orchid *Platanthera bifolia* and Petty Whin *Genista anglica.* Given that these last sightings were in 1989 and 2006 respectively the flame of hope was rather feeble, and so it proved to be as I inadvertently stumbled into the drainage ditches across the peat dome: both require wet peat. An exhaustive search revealed neither plant, but this was clearly the place where they had once been. Heather Davies helped me unearth a rather poignant comment about the second species from the additional information kept at HARC.[4] It was a comment by Les Smith, last to see the Petty Whin at this site in 2006: 'A single shoot with woody spiny base in *Festuca* sp. tussock. Not refound on 3 June or later; obviously in very small quantity'. Rather like the Great Auk and the Stephen Island Wren, it appears we can date the extinction of this plant in VC36 almost to the day. I have made it my business to check other records for it in Herefordshire throughout the year with no luck. Always rare here, I am convinced it is now gone, though would be truly delighted to be proved wrong.

Ian and Dilys Hart joined Sue Holland in making similar checks on the sites for Pillwort *Pilularia globulifera.* That at Vagar Hill was still present but the site at Little Mountain had been overgrown by coarse vegetation; it seems possible that a pond formerly kept more open by grazing livestock was no longer, and that tall competitive species had taken over to the detriment of the plant. Pillwort is capable of surprising us, though, and the story may not end here.

HEREFORDSHIRE LOWLANDS

I mentioned in the introduction that I have begun to take quadrat samples of vegetation in Herefordshire this year. Vegetation study in Britain was advanced greatly by the publication of *British Plant Communities,* more commonly known as the National Vegetation Classification or NVC, between 1991 and 2000. As in so many other areas of study, Herefordshire was rather

overshadowed in these volumes by those counties with a better-known resource, although we do have a good, broad understanding of the main types of plant community we can expect to encounter here. However, one weakness concerns understanding of our rush vegetation. Areas dominated by rushes form a characteristic part of the pastoral landscape of Herefordshire, lying, as it typically does, over poorly drained soils of Old Red Sandstone. The national picture that emerged from *British Plant Communities* is one of a weakly base-rich rush vegetation, characteristic of the South and East of Britain, and a rather acidic equivalent on the predominantly acid rocks of the west and north: these, in NVC-speak, are termed M22 and M23 respectively. Herefordshire, of course, sits in the place where these two broad regions meet, and although the Old Red Sandstone, whose exposure here happens to be particularly extensive, is often weakly acidic in its reaction, it is also shot through with variable thicknesses of calcrete and cornstone. The result seems to be a glorious jumble of M22 and M23, at which we could usefully take a closer look. As one might expect, the differences between them on the ground in Herefordshire is much less clear-cut than the national account suggests!

Many of the rush-pastures in the Herefordshire Lowlands NCA seem closer to the M22 type, to which certain species are 'preferential'. These include Fen Bedstraw *Galium uliginosum*, Tufted Vetch *Vicia cracca,* Quaking Grass *Briza media,* Red Clover *Trifolium pratense,* and Knapweed *Centaurea nigra*, as well as the England near-threatened Marsh Valerian *Valeriana dioica,* far from a rare plant with us, at least. A peculiarity we have to contend with though is that the most diagnostic plant of M22, Blunt-flowered Rush *Juncus subnodulosus*, peters out in Herefordshire, so we can probably lay claim to an unrecognised vegetation type! This rush is scattered very sparsely throughout the east and centre, well-disguised when it grows alongside its very common relative, Sharp-flowered Rush *J. acutiflorus,* as I found to be the case still at Red Castle Marsh, near Canon Pyon, in September.

Will Watson invited me to join him at Turner's Boat near Clifford, one of the study sites for Ice Age ponds. Though lacking open water, this was a fabulous basin fen with a high degree of naturalness, evidenced by good populations of Bladder Sedge *Carex vesicaria* and Tubular Water-dropwort *Oenanthe fistulosa* (Plate 8.2). Will is a keen plant recorder and laying aside the surprises, such as a new record for Lesser Water-parsnip *Berula erecta* at Berrington Hall, has an inevitable focus on willows. I have had to work hard to keep up: he will be pleased to know that the compost bin here has been full of mangled specimens throughout the summer. Another highlight was visits to various sites on Letton Lake with Mike Williams. Our perambulations failed to locate two stations for Globeflower, which seems almost certainly to be gone from this extraordinary area, but a superb little meadow, which appears to have escaped notice to date, with Great Burnet *Sanguisorba officinalis* and Dyer's Greenweed *Genista tinctoria* (Plate 8.3), was enough to keep me going for the rest of the summer. Not far away, and earlier in the year, Paul Richards had sent in photographic evidence of a remarkable new find near Eardisley—Yellow Star-of-Bethlehem *Gagea lutea,* which will be a priority for revisiting in 2022.

At the other end of the county, I got onto the seldom-visited Woofferton Transmitter Station with Jo Weightman. Sadly, this promising alluvial marshland had lost most of its interest through overzealous weed control, though we found a little Pepper Saxifrage and Adder's Tongue, and Jo's sharp eyes added a new site for Wood Small-reed *Calamagrostis epigejos* to the Herefordshire map. It is hard not to look at this plant and imagine it at home in primeval floodplain woodland, so it was fitting to find it here in a little enclosure set up as a mini nature reserve.

East of the Lugg lie two interesting but isolated wildlife sites: Sutton Walls and Sutton Hill Gravel Pit. On the hill fort it was great to re-find Stephanie Thompson's 2008 record for Common Cudweed *Filago germanica* (not at all common!) in the company of site warden Stuart Moore. It is abundant there. Stuart pointed out how a former landfill on the site had been capped with clay from the river valley below, which had inadvertently brought wetland plants to the top of the hill: amongst these there was Fen Nettle *Urtica dioica* ssp. *galeopsifolia*! At the gravel pit, most historical records were still present including a dozen plants of Hound's-tongue *Cynoglossum officinale*. A new find was Slender Sandwort *Arenaria leptoclados,* obligingly growing alongside its close relative, *A. serpyllifolia,* for comparison.

SOUTH HEREFORDSHIRE

I was pleased to take in a well-known site for Wood Vetch *Ervilia hirsuta* at Aconbury Hill in the spring whist studying the woodland there. Although its western extremity sits on the original surface of the land in a wild tangle of bramble and bracken, it was astonishing to see how ride construction had presented it with an opportunity to spread for almost 200 metres eastwards on a man-made surface! Further east again, I managed to spend a little more time on the Woolhope Dome in 2021, where I took vegetation samples from Ail Meadow at the invitation of site-owner, Mark O'Brien. These too were of the M22 mire, which here included a population of many hundreds of Marsh Arrow-grass *Triglochin palustris.* The key interest here is a superb example of a domed springhead, of the type that would once have been very widespread in the county but is now extremely rare; the field is subject to an appeal for purchase by the Herefordshire Wildlife Trust, so please consider donating if you have not already done so. The park adjacent has had a chequered history, but some of the turf was magnificent and of the sort that offers an insight into what 18th-century pastures must have looked like.

In the first week of December, I returned to the Woolhope area to have a look for the badly named Meadow Oat-grass *Avenula pratensis*[5] near Rudge End Quarry. This is one of a handful of strict calcicoles which have always been rare in our county, and which must now be more so given the dereliction or mismanagement of many formerly rich pastures. As a former chalk-grassland surveyor, I have a soft spot for the plant which, as grasses go, is highly charismatic. After expending a lot of effort unearthing poor-quality material in the quarry itself, I found some lovely plants growing on the verge in the sunshine as I was leaving site, keeping company with Rockrose *Helianthemum nummularium,* no less. A wayward, drooping plant of what I took to be Spiked Sedge kept getting in the way of my photographs and, when I could no longer ignore it, I took a closer look. It turned out to be the Large-fruited Prickly Sedge *Carex muricata* ssp. *muricata*, a nationally rare and threatened taxon, never recorded from Herefordshire before, promptly putting the species tally described in the introduction out of date.[6] There were something like twenty plants along a well-lit stretch of narrow wayside verge over Woolhope Limestone.

Before the end of the year another surprise: Jean Wynne-Jones sent material of the Chalk Knapweed *Centaurea debeauxii* from Rushall (see Plate 8.4), strongly suspected to be of introduced provenance. Black and Chalk Knapweeds form a similar-species pair we have yet to tease out in VC36, but this was a good start in providing material from one end of the axis of variation. Flo Stoney and Aaron Banks had both raised queries about these plants in the course of the summer and hopefully we can improve recorders' awareness of them in the years ahead.

Last but not least, Jonathan Forsyth (more of whom below) was walking in Reslaw Wood near Aston Ingham in May, when he came across sheets of Brookweed *Samolus valerandi*.

There is only one other record for this plant on the database, an old, unlocalised one from the Whitchurch area, a fact which no doubt explains Brookweed's absence from the recent Rare Plants Book.[7] It seems to have appeared after traditional woodland management was resumed by an enthusiastic new owner.

LOWER WYE

Ian Draycott offered me a short tour of the Doward this summer, so I can now orientate myself better there! I will single out two of the many interesting and uncommon plants we saw. Blue Moor-grass *Sesleria caerulea* struggles but spreads slowly in the void of Lord's Wood Quarry, where it had been either deliberately or accidentally introduced many years ago; this is interesting as on the same rock type further North, where it is native**,** it is capable of becoming an aggressive competitor. In the same quarry the largest stands of Flattened Meadow-grass *Poa compressa* I have ever seen were occupying moisture-retentive depressions in the bare limestone.

MALVERNS

The best surprise of the summer here—a magnificent, old alluvial meadow near Suckley, which appears to have escaped detection to date—was unfortunately just over the border in Worcestershire. However, compensation came in the form of a couple of sites around Ledbury. Rory Johnson of Herefordshire Meadows persuaded me to visit Upper Hall Quarry SSSI. This tongue of Woolhope Limestone, though part-quarried, must surely remain one of the largest tracts of limestone grassland in the county. In addition to its cargo of uncommon species, it is of value in illustrating how different types of calcicolous vegetation form on soils of different depths. Anne Crane, of the Ledbury Naturalists, joined us there for survey. Amongst the highlights were Autumn Gentian *Gentianella amarella*, Sherard's Downy-rose *Rosa sherardii*, the liverwort *Mesoptychia badensis* and good amounts of Hairy Oat-grass *Avenula pubescens* in 'the meadow', a primary surface indicating that this scarce plant must have been there for a very long time. Aerial photos revealed, however, how much a patch of Tor-grass *Brachypodium pinnatum* sl. had expanded in the last twenty years, and this is yet one more urgent conservation-management need.

Anne is also involved in conservation work at Frith Wood for Spreading Bellflower *Campanula patula*. It was an honour to join the inspirational band fighting to save this lovely plant there in November (Plate 8.5). Earlier, in August, the National Botanic Garden of Wales had reported back on their ten-year repeat of a UK-wide survey of 2011, with truly alarming results. It was good, then, that Jonathan Forsyth had responded to the call made for help in the 2020 *Transactions*, when I asked for a coordinator for action across Herefordshire; I hope very much to report back positively on this in future. Spreading Bellflower is a plant of woodland edge. Its biennial habit and airy, diffuse panicle suggest that it evolved as a specialist of scrubby pasture-margins in the type of parkland climax that palaeobotanists now think occupied our lowlands before neolithic man arrived. Here, poaching by wild herbivores, interested in browse rather than grass (as they often are) created the bare ground it needed for frequent seedling recruitment, whilst the suckering blackthorn adjacent will have protected the delicate blossoms and seedpods from being consumed. Such pasture-scrub ecotone will have massively declined with field enclosure from the 14th century onwards, but the plant must have made an alternative home in coppiced woodland from a very early date: such places were well protected from browsing livestock but neither would there have been any shortage of bare ground, given the intensity with which woodland must have been worked in societies without wire, plastic, or fuel

oil. The nose-dive in populations of this beautiful wildflower across the recent historical period suddenly becomes clear. Purchas & Ley, writing in 1887 when coppice was still actively worked, cite it as 'rather common, and generally distributed over our whole area'. Since that time, traditional woodland industry has collapsed, and with it, populations of woodland flowers—most of all plants in need of soil disturbance. We are witnessing the very endpoint of this plant in our countryside. So, if you dislike the thought of this amethyst treasure disappearing from the Herefordshire scene forever, please join the Frith Wood group, or contact me.

HEREFORDSHIRE PLATEAU

The best story emerging from this NCA this year was Jo Weightman's efforts to pinpoint the source of the spectacular Purple Toothwort *Lathraea clandestina* on willows near Stockton. Might it have escaped from Stocktonbury Gardens? Well, yes….and no. An enquiry at the reception desk led to the admission that it had not so much escaped as been deliberately introduced!

Bromyard Downs looked good during a training event for Herefordshire Meadows in July. It was the first time a Bee Orchid *Ophrys apifera* had been spotted there and the quantities of Flea Sedge *Carex pulicaris* and Common Milkwort *Polygala vulgaris* (again, not at all common) were staggering, both perhaps benefitting from increased seed-spread via the mowing that has now been taking place there for more than twenty years. The small band of Bromyard Conservation Volunteers continue to do the community a huge service by working to improve the wildlife interest of this unique site. It was great to see thriving patches of Betony *Betonica officinalis*, Devils-bit Scabious *Succisa pratensis* and Lousewort *Pedicularis sylvatica* given new leases of life by scrub clearance.

Aaron Woods continues to undertake pan-listing[8] at and around his home near Stanford Bishop, and it is staggering to realise just how many casuals and survivors escape from gardens, when, that is, a sharp-eyed and knowledgeable individual makes a point of listing them all. Putting aside the thorny issue of the degree to which such records should be incorporated into a county flora, it is nonetheless a shocking reminder of the actual and potential capacity for garden plants to get into the countryside. Perhaps Aaron's most interesting submission was made during a visit to the garden centre at Wellington—a profusion of Spotted Spurge *Euphorbia maculata* growing in cracks in the paving (Plate 8.6).

NORTH-WEST HEREFORDSHIRE HILLS

Catherine Janson and Tony Norman showed me around the Mowley Valley in May where both woodland and grassland continue to benefit from the laudable, steady input of conservation over a number of years, including conifer clearance, resumption of coppicing and meadow-enhancement work. The local abundance of Meadow Saxifrage *Saxifraga granulata* was staggering and included *flore pleno* plants. Both shield-ferns grew in old marl pits in the woodland and had produced the hybrid *Polystichum x bicknellii*.

A Sunday BOB outing in August, to Jay near Leintwardine, provided interest in the form of Adleymoor Common and the River Redlake (Plate 8.7). Further south, David Williams and Sarah Cadwallader kindly cleared access with local landowners for us to spend a day on the morainic deposits near Kington. One of these was the well-known 'Rainbow', a vegetated channel carved out by a subglacial meltwater stream. The sward had been topped by the time of our visit, but there were several very scarce Herefordshire plants present in the aftermath, including Bog Pondweed *Potamogeton polygonifolius* and Pennywort *Hydrocotyle vulgaris*. We

moved onto Pound Farm, and a further example of M22 mire, in which there was both Spreading Meadow-grass *Poa humilis* and Purple Moor-grass. The climax of the day came however at Burnt Hengoed near Brilley, when I was able to relocate Cicely Port's 1989 record for White Sedge *Carex canescens* (Plate 8.8). For me this was one of the high points of the year. This is an exacting species of peat, a very rare substrate in our county, and was growing in a site with high naturalness—a peat-lined depression in the moraine which presumably harbours a fluctuating pool. Over the years the depression has been overtopped by growth of Brown Birch *Betula pubescens*, which must be wicking up much moisture to the disadvantage of the sedge. A few other peatland plants persisted in small quantity, including Purple Moor-grass, Narrow Buckler-fern *Dryopteris carthusiana* and the mosses *Plagiothecium undulatum* and *Sphagnum palustre.* Cicely's contemporaneous record for Hare's-tail Cotton-grass *Eriophorum vaginatum* seems, however, to have succumbed to the drought and shade.

There is always good news to be found with wild plants, but as you can see from this year's account, there is also bad. I'm conscious that a natural history journal originating in Victorian times may not be the best manner of targeting young people interested in the conservation of our natural heritage and who wish to make a difference. I hope we can develop phone-based media to do so in the years ahead. Do draw this hope to the attention of any such younger members of your family!

Stuart Hedley
S2arth@hotmail.com

REFERENCES AND NOTES

[1] Botanical Society of Britain & Ireland.
[2] National Character Areas (NCAs) are an established framework for describing the landscape of England.
[3] Because the name 'crab apple' has an established general usage, it is proposed we now use 'Wild Apple' for *Malus sylvestris* ss.
[4] Herefordshire Archive and Record Centre.
[5] Seldom an inhabitant of meadows.
[6] The identification has been confirmed by the national sedge referee, Mike Porter.
[7] L. Smith, P. Garner, & M. Jannink (2019), *The Rare Plants of Herefordshire* ISBN 9780953971893.
[8] Pan-listing, or pan-species listing, is where an individual tries to record as many taxa as possible in a given area, regardless of whether they are plants, animals, fungi or some other kingdom of life.

Bryophytes 2021

An Update on the Bryophytes of Herefordshire

By IAN DRAYCOTT

Compared to flowering plants bryophytes (mosses and liverworts) tend to be rather undervalued, even neglected, by both the public and even by many naturalists. They are, of course, hugely important from an ecological perspective, not just as primary colonisers, but also for their contribution to carbon and water cycles and to providing many other 'services' to our ecosystems. They are also attractive and interesting!

A quick search of past *Transactions* reveals no recent references to the bryophytes of Herefordshire, at least none in the 21st century. In the late 1990s some findings from Mark Lawley were added to the annual botanical reports. Looking further back in time it was during the 1970s and 1980s that John Port led the search for county bryophytes and his records were later transcribed into a simple altas published in October 2001, although this had limited circulation and no associated text. Earlier still, in the 1920s and 1930s, some important bryology contributions to the *Transactions* were made by Rev. C. H. Binstead and then by Ms Eleonora Armitage, who provided the first review of known liverworts in the county, initially published in the *Journal of Botany* in March 1924. Before that, it was in the late 1880s that Rev. Augustin Ley really put bryophytes, at least mosses, on the map, culminating in the publication of Purchas and Ley's *A Flora of Herefordshire*. Ley was a bryologist of some national repute, who wrote widely on the flora of Herefordshire and neighbouring counties, made many discoveries and even got at least one species, *Oxyrrhychium schleicheri*, added to the British list. Especially as the county of Herefordshire does have such a significant track record with this branch of natural history, an update is now well overdue.

More recently, an extensive survey was undertaken between 2008 and 2012 by J. Sleath, M. Lawley and others to plot the distribution of all bryophyte species at a 10 km square resolution in support of the national atlas, produced by the British Bryological Society and published in 2013. Although this information was never transcribed into a document giving a county level interpretation, the data are still there, available to support any future 'county flora' and to help monitor future biodiversity change.

'Bryophyte' is the botanical term for the group of lower plants that cover mosses (*Bryophyta*), liverworts (*Marchantiophyta*) and hornworts (*Anthocerophyta*). Taxonomists still debate their preferred higher classification; Wikipedia for example uses the term 'hypothetical taxonomic divisions' rather than assigning a standard label such as phylum, sub-phylum or class. They are characterised as plants which do not possess a vascular system to draw water from the surrounding substrate and which reproduce sexually with spores, not seeds, although many can also propagate asexually using structures such as gemmae or tubers.

Because they are relatively small there is a perception that they must be hard to identify and to distinguish from each other but, with practice, the majority of the 1,100 species found in the UK can be identified in the field with the help of a simple hand lens. In Herefordshire there are records of 478 bryophyte species—that is around 43% of all species known in the British Isles—of which 372 are mosses, 103 are liverworts and 3 are hornworts.

These figures actually sound a little too precise, as differing criteria can be applied to validate such a county list, but they do provide the right order of magnitude. The total reduces by around sixty species, if only records of plants seen within the last fifty years are included, and by another forty or so if the list is limited to species found since the beginning of the 21st century. It is a challenging task to explain if these reductions are due to local extinctions and the general decline in biodiversity or just a reduction in recording effort since the Victorian era. Nevertheless, Herefordshire still has a very good bryoflora by English standards, although it would sit a little below Shropshire and Monmouthshire in any county league table.

As expected, given the geology and topography of Herefordshire, many of the most important areas for bryophyte diversity are around the periphery of the county. To the north there are a number of key sites, including the River Teme itself and especially Downton Gorge, an area well known for a range of scarcities, with one aquatic species, *Cinclidotus riparius*, only known globally from a stretch of river of a few miles around Ludlow and into Herefordshire. To the west, a very different set of bryophytes present themselves in the upland areas of Cefn Hill, Merbach Hill and especially the Olchon Valley and Hatterall Ridge. There, the rocks of Red and Black Darren offer an array of uncommon species that are not found lower down in the central lowlands. To the south the carboniferous limestone rocks and woodlands of the Doward and Symond's Yat have a particularly high species list, whilst the more acid conglomerate rocks south of Ross-on-Wye hold other species of distinction. To the east there is a rich diversity along the Malvern ridge, in a number of 'dingle woodlands' and on open commons. In the centre of the county, away from areas of intensive agriculture, places like Garway Hill, the Woolhope Dome and Fownhope woodlands all offer plenty of interest with a few scarce species amongst fine assemblages.

To consider the question of what is special about the bryoflora of Herefordshire an appropriate starting point is to look at nationally rare or scarce species that occur here. The British Bryological Society publishes a list of species determined to be nationally rare, defined as those known only from 1 to 15 squares of 10 km in Britain; and nationally scarce, those known from 16 to 100 such squares. Applying these criteria to our county list we have seven species that are 'rare' and thirty-six species that are 'scarce'. There is a longer list of species that are just 'uncommon' or 'local'.

On examination of the seven rare species in the Herefordshire list, four of them, *Cephaloziella turneri*, *Bryum mildeanum*, *Tortula cunefolia* and *Tortula vahliana*, have not been seen for over a century. There is no common theme in their known habitat associations so it would take an expert review to determine if their fate is due to environmental changes or whether they could still be found in an undisturbed corner of the county. The other three are contemporary records, being *Lewinskya (Orthotrichum) acuminata*, *Chenia (Leptophascum) leptophyllum* and *Cinclidotus riparius*. The patch of *L. accuminata* was found by a visiting bryologist in 2014 in an old orchard on the Woolhope Dome, *C. leptophyllum*, an ephemeral species of disturbed ground, was discovered at Kynaston in 2004, and *C. riparius*, as already mentioned, has been found at two Herefordshire locations in the River Teme. An eighth contender for this list is *Anomodon longifolius* which has controversially been included on some versions of the county list, as it was reported from Symond's Yat in 1914, but this could have been from the Gloucestershire side of the river where small colonies of this diminutive moss are still known to occur. More recent searches for it on the Doward have drawn a blank so far although there is no reason why it could not be hiding away somewhere there.

Of the thirty-six Herefordshire species that are listed as nationally scarce, twelve of them

have not been found for over ninety years. Some could still exist here, but others will have gone. Four more species, *Cephaloziella stellulifera*, *Rhytidium rugosum*, *Pottiopsis caespitosa* and *Schistidium elegantulum* were last reported in the 1960s. *R. rugosum* has probably disappeared from its last known location on the Doward, maybe due to increased tree cover, but, since the other three are both tricky to find and to identify safely, they could still be hanging on somewhere. The remaining twenty species occur in many types of habitat and at locations widely scattered across the county, from the upland rocks screes in the Olchon Valley and the calcareous grasslands and orchards of the Woolhope Dome, to deciduous woods and former limestone workings in the south and east of the county. Some sites are well protected and sensitively managed; others are not.

It is not easy to develop a conservation strategy for rare bryophytes when they are so well dispersed, but some broader issues can still be highlighted. Mosses and liverworts do not compete well with vascular plants and soon disappear when land is impacted with nitrogen from fertilisers or other pollutant sources. Many species cannot tolerate too much woodland shade or creeping ivy but they can also be sensitive to conditions drying out for protracted periods. Some species need disturbed ground or steep banks with rock outcrops providing just the right chemistry and light conditions to give them a competitive niche. A good local illustration is provided by three nationally scarce mosses, *Hedwigia ciliata*, *Grimmia ovalis* and *G. laevigata*. These three are almost entirely known from the big roof tiles, made from Old Red Sandstone, that are found on a few old churches and farm building in some parts of the Welsh Borders and have often fallen victim to well-intentioned maintenance (Plate 9.1).

One of the joys of getting familiar with bryophyte species is learning to interpret more about the ecological niches that more specialised species require. The presence of *Anomodon viticulosus* or *Ctenidium molluscum* will tell you that you are near limestone. A suite of other species indicates you are on acidic peat soils with one, *Splachnum sphaericum* (with one county record) only growing on herbivore dung on peat bogs. Some species have evolved to do best on unfertilised arable land and others are fully aquatic or just partially aquatic, thriving only in splash zones, wet flushes or on trees overhanging rivers. Plate 9.2 shows three epiphytes commonly found in Herefordshire growing on the bark of an Ash *Fraxinus excelsior*. Some species are only known from roofing thatch and others are only reported from rabbit holes, from where they seem to emit a strange, green, reflective light!

At present there are very few people in Herefordshire studying or recording bryophyte species. As the county recorder for the British Bryological Society (BBS) I would be pleased to hear from anyone with either knowledge or just enthusiasm to learn more about this branch of botany. A starting point is the BBS website (https://www.britishbryologicalsociety.org.uk) which has my contact details and is a great information resource for beginners or for people at any level to build their knowledge and understanding. There are also details about field meetings and a more detailed bryological tour of Herefordshire. So, there is no longer an excuse for failing to look more carefully at the diverse world of smaller plants beneath our feet. If you do look, you will be surprised at what you have been missing!

