

RURAL HISTORY TODAY

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Rats

Rats inhabit everyday phrases like 'rat race'. They are capable of taking on the very worst of human qualities and plague our thinking in urban myths about their proximity to us/our proximity to them.

Today, it is estimated that about 5% of sewers have rats inhabiting them, 3% of city homes have rats near them (only about 0.5% inside them), but in rural areas around 40% of farms have them. When, in 2012, the BBC's Charlotte Pritchard interviewed Dr Dave Cowan, then lead of