Buildings

By DUNCAN JAMES

The pandemic has again limited the number of buildings investigated during 2021 but a few were studied. Pembridge Belltower was visited, to admire the new lighting installation and the framed photographs around the walls. The unusual collection of coffin biers, that had been housed in the ambulatory of the building, is also on display, having been repaired and refurbished. This all means that it is now possible to get a real sense of the dramatic structure of the belltower with the four massive early 13th-century corner posts. The village is to be congratulated for this thoughtful improvement to one of Herefordshire's earliest timber structures.

TOWN HALLS

One building that was investigated during 2021 was the Town Hall in Chipping Campden, Gloucestershire. This of course is not the place for a report on an out-of-County building, but it is worth mentioning as an example of how valuable tree-ring dating can be, even when dealing with a Cotswold-stone structure.[1] The challenge was to establish a construction date and, if possible, the date of a major remodelling. The roof timbers proved to be suitable for sampling, through which two of the principal rafters gave a date of 1325-50 for the primary structure, whilst two other principal rafters and a later collar, used on the earlier pair of rafters, gave 1497-1519.[2] The latter thus fixed the date of a series of blocked windows, which matched windows in the Guildhall at nearby Chipping Norton, similarly 'tree-ring' dated to 1514-20 by reference to samples from the roof structure.[3]

It was of interest to note that, in common with Herefordshire town halls, there is clear structural evidence to show that the primary access to the upper floor at Chipping Campden Town Hall would have been by means of an external staircase, almost certainly of timber, attached to the back of the building. This rear access was used on the Leominster Market House by John Abell when it stood on its original site at the top of Broad Street. In Ledbury the first floor of the Market House was reached from an external staircase attached to the north end of the building, the present stairs being a later insertion. External access to the back of the building can also be seen on the timber-framed Market House in Newent, Gloucestershire.

LOWER COURT, CLIFFORD, HEREFORDSHIRE, HR3 5ER

Lat./Long.: 52.103441, -3.103190. NGR: SO 24536 45584. SMR No. 6157. The house is listed grade II*.

Lower Court is an important house built on an elevated site just 650 ft away from Clifford Castle. (Figure 1). It was noted by the Royal Commission in their survey in the 1930s as 'possibly late 17th century' but the core of the building is undoubtedly earlier.[4] It has not been the subject of a detailed analysis and recording of the timber framing, although a valuable investigation of the house has been undertaken by Sam Hale to accompany a planning application for alterations to the building.[5]

The front of the house is set back parallel to the road (Figure 2). The 18th-century exterior is predominantly of coursed rubble stone with many later additions and alterations (Figure 3). However, the stonework either hides or replaces the walls of a substantial timber-framed building

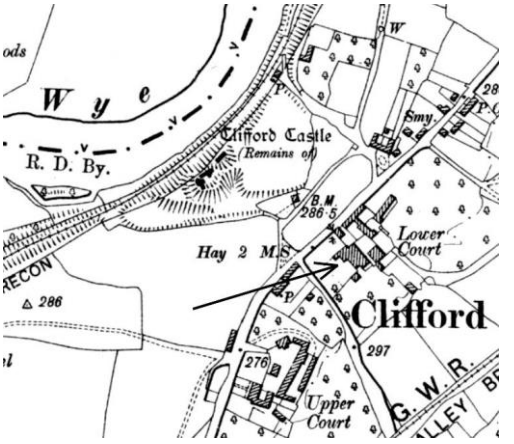

Figure 1. Relationship of Lower Court to Clifford Castle, OS map 1905

of 15th-century date. Although little of the wall framing is now visible, the roof structure is substantially complete. This shows that a four-bay open hall was laid out on a north-east to south-west alignment with, at the south-west end, a long, essentially two-bay, crosswing, with a three-bay roof structure to each bay (Figure 4). At the north-east end of the hall range there would have been either a service bay or a service crosswing, now lost. The solar crosswing is at the south-west end of the hall, an orientation that was usual in the hall houses of Herefordshire, placing the service provision at the cooler, north-east end of the house.[6]



Figure 2. Lower Court Farmhouse, Clifford, front elevation



Figure 3. Lower Court Farmhouse, Clifford, rear elevation. The timber roof truss is T12 at the end of the solar crosswing

Tree-ring dating of the roof timbers gave a felling date of 1429/30, indicating that the hall was probably constructed in 1430 and the crosswing in 1431.[7]

The high status of the building is revealed by the size and quality of the hall roof and the amount of decoration, all of which, in terms of status, place it alongside other manorial halls in Herefordshire and those across the border in Radnorshire.[8]

Bay 1, at the lower end of the hall, would have been the cross-passage bay. Roof truss T3 marked the middle of the hall and T4 was above the upper end. The principal truss, T3, has a massive, cranked collar that is chamfered along the lower edges, and with arch bracing below, also chamfered (Figure 5). Above the collar are raking struts, cusped to form a central quatrefoil flanked by trefoils. The arch-braced truss over the upper-end bay of the hall is similar to T3 but with additional cusping that extends the trefoils on each side. This decorative motif, a quatrefoil with trefoils, was widely used in Herefordshire and the adjacent counties in the 15th century.

The roof has a double tier of threaded purlins, the upper row chamfered, with run-out stops. The lower row is more elaborate with pyramid stops terminating an unusual arrangement of chamfers and run-out stops (Figure 6). There was no ridge purlin although cuts had been made for a later ridge plate. The trusses T3 & T4 have a vertical joint line at the apex, secured with a mortice and tenon joint and a single peg.

The roof has three tiers of wind braces (Figure 7). The lower tier is incomplete or may even have been completely lost although mortices survive in the principal rafters to indicate their positions. This lower row of wind braces would almost certainly have been cusped, so that the lower two tiers of wind braces would have formed quatrefoils while the inverted wind braces in the top rows, on each side of the ridge, also formed quatrefoils that would have been seen by looking up towards the apex of the roof. The wind braces are tenoned into the sides of the principal rafters and lapped into the backs of the purlins. The timbers of the hall roof are smoke blackened from the use of a central open hearth.

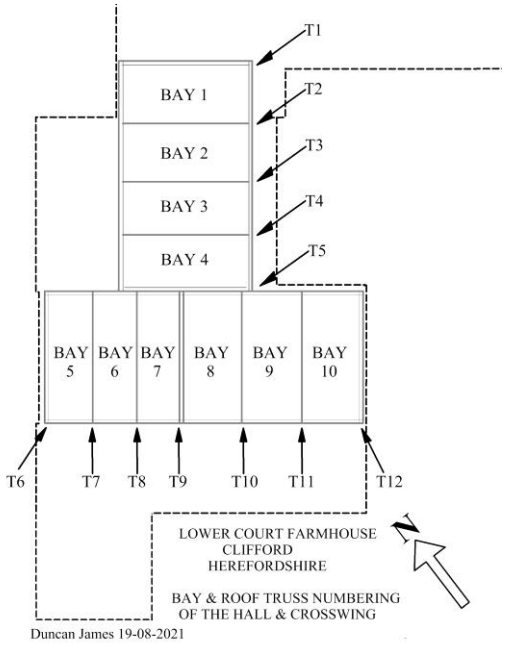

Figure 4. Sketch plan showing the layout of the 15th-century roof structure

Roof truss T1 was not visible, but truss T2 is a closed tiebeam truss with vee-struts above the collar and a king strut below.



Figure 5. Lower Court Farmhouse. Roof truss T3 over the former hall, looking north



Figure 6. The complex chamfer stop used on the lower tier of purlins. Note the addition of a small pulley, possibly related to the sack hoist shown in Figure 8

The hall has an inserted floor. In the attic, above a relatively modern first-floor ceiling, there is the rare survival of a well-made sack hoist, possibly of 18th-century date, that would have been used for hauling sacks from below for storage at first-floor level (Figure 8).



Figure 7. Lower Court Farmhouse. The upper and middle tiers of purlins in bay 4, looking south



Figure 8. Lower Court Farmhouse. Roof truss T4 above the hall, looking south. Note the later addition of a sack hoist

The solar crosswing is of unusual layout with roof bays to the rear of the building that are longer than those at the front. There is a double tier of threaded purlins with chamfers and cut stops and two tiers of cusped wind braces. There is a ridge purlin, set on the diagonal. The crosswing roof has a closed tiebeam truss at T9 which indicates that there were two rooms at first-floor level and probably that the ground floor was divided in a similar way. Both first-floor rooms have arch-braced-collar intermediate trusses, T7 and T8 over the smaller, north-west room and T10 and T11 over the larger, south-east room (Figure 9). In common with the hall roof, the quality of the oak and the carpentry is high.



Figure 9. Lower Court Farmhouse. Arched-braced-collar roof truss T8 over the front chamber of the solar crosswing. Note the threaded purlins and double tier of cusped wind braces

An additional early structure abuts the south-west side of bays 5 and 6 of the crosswing with a roof that consists of three tiebeam trusses with substantial collars and a single tier of threaded purlins. There are wind brace slots in the sides of the principal rafters. These two bays appear to be later additions of 15th-century date.



Later alterations to the building include a staircase (Figure 10) and two curved-back glazed cupboards of late 18th-century date.

In its primary configuration, it is clear that Lower Court was a house of high status. Its proximity to Clifford Castle suggests that there may have been a link between the two buildings. It is known that during the 15th century the castle was falling into disrepair, which suggests that there may have been a need to rehouse its administrative function. It is thus possible that Lower Court, with its construction date in the first half of the 15th century, could have been built with this in mind.

Figure 10. Inserted staircase with turned newel posts on the half landing at Lower Court Farmhouse

THE GABLES & KILPECK COURT FARMHOUSE, KILPECK, HEREFORDSHIRE, HR2 9DN. Lat./Long.: 51.970150, -2.8087471. NGR: SO 44538 30495.

Kilpeck Court Farmhouse and The Gables are now two separate units of accommodation but in earlier times they formed one single dwelling because this building is a much-altered medieval hall house (Figure 11). In common with Lower Court in the village of Clifford, Kilpeck Court Farmhouse also stands near a castle (Figure 12).[9] It too had timber framing that was later encased in, or replaced by, coursed rubble-stone walling.



Figure 11. Kilpeck Court Farmhouse & The Gables, Kilpeck. Front elevation

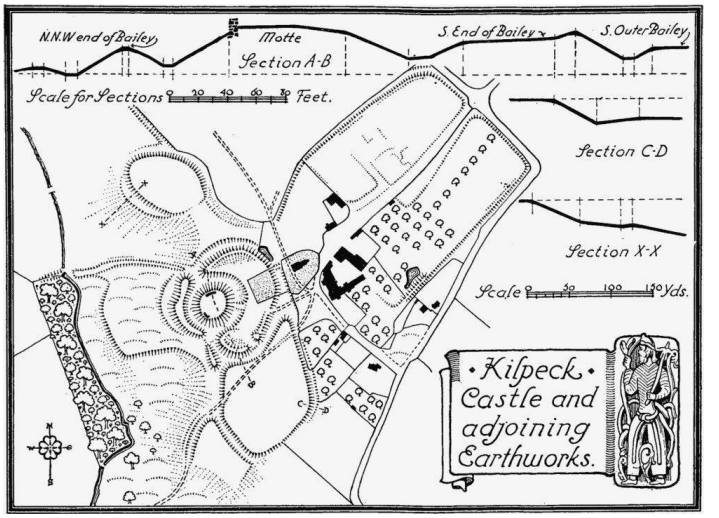

Figure 12. Plan of Kilpeck and its Castle (RCHME). Kilpeck Court Farmhouse and The Gables are next to the road in the centre of the plan, facing the Castle



Figure 13. The Gables, at the northern end of Kilpeck Court Farmhouse

The central hall range is laid out on a north-east to south-west orientation with a two-storey solar crosswing at the southern end and a two-storey, three-bay service crosswing (bays 1, 2 & 3) to the north (Figures 13 & 14). The hall range has undergone radical alterations, probably in the

19th century, when the front wall was rebuilt in brick. The roof was also rebuilt to accommodate the increased height of the range.

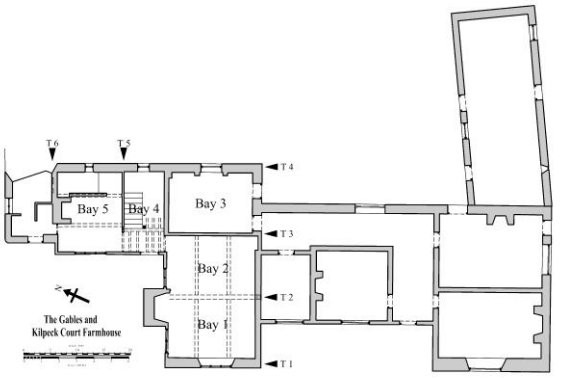

Figure 14. Ground plan sketch of The Gables (bays 1, 2, 4 & 5) and Kilpeck Court Farmhouse

The earliest surviving part of the building is the service crosswing. This has structural features, including threaded purlins and diagonal sawmarks,[10] that serve to place it within the 15th century. The wing is abutted on the northern side by a two-bay, two-storey, timber-framed extension of 17th-century date that incorporates a fine dog-leg staircase of similar date, with splat balusters, and square newel posts with moulded finials (Figure 15).



Two significant components survive in the south-west side wall framing of bay 2 in the service crosswing. These are two Tudor doorheads, visible only on the south-west side within Kilpeck Court, which indicate the position of a pair of adjacent, blocked doorways that would have given access from the hall to the former pantry and buttery.

In the roof of the service crosswing much of the primary structure survives *in situ*, including roof trusses T2 and T3 (Truss T1 has been replaced by the stone gable and T4, at the back of the building, is replaced with brick). There is a single tier of threaded purlins and the common rafters are bridle-jointed at the apex. Both roof trusses have cambered collars and tiebeams; T3 was originally infilled with wattle and daub and there was a partition below (as there still is) on both ground and first floors. Truss T2 however was not infilled and there was no partition below the tiebeam, although one has been inserted later.

Figure 15. The 17th-century staircase in The Gables, Kilpeck

It is clear that the crosswing was modified in the 17th century by the insertion, at ground-floor level, of the present moulded ceiling beams and plaster ceiling, with simple moulding around the edge of each panel. It was set at least twelve inches higher than the floor it replaced. At first-floor level, where originally the rooms had been open to the ridge, the present ceiling has been inserted above the level of the tiebeams.

On the back of the building the majority of the walling is stone except for the first floor of bay 5 where the primary moulded window sill, with its two shaped consoles, survives (Figure 16 below).

The investigation of this building was focussed on just one end of the structure. In the future a detailed study of the solar crosswing at the southern end of the range may reveal more. It is also possible that the attic of the hall could retain components from the primary roof structure.



Figure 16. The 17th-century window sill and consoles on the first floor of The Gables, bay 5. Note that the primary window was as wide as the sill

I am indebted to Mr and Mrs Edward Clive for the invitation to explore The Gables in Kilpeck. For access to Lower Court my thanks go to Sam Hale and the owners, Mr and Mrs Owen Dady.

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[7] Tree-ring dating carried out by Andy Moir, Tree-Ring Services Report: HRLC/31/21, *Vernacular Architecture*, forthcoming volume. In light of this the listed building description needs revising as it suggests a mid-14th C. date for the hall and a late 14th / early 15th C. date for the crosswing. List UID: 1348895.
[8] For example, Eaton Hall, Leominster and Wellbrook Manor, Peterchurch in Herefordshire. In Radnorshire, Bryndraenog is an outstanding hall of unusually high status.
[9] A mere 400 ft from the Keep.
[10] D. James, 'Saw marks in vernacular buildings and their wider significance', *Vernacular Architecture*, Vol. 43 (2012), pp. 7-18.

Geology, 2021

By MOIRA JENKINS

Following easing of the pandemic restrictions, the Woolhope Club's geology field trips were able to resume and included visits to Ross-on-Wye, the south of the Malverns and the Sturts, all described elsewhere in this volume.

25th ANNIVERSARY OF EHT

This year the Herefordshire and Worcestershire Earth Heritage Trust (EHT) celebrated its 25th anniversary with a series of guided walks, many of which were in Herefordshire. These walks are described more fully, with photos, in an article in *Earth Heritage* (56) 2021, which also tells of some of the achievements of the last twenty-five years.[1]

The walks, which were enjoyed by a large number of people, explored a range of locations: Ross-on-Wye, after the virtual AGM of the EHT; the landscape and rocks of several areas—Colwall, the Little and Great Doward, the Darens and the Cat's Back, North Hill in the Malverns, and the Lickey Hills; geology and heritage trails in Bromyard and in Ledbury; the geology of Swardon Quarry in the Frome Valley; and Ice Age ponds, via trails in Staunton-on-Wye and Almeley. In the cities, a geology and heritage walk took in the cathedral and the central area of Hereford, whilst another walk explored Worcester.

In Plate 10.1, participants are looking down from the ridge of moraine at Staunton-on-Wye which blocked the course of the River Wye in the Ice Age. The Letton lowlands became a glacial lake. The river eventually cut a new channel further south, beyond the hills in the middle distance on the photo.

It is hoped that more guided walks will be organised in 2022.

CONDITION MONITORING OF GEOLOGICAL SITES OF SPECIAL SCIENTIFIC INTEREST by Sue Hay

There are 1,150 Sites of Special Scientific Interest (SSSI) designated wholly or in part for their geological (and geomorphological) features. In 2020 Natural England re-established a programme of monitoring and evaluation of these SSSIs to update, improve and fill in the gaps in evidence base regarding their current condition and associated management needs.

Through providing a robust and sound base of evidence on the environmental condition of SSSIs, the aims are to support both site management and delivery and reporting of national policy, including Local Nature Recovery Strategies and projects, as set out in the new Environment Bill. This will inform the outcome indicator G2—'Condition of heritage features including designated geological sites and scheduled monuments'—as set out in the 25 Year Environment Plan (25 YEP) and support the targeting of resources to manage and maintain the condition of geological SSSIs, e.g., through the new Environmental Land Management Scheme (ELMS).

In late 2020 Natural England requested bids for about a quarter of these sites to be surveyed over a three-month period by the completion of at least one Geological Features Assessment for each site. The Herefordshire and Worcestershire Earth Heritage Trust (EHT) completed some twenty-six surveys and assessments, of which fourteen were within the Malvern Hills SSSI, several of them covering sites within both counties. The sites assessed which lie

entirely within Herefordshire—some of those within Downton Gorge and two disused quarries, Wayne Herbert Quarry and the Mocktree Quarries—are described in more detail below. The rest of the sites were all in Worcestershire.

Wayne Herbert Quarry, a small quarry in the south-west of Herefordshire, composed of Upper Silurian/Lower Devonian sediments, is a geological SSSI because of the rich and diverse fauna of complete, early, fossil fishes and eurypterids found at the site. Most of the fish-rich lens is now in the Natural History Museum but a small exposure in the quarry face shows the overlying, well-bedded, medium-grained sandstone containing occasional shell moulds, as seen in Plate 10.2. The sandstone contains very small areas of black, organic-rich material, only a few mm across, some of which appear to be fish scales (Plate 10.3).

The Mocktree Quarries site in the north of the county displays a complete and fairly continuous exposure of the fossiliferous middle Ludlow sequence in the Leintwardine area. However, its chief significance stems from the evidence it contributes to the existence of a regionally important, submarine, canyon-head system.[2] These are rarely seen. One such example is seen in cross-section infilled by thinly bedded, gently curved siltstones of the Lower Leintwardine Formation. The channel's gently curving base cuts down into the underlying Basal Leintwardine Formation (Plate 10.4).

The sites in Downton Gorge included Castle Bridge Mill Quarry, Downton Castle Bridge, Forge Rough Weir and Tin Mill Race. In the Ice Age, the River Teme was dammed by ice and moraine at Aymestrey and found another route by cutting the gorge at Downton. Plate 10.5 shows the Aymestry Limestone cliffs; as can be seen, the survey of sites in Downton Gorge was carried out on a very cold and frosty day.

PROGRESS ON THE ICE AGE PONDS PROJECT by Beth Andrews

The Conserving Herefordshire's Ice Age Ponds project, carried out by a partnership of the EHT, Herefordshire Amphibian and Reptile Team, and the Herefordshire Wildlife Trust, had a busy 2021. Despite some logistical challenges we managed to train up volunteers and conduct forty new pond surveys. MSc student Olivia Verplancke from the University of Keele is conducting some geophysical surveys of the Ice Age ponds looking into the modes of formation of several different sites within the project area. The results of her work will be presented at the end of project conference.

We have new radiocarbon dates for a peat found in one of the ponds in 2019. This previously unrecorded pond, near Staunton-on-Arrow, contained nearly 2m of undisturbed peat. Pollen analysis had already been carried out and we are waiting for an updated report bringing these two datasets together.

Our trainees working on the Ice Age Ponds project, with the support of several volunteers, undertook repeat water samples at twenty ponds in May, July and October. The testing of the samples at Birmingham University is looking at water quality and possible pollutants. The results are still being processed but will allow a more detailed analysis of water quality within the Ice Age ponds throughout the year.

Sharing this interesting landscape and its unusual features, along with our findings, is going to be the focus for 2022. The free Ice Age ponds app and supporting website (iceageponds.org) are now up and running and we have produced a guide in the Explore series, *Explore Ice Age Ponds and Landscapes*. All of these are designed to encourage people to visit the region and learn more about Ice Age ponds.

In 2022 we aim to build on these results, recruiting and training more volunteers to

conduct pond surveys, creating interpretation for several Ice Age Pond sites, and publishing a booklet of information about the project. We are holding our project conference on Wednesday 2 March 2022, which people can attend, both in-person and online. Details of all our activities can be found on https://www.herefordshirewt.org/iceageponds.

Plate 10.6 shows a group dipping at one of the ponds at the Sturts to record the creatures living there. This shallow pond dries up in summer. Research has shown that this pond developed at the end of the Ice Age and has been gradually infilled with many metres of sediments.

BIRMINGHAM'S ERRATIC BOULDERS, NATURAL HERITAGE OF THE ICE AGE

EHT are carrying out this project, in partnership with the Black Country Geological Society, Birmingham Open Spaces Forum and the Lapworth Museum of Geology, having started in September 2021 after being awarded a grant from the National Lottery Heritage Fund in July 2021. There are many large boulders which have been carried by glaciers in the Ice Age and dropped in the Birmingham and north Worcestershire areas when the ice melted. The ambition of the project is to raise public awareness and increase accessibility, believing that 'heritage belongs to all of us', and this is at the heart of the project design. As a community-based project, local residents are helping to clear the sites, find new boulders and record the social and geological history of the boulders, which were carried in glaciers from as far away as North Wales in the Ice Age. The aim is to maintain the sites once the project ends in December 2022.

The design and finalisation of the seven walking and cycling routes around south Birmingham is well underway. Each trail will have its own trail guide highlighting interesting features along the way. Trail launches will begin in April 2022 and run until September with the launch of the cycling routes coinciding with Birmingham Heritage Week, from 9 September 2022, which EHT has been asked to get involved with.

The project's capital work involved moving several boulders in Woodgate Valley Country Park to places where they can be displayed to the public. Plate 10.7 shows Val Turner, Project Manager, standing next to one erratic. a lithic tuff banded with rock fragments. This rock originated in North Wales and was dropped here when the ice melted.

SITE CLEARANCE FOR MALVERN HILLS AONB

Site clearance was carried out at Knapp Lane Quarry and the Wyche. There was also work done at Loxter Ashbed Quarry, with local and private funding to enable the steps up from the road to be replaced. Plate 10.8 shows a granite pod in the small quarry at the Wyche, above and to the south of the bus shelter.

REPORTS ON ACTIVITY IN HEREFORDSHIRE

In the reports below the local names for rock units are used with, in brackets, the latest national names.

Vowchurch Common Building Site by Duncan Hawley and Moira Jenkins

As builders prepare the site for a house, an excavation into the hillside has created a good exposure of the Bishop's Frome Limestone Member (now officially re-named as the Chapel Point Limestone Member—see Barclay *et al.* 2015).[3] It lies at the top of the uppermost Silurian Raglan Mudstone Formation (Moor Cliffs Formation) laid down approximately 419 to 416 million years ago. The site provided a good temporary opportunity to see the Bishop's Frome Limestone Member, which is not often exposed as it quickly becomes overgrown. The Bishop's

Frome Limestone crops out from the Welsh Borders to south-west Wales. It is found towards the base of the slopes where land rises from the Herefordshire Plain to the hills of Devonian St Maughans Formation (Freshwater West Formation), which are more elevated as they contain a higher percentage of sandstone than the Raglan Mudstone rocks of the lowlands, and so are more resistant to erosion. A general view of the exposure at the building site (Plate 10.9) shows that mudstones are overlain by the limestone, seen as the grey-coloured beds in the central part of the exposure, with red silty muds and fine sandstones towards the top.

The lowest part of the section, which is in the uppermost Raglan Mudstone Formation, exposes a sandstone bed, seen at the base of Plate 10.10. Careful, close-up examination indicates this is made up of a stack of very thin, low-angle cross-laminations, suggesting formation by repeated sheets of mobile water crossing a floodplain. It also contains vertical, burrow-like 'Skolithos' trace fossils that extend through the bed. These tubular dwellings may have been inhabited by suspension- or deposit-feeding worms or small crustaceans.

Overlying these are layers of red mudstone coloured by oxides of iron, with thinner bands which have been reduced and are the grey-green colour of ferrous hydroxides (Plate 10.11). The grey-green bands indicate waterlogging that occurred in prolonged periods of seasonal wetting. The mudstones are highly bioturbated with many burrow traces, at different angles and of at least three types, indicating there was a variety of creatures inhabiting this sediment when it was wet. The mudstone has a strong ped structure (sometimes called 'aggregates'), giving it the 'broken' and friable appearance. Peds form as particles in the soil are forced together by shrink-swell processes related to wetting and drying or root growth. At this site, they look like the blocky peds (rather than prismatic peds) which commonly occur in the upper horizons of soils that have a high clay-mineral content.

Plate 10.11 shows the red mudstone with thin, grey, reduced layers. With careful observation it is possible to pick out some cross-cutting curved fractures in the mudstone. These are slickensided slip planes, developed in response to fluctuations in the water in order to accommodate the increased volume of mud when it became swollen. They are not strongly developed here which might indicate a slow, steady rate of sediment accumulation.

The Bishop's Frome Limestone (Plate 10.12) is a non-organic limestone, a calcrete, which was not laid down under marine conditions but formed when two tectonic plates converged and the new land configuration created a large semi-arid land surface at its margin, crossed by a network of seasonally charged rivers. During the (relatively short) wet season, water percolated through deep desiccation cracks in the muddy sediment soils (vertisols) on the floodplains, then during the dry season was subsequently drawn back up to the surface by capillary action. At the base of the soil layer, the dissolved calcium carbonate was precipitated out and deposited as nodules. As the process continued the nodules grew, displacing the mud. At this site, the calcretes are classed as mature because the nodules have coalesced, forming a layer of limestone, indicating that formation took place over a long period with a stable seasonal climate, and in an environment not disturbed by any significant erosion or input of overlying sediment. Estimates of the time required to form a coalesced calcrete of one to two metres thickness, as exposed here, are in the order of several hundred thousand years to over a million years.

At the northern (left-hand) side of the site, where the excavation cuts a cross section through the slope profile, there are interesting and unusual features. In the upper part of this area are nodular calcrete layers that show broken disturbance when compared to the regularly layered pattern of nodules evident in other parts of the exposure. Beneath these the mudstone layers have been distorted, with this deformation picked out by the undulations of the green-coloured

reduced layers. The features seem to occur in a specific area, over a limited depth where the nodular calcrete intersects the slope. They are likely to have originated under periglacial conditions, possibly by near-surface solifluction, when the calcrete and uppermost parts of the underlying mudstone thawed in the summer and became saturated. Under such conditions the calcrete may have deformed, flowing downslope, pressing on and pushing the saturated plastic mudstone immediately below, causing it to deform.

Evidence to suggest this process was responsible for the features can be observed in Plate 10.13 (in the centre of the photo) where a 'column' of calcrete shows a slightly forward-leaning front edge at its base pushing onto the deformed mudstone below. However, the true nature and interpretation of this feature is only likely to be revealed by a more exacting study. Plate 10.14 shows the deformed mudstone in close-up.

Burghope Quarry

Early in February 2021 there was heavy rain which caused flooding in Lugg Valley as seen in Plate 10.15. In nearby Queenswood Country Park, the rock succession is Upper Silurian Raglan Mudstone Formation (Moor Cliffs Formation) followed by Bishop's Frome Limestone Member (Chapel Point Limestone Member), overlain by Devonian St Maughans Formation (Freshwater West Formation).

Water flowing down the track beside the Burghope Valley, along the south-west boundary of Queenswood Country Park, had eroded the path and exposed the underlying mudstone rock. Plate 10.16 shows the red Upper Silurian Raglan Mudstone Formation with pale, greenish-grey reduction spots. These are the first of the Old Red Sandstone rocks. In the track there are also calcrete nodules from the overlying Bishop's Frome Limestone Member (Chapel Point Limestone Member), which is not well exposed here. It was extracted in Burghope Quarry and some was used to make the track alongside the Burghope Valley. Nodules of this calcrete are seen in Plate 10.17.

Plate 10.18 shows the area where saplings have been cleared. Hazels were cut back to ground level here in early 2021 to provide a better view of the quarry's form and to allow more sunlight to reach the lime-rich soils, thus encouraging the growth of associated ground flora. The Bishop's Frome Limestone is not often exposed as it is easily weathered and overgrown, but its position can be mapped by the lime-loving vegetation such as Wood Spurge, Spurge Laurel and Hart's-tongue Fern. Overlying the Bishop's Frome Limestone, the sandstone bands of the St Maughans Formation (Freshwater West Formation) can be seen. At the undercut base of the cliff, there is a conglomerate layer, formed where the top of the fossil soil layer was eroded before the overlying sandstone was deposited. The top of the Bishop's Frome Limestone can be seen as calcrete clasts in mudstone with conglomerate in the undercut base of the sandstone above. This is shown in Plate 10.19.

There is an information panel describing the geology at the western end of the exposure as shown in Plate 10.20. The top of the Bishop's Frome Limestone is at the undercut base of the cliff and is overlain by a sandstone band showing cross-bedding. There is more information in the EHT's guide, *Explore Queenswood and Bodenham Geology and Landscape Trail*.[4] Look out too for Nic Howes's description of the Bodenham Loop walk, which will be published by the Herefordshire Wildlife Trust in an edition of *Wildside*. The description of the Vowchurch Common site above gives a more detailed explanation of the formation of the Bishop's Frome Limestone Member.

Gravels Underlying Hereford

Excavation work to enlarge a cellar in St James Road, in Central Ward, Hereford, has exposed some of the gravels which underlie the centre of the city. These have been deposited in the channel which the River Wye eroded before it was diverted during the Ice Age.

Plate 10.21 shows the material making up the top six feet of the ground. The gravels are described in the British Geological Survey Memoir for Hereford as being immature, reddish brown, sandy and generally well stratified.[5] They consist of water-rounded pebbles in a finer matrix and have been found wherever cellars were excavated throughout the central area of Hereford. These are fluvioglacial gravels washed out of the melting glaciers and glacial deposits higher up the Wye Valley and carried downstream in melt waters. The size of clasts is 50 to 150 mm along the a-axis.

Before the Ice Age, the River Wye flowed along the course of the Yazor Brook, just above and through Hereford. The Proto-Wye had a valley cut into the underlying, uppermost Silurian, Raglan Mudstone Formation / Moor Cliffs Formation, the first of the Old Red Sandstone rocks. The map in Figure 1, taken from the BGS Hereford Memoir, shows the former channel of the Wye, with the margin of its alluvial plain marked with black lines.

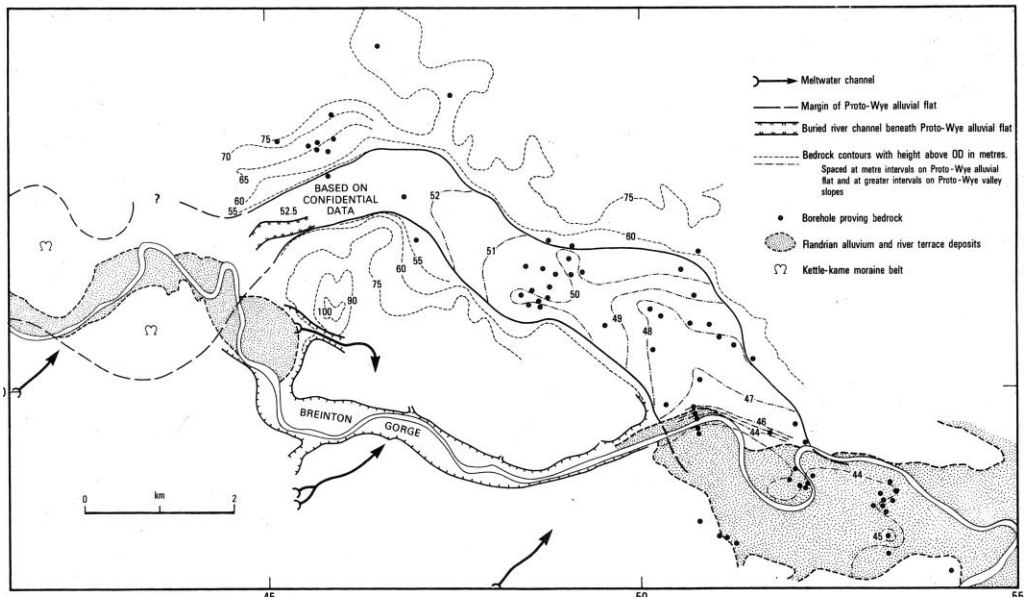

Figure 1. The Proto-Wye Channel from British Geological Survey, *Geology of the country between Hereford and Leominster*, Memoir for the 1:50 000 geological sheet 198, p. 39

The dots on the map show the position of boreholes and the contour lines show the depth to the former channel, now buried under gravels. The figures show the height above sea level at which the rock under the gravels was reached. This channel has been infilled with fluvio-glacial gravels which form an aquifer from which water is extracted by Bulmers, now Heineken.

The Wye Valley was blocked by glacial moraine deposited just to the west of Hereford and the river was diverted during last glacial phase, the Devensian, cutting a new channel through

what is now Breinton Gorge. The Proto-Wye Channel remains buried by gravels such as those seen in the cellar in St James Road. These gravels are from 7.5 to 10 metres thick. At the junction of St James Road and Ledbury Road the OS map shows the height above sea level as 54m. The nearest boreholes show the bedrock to be found between 44 and 46m above sea level. This means that the gravels here are about 8 to 10m in thickness, infilling the former river valley.

Knighton Map Project: Progress Report. January 2022 by Arthur Tingley

[Recorder's note: Arthur Tingley reports below on progress in producing a geological map for the Knighton Sheet, 180. No map for this area, which includes north-west Herefordshire and adjacent areas of the Welsh Borderland around Radnor,[6] has yet been produced by the British Geological Survey.]

The last three years have no doubt been an unpleasant surprise for all of us; events during the pandemic have taken their toll in so many ways. However, over that time it has been possible to move production of the map forward, albeit at something of a snail's pace given the circumstances.

During 2020 and early 2021, a little further field work on the western side of the sheet, around Crossgates, showed that the area remains problematic but, pending winning the lottery and hiring a drilling rig, uncertainties there will have to remain unresolved. In the absence of such investigation, I also remain sceptical of BGS mapping on the Rhayader sheet in that area.

The big steps took place when, through the Curry Fund, the Geologists' Association granted an award to proceed with the printing of 100 maps. It was then possible to apply to the Ordnance Survey for a licence to print 100 copies, to go back to the printer and, around April 2021, to enter the map-production phase. Even then the stop–go issues associated with the national problems, combined with the technical experience that is needed to produce a geological map at A0 size, presented considerable hurdles. Nonetheless, in collaboration with a helpful printer it has been possible to print off the two sheets (Geological Map, and Geological Columns and Sections, each of A1) in black and white, on watercolour paper, delivered on Christmas Eve 2021.

Part of the difficulty encountered lay in combining the four geological overlays of A1 size, each hand-drawn at 1:25 000 on their own paper-topographical base, and converting them into a single, scanned geological overlay on a digital-topography base at 1:50 000; this introduced small and irritating errors rather than problematic ones.

John Moseley, Mike Brooks and I had also started to prepare the Sheet Explanation. Eventually it became obvious that it was impractical to handle this work at the same time as map preparation, especially as we were unable to meet because of the pandemic. However, starting to write the explanation had made clear the value of QGIS software, as taught to some of the project contributors by Professor Ian Fairchild. With knowledge reinforced by a short, virtual course with the Field Studies Council, small map extracts can now be provided to illustrate the explanation and perhaps to offer something of a field guide.

So, in January 2022 the two sheets are being coloured up, and hopefully within a month or so it will be possible to determine with the printer how we progress to produce 100 coloured and folded geological maps, for an area where no such map is available from the British Geological Survey. The most challenging part of that operation will be to ensure that the colours remain true, as each colour, tone, hue and brightness has a meaning in terms of its environmental interpretation.

Lord's Wood with Malvern U3A

Plate 10.22 shows the Malvern U3A geology group looking at the rock succession in Lord's Wood Quarry, with Carboniferous Gully Oolite (formerly Crease Limestone) overlain by Llanelly Formation (formerly Whitehead Limestone). Between the two rock units, there is evidence of emergence and development of a karst landscape. The different erosional phases are clearly shown in a labelled diagram in the article about The Dowards in the 2021 edition of *Earth Matters*.[7] The labelled diagram was produced by Mike Brooks as part of the DeepTime Project, based on field work he carried out with Nick Chidlaw and Julie Harrald. Permission to visit the quarry must be obtained from Herefordshire Wildlife Trust. The diagram and further information about Lord's Wood can be found on the DeepTime website.[8]

The website is well worth wider exploration as it describes some wonderful locations to visit and provides a wealth of information.[9] There are apps to download free of charge, which you can take with you into the field, covering the Malvern Hills, Wye Valley, Cat's Back, Martley, Lickey Ridge, Lickey Hills, Bredon Hill, Wren's Nest, and Wilderness. Information about creating your own app can be found there too.

Overley Quarry

Quarrying has resumed at Overley Quarry, Mathon, to produce stone for trackways required to remove trees infected with Chalara ash die back.

The rock is the Silurian Upper Ludlow Siltstone found to the west of the Malvern Hills. It is very fossiliferous in some thin layers (Plate 10.23). The layers of siltstone dip at 45 degrees to the west and there is a strong set of joint planes striking 60 degrees (Plate 10.24).

THE IMPORTANCE OF RECORDING TEMPORARY EXPOSURES

Moira Jenkins would be grateful to hear about interesting geological sites, especially those where rock is temporarily exposed, that would give the opportunity for recording the geology before it is again covered over.

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[9] https://deeptime.voyage

Mycology

By JO WEIGHTMAN

2021 was, on the whole, a poor year for fungi. Mycorrhizal fungi were virtually absent. Even the common Amanitas, Russulas, Lactarii and boletes were few in number. Ground conditions were nearly always too dry for saprophytic fungi (those that live on wood and herbaceous leaves and stems that are already dead). This has not been the situation nationwide. Certainly, the part of Scotland that I visited at the beginning of September was alive with fungi and in Kent in the south-east of England mycologists had a bumper season. In Herefordshire, the only species which appeared to relish our conditions was Trooping Funnel (*Infundibulicybe geotropa*), a litter species which is normally only occasional but which appeared in large groups and rings in wooded areas throughout the autumn.

Compensating in some part for this mycological gloom and despair, there is never nothing. All bar one of the notable fungi mentioned below were recorded in Herefordshire in 2021. The odd one out was recorded only just over the border in Wales.

FUNGI WITHOUT GILLS

Exidia recisa is one of the jelly fungi. All members of this very disparate group have a good strategy for maximising their chances of colonising another site. As fungal spores require damp conditions for germination to occur, jelly fungi only produce spores at the optimum moment. In dry conditions they are more or less invisible, presenting at most as a smear on the host, but in damp, rainy weather they swell up and become engorged. Only in this state do they discharge spores. If conditions turn dry, they shrink back and spore production ceases. This process of retraction and swelling is repeated several times in the season. The most well-known fungi in this group are Jelly Ear *Auricularia auricula-judae* and Yellow Brain *Tremella mesenterica*.

E. recisa (Plates 11.1 and 11.2) typically occurs on dead, still-attached branches of willow between November and January. It is more or less cushion- or top-shaped, sometimes hanging by a thread and sometimes sessile. The English name Amber Jelly is apt, as when highlighted in sunshine after rain, the fungi hang along the branch like a string of jewels. So far it has only been seen in four places in Herefordshire, the latest on Wofferwood Common in January 2021. I suspect that it has been much overlooked and hope increased awareness will result in more records.

Sarcodontia crocea is a waxy crust fungus, sandy-yellow in colour and covered in thick, conical, pendulous spines. When fresh, it emits a heavily sweet smell that can be detected from some distance. Fruit bodies are produced in cracks or wounds in fruit trees, mainly Apple (*Malus*).

It has become rare in Britain now that fungicides and other chemicals are in common use in orchards but was once relatively frequent. Even so, the Herefordshire fungus database that holds records dating back to the mid-nineteenth century has no old records for it. The national database (FRDBI) holds only eighteen records for the last hundred or so years. So, it was very exciting when it was reported from Awnells Farm, Much Marcle in October 2014. The infected tree was a Warner's King apple tree, thought to have been planted in the 1930s. The fungus, growing from a damaged cleft in the tree, was about a metre from top to bottom (Plates 11.3 and 11.4). It grows as a crust one to two centimetres thick covered with spines about a centimetre

long. That host tree has since died, but I heard in 2018 that another tree in the same orchard was now hosting the fungus. A fruiting reported in October 2021 on a Newton Wonder apple tree is likely to have been on that second tree.

Postia ptychogaster. In its perfect state, *P. ptychogaster* occurs occasionally as a crust or bracket on conifer wood but is rarely seen. When it does occur, the imperfect state may also be present. Far more commonly, this imperfect state, known as Powder Puff Bracket, occurs alone and is recorded at least once in the county most years, on fallen coniferous wood or stumps. The English name for this imperfect stage is apt as the fungus is very soft, fluffy or feathery and cushion-like in form. When young it is pure white, becoming brown and powdery when dry, at which point it disintegrates into a mass of chlamydospores (specialised, thick-walled resting cells).

In July 2021, I went to investigate a mysterious fungal growth on the ceiling of a shed in the garden of Croft Castle. Several fungal mounds had outcropped between the wall and the compressed-wood ceiling. It was *Postia ptychogaster* in its imperfect state. This was of particular interest, partly because the fungus was present on wood that had gone through a manufacturing process, and likely to have been treated with a preservative or fungicide, but also because the fruitbodies were oozing red droplets (Plate 11.5). It is not unusual to see droplets on young bracket fungi but they are usually clear, like water. Those on *Pseudoinonotus dryadeus* are the colour of amber. I have never before seen droplets of any colour on *P. ptychogaster*. It would be interesting to know if anyone else has observed this phenomenon. (Red droplets regularly occur on the hydnoid (toothed) fungus *Hydnellum peckii* but that is a Scottish species, a Pine (*Pinus*) associate and rare. Furthermore, it occurs on the perfect, not imperfect, state). The fungi mentioned above are all Basidiomycetes, fungi which drop their spores.

Peziza campbellii, on the other hand is an Ascomycete, one of an army of fungi, mostly small, very small, or microscopic, which fire their spores upwards. *P. campbellii* is a giant among them. In February 2021, I was invited to look at what was thought to be the Cauliflower Fungus *Sparassis crispa*, a Basidiomycete, but the habitat details suggested otherwise. A number of small football-sized fruitbodies had appeared in a garden on a deep heap of wood chips from a felled ash. Although by then the clumps were frosted and past their best, the sandy colour, lobed appearance and size did indeed suggest *Sparassis crispa*. One fruitbody had been collected and cut in half. The inside was compactly lobed and brain-like. However, *Sparassis* is associated with pine and there were no pines on the site and there was no history of them.

Back home with a slice, the mystery was soon solved as examination under the microscope revealed asci and ascospores. Identification was immediate and exciting. The only 'Asco' it could possibly be used to be called *Peziza proteana var. sparassoide*s, a name which admirably reflected its appearance, but is now less happily called *P. campbellii*. I last saw this fungus on bonfire sites in the aftermath of the 1987 Great Storm and recall a single huge specimen crammed by its collector into a washing-up bowl. The current find was located in Gladestry, just over the border into Wales (Plates 11.6 and 11.7). It would seem that the charred environment of the Kentish specimens and the ash chippings in the Welsh garden offered a rich supply of easily available nutrients. Wood-chip piles have been a rich resource for many fungi in recent times. They should always be checked. Bonfire sites also have a specialist fungus flora.

The only known Herefordshire specimen of *P. campbellii* was found by Graddon, in Moccas Park in September 1951. The majority of the few records on the national database are for November collections with just a few spring and summer sightings. Most are also from burnt ground and one, intriguingly, from tobacco and tea waste in Lancashire. While still writing this

report, I had news of another find of this fungus. It was in a field near Cwmdu in Powys on burnt ground. Two sightings in one year!

BOLETES AND FUNGI WITH GILLS

Loreleia postii is a gilled fungus that occurs on liverworts or burnt ground. There are only two Herefordshire records so far, one in a gravelly area near garden offices in October 2016 and one on a hard path edging a lawn in November 2021 (Plate 11.8). Both stations are in the grounds of Kentchurch Court.

The fungi now called *Loreleia* have been variously assigned over the years. Currently they are placed in the *Hymenochaetales*, an Order which consists mainly of corticoid (crust-like) and bracket-forming fungi but does also include a few agarics. *Index Fungorum* lists them as 'Incertae sedis' (of uncertain position).

Loreleia postii is an attractive little species, up to twenty-five mm across and fifty-five mm tall, often less. The cap and gills are orange, the stipe a little paler and the gills are decurrent. Despite its small size, this fungus is easy to spot as the colour shows up against liverworts or burnt ground.

The Devil's Bolete ***Rubroboletus*** (***Boletus***) ***satanas*** is a nationally scarce species, found mainly in the southern counties and always on calcareous sites. The only current records for Herefordshire are from the Great Doward, where it has several stations. A 19th-century sighting at Eastnor has not been repeated. Nearly all the finds on the Doward have been in August, with oak or beech.

It was however in September that a young, late-fruiting specimen was found during a HFSG foray in 2021. The photograph shows the off-white cap and scarlet lower half of the stipe (Plate 11.9). A more open specimen would have revealed the yellow of the upper stipe and the concolorous overlying network. It would also have shown the red pores. Both these characters can be seen on the photograph of a specimen from a site in Kent (Plate 11.10). The photograph also shows some grazing on the cap probably by a hungry slug—but please note that the Devil's Bolete is seriously poisonous for humans.

SAPROAMANITA INOPINATA

In 1981, at Lullingstone Park in Kent, an Orpington Field Club member was collecting Parasol Mushroom *Macrolepiota procera* for the pot. Back home she spotted an enemy in the camp. In the field, it had merited collection, having a (sort of) scaly cap. A proper look at home and the mistake was obvious. What she had taken for scales were very different from those of a Parasol. They were not a distinct red-brown over a pale ground, radiating out from a central disc. Instead, the entire cap was uniformly grey-brown with soft fibrous lumps or warts. The gills were cream and soon to turn salmon-pink with age. Her collection lacked a proper ring and the stipe had a few dark partial bands but no regular zigzag pattern. The specimen was submitted to Dr Derek Reid at Kew for identification. Recognising that the fungus appeared to be new to science, Dr Reid consulted with Dr Cornelis Bas in Holland, and a new *Amanita* was born, *A. inopinata*. It is very different from any other British *Amanita* and richly deserves the epithet, which means 'unexpected'. Fungus names are very subject to change in current times and this fungus is now named *Saproamanita inopinata.*

The story does not end there as, at a foray in 1983 at Tandridge Hall in Surrey, some twenty miles away, the same lady collected the second world specimen of the same fungus. Of course, she had her eye in, as one says, but it remains an astonishing coincidence.

In the next twenty years the fungus was found at three further sites in Kent and repeat fruited in some, although it was never again found at Lullingstone Park. To date thirty-six finds are recorded in the FRDBI. (To put this in context, the very common Blusher *Amanita rubescens* has 7,256 records.) Almost all finds have been in the southern counties, with a couple from East Anglia and one from Oxfordshire. So, *S. inopinata* remains rare in Britain although apparently spreading. Nearly all sightings have been under conifer, but a few were with oak or other broadleaved trees and one from grass. Currently, the fungus is not thought to be mycorrhizal, unlike most Amanitas. Most collections have been near introduced conifers and / or in more-or-less ruderal or disturbed habitats. It has been seen in Europe in similar sites, and in New Zealand, but so far its place of origin is not known.

So, it was a light-bulb moment in October when an HFSG member showed me what he had collected during a foray near Leominster. One look was enough. *Saproamanita inopinata* and this far west! The single fruitbody was growing in grass in a cattle-grazed field near a standard ash in a hawthorn hedge (Plates 11.11 and 11.12). When I showed photographs of this collection to my students a week or so later, one of them said that she thought she had recently seen the same fungus in Hereford Cemetery. As it seems to have well and truly arrived in Herefordshire, I am hoping for further records. Please be in touch if you think you have seen this fungus.

Do please note that I record all fungi, not only notable ones.

Ornithology

By RACHEL JENKINS

INTRODUCTION

The pandemic and the concomitant intermittent restrictions on general movement have continued through 2021. Although hopefully there is now light at the end of the tunnel, at least for now, ornithological recording in the field has again been limited. So, inspired by the process of reading about climate change and birds for my report last year, this year I have taken the opportunity to explore migration and birds as a central topic, and then to outline the impact of changing circumstances on a selection of migrant species in Herefordshire. Despite the restrictions of the pandemic, valuable field observations have still been made and are recorded in this report; it was an interesting year for rarities in the county, whilst the important sequence of information from the nest boxes in Herefordshire has continued unbroken.

HISTORY OF OUR UNDERSTANDING OF MIGRATION

Bird migration has long been the subject of observation and comment: *'*Yea, the stork in the heaven knoweth her appointed times; and the turtle and the crane and the swallow observe the time of their coming*'* (*Jeremiah*, 8:7). Aristotle thought that barn swallows hibernated in crevices and even in the mud at the bottom of ponds, an idea also promoted by Gilbert White as late as 1789. It was even thought that redstarts 'transmuted' into robins and that barnacle geese turned into barnacles. But, in 1797, Thomas Bewick described a ship's captain reporting swallows flying north between the islands of Menorca and Majorca and suggested that 'they leave us when this country can no longer furnish them with a supply of their proper and natural food'.[1] By the early 19th century there were reports of swallows at sea on the English Channel, the Mediterranean and off west Africa, supporting the idea that they and other species made long seasonal journeys. In 1822, a white stork flew into Germany with its body still carrying an African arrow.[2]

Firmer evidence arrived in the 20th century with the technique of ringing birds with metal bands carrying individual identification numbers. A barn swallow ringed in May 1911 was retrieved eighteen months later at a farmhouse in South Africa, showing that barn swallows breeding in Britain migrated more than 5000 miles, crossing the Sahara to winter in South Africa. Since then, more than twenty million birds have been ringed around the world, providing extensive information about survival. Recapture rates are relatively good in the breeding grounds but are much worse in the wintering grounds, where there are no or very few ringers at work, and so ringing on its own has generally only been able to provide limited information about migration routes. However, in the last twenty years, radio transmitters and, more recently, geolocators have been used, which enable geographic movements to be tracked, either in real time or retrospectively after the bird is re-trapped.[3]

Radar is able to detect migrating birds at night, giving useful information about numbers, direction and altitude but not species identification.[4] Another important technique is isotope analysis. Stable isotopes are forms of common elements that do not decay over time and therefore remain in the bodies of birds and other animals that have absorbed them in their food. The analysis of these stable isotopes in a bird's feathers or bill can reveal the composition of its diet at different stages in its life. For example, the feather of a dunlin captured in Spain can reveal

that it hatched in Siberia.

And, of course, there is simple observation with the naked eye. If you head out to key migration locations such as islands, coastal headlands, mountain passes and sea straits, you can see migrating birds on the move, or indeed the excitement of birds arriving for the winter. The sights and sounds of barnacle geese and whooper swans arriving on Islay from Iceland and Greenland are unforgettable. Around my house every winter is the noise of migrating fieldfares and redwings, touching down in the surrounding orchards and my garden to eat the apples remaining on the ground. My father's diaries in the 1960s regularly record bird movements, both where he was living at Burley Gate and where he visited other parts of the county. Typical entries in his 1964 diary about Lapwing movements, include the following:

> 65 flying over Lyvers Ocle at 3pm 20.10.64
> 12 flying north at 4.15 pm 1.11.64
> 16 at Burley Gate on Price's fields this morning 15.11.64
> 65 in 4 parties flying Northwest this morning at Burley Gate, 50 at Garnons, 100 at Clifford 13.12.64

Historically, the Lapwing has inhabited North-west Europe all year round with summer residence in Scandinavia, Eastern Europe and Russia, and some winter migration to Southern Europe, North Africa and South-west Asia. Long periods of cold weather tend to result in additional movements, as well as forcing British birds south and west. In Herefordshire, as well as a resident breeding population, large numbers of lapwing have generally arrived in winter. Habitat loss and degradation due to agricultural practices have led to an overall decline, both nationally and in Herefordshire, which may now be very difficult to reverse.[5]

REASONS FOR MIGRATION

Migration refers to the seasonal movements of 'birds between their breeding grounds and their wintering grounds'.[6] Usually this involves birds that breed in the northern hemisphere, migrate south in autumn to spend winter in warmer climates, and then return north during the following spring to breed. For example, for the Barn Swallow summer in Europe offers abundant food and daylight for feeding a family, but cold dark winters here come with only a meagre supply of insects, so the Swallow goes to Africa where it finds warmth, sunlight, and more plentiful food. But then, in the breeding season in Africa, there is huge competition for nest sites and food, so it heads north again, where longer daylight also allows it to rear larger broods.

Migrating long distances is obviously dangerous, with huge demands on stamina and energy, as well as risk of predation *en route*. But birds do it for survival where the risks of staying behind are greater than the risks of moving on or, looked at another way, where the advantages of moving on are greater than the advantages of staying behind. Natural selection ensures that adaptations such as migration only evolve and survive if they confer an advantage in survival. It is thought that the advantages in survival conferred by migrating north to breed arise from the seasonal availability of resources, such as the burst of invertebrate life in the summer of the northern hemisphere. Furthermore, the harsh northern winters limit the populations of resident birds, keeping them at a level below that which could be sustained in the warmer spring, hence leaving a food surplus in the spring available for incoming migrants.[7]

Bird migration is thought to have started during the latter stages of glaciation and evolved over the last 10,000-14,000 years. Most northern-hemisphere species are descended from birds

that evolved in the tropics when ice sheets covered the polar regions. As the ice sheets retreated, some species ventured north to exploit the recently uncovered environmental niches, but in winter still had to return to the warmer countries to survive. This pattern of behaviour appears to have evolved independently in many different lineages of birds around the world, each pattern becoming genetically encoded in the species that each has subsequently produced. Today nearly half (4,000 out of the world's 10,000 bird species) migrate one way or another, with at least 1800 doing it over long distances. In the tropics, where food and weather are more reliable, most species are sedentary or only make small, localised movements, although research this year demonstrated seasonal, intratropical migration patterns in some species.[8] But in the northern hemisphere, the majority of bird species migrate to some extent, with at least 200 land birds making regular, long-distance return journeys between Europe and Africa, and 300 between North and South America.

Birds migrate along shared routes known as flyways, which reflect the prevailing weather conditions and topography of the areas they fly over. Some follow coastlines while others cross oceans or continental interiors, using river valleys, sea straits and mountain passes. All include areas where birds can top up on food, water, and rest, e.g., wetlands and estuaries. Sometimes the return journey takes a different route to that of the outward journey; this is known as a loop migration. Loop migration is common among seabirds, whilst shorebirds, such as Little Stint and Curlew Sandpiper, pass through the UK in the autumn on their way from Arctic breeding grounds, but in spring they take a more easterly route. Spotted flycatchers that breed in western Europe follow a westward route into Africa via the western Mediterranean, while those from eastern Europe go via the eastern Mediterranean.

In most migrants, spring migration is faster than autumn migration, with fewer stops and more direct routes. Often the males return earlier than the females, eager to secure breeding sites and territory as early as possible. In some species, e.g., Common Swift, young birds that have migrated immediately after fledging do not return the following year but remain on their wintering grounds, growing and learning, until they are ready to head back and breed the following year. A few long-lived species, such as Albatross, may not return to their breeding grounds for seven or eight years.

Some species undergo periodic movements known as irruptions, arriving *en masse* at winter quarters where they may not have been seen for several years—for example, waxwings arrive across the North Sea in large numbers every decade or so when their berry crop in Scandinavia is exhausted. Other birds may undergo what is known as escape migration, when severe weather forces them to move on spontaneously; e,g, wildfowl, whose lakes freeze over, or ground feeding birds such as Lapwing, that cannot access food from the frozen soil.

PREPARATION FOR MIGRATION

A potential migrant needs seasonal fat reserves to fuel the journey, a mechanism for making the decision to migrate at the right time, and the ability to navigate the route. Birds are programmed by factors such as changing day length; this triggers the process by inducing a hormonal shift in the bird, which sets off physiological changes. The birds increase their food intake, laying down subcutaneous brown fat to provide the extra power for flight.[9] Species that undertake non-stop flights (e.g., Sedge Warbler) may double their body mass at this time, whilst other birds, such as the Bar-tailed Godwit, which shrivels its reproductive organs during migration, may shed unnecessary weight. Most small birds undergo a full moult before departure, but others, including shore birds and gulls, moult after arrival. Migrants usually have longer and more

pointed wings, shorter tails, and smaller bodies than non-migrants. These features are more efficient for longer, level flight, whereas short wings and long tails provide greater manoeuvrability and aid escape from predators. So, migratory populations of blackcaps have a different wing shape to sedentary populations, underlining that they are trading off flight efficiency against decreased manoeuvrability and increased predation risk.

On the journey, some long-lived, social species—e.g., geese—migrate in flocks. They fly in a V-formation, each bird gaining lift from turbulence generated by the wing tips of the bird in front. The flock rotates positions so that each in turn feels the benefit. Large flocks comprise family groups and newly fledged young. They fly and rest together and may slow down or delay departure in order to allow a struggling individual to catch up.

Many birds, including most passerines, waders, and wildfowl, migrate largely by night, when the air is less dense and more stable, reducing turbulence. Travelling by night also means there is less risk of predation from day-time raptors and less danger from overheating, whilst enabling birds to land in the morning and feed during the day. Others—e.g., aerial insectivores such as swifts and swallows—migrate during the day when they can feed on the wing as they travel. Some large-winged birds, such as raptors, migrate during the day because they rely on thermals to gain height, thus enabling them to glide towards their destination.

MECHANISMS OF NAVIGATION

How do birds find their way? Migratory birds also have a more highly developed hippocampus, the part of the avian brain that delivers spatial memory, and a larger optic lobe, both features that aid navigation and orientation. The young of most migratory species undertake their first migratory journey to the winter-feeding grounds unaccompanied by their parents, and so this is something that must be innate rather than learned.

Birds have extraordinary powers of orientation and navigation. In a famous 1952 experiment, a young Manx shearwater was taken from its nest burrow on the Welsh island of Skokholm, flown by aeroplane to the US and released off the coast of Boston. It reappeared in its burrow twelve days later, before the letter confirming its release had arrived from Boston. It had travelled over 3000 miles in twelve days (250 miles a day) without a single landmark to guide it until it reached the Irish coast.[10] Indeed, I have watched a Manx shearwater arrive at night one April on Rum and find its way into the very same burrow, hidden under several inches of snow, in which it was ringed in a previous year. Equally extraordinary is the fact that adult shearwaters abandon their young in the nest before fledging, leaving the young to leave the nest a week later, make their own way into the sea, and subsequently undertake the journey to South America without parental guidance.

Orientation is an innate ability to head in the right direction and is guided by an internal compass with which the bird was born. Navigation is a more precise process using cognitive skills and experience to locate and identify the final destination. The sun provides a compass for migrating birds, which use an internal clock to orient themselves by its position as it moves from east to west across the sky. After the sun has set, birds' ability to see polarised light means they can detect its final position on the horizon several hours later, enabling them to stay on track through the night. After dark, birds can also use the position of the stars, adjusting their position in relation to various constellations as they revolve round the fixed point of the pole star. Hearing may help birds find their way on cloudy nights. Birds can detect low-frequency infrasound, which means that they may pick up distant geophysical sounds inaudible to us, such as wind around mountain peaks or surf breaking on a shore. Some species, including sea birds, can pick

up olfactory clues. A series of experiments have been carried out with Manx shearwaters, demonstrating that they both navigate long distances across the ocean by smell as well as locate their specific burrow in the dark by smell. Some birds (e.g., pigeons) have magnetite in their bills and skulls, which gives them the ability to detect the earth's magnetic field and orient themselves accordingly. Birds probably use all these methods in an integrated system, using each to a greater or lesser extent according to species. But when it comes to navigation, they use cognitive skills, building up a precise mental map from a first journey and then recognising key landmarks the second time round.

MIGRATION, A DANGEROUS BUSINESS

Many birds do not survive migration. Severe weather can be disastrous. Strong side winds can blow migrants off course, headwinds can prevent them from making landfall, while mist and fog can cause them to overshoot or be grounded. Storms at sea sometimes carry seabirds far inland, leaving them stranded on inland waterways without the energy to find their way back. A late snowfall at the final destination may make it impossible for birds to feed when they first arrive. In such situations the birds may undertake a reverse migration, retracing their steps to somewhere they can find food and waiting for the situation to improve.

Disrupted migration results in rare species turning up unexpectedly as vagrants, delighting some birdwatchers who may rush to see them, but such birds are usually exhausted and rarely survive let alone find their way home.

Other natural dangers include heat exhaustion, especially crossing the Sahara, and predators waiting to pick off tired birds whenever they touch down. Elenora's Falcon of Mediterranean regions specialises in feeding off migrants. Migrants have evolved to overcome the challenges of storms, droughts, and predators. But today, migrating birds are struggling due to major man-made threats, including hunting, snares, power lines, wind turbines and lighthouses, whilst other bright lights, such as gas flares, and town and industrial lighting, take a heavy toll. Around the Mediterranean alone, an estimated 500 million birds are killed annually, the majority on migration between Europe and Africa. But most serious is habitat loss from pollution, intensive agricultural development and pesticide use; industrial and urban development along the flyways; climate change resulting in loss of tundra habitats in the Arctic; and desertification of the Sahel in Central Africa, due to overgrazing and climate change, which extends the desert crossing.

At sea, migrating sea birds are ingesting plastic (we now know that this happens because plastic which has been in the ocean for a while gives off a plume of dimethyl sulphide, which the birds mistake for food) or getting caught in nets or on fishing hooks (responsible for the deaths of 100,000 albatrosses every year).

CLIMATE CHANGE: THE TOLL ON MIGRATING BIRDS

The increasing toll on migrants caused by climate change was discussed in last year's ornithology report in these *Transactions*.[11] Subsequently, the BTO have published a major review of climate change and birds.[12] The UK's internationally important breeding-seabird population and upland-breeding birds are already negatively affected and appear most vulnerable to future climate change. The presence of many southern species is increasing in response to warmer temperatures; for example, Little Egret, Cattle Egret, Great White Egret and Spoonbill are now colonising the UK. Birds that winter in the UK and breed in the Arctic, such as the Dunlin and Bar-tailed Godwit, are falling in numbers as their tundra breeding grounds are shrinking.

Monitoring through the BTO's Wetland Bird Survey has picked up 21% population decline in Bar-tailed Godwit between 1994 and 2019,[13] and 20% range contraction in Dunlin between 1988 and 2011.[14]

The Common Cuckoo may be declining in the UK. The Cuckoo is a brood parasite that lays its eggs in the nests of host birds. It has evolved to synchronise its annual arrival from Africa with the breeding of its hosts. With the arrival of the UK Spring occurring on average five to six days earlier than fifty years ago, many of its host species are arriving earlier at their breeding grounds, leave the Cuckoo too late to find suitable nests.

For many species, several factors are at work. Research into the decline of the Common Turtle Dove has identified that intensive farming techniques in its European breeding grounds, hunting on the Mediterranean migratory route and habitat loss in Africa all play a part. This poses challenges for protecting vulnerable species, which may be protected in their breeding grounds but are shot in transit, and which also lose their habitat and food supply in their wintering grounds.

SOME HEREFORDSHIRE MIGRANTS

Geese and swans migrate in family groups, keeping in contact while flying, so V-shaped skeins in the sky are a magical sight to watch flying overhead. Ducks on the other hand do not generally form lifelong pair bonds or family groups, and so do not travel in large flocks. Nonetheless, huge numbers of ducks migrate to shared wintering grounds where there is abundant feeding. Coots migrate under cover of darkness, moving to ice-free freshwater as their breeding grounds freeze over. Divers and grebes breed on freshwater lakes but migrate south to spend winter largely at sea.

The Common Shelduck is one of several species of duck that undertake so-called 'moult migrations'. Shelduck breed in May, with each female laying eight to ten eggs in an abandoned rabbit burrow or among tree roots and incubating them for around thirty days. A few days after hatching the parents lead their chicks to a nursery area, such as a concealed pond, and leave them there, while the parents travel to their favourite moulting grounds—often large, undisturbed tidal mudflats inaccessible to predators, and packed with marine invertebrates which fuel the growth of new feathers —where, since the birds are flightless for a few weeks during their annual moult, they can complete the regrowth of their feathers in relative safety. The Wadden Sea off the North Sea coast of Germany is an important moulting site. Others have been identified, including Bridgewater Bay in south-west England. Meanwhile, back at the nursery area, the chicks band together in creches, presided over by non-breeding adults, until they fledge after forty-five to fifty days. After moulting, the British Common Shelduck migrates to winter waters around the UK by late October. By spring they are back on their breeding grounds again. In Herefordshire in 2021 small numbers of Shelduck were seen on the gravel pits between March and May, and one was seen at Bodenham Lake in October.

Wheatears breed across the whole Northern Hemisphere but all winter in central sub-Saharan Africa. They are amongst the earliest migrants to return from Africa, arriving in Herefordshire in late March/early April and leaving in September, occasionally later. In the 20th century the Wheatear was recorded as breeding regularly on the Black Mountains, Bradnor Hill, the Malverns, and on the Merbach ridge. Some wheatears pass through Herefordshire on their way to breed in Greenland. Males stake their territorial claim with a scratchy song, while females make nests in rock crevices, rabbit burrows, and other recesses near the ground. The three to seven eggs are incubated for thirteen days. Both parents feed the chicks, which fledge within

twenty-eight to thirty-two days of hatching, and by mid-August they are preparing for their first flight to Africa. The Wheatear has now been placed on the Amber List. The significance of the Red, Amber, and Green lists is outlined towards the end of this report, with details of major changes within them. In 2021, wheatears were recorded breeding at Bradnor Hill and possibly bred at a few other sites in Herefordshire.

The Starling is a partial migrant. Winter gatherings of starlings offer spellbinding spectacles in both cities and the countryside. These flocks tend to comprise winter visitors that have arrived from the north or east. This evening, I watched a flock of around 200 birds on the edge of Moccas Deer Park. Their swirling acrobatics, known as murmurations, which may persist for half an hour before the birds finally settle at dusk, help bamboozle any lurking raptors, and in their gatherings the birds are thought to communicate information about the best feeding grounds for the morning. In the UK, some birds head south in the autumn to Iberia, but many remain behind, to be joined by large influxes from Eastern Europe and Scandinavia. There has been an 80% decline in starlings in England since the 1980s, and the species was placed on the Red List in 2002. The birds are insectivorous, so that the loss of permanent pasture, and general intensification of livestock rearing are likely to have affected rural populations.

The Crossbill (Plate 12.1) is a scarce breeding resident in Herefordshire but also an irruptive migrant. The stimulus to movements is a failure of the cone crop, especially in Norway Spruce, its main food source. It is generally found in coniferous woodland in the west of the county. As coniferous woodland is cleared, the habitat for crossbills will decline. The Crossbill is on the Amber List.

Quails (Plate 12.2) are the only European gamebird to migrate, and thus have longer wings than other gamebirds. Some populations breed in two different locations in the same year. Thus, some breed in North Africa and Iberia in February and March, and by April or May, the chicks have grown enough to migrate north to Britain, producing their own broods in June. This behaviour is unique amongst birds. It is the smallest European game bird, being starling sized. It likes grassland and arable habitats, including cereal crops. It migrates by night. In Herefordshire birds are heard almost every year (their "quip quip quip" call is distinctive) but breeding is only occasionally confirmed. Numbers in the county have fallen considerably over the last fifty years, due to changing agricultural practice, and it is a species of European Conservation Concern. Only one sighting was recorded in Herefordshire in 2021.

Nightingales skulk amongst thick scrub in open woodland where they forage near the ground for invertebrates. They winter in Africa and arrive in Britain in the spring. Males arrive first and use the legendary song to proclaim a territory and attract a mate. Their unusual habit of singing by night, when most birds have fallen silent, explains the romantic associations they inspire, mentioned from Homer and Virgil to Shakespeare and Keats. Only unpaired males pursue this energy-costly strategy. After breeding, the Nightingales head south to spend winter in a band of tropical bush and savannah across Central Africa, from Senegal to Kenya. In 2009 a BTO-tagged nightingale left Norfolk on 26 July and by the end of July was in northern France. It then travelled through France and Spain and by late August was in northern Morocco. There it paused to refuel before carrying on through the western Sahara in October, reaching Senegal in November. December and January were spent in Guinea Bissau. It then set off back north in February, being recaptured in April within fifty metres of where it had originally been tagged. In Herefordshire there has been no confirmed breeding since 1981, and it was sadly last seen in the county in 2012. In the 1950s, in my childhood, Aylestone Hill was a well-known spot to hear the Nightingale sing. The Nightingale is on the Red List.

The Willow Warbler (Plate 12.3), which weighs no more than a pencil, produces a wonderful lilting cadence across northern Europe and Asia. Its song distinguishes it from the Chiff Chaff where their ranges overlap. It also has slightly longer wings—an adaptation for its exceptionally long migration from sub-Saharan Africa. It breeds in mixed and broad-leaved woodland, notably birch, alder and willow, preferring damp habitats with a dense understorey of similar, low-growing plants, where it builds its nest. In winter it travels to sub-Saharan Africa. The Willow Warbler is among the earliest migrants to return to breed. It lays four to eight eggs in a neat, domed nest, low down in the understorey. In the UK the population has fallen by 45% since 1970, due to habitat loss in both breeding and wintering grounds. Recent research has shown that the Chiff Chaff, which winters in North Africa and migrates over a shorter distance, arrives in the UK earlier than the Willow Warbler, and therefore has more time to establish a replacement clutch should the first clutch fail. This lack of time to lay replacement clutches, should the first clutch be predated, could be an important contributor to the low levels of productivity in the Willow Warbler and hence its population decline.[15] In 2021, small numbers have been reported in Herefordshire between March and August from a variety of sites across the county.

The Spotted Flycatcher (Plate 12.4) is an insect eater, which migrates to sub-Saharan Africa in winter. In Herefordshire it arrives in early May and leaves in September. Its preferred habitat is open deciduous woodland, parks, and gardens, with clearings among trees in which to practise aerial pursuit of insects. A pair constructs its cup nest in an opening in dense cover—typically a recess in a wall covered by climbing plants. There is often a smaller second brood in later summer. Jays are significant predators of both adults and chicks. The birds leave in late summer and head south-west through Iberia into North Africa, crossing the western Sahara to winter along the west-African coast. There have been significant recent declines in the UK population (by 87% since 1970) due to habitat loss in the Sahel Savannah belt, a critical staging post on the way to west Africa, and agricultural intensification in Britain combined with deterioration of woodland quality, where insect supplies are extremely depleted. The Spotted Flycatcher is on the Red List.

The Barn Swallow is of course emblematic of bird migration. When swallows arrive, they bring the summer and when they leave, they take the summer away with them. Cattle pasture has been particularly popular with swallows as cows leave large piles of insect-attracting dung (but now increasing use of antibiotics and antihelminthics is leading to the dung attracting far fewer insects) and churn up the best mud for nest building without cropping the grass too low. Early studies of the Barn Swallow were helpful in our understanding of bird migration. In 1912, a swallow, ringed in Staffordshire the previous year, was retrieved in South Africa. Swallows start heading south in September. Before departure they gather in large numbers, often around wetlands, which offer plentiful food and safe roosts among the reedbeds. Large flocks can be seen lining up on overhead wires. They feed energetically, building up fat reserves for migration. Once weather conditions are favourable they set off to cross the Channel, heading down through France and Spain, crossing the Mediterranean, and skirting round the Sahara. By late October they reach their winter quarters and stay until February when they head north again to breed. Spring migration is quicker and more direct, with birds in a hurry to reach their breeding grounds. By late February, most of the British birds are already *en route*, reaching the Mediterranean in early March, and arriving back in the UK by early April. Males tend to arrive before females, with the earliest generally being the oldest. They head straight to their breeding colonies to prepare for courtship and breeding. They generally fly in small groups but may come together in

large streams. They often fly at lower altitudes than most birds, just metres above the ground, in order to hunt for insects along the way. Individuals may travel more than 250 miles a day. One bird travelled from Italy to Niger in seven days, averaging 269 miles a day. Swallows are monogamous and pairs tend to stay together for several years. A female lays the first brood of five to seven eggs, generally followed by a second smaller brood later in the summer. Incubation lasts thirteen to fifteen days. Youngsters leave the nest at eighteen to twenty-three days and spend another five to seven days in their parents' care until they leave to roost with other immature birds. When they migrate to Africa, they are without their parents and only 20-30% of birds survive their first year.

Swifts spend most of their life on the wing, but it has recently become possible to tag them with geolocators at their breeding colonies,[16] showing that they generally leave the UK in the second half of July, spend a few days in Spain a week later and then reach Gambia on the west coast of Africa during the first week of August. After a few days, the birds then move across to Central Africa, a journey of some 10,0000 km in under a month. The Swift is on the Red List, having just been moved from the Amber List. In Herefordshire, swifts have been seen in a variety of sites between late April and August, usually in small numbers but occasionally in flocks of up to sixty birds.

The migration of the Pied Flycatcher was discussed in last year's *Transactions*.[17] It also follows an Iberian route, as does the UK Redstart, although some Scandinavian birds take a more easterly route, crossing the Mediterranean via Italy or the Balkans. Redstarts (Plate 12.5) winter across the Sahel zone from Senegal in the west to Eritrea in the east. While most of our summer migrants follow the western-Atlantic coastal route to sub-Saharan Africa, some of them follow the eastern route to Greece, the Middle East, east Africa and central-west Africa. Some of our cuckoos do this, as do our lesser whitethroats; this makes them potentially vulnerable to trappers and hunters in Italy, Egypt, Cyprus and elsewhere.

RARITIES SEEN IN HEREFORDSHIRE 2021: TABLE 1

2021 was an interesting year for Herefordshire rarities, as seen in Table 1 below.

Month and Species Seen	Location and Notes
January	
Bewick Swan	First seen on 1 Jan. at Wergins Bridge. Stayed to late February
Siberian Chiffchaff	
Cattle Egret	
Cackling Goose	
Long-eared Owl	
Short-eared Owl	
February	
White-fronted Goose	Bunch of Carrots on the Wye
Common Redpoll	Seen in February and March
Corn Bunting	Winforton
March	
Mediterranean Gull	Bodenham
Cetti's Warbler	Lugg Meadows
Black-tailed Godwit	Hereford College of Art

Month and Species Seen	Location and Notes
March, continued…	
Avocet	Wellington Gravel Pits
White Wagtail	Dulas
Garganey	Bodenham
Common Scoter	Picts Cross
Long-eared Owl	Tuston Farm
White Stork	Bobblestock, late March
April	
Grasshopper Warbler	3 sites in April and May (pictured in Plate 12.6)
Firecrest	High Vinnals and Wigmore Rolls
Hen Harrier	Kington and Winforton
Purple Heron	Wellington
Cattle Egret	Weston Beggard
Cetti's Warbler	Glewstone Boat
White Wagtail	Pembridge and Peterstow
May	
Osprey	Flying north-west, mobbed by kites at Bradnor Hill
Black Redstart	Bradnor Hill
Corn Bunting	Towtree Lane
Firecrest	Several locations
Night Heron	Bridstow and Wilton Bridge
Wood Sandpiper	Last day of May, Teme at Buckton
June	
Nightjar	Croft
Quail	Parky Meadow, Picts Cross and Luckshall
White Stork	Croft
Wood Sandpiper	Teme at Buckton
September to December	
Cetti's Warbler	Heard in September and December at Wellington gravel pits
Crossbill	Throughout autumn at Wapley Hill and Croft Castle
Lesser Redpoll	Between October and December at Holme Lacy, Weobley and Brockhall gravel pits
Yellow-legged Gull	Two at Wellington gravel pits in October, one on Lugg Meadows in December

CONSERVATION CONCERN

This year has seen the fifth edition of the *Birds of Conservation Concern*, compiled by a coalition of the UK's leading bird conservation and monitoring organisations.[18] It reviews the status of all regularly occurring birds in the UK, Channel Islands, and Isle of Man. The bird species are assessed against a set of objective criteria and placed on Green, Amber, or Red lists to indicate an increasing level of conservation concern. The status of UK birds continues to decline. Since the last review, the Golden Oriole has been lost as a breeding species. The Red List is now almost double its length when it first started in 1996. Eleven species have been added to the Red List

including Swift, House Martin, Ptarmigan, Purple Sandpiper, Montagu's Harrier, and Greenfinch, but six species have moved to Amber and two are no longer assessed as they have either ceased breeding in the UK or were excluded for other reasons. The length of the Amber List has grown by seven species. Swift and House Martin have moved from the Amber List to Red List. Greenfinch has moved from the Green List to the Red List. However, it is not all bad news; Song Thrush, Pied Flycatcher, Grey Wagtail and Black Redstart have moved off the Red List to Amber, but the first three remain close to the Red-List threshold. Due to climate change, the UK has also acquired four new breeding birds (Great White Egret, Cattle Egret, Little Bittern and Black-winged Stilt) as discussed in last year's Ornithology Report.

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HEREFORDSHIRE NESTBOX RECORDING SCHEME 2021

Report and data compilation by David Coker, Herefordshire Wildlife Trust Co-ordinator

Background

The Nestbox Recording Scheme (NRS) started when the Herefordshire Nature Trust (HNT) (now the Herefordshire Wildlife Trust; HWT) came into being in 1962 via the Woolhope Naturalists' Field Club. In the following year, sixty nest boxes were made by pupils of Whitecross School under the supervision of Dr Charles Walker. As this was before any reserve had been acquired by HNT, they were set up in promising hilly woodlands, such as Moccas, Mary Knoll and Shobdon. Since the first volunteer recorders were HOC members, who had joined HNT and had the expertise, some of the early woodlands have long-term records with equally long-term recorders and ringers, some of whom have been involved for forty years. Their dedication is much appreciated.

The duties of recorders are to maintain the boxes, now provided by HWT, to clear them ready for occupation and, once nesting has started in April, to make as nearly weekly visits as possible, recording the species nesting, the number of eggs laid, and hatching and fledging numbers—these details are passed on to the HWT Co-ordinator for collating. Recorders also notify named ringers for certain species, such as Pied Flycatcher, Nuthatch and Redstart.

The restrictions imposed in 2020 in response to the global Covid-19 pandemic—e.g., on travel—had eased somewhat by early 2021. In particular, the government indicated in the autumn of 2020 that, in respect of England, biodiversity monitoring was considered a 'voluntary or charitable service', so that restrictions imposed on non-essential activities were not applicable to volunteers participating in British Trust for Ornithlogy (BTO) surveys, such as nest recording. Nonetheless, the adverse effects of the pandemic were felt in other ways; for example, by disrupting the habitual annual cycle of nest recording for some observers and handovers from previous to new observers.

Tree felling at the HWT's Court Wood reserve made access to the nest boxes there effectively impossible, so monitoring at that site had to cease and the boxes have been removed. Monitoring was interrupted, or results were not received, for four other sites. However, overall there was a slight but welcome increase in the number of sites monitored compared to 2020. So, this report presents the summary data for 2021 from seven HWT reserves, two National Nature Reserve (NNR) sites and eleven other sites. Results are presented in the tables below, starting with Table 1, showing sites recorded and nest-box usage for the past ten years.

Table* 1. *Overall results for the last 10 years, 2012–2021

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Sites recorded	20	18†	25	25	26	27	27	23	26	26
Boxes available	768	645‡	845	825	854*	871	852	731	741	805
Boxes used	409	364	484	485	390	501	465	447	453	478
% used	53.3	56.4	57.3	58.8	56.2*	58.0	54.6	61.1	61.1	59.3

** Since there is no record for 'boxes used' at 3 sites in 2017, '% used' is based on 694 boxes at the other 23 sites.*

† Fewer sites were recorded in 2020 because, at several sites, boxes could not be inspected

‡ This figure includes a few boxes which are provided for dormice, but which tits will also use.

The take-up rate of boxes in 2021 was in line with that of previous years, but as usual the mean '% used' figure covers a wide variation between sites, from a maximum of 81% (17 out of 21 boxes) to a minimum of 40% (41 out of 102).

Winter 2020-21 was colder than average, with frequent frosts and snowfall affecting some areas as well as higher than average rainfall totals for the UK as a whole. Cold weather continued into the breeding season; regular frosts resulted in April 2021 being the coldest since 1989 and May 2021 the coldest since 1996. March and April saw lower than average rainfall totals, while May was far wetter than normal, the UK experiencing 171% of the average monthly rainfall.

Table* 2. *Species results for 2021 compared with 2020 & 2019

Species	**Sites**			**Nests**		
	2021	2020	2019	**2021**	2020	2019
Pied Flycatcher	**10**	8	13	**106**	69	101
Blue Tit	**19**	16†	25	**172**	131†	191
Great Tit	**17**	16†	25	**101**	87†	173
Coal Tit	**2**	-	1	**2**	-	1
Marsh Tit	**-**	1	-	**-**	1	-
Tit species	**6**	6	-	**19**	61	-
Nuthatch	**3**	5	5	**4**	5	13
Redstart	**2**	2	2*	**4**	6	3
Wren	**1**	1	-	**1**	2	-

Species	**Eggs**			**Fledged**			**% Success**		
	2021	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Pied Flycatcher	**527**	369†	674	**389**	243	429	**73.8**	†	63.6
Blue Tit	**1329**	931†	1810	**751**	650†	1323	**56.5**	†	73.1
Great Tit	**580**	456†	1318	**330**	321†	889	**56.9**	†	67.5
Coal Tit	**17**	-	9	**6**	-	7	**35.3**	-	77.8
Marsh Tit	**-**	6	-	**-**	5	-	**-**	83.3	-
Tit species	**84**	65†	-	**-**	29†	-	**-**	†	-
Nuthatch	**16**	30	75	**6**	24	49	**37.5**	80.0	65.3
Redstart	**15**	15†	20	**5**	11†	6	**33.3**	†	30.0
Wren	**6**	4	-	**-**	4	-	**-**	100.0	-

'% success' is calculated as total number of chicks fledged as a percentage of total eggs laid.
† These figures are absolute minima, and are certainly significant underestimates; accordingly, no meaningful % success rate can be calculated.
Note: in 2020, inability to visit some sites until late in the breeding season meant that a large number of nests could only be recorded as occupied by 'Tit species'.
** Redstart had 100% success at one site but both nests at the second site failed.*

Because recording in 2020 was so seriously disrupted by the pandemic, Table 2 has been expanded to include 2019 as well, to give a more meaningful comparison for 2021. It should be borne in mind that records were not received for five sites in 2021 that did figure in the 2019 results: Court Wood, Bredwardine; Crampton Lower Wood, Doward; Lea & Paget's Wood, Fownhope; Miners Rest, Doward; and Yatton Court. However, only one of these (Yatton) had

Pied Flycatcher present in 2019.

The increase in number of sites recording the Pied Flycatcher is attributable to restored monitoring at Mary Knoll and Shobdon Hill Wood, which have both recorded flycatchers for many years but where monitoring in 2020 was prevented by the pandemic. Two other sites (Wellington and Yoke Woods) could be visited again, but flycatchers were not present. It should be noted that numbers of Pied Flycatcher nests have been inflated by predation at some sites, e.g., at Mary Knoll. If a first nesting attempt by a hen is predated or disturbed, she is likely to try again, often in a nearby box. That will be recorded as a separate nest. So, if there is heavy predation at a site early in the season, the effect is to produce multiple additional nests, though the number of breeding birds has not changed.

Numbers of tit eggs and chicks are notably down compared to 2019, and this does seem to be a real effect. Clutch sizes at several sites were lower: at Mansel Lacy, for example, Blue Tit clutch sizes in 2019 were mostly in the range of 12-16; in 2021 the majority of clutches were in the range of 9-14. For Great Tits the ranges were 2019: 7-12(!); 2021: 5-8. These reductions are likely to be the result of the weather patterns discussed above, causing shortage of food while the hens were making eggs in April. Also, at Mansel Lacy, seven Blue Tit nests were found with all young dead (presumably from starvation) in the space of one week in May.

The nests indicated as 'Tit species' typically fail after some eggs have been laid, but before any adult or hatched chick can be observed, so the species cannot be determined with confidence.

Where there are only a few nests of a species, a single event can have a noticeable effect on the results: there were two Redstart nests at Moccas, neither of which fledged any young, so that the % success rate for this species appears notably low.

Table* 3. *Comparative success rates in fledging for various species for the last four years

Species	**2021**		**2020**		**2019**		**2018**	
	Sites	Success %	Sites	Success %	Sites	Success %	Sites	Success %
Pied Flycatcher	10	73.8	8	†	13	63.6	13	75.3
Blue Tit	19	56.8	16	†	25	73.1	25	72.5
Great Tit	17	56.9	16	†	25	67.5	24	69.7
Coal Tit	2	35.3	-	-	1	77.8	1	100.0
Marsh Tit	-	-	1	83.3	-	-	-	-
Nuthatch	3	37.5	5	80.0	5	65.3	5	77.1
Redstart	2	33.3	2	†	2	30.0	-	-
Wren	1	-	1	100.0	-	-	1	50.0

† *No meaningful % success rate can be calculated.*

Table 4. Pied Flycatcher results summary, 2000 – 2021

Year	Sites	Nests	Eggs	Fledged	% Success
2021	10	106	527	389	73.8
2020	8	69	369†	243	†
2019	13	101	674	429	63.6
2018	13	109	527	397	75.3
2017	13	144	774	430	55.5
2016	17	120	666	401	60.2
2015	16	114	742	434	58.5
2014	11	86	468	304	65.0
2013	14	135	773	563	72.8
2012	9	75	477	304	63.7
2011	11	87	543	354	65.2
2010-11 Mean	15	97	606	389	64.2

† *The figure for eggs laid is a minimum, and likely to be an underestimate; accordingly, no meaningful% success rate can be calculated.*

The success rates at the ten sites where the Pied Flycatcher could be recorded varied from 46.4% (Mary Knoll) to 97.5% (Lower Moccas Park NNR); most sites had a success rate greater than 70%.

The Pied Flycatcher was added to the Birds of Conservation Concern (BoCC) Red List in 2015 and this was also the case in Europe, where their numbers and nesting results are similarly declining for reasons yet to be established.

Further Information

For those interested in the details of individual nest box sites, an electronic copy of the full HWT report can be obtained from HOC.

Acknowledgements

Our thanks go to the ringers and recorders who persevere each year with their visits in the face of varying levels of nest failure and fledgling mortality, as well as weather conditions.

Weather 2021

By IAN PORTER

Month	Max temp. shade ºC	Min temp. shade ºC	Rainfall mm	Max. rainfall in 1 day mm	Days with rainfall
January	10.5	-5.0	112.0	23.6 (19th)	14
February	11.1	-4.4	67.3	11.2 (19th)	9
March	20.5	-2.7	29.0	7.6 (11th)	5
April	18.3	-0.5	24.6	17.0 (28th)	3
May	21.1	2.2	159.0	39.1 (13th)	14
June	26.7	9.4	30.5	15.0 (27th)	4
July	30.0	11.7	85.3	21.3 (5th)	8
August	22.7	11.1	15.7	6.9 (21st)	3
September	27.2	7.8	73.4	22.1 (26th)	6
October	15.5	6.1	147.8	40.4 (4th)	11
November	12.2	-1.1	4.3	2.5 (27th)	2
December	11.1	-0.5	70.4	31.2 (25th)	8
Total			**819.3**		**87**

Highest day temperature: 30.0ºC, 22 July
Lowest night temperature: -5.0ºC, 6 January
Named storms in 2021:
Christoph 19 January
Arwen 26 November
Barra 7 December

Records started in 1976

Weather Summary 2012 to 2021

Year	Total rainfall in year, mm	Wettest day		Days with rainfall	Highest temp. ºC	Lowest temp. ºC
		mm	Date			
2012	**1007.4**	67.3	23 September	141	27.2	-7.8
2013	**821.9**	30.7	21 September	116	28.9	-4.4
2014	**1018.3**	44.2	13 October	152	28.3	-2.8
2015	**768.4**	27.9	14 August	120	30.0	-3.3
2016	**874.8**	52.3	21 November	112	31.6	-4.4
2017	**796.3**	36.1	11 May	100	30.0	-6.1
2018	**870.2**	32.8	20 September	99	29.4	-6.7
2019	**1283.9**	67.8	25 October	122	30.0	-5.5
2020	**1088.3**	69.8	23 December	105	32.2	-2.7
2021	**819.3**	40.4	4 October	87	30.0	-5.0

Recorded by I.K. Porter at Greening's Acre, Little Birch. Height: 500ft / 152m.

Book Reviews 2021

By JOHN C. EISEL, DAVID WHITEHEAD AND ROSALIND LOWE

Herefordshire Farming through Time: Fellers, Tillers, & Cider Makers **by Katherine Lack (Logaston Press, 2021) xiv + 249 pp., illustrated, ISBN 978-1-910839-51-5, £15.**

Fortunate indeed are those of us who live in Herefordshire, one of the most rural counties in England. Even for those in most urban centres, the countryside is only a few minutes away. While it is often thought of as a natural environment, the landscape is in fact very closely managed, and has evolved through human activity over millennia. Even the wild-flower meadows, most of which have been lost since the last world war, are a product of the management of those meadows and not a natural phenomenon, and, as soon as those practices change, then so does the flora.

This new book takes us through the history of farming in Herefordshire, the driver of changes in the landscape, and, when evidence is available, relates something about those who worked on the land, rather than landowners whose names are well known. While there is a glut of evidence for more recent times, the further back the narrative goes the less evidence there is.

Essentially the material is dealt with in chronological periods, but as will be seen it also handles some special topics that span a number of centuries. After an opening chapter, entitled 'Where are we going?', which sets out the author's thoughts about who falls under the description of farmer, a term which is used in its widest sense, the next chapter considers the change from foraging and hunting to farming, followed by a chapter on the gradual transition into full-time farming over the period 4,000 to 2,000 BC. This leads into a chapter entitled 'Farmers in Roundhouses: the Bronze and Iron Ages', which discusses the role of the developing hillforts and brings the story into the period just before the Roman interlude in Herefordshire. Because of the importance of salt in the preservation of food, and the long-distance trade in this commodity, there follows an interpolation of some six pages of description of this trade, as a special topic, covering from prehistoric times up to the late 18th century, before the next chapter on Roman Herefordshire. Here the emergence of farming, to produce a surplus to support the minority of the population who were not engaged in such activity, is discussed, and also the taxation imposed by the Roman state which necessitated a large surplus to meet the demands arising. The consequences of the collapse of the Roman occupation in 409-10 AD, and its effect over the next couple of centuries, are discussed in a chapter entitled 'An Archenfield Interlude'. In this the couple of centuries after the end of the Roman occupation are considered, contrasting farming in the part of southern Herefordshire known as Ergyng (Archenfield), formed by the expansion of Gwent into the area, with that of north Herefordshire, which came under the sphere of influence of Powys.

The later part of the so-called 'Dark Ages' is dealt with in the next chapter, entitled 'The Millennium', which takes the story up to, and including, the Domesday Book. A long period from *c.*1100 until the early 17th century is covered in eighteen pages, setting out the changes in farming against such catastrophes as the Black Death and its consequent economic effects. The main thrust of the chapter is encapsulated in the title—'From peasants to yeomen?'—and the valid point is made that only at the end of this period is it possible to identify Herefordshire farmers and their families, as opposed to the landowners. Three more interpolations follow: on droving and markets, on draught animals, and on improving the land. As with the interpolation

on salt, these cover a much longer time span; the one on droving covers up to the demise of the trade in the middle of the 19th century, whilst that on draught animals covers the use of oxen from the time of Domesday, also until the middle of the 19th century, when the use of oxen finally came to an end, in Herefordshire at least. The interpolation on improving the land covers from the 17th century up to about 1800, dealing with such topics as the enclosure of common land, water meadows, the increasing use of manure and clover to fertilise the soil and so on.

In some ways all this leads up to the chapter which follows, for it deals with yeoman farmers, and is an exploration of four farming families, representative of a large class which flourished during a period of great change. This chapter was made possible by a detailed exploration of the increasing amount of available documentation, enabling connected histories to be put together. The families concerned were resident in Ballingham, Almeley and Whitbourne. The fortunes of two families living in the latter are contrasted.

The book is completed by sections on sheep, cider, Hereford cattle and hops, each covering longer time spans and bringing things more-or-less up to date.

Having outlined the structure of the book, I now need to point out a few defects. On p. 2 it is stated that the work is concerned with the years before 1871, when the railway was finally completed across north Herefordshire, linking the county with Worcester and the east, and to south Wales and Merseyside. It is possible, I suppose, that the text was badly phrased, and that such an interpretation is not what was intended, but on the face of it this is an incorrect reference to the branch line from Leominster to Worcester via Bromyard; however, the section from Bromyard to Worcester, was not completed until 1877—a date correctly given elsewhere in the text—and the line was finally completed in 1897.

On p. 5 there is a somewhat supercilious remark about the Woolhope 'Society', which rather downplays the work that the Club has done in all aspects of Herefordshire, this despite the fact that numerous papers from our *Transactions* were used in the compilation of the book. The incorrect name is careless, as at no point in the last 170 years has the Club been called by anything other than its current title.

In the text there are other things that are wrong; for instance, on p. 156 it is stated that the *Hereford Journal* began publication in 1781, while the correct date is 1770. Possibly this error arises because the digitised version, currently available through the British Newspaper Archive, begins at this date. However, the inference is that relevant material contained in the pre-1781 issues has not been consulted. There is also later newspaper material available which could have sorted out some points on drovers and droving which were raised in the text, a subject on which I have collected a number of contemporary references, some of which are discussed below.

Herefordshire has, of course, been one of the places on the droving roads from Wales into England, either to London or to the Midland conurbation, and the section on droving gives something of this. The discussion on markets, from early charters through to the early 19th century, includes a map showing the location of eight places in Herefordshire where stock fairs took place: whilst it is not specifically stated, it is implied that these were the only such locations. However, a quick look at Cooke's *Topographical and Statistical Description of the County of Herefordshire*—undated, but published in either April or early May 1809—finds a list of fifteen places in the county where fairs were held, all bar one of which included stock fairs; the other, at Orleton, is not specified as a stock fair, but is known to have been one. (There is a story to be told there!) According to Cooke, there were six fairs held in Ledbury, and not seven as stated on p. 124, and the one in December was held on the Monday before St Thomas's Day (21 December). However, Cooke may be inaccurate, as he omits a fair held in Hereford on the first

Wednesday after St Andrew's day (30 November), and thus held in December, the first taking place in 1790.

On p. 127 there is a reference, from a secondary source, to two Welsh drovers being fined in 1817 for driving cattle through Mordiford on a Sunday. Contemporary sources could have been quoted: the Rev. C. J. Bird was the magistrate involved, and a number of such cases where he issued fines were reported in the local press until at least 1845. Such transgressions could easily be seen from his rectory at Mordiford, overlooking the bridge.

In the section on yeoman farmers, the spelling of Linceter Farm, in Whitbourne parish, as 'Lincetter' rather than the current form is rather irritating. The earlier spelling was given in a trade directory of 1858, but by the time the relevant sheet of the 25-inch Ordnance Survey map was surveyed in 1884, to be published the following year, the current spelling had been established. If it was a conscious decision to use an archaic spelling, then this should have been indicated in some way. In Phyllis Williams's excellent book on Whitbourne, the modern form of the spelling is used consistently.

I must also take issue with the blurb on the rear cover of the book, where it poses the question 'Why were oxen and horses used here well into the nineteenth century, long after their replacement by horses in the rest of England?' This is an incorrect assumption by the publicist. For the section on draught oxen, the author has based her account on Collins's paper 'The latter-day history of the draught ox in England 1770-1964', published in the *Agricultural History Review* in 2010, and properly referenced in the text. The fact that draught oxen had almost completely fallen out of use in Herefordshire by the 1860s, as correctly stated in the text, does not mean that the use of draught oxen had lingered on in Herefordshire after it had been abandoned elsewhere. Collins showed that in the middle of the 19th century there was a revival of the use of draught oxen in the south and east of the country, which lingered on into the 20th century, and that the last working team, at Cirencester Park, was disbanded in 1964, by then, I am sure, a conscious anachronism. For anyone interested, a simple Google search will turn up an image of an ox-team hauling a waggon-load of sheaves of corn, taken in Sussex in 1912.

So, what are my feelings about this book? Much use has been made of archaeological and other published material, and, when nothing is available for Herefordshire, parallels have been drawn with other counties, near and further away. Extensive research has been done on wills and inventories, which underpins much of the later text, and this is to be applauded. There are many well-chosen illustrations, and much information in tabular form. Overall, the book is very helpful in bringing together, into a single volume, a great deal of material about farming in the county.

For my part I would take issue with the structure of the book, in that Chapter 9 is mixed in with the various studies on specific topics, and there seems no structural reason why Chapter 9 should not follow Chapter 8, so that all those studies would form a second section. I also think that the text for the 19th century peters out to some extent. So, for instance, the origins of 'drowning' meadows are discussed in detail, but there is no indication to what extent they were operated in Herefordshire, and when they fell out of use. The thrust of my remarks about droving makes a similar point, but in a rather lengthy way! Also, to help clarify matters, there is a need for a closing chapter to take a snapshot of farming in Herefordshire at the end of the period of study, the time which sets the scene for the Great Agricultural Depression which was to come.

Having said all that, this book will be of interest to a wide audience and should be on the shelves of all those who are interested in the background to farming in Herefordshire. Compared with the content of the book, my reservations are of a very minor nature!

John Eisel

***Guthlac: Crowland's Saint,* edited by Jane Roberts & Alan Thacker (Shaun Tyas, Donnington, 2020) xlvi + 594 pp., illustrated, ISBN 978-1-907730-83-2, £45**

Most knowledgeable people in Hereford are aware that the Cathedral is dedicated to an Anglo-Saxon saint, Ethelbert, the martyr-king of East Anglia, executed as a traitor by the Mercian super-king, Offa, at Sutton Walls in the parish of Marden, in 793 AD. Perhaps more deserving of our interest is Hereford's 'other saint'—Guthlac of Crowland (672-714), a friend and mentor of an equally unappreciated king, Aethelbald of Mercia, who ruled from 716 to 757. Both these remote figures have a claim to be the founders and architects of English Herefordshire, and the latter went further into Welsh Herefordshire than any previous Mercian king, penetrating deep into Archenfield. It seems it was Aethelbald who brought the body of his friend and mentor, Guthlac (or part of it), to an ancient burial ground on Castle Cliff, Hereford. This was later the site of the royal castle, where the wooden shrine of St Guthlac survived until the late 13th century, when, in this incongruous setting, it was accidentally destroyed in a fire. In the early 1970s Ron Shoesmith excavated the graveyard around St Guthlac's shrine, which was gradually being eroded by the encroaching Wye. The deep cemetery was never bottomed but some of the burials had radiocarbon dates which may have pre-dated the age of Guthlac and Aethebald. The burials were close to a building, which, it has been suggested, may have been an early church, perhaps the one later dedicated to St Guthlac, which existed on Castle Green as a minster establishment, run by secular priests until 1143, when it was moved into the Bye Street suburb of Hereford on the site of the present hospital. Here it was downgraded into a priory—a cell of the great Benedictine abbey at Gloucester.

Prior to the publication of this book of essays, anyone with the faintest interest in St Guthlac would have been drawn to Bertram Colgrave's translation of *Felix's Life of St Guthlac* (Cambridge, 1956), which can be found in a few local collections and is also available in later editions. The *Life* is unique in being nearly contemporary with its subject and, albeit a devotional work, it also contains biographical material on the saint's early career, as a free-booting adventurer in our region in the *c*.680s. In the company of other Mercian adventurers, he 'devastated towns and residences…villages and fortresses with fire and sword…gathering together companions of various races (who) amassed immense booty'. It appears that during this time he fell out with the ruling Mercian dynasty and lived in exile among his enemies; thus, he learnt to understand the Britonic language so that when, in later life as a hermit at Crowland in Cambridgeshire, he was taunted by British demons, he understood their language.

Several of the authors in this book pursue this connexion; e.g., Meredith Bacola (pp. 180-213), who suggests that the Mercian campaigns, which involved Guthlac, were the result of the collapse of an earlier alliance between the Mercians and the Welsh against Northumbria. The focus of the new hostilities was south Herefordshire—the hinterland of the future cathedral city—which he links to the well-acknowledged difficulties experienced by the earliest bishops, from Putta to Walhstod (*c*.676-*c*.736)—whose presence in Hereford was, at best, intermittent. In contrast, north Herefordshire, beyond Dinmore Hill, enjoyed a well-established English presence. Excellent use is made here of finds made under the Portable Antiquities Scheme, some of which confirm the early links between the indigenous population and the Northumbrians, before the Mercian ascendency of Merewalh and the Magonsaete. This helps to explain why the Christian origins of Leominster, in contrast to Hereford, are linked via Eadfrith, a northern Celtic missionary rather than a Roman one (see Hillaby, *TWNFC* (1987), pp. 557-685). The Mercian antagonism, against the Welsh and their archaic and isolated brand of Christianity, commenced with Guthlac's campaigns in the 680s and 690s, was followed up by Aethelbald's campaigns in

the 730s and 740s and completed a few years later with Offa's Dyke.

From a local point of view Julia Barrow's chapter on 'St Guthlac's Minster in Hereford: Domesday and Beyond' (pp. 342-52) is compulsory reading. Dr. Barrow has a long association with Herefordshire and, indeed, contributed an important chapter to *Hereford Cathedral: A History* (2000). She explores the Mercian associations of the early bishops and supports the supposition that Aethelbald established St Guthlac's Minster on Castle Green, albeit sceptical about the idea that Guthlac's body was there at this early date. Eventually, the church on Castle Green served as a royal chapel when Mercian, and later West-Saxon, kings visited the southern Marches. She notices that Domesday Book mentions a royal hall in Hereford but is reluctant to place it next to the minster on Castle Green. However, Domesday Book suggests that the community on Castle Green were also the caretakers of the Mercian royal palace at Sutton Walls, so that they may have played the same role for a royal hall on Castle Green. Much of her article is devoted to the Domesday evidence for St Guthlac's property and the status of two notable civil servants, Spirites before the Conquest and Nigel the Physician after it, who held much of the minster's property before and after 1066. The lack of interest in Old English minsters by the Norman kings led to the acquisition of St Guthlac's by the de Lacy family, sheriffs and custodians of the new castle. Eventually, by a circuitous route, the ancient minster was downgraded to a cell of Gloucester Abbey, becoming in 1143 a Benedictine priory in new buildings situated in the Bye Street suburb of Hereford, where it remained until the dissolution of the monasteries.

Finally, local readers might like to pay attention to Graham Jones's contribution to the volume in 'Guthlac and the Landscape' (pp. 353-84) which examines the geographical distributions of Guthlac dedications.

David Whitehead

Forgotten Castles of Wales and the Marches **by Paul R. Davis (Logaston Press, 2021), vi + 282 pp., illustrated, ISBN 978-1-910839-52-2, £15.99.**

In earlier times the history of Herefordshire has been entwined with that of Wales, with the Marcher lords looking towards Wales to expand their holdings, while the Welsh looked eastwards with some trepidation, wondering when the next incursion would come from that direction. It is therefore appropriate that this newly published volume should take in the Marches as well as Wales. A first edition of the book was published in 2011, but that only covered Wales, whereas the Marches have been added into the present volume, resulting in an increase of some 100 pages.

The author has published a number of books on buildings of Wales, in particular on Welsh castles. These latter have taken different themes, such as castles of the Welsh princes. The particular emphasis of the present volume is on less well-known castles of the area and does not include the larger or better-known castles such as those in the guardianship of Cadw or English Heritage. There is no public access to many of the sites described, but the author has had privileged access during his working life as a surveyor. In view of the hundreds of castles in the area, those described are necessarily a personal selection. There are sixty-five detailed descriptions, each with a short history, as far as it is known. For most there are photographs, a site plan, and excellent reconstruction drawings by the author to show how the castle under consideration might have looked.

The development of castles is, perhaps, a rather specialised interest, and some background is needed to appreciate what is to follow. This is provided in an outline history of Wales, with

panels interpolated about the development of castles at the relevant period, which enables the Welsh examples to be set in a much wider context. As the need for such buildings declined, most such structures decayed and fell out of use, with a brief revival in the Civil Wars in the middle of the 17th century, with consequent destruction. The ruins were subsequently treated as elements of a picturesque landscape, and then there was revivalism in the 19th century, with the rebuilding of such delights as Cardiff Castle and Castell Coch.

The gazetteer divides Wales and the Marches into six regions, which are dealt with in an anticlockwise direction: each section begins with a map marking the various sites discussed, which provides a useful reference. The first section, on West Wales, begins with a discussion on fortified houses, which were generally on a smaller scale than the bastles of the Scottish borders, and then seven castles and tower houses are discussed. The next chapter is on the Vale of Glamorgan and includes the Gower peninsula. Among the seventeen castles described is the enigmatic castle of Morgraig, begun but never completed, the history of which has given rise to much speculation. Monmouthshire follows, where again seven castles are described, mostly in the south of the region. The section on Mid Wales and the Southern Marches is next, describing fourteen castles, one chain of six following the Usk valley, and another of seven from Llancillo and on up the Golden Valley (Newcourt Tump, Urishay, Mynydd-Brith and Clifford, and then over the border to Painscastle—included as an example of earthworks for which no masonry is visible—and Aberedw). The remaining castle is that of Castell Dinas, above Talgarth.

The section on the Middle Marches describes ten castles, four of which are in Herefordshire (Huntington, Lyonshall, Stapleton, and Richard's Castle), and three each in Radnorshire and Shropshire. Finally, there are ten castles in North Wales, and the book concludes with an appendix describing eleven lesser sites. It is pointed out that these lesser sites are ones that might have been included, but are either undergoing restoration work, or are now partly open to the public. For Herefordshire these include Kilpeck and Snodhill, and, just over the border, Hay-on-Wye.

This is a well-researched book, and the outline histories are a good summary of what is known about the sites discussed. The evidence quoted is both archaeological and documentary, and there is good use of plans, photographs, and reconstruction drawings. The latter may perhaps be a little idealised but give a good impression of what could have been there. Use is made of the extensive series of topographical drawings by Samuel and Nathaniel Buck, which record what was existing at some of the sites in the 1740s, often much more than currently survives. These help with any reconstruction drawings.

I have the occasional slight niggle. On p. 28 it states that the last great gatehouse in Wales, in the Edwardian style, was built at Llangybi in 1310. However, modern research indicates that, while there must have been an earlier gatehouse at Kidwelly, the splendid south gate house there, which is in this style, was built in phases between the late 14th and early 15th centuries. Different phases are easily seen in the stonework of the outer elevation. There is also no mention of the castles understood to have been built in Herefordshire just prior to the Norman Conquest.

So, is it worth it worth buying the book? There are sixty-five main entries in the gazetteer, and another eleven in the appendix. Of these there are eleven in Herefordshire, a relatively small minority, but of course there are others just over the border into Wales. Despite this small proportion, it is worth having on the shelves for the reconstruction drawings alone. Also, it gives a spur, to those of us who are interested in castles, to go on and make a visit that might have been put off. For my part, I want to visit the tower-houses at Angle, Pembrokeshire, and Eastington, Rhoscrowther, also Pembrokeshire. Both were described by H. Thornhill Timmins in his *Nooks*

and Corners of Pembrokeshire (1895), a description which he illustrated by sketches which can be compared to the illustrations in the book under review. In his day Eastington was surrounded by open countryside: now it is dwarfed by the adjoining oil refinery. An interest in the Herefordshire castles might lead the reader to make their own incursions into Wales to view the forgotten castles just over the border, and then further away, and this is an excellent guide.

John Eisel

***Derelict Stone Buildings of the Black Mountains Massif* by Christopher Hodges, (PhD thesis, Archaeopress Archaeology, 2015), 333 pp.**

Dr Chris Hodges has kindly donated a copy of his thesis to the Club's library. It may be described as his life's work, because he worked as a stone wall expert for a number of years in the Black Mountains. Herefordshire's western parishes are included within his scope. Personally, I was pleased to accept his work on behalf of the Club for two reasons: I spent the middle years of my childhood in a Breconshire hill farm directly below *Y Twmpa* and, more recently, I accompanied Jim and Muriel Tonkin's buildings group to the parishes around the Olchon Valley. We passed many stone buildings in various states of decay, some having been stripped of their slate- or stone-tiled roofs, perhaps by thieves. The details of the buildings in this book may be soon the only record of them which survives apart from a rectangle on a tithe map. Few came to the notice of the RCHME surveyors.

The book contains numerous maps, plans and photographs of the buildings, with documentary evidence where it survives. There is an analysis of the different building styles giving examples. Most importantly, there is a comprehensive gazetteer of all buildings discovered, with their detailed locations. There is one appendix with details of stone-walling techniques, another considering the sources of the stone used and an analysis of industrial buildings. We are fortunate that Dr Hodges's knowledge of and dedication to his subject has produced this detailed work of reference for future generations.

Rosalind Lowe

***The Scratch of the Hop: Hop Picking in Herefordshire, Worcestershire & Shropshire*, by Marsha O'Mahony (Logaston Press, 2021), i-x, 262 pp., illustrated, ISBN978-1-910839-44-7.**

The website of the American Oral History Association informs us that 'Oral history is a field of study and a method of gathering, preserving and interpreting the voices and memories of people, communities, and participants in past events.' With its origins in the 1940s, oral history is now a major area of study, and its popularity is shown by the organisation Herefordshire Lore, which has been publishing these recollections since 1989, both in a periodical and also in books of the genre.

Another book of this sort has now been published, in this case by Logaston Press, the title indicating that this is essentially about the picking of hops in the area. It is not the first of this type, however. In 1988 the Bromyard and District Local History Society published a well-received book entitled *A Pocketful of Hops*, of which a revised and updated edition was published in 2007. This major book covered a region of about six-miles radius from Bromyard, and included reminiscences of former hop-pickers, growers etc., to illustrate the story of hops and hop-picking through its different phases and to bring the story up to date.

In the present volume the main thrust is the reminiscences of those involved in various parts of the process of growing and marketing hops, used in combination to illustrate the whole

process. The first introductory section sets the scene, with some basic information about the process over the years, followed by a section on literary and artistic connections, including material about Sir Alfred Munnings and photographs of members of the Stevens Romany Gypsy family, some of whose members were painted by Munnings in the hop fields. Towards the end of the chapter is a sequence of photographs showing a vardo (traditional gypsy caravan) being built in Hereford in 1960 by George Cox, the last hand-builder of vardoes in Britain. The reader is then taken through the sequence of production, beginning with the growing of the hops and the various stories of the growers, telling the history of the earlier pole yards, and the introduction of modern wirework, a method first introduced in Kent in 1863, which gradually superseded the old method, although pole yards were still being used in Herefordshire until well into the 20th century. The story is well told by those who worked in the hopyards, including those who erected the wirework in the first place, and those who strung the hopyards in the early spring.

Inevitably the chapter on picking the hops is the longest in the book, occupying more than a quarter of the total pages. The annual migration of pickers to the hopyards from the Midland conurbation, the valleys of South Wales and by the Romany Gypsy community, was a considerable influx, and made its mark. Many years later those involved spoke of the good times that they had, even though in most cases the accommodation that was provided was of poor standard and facilities almost non-existent. Of course, for those who worked in the industrial areas, this was a holiday with pay (for which they had to work hard!).

Because hop-picking was so labour intensive, it was inevitable that when viable machines were produced these would be readily taken up by the growers; this led in the 1950s to the demise of the annual migration. All this is covered, including a discussion of the important local firm of Bruff's at Suckley.

Hop-picking is naturally followed by the drying of the hops, an art which could be overlooked, but was highly skilled for all that. The success of the crop depended on how well this was performed, so the kilns needed 24-hour attention, and those who performed this important task would been seen but rarely by their families during this time. The success of the work was tested in the various hop competitions, and then the crop had to be sold. For a very long period, from the 18th century until after the Second World War, The Borough, Southwark, was the major centre of the trade, overlapping with the Hop Marketing Board, which came into existence in 1932 and closed in 1982, since it operated in contradiction to EU regulations. There were, of course, hop markets locally, and the hops were also traded at the Corn Exchange in Broad Street, Hereford, which was built in 1857 and much later became the Kemble Theatre.

A section on 'Hops to Hostelry: pubs and brewing' follows—after all this is what it is all about—and the book concludes with one on hop research and development.

All sections are developed around personal testimonies, and while there are many stories of the earlier days of hop-picking, more recent years are not neglected, and so the book is up to date. Farms that are still growing hops are inevitably prominent; much information is found relating to Instone Court, near Bromyard, and Ankerdine Farm, Knightwick, which also figure prominently in *A Pocketful of Hops*. Similarly, there is much relating to the late Peter Davies and Claston, Dormington. In 2007 Mr Davies published his book, *A Herefordshire Tale. Claston, Hops and the Davies Family*, which gives a very detailed and personal view of the hop-growing industry over a long period.

The book is particularly well illustrated, and inevitably uses the 1581 woodcut of a hop plant which, curiously, shows that plant climbing anti-clockwise when it should be clockwise. There are many excellent photographs, from well-known collections as well as from private

archives. There are quite a number of earlier ones from the Derek Foxton Collection, and others from the mid-20th century, taken by Tony Williams and Derek Evans. The digitisation of those taken by Tony Williams was a labour of love by Dr Derek Foxton, while the work of Derek Evans was the subject of a three-year research project which concluded in 2020, the results of which (including the photographs used here and many more) are available on the Herefordshire History website. The Watkins Collection is, of course, represented, and there is a splendid photograph of gypsy vardoes in the Southend at Ledbury, reproduced elsewhere previously but an absolutely super image. These are well-known names, but I noted a number of excellent quality, credited to a Miss White, with no clue as to who that was, and I could not find any mention of her in the text: I wondered if the one credited to Miss 'Wight' on p.70 was a phonetic misspelling of the same name? While the earlier photographs are in black and white, there are a number of modern photographs in colour, which give a recent feel to the relevant part of the text, even though it refers to the last century!

Such a book as this is all about the reminiscences, which should be collected before it is too late. My wife's grandfather, Jim Hamer, was a hop grower, and he occasionally mentioned various things about this to me, but I never followed it up systematically, much to my regret. In 1921 he moved from Grendon Court, Grendon Bishop, to Lower Court, Ullingswick, because he wanted to grow hops, which he did until he retired in 1955, at which point he sold his hop quota. Photographs illustrating hop-picking at Lower Court were used in *A Pocketful of Hops*, including a photograph of a hopyard taken from above by one of my wife's uncles, standing on top of a hop pole. In my collection I have a hop-picker's account book, printed in Bromyard and used by my mother-in-law to keep a record of her hop-picking in the yards at Lower Court in 1941. In the text of the book under review there is mention of hop-pickers going on strike for more pay, and this may have been a problem, as the last of seven rules printed on the back of this account book states: 'Any person known to be agitating for a strike of pickers will receive instant dismissal.' This may not have been a problem at Lower Court, as the same pickers came back each year; after the last war a number of them pencilled their names on the sliding door that led into the base of the hop kiln at Lower Court and which controlled the draft for the furnace. At that period Tom Hamer was experimenting with a hop-picking machine, which got to prototype stage, and in which Bruff's had expressed an interest, but it did not come to fruition.

And now for a few niggles. Although the book is about hop-picking in Herefordshire, Worcestershire and Shropshire, the greatest acreage is in Herefordshire, and a quick look at the index of farms mentioned shows that the majority are also in Herefordshire. There is little in the way of facts and figures, apart from the number of farms still growing hops, and it would be helpful to quote acreages of hops grown now, and acreages grown in earlier periods, which would illustrate the relative acreages and the drastic decline in modern times. Also, there is no indication of the methodology used to collect the reminiscences. Were the recent ones collected in person, and how was the subject identified in the first place? In collecting material for *A Pocketful of Hops* the Bromyard Local History Society advertised in the Midland newspapers and received many written responses. Was something similar done in this case?

As an Herefordian there are a couple of irritating typos. So, for instance, on p. 82 there is a reference to 'Hampton Dean Road', rather than the correct 'Hampton Dene Road.' Also, on p. 173 I was surprised to see in one of the reminiscences the pub at Upper Sapey being referred to as the 'Baiting Inn', rather than the correct 'Baiting House'. In preparation for a book on pubs in the area, in discussions of local pubs with members of my wife's family, who lived in the locality, I never heard the suggested form.

There is little exploration of how the hop-pickers were received in the local community. There is a description of policing by the local bobbies (pp. 138–140), but there were other issues. So, for instance, hop-pickers were not allowed inside the Burley Gate Inn, and had to use a corrugated iron building which was used as a changing room for a local youth football team. The door of the pub was kept locked, and locals had to knock to be let in.

There are one or two inconsistencies relating to the Hop Marketing Board (HMB). On p. 215 the first sentence reads 'In 1982, as the UK entered the Common Market, the HMB was wound up because its monolithic structure was seen to violate EU rules.' Of course, the UK entered the Common Market on 1 January 1973. Also, on p. 221 there is a mention of a Hop Marketing Board Magazine from March 1983, by which time the Board was, presumably, defunct.

On p. 140 there is a reference to an Education Act of 1948, which ended the practice of parents taking children out of school to take them hop picking. This provided that children should be registered at their school at the start of the school year and was implemented more or less straight away in Dudley, where many of the hop-pickers came from. My family moved from Bromley, Kent, to Dudley in 1948 and one of my earliest memories is my first attendance at a primary school in Dudley in September 1948, when many of the pupils were away hop-picking. My recollection is that this annual exodus seems to have tailed off rapidly, due to action being taken by the Dudley Education committee. This could be checked using suitable attendance registers. In 1949 that local authority allowed a two-week extension in the school holidays, to allow for children to be taken hop-picking in September, and sent a letter to the parents of all schoolchildren in the borough, warning that if children were absent beyond that extension without reasonable cause, then the parents would be prosecuted. In view of the general nature of the letter, it would have been sent out over the name of the director of education, who at that time was my father. The problem of subsequent fines was discussed in Christine Faulkner's charming *Hops and Hop-pickers* (undated, but stated in the bibliography to have been published in 1992), which looks at hop-picking from a Dudley-based perspective. Mr. Packer, the school attendance officer at that time, must have been quite busy! This was, of course, one factor, but the major factor was the introduction of hop-picking machines, and the consequent very-much-reduced demand for labour at hop-picking time. This is illustrated by an example quoted in the text.

So, what are my views on this book? A considerable amount of work has gone into collecting and linking together the various reminiscences which are the point of the book, the collection of photographs is outstanding and there are some tremendously evocative images. Although the brief is hop-picking, this is placed in a much wider context of growing, picking and marketing hops, and is the modern history of hop-growing in the area, within living memory, although there are earlier reminiscences included. The book should be on the shelves of anyone interested in aspects of social history of Herefordshire. It has awakened my dormant interest in the subject, and a quick check indicates that there is much interesting earlier material that is well worth detailed investigation**.** Watch this space!

John Eisel

Hereford in 50 Buildings **by Derek Foxton & Ron Shoesmith (Amberley, Stroud, 2019), 96 pp., ISBN 98 1 4456 8704 9, £14.99**

This is a collaborative undertaking by two well-known Hereford antiquarians: Derek Foxton, who, in addition to his photographic skills, exploits his large collection of Hereford documentary

material, whilst Ron Shoesmith, until recently, Director of Archaeology for Hereford, reveals his comprehensive knowledge of the buildings of the city. Both authors have an eye for the curious and unrevealed past. All the principal photographs appear to be recent and taken, it seems, on an unremittingly sunny day. Occasionally a sketch or a vintage photograph is included; for example, a striking postcard view of the Castle Pool Hotel, dated 1922, shows the burgeoning gardens of St Ethelbert's Almshouses, with a glimpse in the background of the glasshouses of the council nursery that used to be in Cantilupe Street.

If the building under discussion has an interesting interior, a photograph is provided. For many purchasers of the book this will be a revelation. For instance, few people who regularly pass the Cathedral Barn in the NE corner of the Close will appreciate that it has a fine first-floor space, with a very robust, cambered tie-beam. A radiocarbon date suggests that it was probably built in the late 13th century. Equally surprising for many readers will be the Norman roof of the Bishop's Palace, built, it seems, in the late 12th century. Illustrated in this book is one of the Norman arches with dog-tooth ornament—now supported with a steel frame—which sits above the bishop's bedroom. Other interesting interiors include that of the Catholic Church of St Francis Xavier, recently re-decorated in bright colours, after an attempt was made in the 1980s to close the church and to use the shell as a supermarket! Among my other favourite interiors, which will be a surprise for many readers, is the wonderfully dusty, late 17th-century staircase, with fine twisted balusters, found in the 'lost merchant's house', locked and forgotten in the elbow of Widemarsh Street and High Town and still, apparently, for sale. What a wonderful 'pad' this would make for a young bachelor with a collection of 17th-century curiosities. Equally hidden today is the 15th-century interior of the Booth Hall, illustrated by a fine wide-angle photograph. In the year that we are celebrating the centenary of the publication of the *Old Straight Track* it would have been good to see an acknowledgement to Alfred Watkins, who saved this building from demolition. The same wide-angled approach was needed for the Commandment Room at the Black Lion Inn in Bridge Street. This went virtually unrecorded by the Royal Commission on Historic Buildings in the early 1930s. Albeit the wall paintings are naïve and incomplete, a full view of them should have been taken rather than of just the plaster ceiling, which is fairly conventional work. It is good to see the local, late16th-century artist, John Gildon, credited with the work.

Alfred Watkins was commemorated, so we are informed, by the passageway leading under the middle of the Mansion House in Widemarsh Street towards Tesco. It was named 'Alfred Watkins Way'—he was born nearly next door at The Imperial—but his family protested that this was a rather mean memorial for a great man, so the name was replaced with 'Mansion House Way'.

Ron and Derek's familiarity with the nooks and crannies of Hereford, built-up over many years, gives the reader several unique insights. For example, restoration work on The Grapes in Church Street in 1988 revealed that this was originally three separate buildings, creating a fatal flaw in its structure, so that it nearly collapsed. A particularly good text is provided for the Bingo Hall in Berrington Street. Erected as a chapel for the Countess of Huntington's Connexion in 1787, it was closed in 1885 and since then has had a very chequered history, which is all carefully recorded in this book. Another of Ron's discoveries, whose explanation may have gone with him to France where he has retired**,** involves a hole in the courtyard of the Shirehall, which revealed several subterranean rooms between the portico and the statue of George Lewis Cornewall (d.1863). Their purpose is unknown but since the site was originally occupied by the county gaol they may have been dungeons.

As this review has tried to show, even for someone well acquainted with the city, there is much to be learnt from this survey of Hereford's prominent buildings. If I were showing people around the city, I would carry this book in my pocket, as it would provide answers for many of those quizzical visitors who might test one's patience.

David Whitehead

The Medieval Floortiles of Herefordshire **by Julie Bowen (Access Archaeology, 2022) ii + 141 pp., illustrated, ISBN 978-1-78969-513-7, £34.**

In Herefordshire we have so many fine examples of 19th-century encaustic tiles from the Godwin factory, that less notice may be taken of the relatively few surviving mediaeval examples, the largest collection of which is in St. Katherine's Chapel, Ledbury. This new book is a gazetteer of all examples said by the compiler to have been visible in Herefordshire in 2013. These are listed alphabetically by parish and illustrated either by coloured photographs or drawings of the designs; plain tiles are excluded as being impossible to date except by analysis of the fabric. Drawings of tiles that have been found in the past, but which cannot now be located, are included, as are those from the papers of that noted antiquarian, Thomas Bird.

However, this not just a gazetteer. When a tile is described, any other known examples are quoted, as is the source, if known or deduced. Thus, for instance, there are many examples found locally that derive from the Malvern factory, and also from Bristol and Worcester. This approach helps to put Herefordshire in a wider context, something that is also helpful because the book offers purely a survey, with no overall summary of the findings, being intended initially as part of some wider research which has not come to fruition.

In its present form, therefore, the book is very useful for those who need such reference material when analysing the results of excavations but is not designed for the general reader.

In the introduction the author makes it clear that the research on which the book is based is incomplete but hopes that it will be a useful basis for further research. It is not clear how the survey was carried out, and whether it was complete. Was every church and other possible location visited? Were the different sites identified from secondary sources and then visited? How much scope is there for further research? Without answers to some of these questions it makes the work of those who come after that much more difficult.

This then is a useful reference book, but the price of £34 for a printed copy will put many buyers off. However, the publishing model is such that it is also available free to a personal user as a downloadable pdf from the publisher's website; this is intended as the main means of distribution, thus making it available to a much wider public. More a case of try before you buy! (To find the website, just Google 'Access archaeology'. Curiously enough, the ISBN as given on the website does not agree with that printed in the front of the book, which is what I have quoted.)

John Eisel



Plate 1.1. Extract from Budgen's map of 1815, showing the area around the Corton toll house, and location of other toll houses in the vicinity of Presteigne. (D. Lovelace)



Plate 1.2. Extract from Bryant's map of 1835, showing realignment of the roads around the Corton toll house. (D. Lovelace)

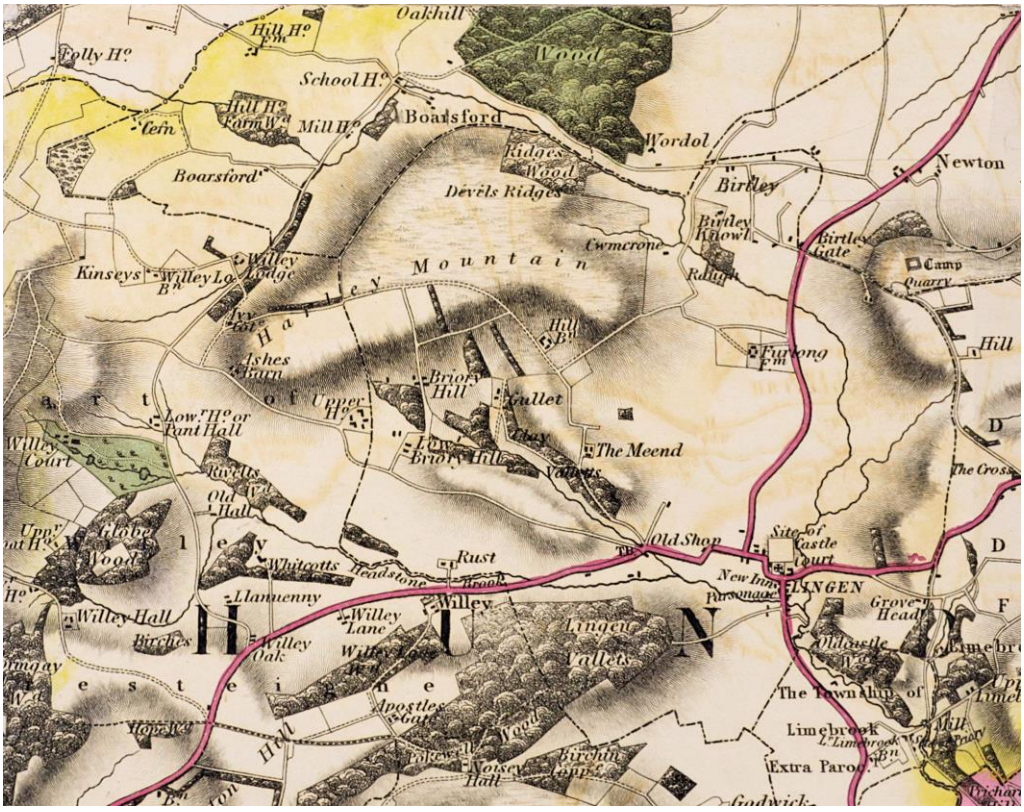


Plate 1.3. Extract from Bryant's map of 1835, showing section of road from Willey's Oak to Birtley Cross. (D. Lovelace)

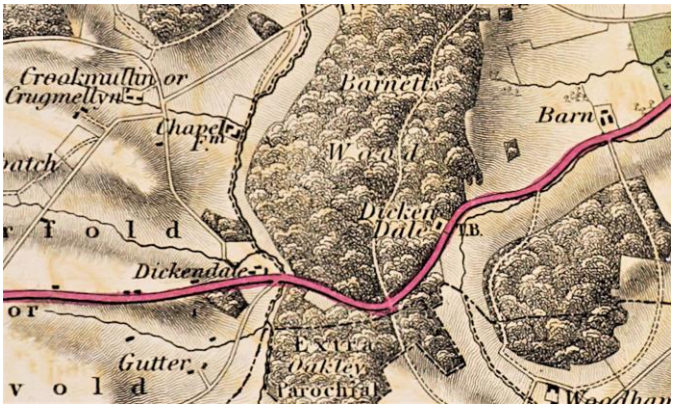


Plate 1.4. Extract from Bryant's map of 1835, showing site of Dickendale Gate, X340237 Y267955. (D. Lovelace)

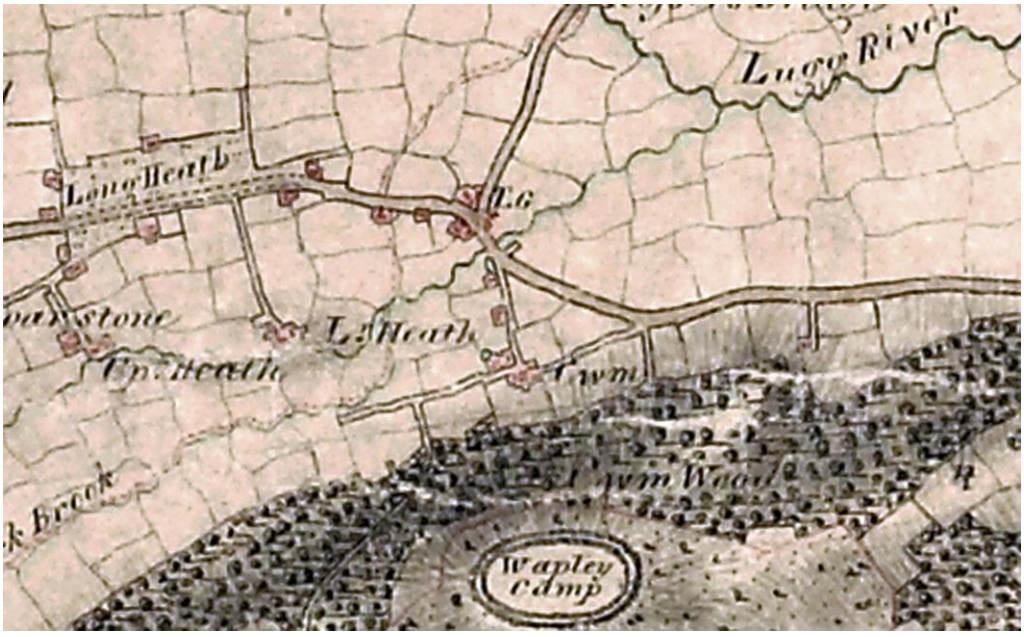


Plate 1.5. Extract from Budgen's map of 1815, showing the position of Combe Gate, X334509 Y263512. (R. Lowe)

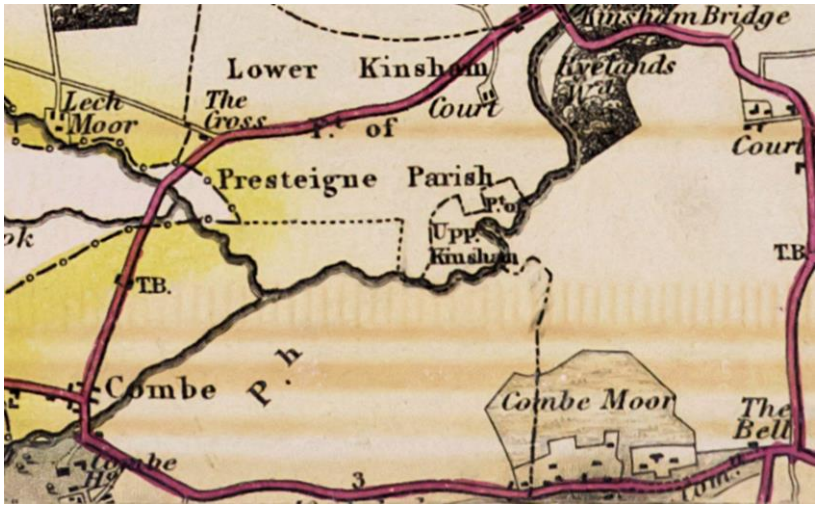


Plate 1.6. Extract from Bryant's map of 1835, showing the new position of Combe Gate, X334665 Y263744. (D. Lovelace)

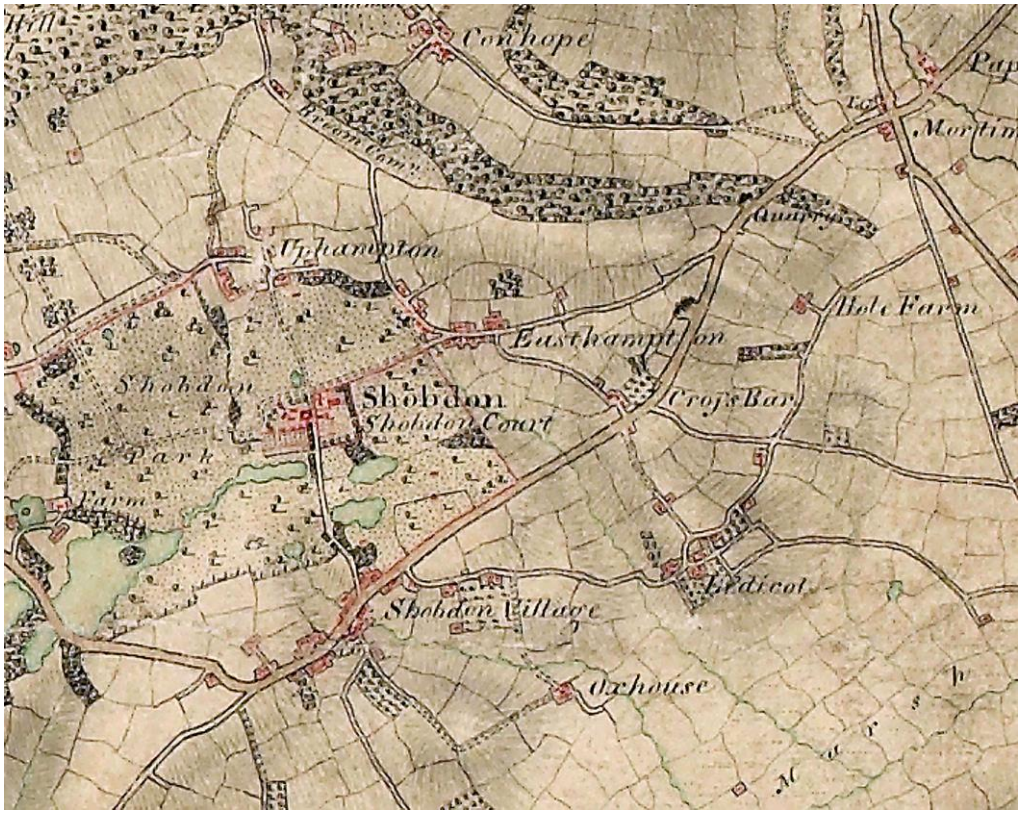


Plate 1.7. Location of the Shobdon Gate on Budgen's map of 1815. Despite the poor condition of the map, the gate can just be seen east of the road junction at X339773 Y261797. (R. Lowe)



Plate 1.8. Location of the Shobdon Gate on Bryant's map of 1835, positioned to catch traffic to and from both directions at the fork, X339710 Y261773. (D. Lovelace)



Plate 1.9. Location of the Bircher Gate on Bryant's map of 1835, X347820 Y265348. (D. Lovelace)



Plate 1.10. Woofferton Crossing toll house, X351848 Y268470.
(Photo: Author)



Plate 1.11. Woofferton Chain toll house, X351180 Y268203. (Photo: Author)



Plate 1.12. Mortimer's Cross toll house, X34283 Y263574. Budgen's map of 1815 shows its predecessor further to the east, at approximately X342434 Y263625. (Photo: Author)



Plate 1.13 (right). Birtley toll house. (Photo: Author)



Plate 1.14 (left). Lingen toll gate. (© Harley Thomas)

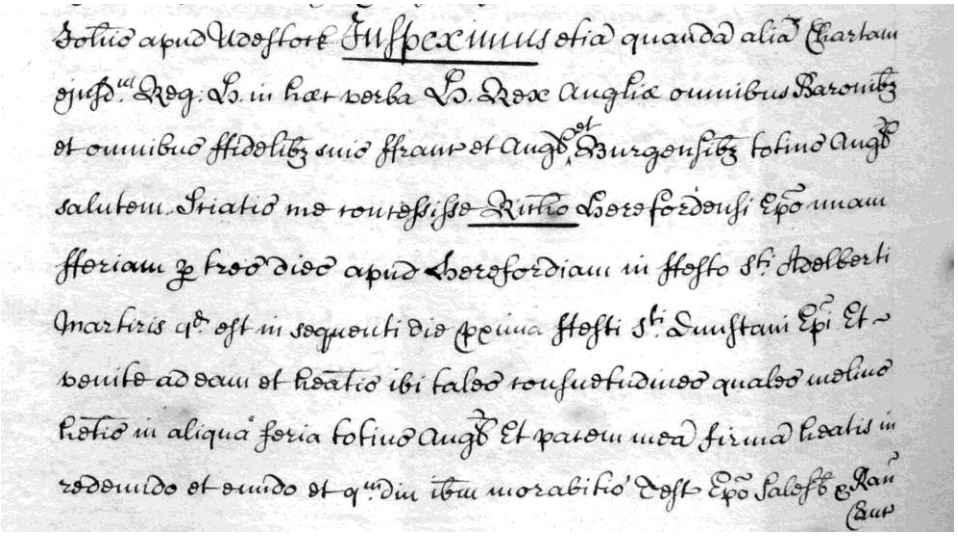


Plate 2.1. Wording of the original charter of 1121 taken from the 18th-century book belonging to Bishop Humphreys. (© Hereford Cathedral HCA 7008/1)

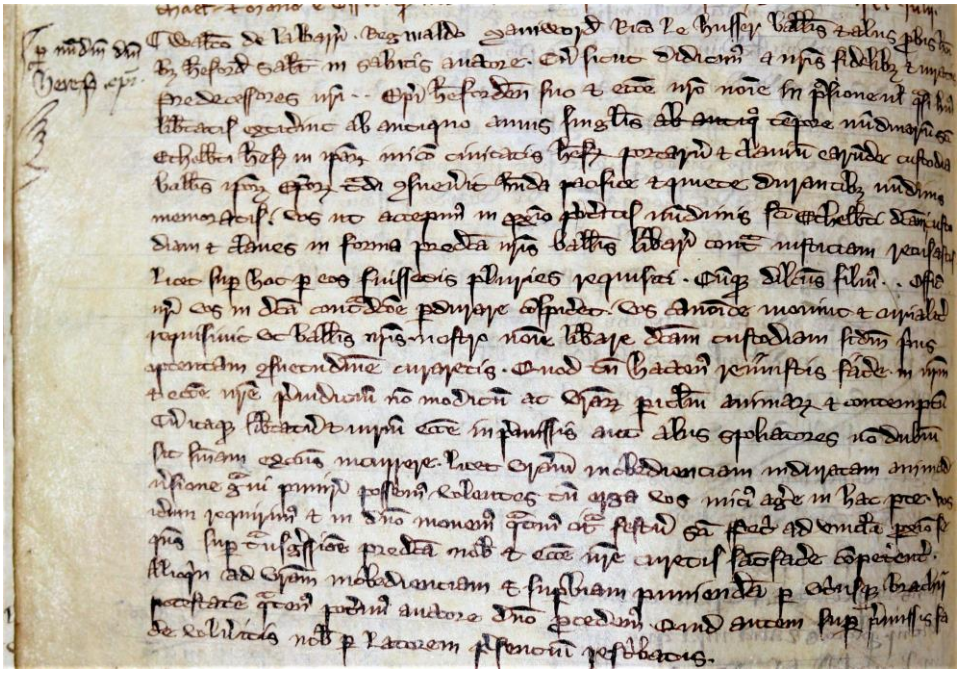


Plate 2.2. Letter of 1276 from Bishop Cantilupe to the city bailiffs, who had failed to hand over the keys of the city during the Bishop's Fair. (© Herefordshire Archive Service AL19/1)

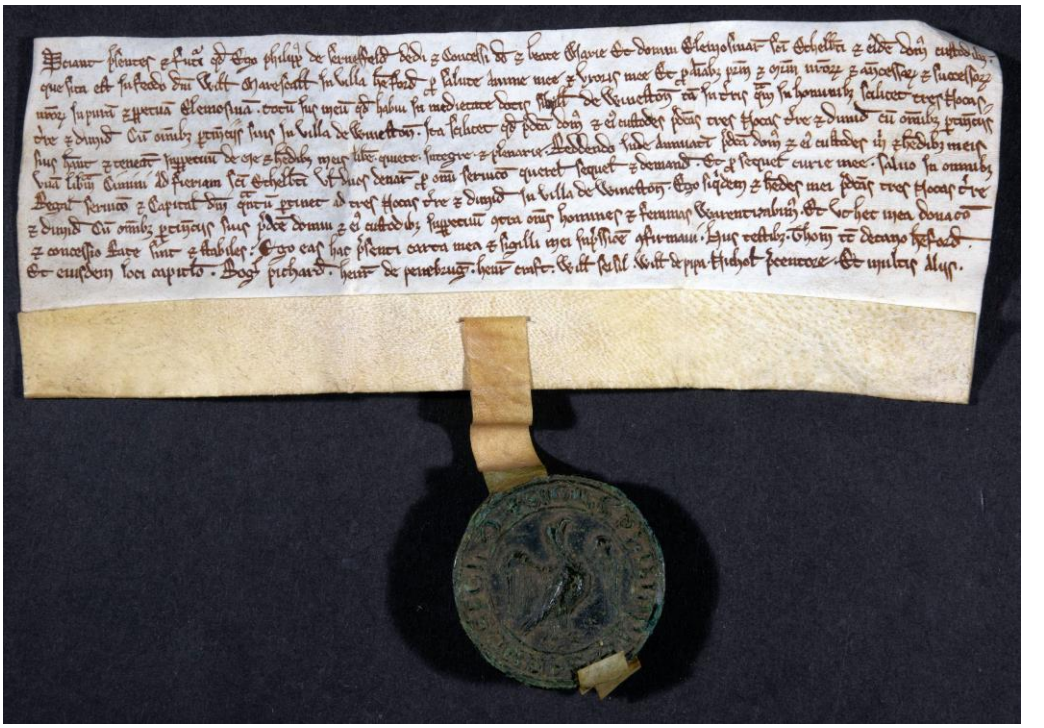


Plate 2.3. One of the deeds requesting payment of rent at the time of the fair, *c*.1225-1230. (© Hereford Cathedral HCA 890)

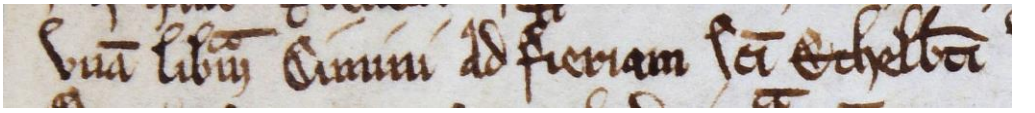


Plate 2.4. Detail from Plate 2.3. In this case the rent was ‘one pound of cumin at the fair of Saint Ethelbert’, rather than money. (© Hereford Cathedral HCA 890)

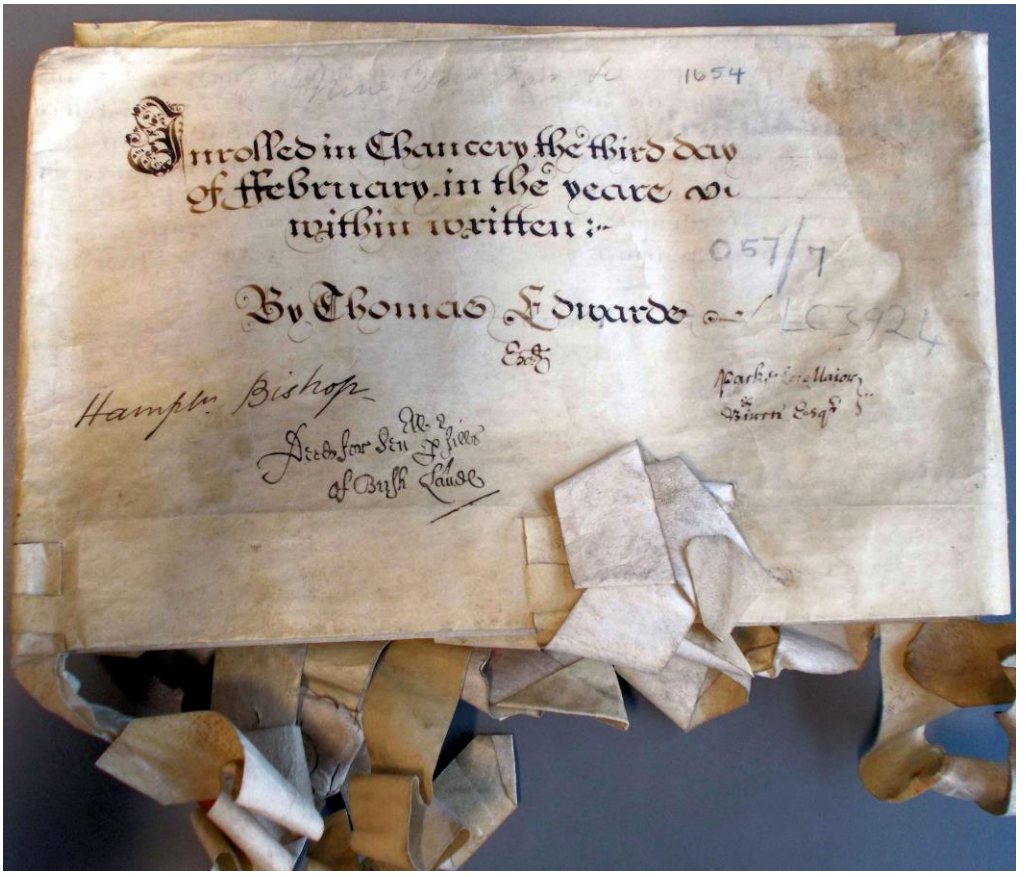
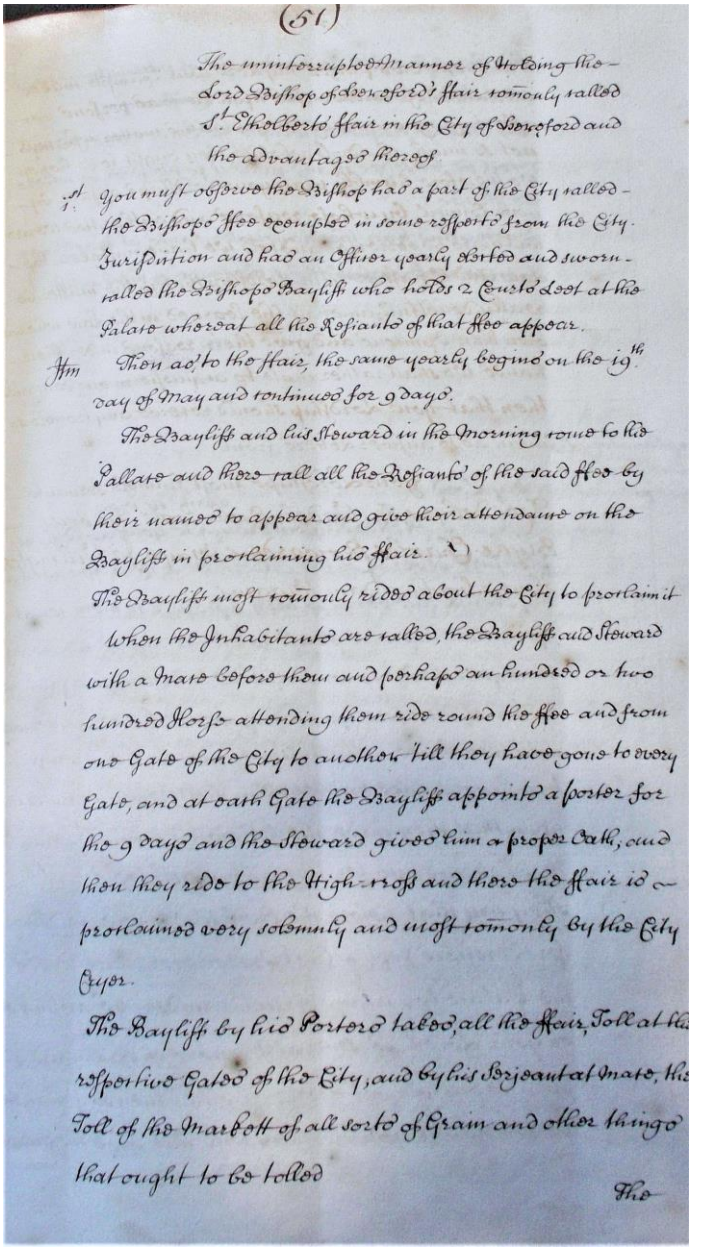


Plate 2.5. The front cover of the deed whereby, in 1654/5, Col John Birch bought more of the former property of the bishop to add to his previous purchases, this time including the rights to the May Fair and the receipts arising. (© Herefordshire Archive Service O57/7)



(61)

The uninterrupted manner of Holding the Lord Bishop of Hereford's Fair commonly called St. Ethelberts Fair in the City of Hereford and the advantages thereof

1st You must observe the Bishop had a part of this City called the Bishops Fee exempted in some respects from the City Jurisdition and had an Officer yearly elected and sworn called the Bishops Bayliff who holds a Court Leet at his Palace whereat all his Tenants of that Fee appear.

Item Then as to the Fair, the same yearly begins on the 19th day of May and continues for 9 days.

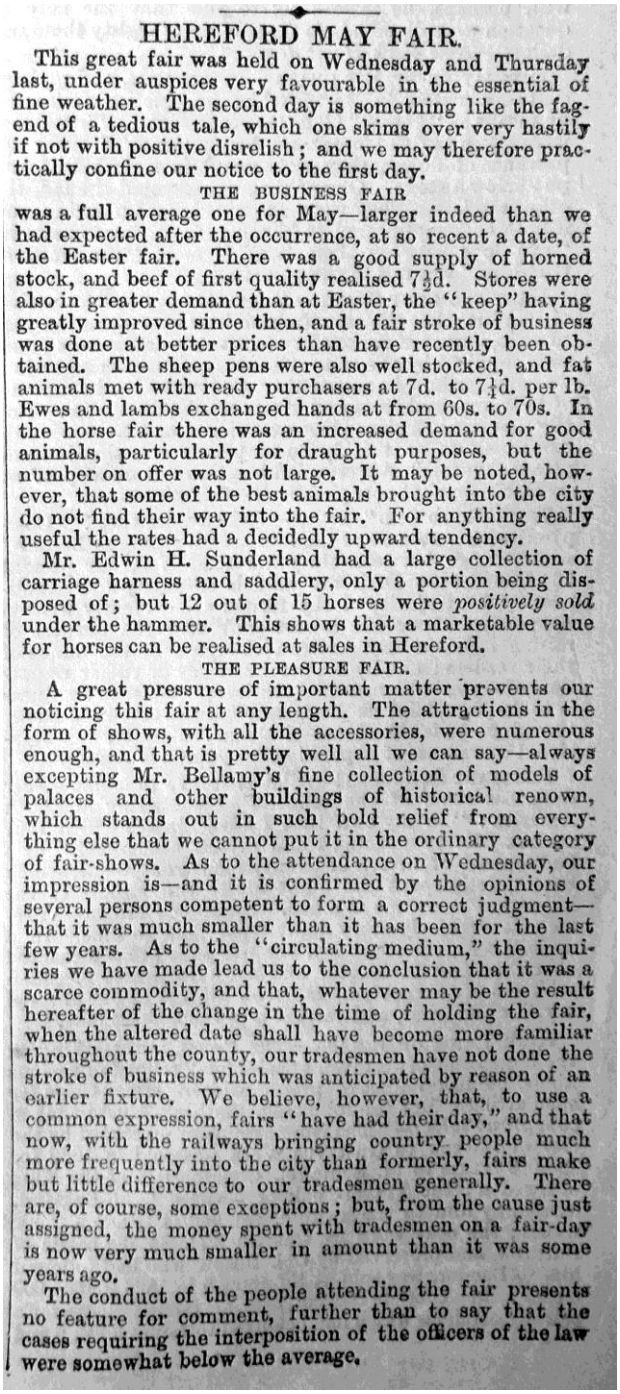
The Bayliff and his Steward in the Morning come to his Pallace and there call all the Tenants of the said Fee by their names to appear and give their attendance on the Bayliff in proclaiming his Fair.

The Bayliff most solemnly rides about the City to proclaim it when the Inhabitants are called, the Bayliff and Steward with a Mace before them and perhaps an hundred or two hundred Horse attending them ride round the Fee and from one Gate of the City to another till they have gone to every Gate, and at each Gate the Bayliff appoints a porter for the 9 days and the Steward gives him a proper Oath, and then they ride to the High-cross and there the Fair is proclaimed very solemnly and most solemnly by the City Cryer.

The Bayliff by his Porters takes all the Fair Toll at the respective Gates of the City, and by his Serjeant at Mace, the Toll of the Market of all sorts of Grain and other things that ought to be tolled

The

Plate 2.6. A page from Bishop Humphreys's early 18th-century book, the entry entitled 'the uninterrupted manner of holding the Lord Bishop of Hereford's Fair, commonly called St Ethelbert's Fair…and the advantages thereof'. (© Hereford Cathedral HCA 7008/1)



HEREFORD MAY FAIR.

This great fair was held on Wednesday and Thursday last, under auspices very favourable in the essential of fine weather. The second day is something like the fag-end of a tedious tale, which one skims over very hastily if not with positive disrelish; and we may therefore practically confine our notice to the first day.

THE BUSINESS FAIR

was a full average one for May—larger indeed than we had expected after the occurrence, at so recent a date, of the Easter fair. There was a good supply of horned stock, and beef of first quality realised 7½d. Stores were also in greater demand than at Easter, the "keep" having greatly improved since then, and a fair stroke of business was done at better prices than have recently been obtained. The sheep pens were also well stocked, and fat animals met with ready purchasers at 7d. to 7¼d. per lb. Ewes and lambs exchanged hands at from 60s. to 70s. In the horse fair there was an increased demand for good animals, particularly for draught purposes, but the number on offer was not large. It may be noted, however, that some of the best animals brought into the city do not find their way into the fair. For anything really useful the rates had a decidedly upward tendency.

Mr. Edwin H. Sunderland had a large collection of carriage harness and saddlery, only a portion being disposed of; but 12 out of 15 horses were *positively sold* under the hammer. This shows that a marketable value for horses can be realised at sales in Hereford.

THE PLEASURE FAIR.

A great pressure of important matter prevents our noticing this fair at any length. The attractions in the form of shows, with all the accessories, were numerous enough, and that is pretty well all we can say—always excepting Mr. Bellamy's fine collection of models of palaces and other buildings of historical renown, which stands out in such bold relief from everything else that we cannot put it in the ordinary category of fair-shows. As to the attendance on Wednesday, our impression is—and it is confirmed by the opinions of several persons competent to form a correct judgment—that it was much smaller than it has been for the last few years. As to the "circulating medium," the inquiries we have made lead us to the conclusion that it was a scarce commodity, and that, whatever may be the result hereafter of the change in the time of holding the fair, when the altered date shall have become more familiar throughout the county, our tradesmen have not done the stroke of business which was anticipated by reason of an earlier fixture. We believe, however, that, to use a common expression, fairs "have had their day," and that now, with the railways bringing country people much more frequently into the city than formerly, fairs make but little difference to our tradesmen generally. There are, of course, some exceptions; but, from the cause just assigned, the money spent with tradesmen on a fair-day is now very much smaller in amount than it was some years ago.

The conduct of the people attending the fair presents no feature for comment, further than to say that the cases requiring the interposition of the officers of the law were somewhat below the average.

Plate 2.7. *Hereford Times,* 11 May 1867. As well as insight into the nature of the May Fair in 1867—a little skewed by the journalist's own views no doubt—and comment on the impact of the revised date that year, the article gives a strong indication of change, as railways, mobility and new ways of business make their mark. (© Herefordshire Libraries)



Plate 2.8. The May Fair 1912: Ethel Davis, secretary of the Hereford Branch of the W.S.P.U., at the stall run by the suffragettes. (© Museum of London)



Plate 2.9. Watercolour painting of the May Fair in 1939. (©Herefordshire Archive Service AD76/1)



Plate 3.1. Dovecote-cum-summer house at Old Sufton, Mordiford, recently restored and among the dovecotes shown to the Club via an 'oxy-hydrogen lantern' on the evening of 10 April 1890. (Photo: David Whitehead)

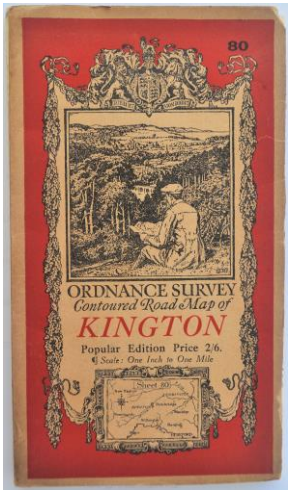




Plate 3.2 (left). The inquisitive 'rambler', pondering, like Watkins and his contemporaries, on the archaeological riches to be found on the early 20th-century Ordnance Survey maps. (Photo: David Whitehead)

Plate 3.3 (right). Modern view of shifting glacial deposits, now overgrown, below Scots' Hole, with the Salmon Inn (now closed) in the foreground. (Photo: David Whitehead)



Plate 3.4. The Golden Cross, Sutton St Nicholas, where Watkins persuaded young men to join the Herefordshire Regiment in 1914. (Photo: David Whitehead, 2020)

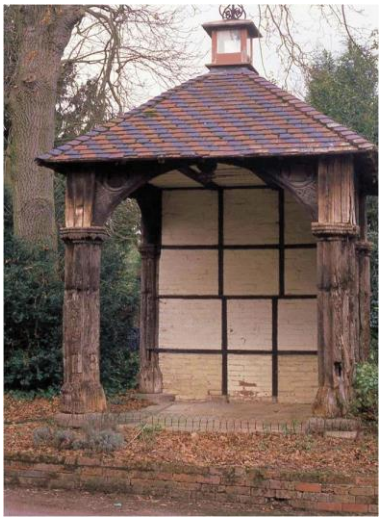




Plate 3.5 (above). Holmer Hall, the childhood home of Alfred Watkins from *c.*1860-70, designed by Charles Watkins, his father. (Photo: David Whitehead, 2020)

Plate 3.6 (above left). After demolition of the building in 1861, this fragment of Hereford Market Hall (converted into an aviary) was erected at Holmer Hall *c.*1862 (Photo: David Whitehead, 2020)



Plate 4.1. Part of land sales map of 1783 drawn by John Haywood. Note the name ‘Burfields Close Orchard’ in the (unavoidably) shadowy area in the centre of the photograph towards the top. (HARC Archives R28/L.C. 11,254. Photo: Liam Delaney)



Plate 4.2. Breinton House and south-facing lawns from the south-west. The east-facing slope at left marks the western limit of the former enclosure ditch, and the stepped terrace, and slight south-facing terrace below the cedar tree at right-centre, the northern limit. The trench was located at the extreme right centre in this view. (Photo: Keith Ray)



Plate 4.3. Excavation trench at an early stage, viewed from the north-east with the slope down to the river in the background. The thinly laid 'metalled surface' over the bank is visible at left centre (at right, before removal of the deposit; at left, after removal). The softer deposit has been removed in the foreground, with tunnelling disturbance from the former rabbit burrow just visible at centre. Scale: 1 metre. (Photo: Keith Ray)



Plate 4.4. Trench from the south-east, with Breinton House (early 18th century). Behind the tape at the right a line and slight lynchet is just visible. This marks the northern edge of the former enclosure ditch. Significantly, the house was built north of, and just back from, the infilled ditch. Scale: 1 metre. (Photo: Keith Ray)



Plate 4.5. Extensive deposit of rounded stones beneath the compacted layer including burnt clay located on the southern lip of the ditch at the northern end of the trench. The deposit to the left (south) comprised layers of turf placed at the front of the clay bank. (Photo: Keith Ray)



Plate 4.6. Photogrammetric (digitally rectified) photograph of stones as revealed in the trench (north to right). (Photomapping by Simon Mayes)



Plate 4.7. The deposit of rounded stones viewed from the south-west after the removal of some of the central stones to reveal the slope of the ditch. The CBM-rich deposit overlying the stones is just visible at left, towards the north-west corner of the trench. One of the sherds of late Saxon pottery came from this deposit. (Photo: Keith Ray)



Plate 4.8. Detail of the south-facing section in the north-west corner of the trench, shown to highlight the CBM (red-clay 'baking slab' fragments) lying over collapsed stonework, that is likely to have fronted the turf layers at the front of the bank. (Photo: Keith Ray)



Plate 4.9. The trench viewed from the north-west, after removal of some of the tumbled stones. Note the following: at left, the slope of the southern edge of the ditch; at centre foreground (west side of trench), the cuts made for the original emplacement of turves (in foreground), illustrating the way that the clay bank had been stepped back to receive the turves (and to the left of these 'steps' the berm on which the stone wall had been set as a facing to the turves); and (to the right) a possible post-hole in the midst of the clay bank. (Photo: Keith Ray)



Plate 4.10. Detail of former turves in the eastern half of the centre of the trench (note the horizontal line of small stones at the base of context 11). (Photo: Keith Ray)

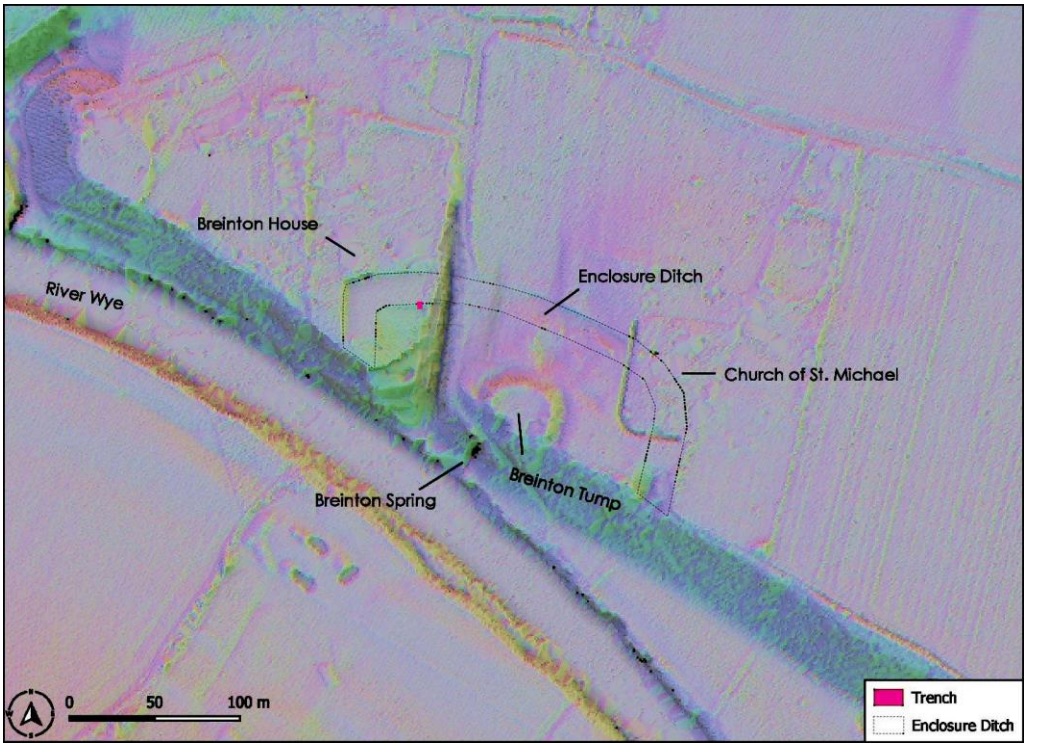


Plate 4.11. Interpretive plot of Lidar data, Lower Breinton. The small scale of the excavation trench (in red, in the grounds of Breinton House) is evident, as is its siting, precisely on the line of the bank/former wall around the inner edge of the broad ditch. (Mapping and figure preparation: Liam Delaney)



Plate 5.1. South elevation of the tower at Cradley Church: the difference in the stonework between the belfry stage and the lower stages of the tower is very evident



Plate 5.2. Rope hole outside the present southern truss. Visible only from below since the original floor has been covered with softwood boards, probably in the 19th century



Plate 5.3. The southern ends of one of the bearers of the mediaeval frame. The sharp corners indicate that this has been shortened in modern times. There is evidence of a former mortice, but the purpose is at present unascertained. However, it is not part of the primary phase of the bell frame

Plate 5.4. Second-hand, moulded piece of timber, which extends the sill of truss 4 to the east. This has redundant mortices, probably too close together for floor joists. A longer mortice on the reverse rules out previous use in a floor. If it originated in the church, it may well have been from a rood screen, as for example at Llanwenarth Citra, near Abergavenny, and Itton, near Chepstow





Plate 5.5. A 17th-century key-bolt, used to tie the bearers of the frame through to the primary foundation timbers





Plate 5.6 (left). Simple truss against the west wall, much reinforced by raking timbers and diagonal timbers to the frame-heads, implying that there had been substantial movement when the bells were rung full circle

Plate 5.7 (above). Detail of RSJ supporting west ends of the foundation (primary) timbers. There is a similar arrangement against the east wall



Plate 6.1. Church of St Mary Magdalene at Eardisley



Plate 6.2. The 12th-century font, carved by a master of the Herefordshire Romanesque School, at Eardisley today

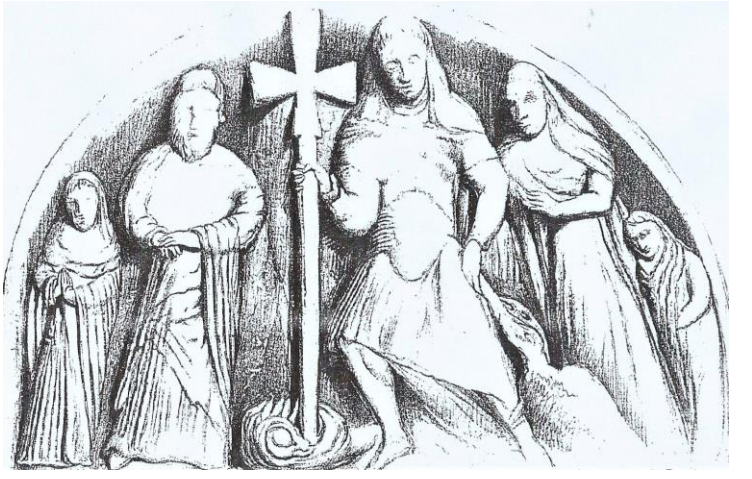


Plate 6.3. A 'Harrowing of Hell' scene, carved by the same master as at Eardisley on a tympanum at Shobdon Church, now forms a very worn part of the Shobdon Arches. Christ places his staff with its cross in the Hell-mouth. Drawing made by G.R. Lewis in 1852, published in *The Ancient Church of Shobdon, Herefordshire*, Plate 14

Plate 6.4 (right). The same knights seen at Eardisley, here standing one above the other at Kilpeck Church, on the left-hand portal of the south door

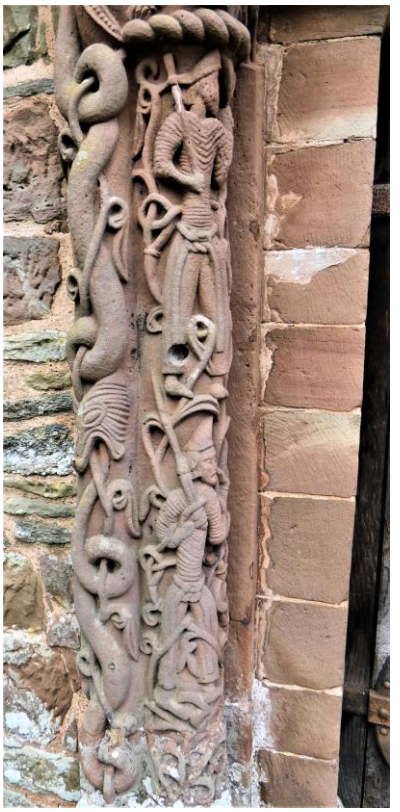


Plate 6.5 (far right). The upper knight as shown in G. R. Lewis, *Illustrations of Kilpeck Church*, 1843 (no page or plate No.s)



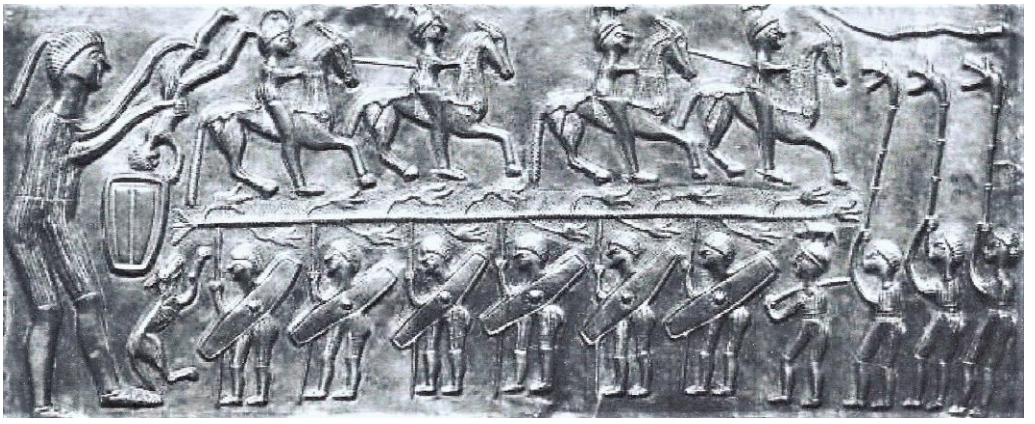


Plate 6.6. Scene from the Gundestrup Cauldron found in Denmark in 1891 and dating from the Late Iron Age. A giant (The Dagda / Bran figure) is seen plunging dead men into his cauldron of revivification



Plate 7.1. Snodhill Castle: trenches in the outer bailey



Plate 7.2. Snodhill Castle:‘chapel’ walls within the inner bailey



Plate 7.3. Aerial view of Arthur's Stone, separated from the excavation trench by a (much later) field hedge. A closely set line of small post-holes runs roughly parallel to the hedge; these defined a space within which turves were laid to make the primary mound. A line of eight larger post-holes heads towards the hedge / eastern side of the turf mound from the south-south-east. Other holes are natural features or result from later disturbance



Plate 7.4. Aerial view of Arthur's Stone in its landscape context, looking north-west to north. Test pits can be seen in the field to the left of the monument near the road



Plate 7.5. The ‘Romano-British’ site built across a natural rocky knoll at Urishay Court Farm. This view, from the east, shows (at right) the excavation into the deposit infilling the rock-cut square-ended and ‘tank’-like feature. This was probably industrial



Plate 7.6. The same site as in Plate 7.5, this time showing the squared, rock-cut features from the south



Plate 8.1. Wild plant recording brings many rewards. A timeless view of a Herefordshire Oak Woodland, April 2021



Plate 8.2. Tubular Water-dropwort, Water Forget-me-Not and Fen Bedstraw form an attractive jumble at Turner's Boat near Bredwardine



Plate 8.3. Dyer's Greenweed was given the alternative moniker of Woad Waxen in Purchas & Ley's 1889 *Flora of Herefordshire*. Here just beginning to flower at Letton Lake, June 2021



Plate 8.4. Detail of head of a knapweed from Rushall showing the phyllaries (bracts) beneath the flowers: examination of the upper, dark pectinate portions of these is a necessary part of knapweed identification, and it is bracts in the second and third rows from the bottom, here delineated, which should always be examined. This specimen shows bracts with a narrow, lanceolate central part with comb-teeth longer than its width, characteristic of the less common Chalk Knapweed *Centaurea debeauxii*. We need to understand the distribution of this plant better in Herefordshire



Plate 8.5. Conservation heroes (from L to R) David Bandfield, Kate Wollen, Alan Pike and Anne Crane, get to work saving the Spreading Bellflower from Herefordshire extinction. Sue Bonson, also a hero, was fetching some tools!



Plate 8.6. *Euphorbia maculata* growing with other species in paving cracks at a garden centre near Wellington. A Herefordshire first. (Record and photo, courtesy of Aaron Woods)



Plate 8.7. Will Watson tries to haul in Ophelia but gets a load of Water-crowfoot instead. *Ranunculus peltatus*, from near Jay in August 2021



Plate 8.8. White Sedge *Carex canescens;* dozens of tussocks in a drying basin mire near Burnt Hengoed—quite possibly the last of their kind in Herefordshire



Plate 9.1. *Hedwigia ciliata*, on a church roof, a nationally scarce moss found in Herefordshire



Plate 9.2. Three epiphytes commonly found in Herefordshire growing on the bark of an Ash *Fraxinus excelsior*



Plate 10.1. View from moraine ridge at Staunton-on-Wye looking at the area of the glacial Lake Letton. (Photo: EHT)



Plate 10.2. Wayne Herbert Quarry: a small exposure of medium-grained sandstone in the wall. (Photo: EHT)



Plate 10.3. Wayne Herbert Quarry: the sandstone contains very small areas of black, organic-rich material, only mm across, some of which appear to be fish scales



Plate 10.4. Mocktree Channel in cross-section near the top of the face with thinly bedded, gently curving siltstone layers cutting down into the siltstones of the underlying Basal Leintwardine Formation. (Photo: EHT)



Plate 10.5. Downton Gorge: frost sparkling in the sunshine and limestone cliffs. (Photo: EHT)



Plate 10.6. Dipping to record creatures living in a glacial pond at The Sturts. (Photo: EHT)





Plate 10.7 (left). Val Turner, Project Manager, with one of the erratics in Woodgate Valley Country Park. (Photo: EHT)

Plate 10.8 (above). Granite pod in the small Quarry at The Wyche, above and to the south of the bus shelter. (Photo: EHT)



Plate 10.9. General view of the Vowchurch Common building site exposure with mudstone overlain by limestone and silty mudstones on top





Vowchurch Common, detail.

Plate 10.10 (left). Sandstone layer at the top of the Raglan Mudstone Formation

Plate 10.11 (right). Oxidised and reduced layers in the mudstone



Plate 10.12. Bishop's Frome Limestone, calcrete: Vowchurch Common



Plate 10.13. Vowchurch Common: deformed mudstone



Plate 10.14. Close-up photo of deformed mudstone at Vowchurch Common. The scale is 15cm long



Plate 10.15. Flooding in the Lugg Valley, February 2021





Plate 10.16 (left). Raglan Mudstone Formation, red mudstone with grey-green reduction spots, exposed after heavy rain eroded the track alongside the Burghope Valley

Plate 10.17 (right). Calcrete nodules from the Bishop's Frome Limestone Member in the track



Plate 10.18. Burghope Quarry: sandstones of the St Maughans Formation are visible now that clearance work has been carried out



Plate 10.19. Burghope Quarry: conglomeratic layer at the top of the Bishop's Frome Limestone Member with the conglomerate at the base of the St Maughans Formation above



Plate 10.20. The notice board at the western end of the exposure in Queenswood Country Park, overlooking the Burghope Valley, describes the geology seen here



Plate 10.21. Gravels in a cellar in St James Road in Hereford. (Photo: Nic Howes)



Plate 10.22. Lord's Wood Quarry: Carboniferous Llanelly Formation overlying Gully Oolite



Plate 10.23. Brachiopods at Overley Quarry. (Photo: John Payne)



Plate 10.24. Siltstone beds with steeply dipping joint planes at Overley Quarry. (Photo: John Payne)



Plate 11.1. *Exidia recisa*, fully charged and producing spores. Gwydyr Forest, January 2015. (Photo: Ian Fraser)



Plate 11.2. *Exidia recisa*, drying out and shrinking. Gwydyr Forest, Jan. 2015. (Photo: Ian Fraser)



Plate 11.3. *Sarcodontia crocea*. A large fruitbody in a cleft of an apple tree. Awnells Farm, Much Marcle, November 2014. (Photo: Jo Weightman)



Plate 11.4. *Sarcodontia crocea*, a close-up showing the spines. Awnells Farm, Much Marcle, November 2014. (Photo: Jo Weightman)

Plate 11.5. *Postia ptychogaster*, an unusual specimen oozing red droplets. An old dry specimen can be seen on the left. Croft Castle Estate, July 2021. *(*Photo: Anon)





Plate 11.6 (left). *Peziza campbellii*, a frosted example in habitat, Gladestry, Feb. 2021. (Photo: Joanna Crawshaw)

Plate 11.7 (below). *Peziza campbellii*, a slice through the fruit body showing the brain-like structure. Gladestry, Feb. 2021. (Photo: Joanna Crawshaw)





Plate 11.8. *Loreleia postii*, growing on a hard path with mosses and liverworts. Kentchurch Court, November 2021. (Photo: Jo Weightman)



Plate 11.9. *Rubroboletus satanas*, a young fruitbody. Great Doward, Sept. 2021. (Photo: Jo Weightman)



Plate 11.10. *Rubroboletus satanas*, mature specimens showing the red pores and greyish cap. Meenfield Wood, Shoreham, Kent, 1999. (Photo: Jo Weightman)





Photographs of *Saproamanita inopinata*. Plate 11.11 (left) shows the warty cap surface and the irregularly banded stipe. Plate 11.12 (right) shows the overhanging cap cuticle and cream to pale-pink gills. (Photos: Jo Weightman, Leominster, October 2021)



Plate 12.1. Male Crossbill (Photo: Mick Colquhoun)



Plate 12.2. Quail (Photo: Mick Colquhoun)



Plate 12.3. Willow Warbler (Photo: Mick Colquhoun)



Plate 12.4. Spotted Flycatcher (Photo: Mick Colquhoun)

Plate 12.5. Male Redstart (Photo: Mick Colquhoun)





Plate 12. 6. Grasshopper Warbler (Photo: Mick Colquhoun)

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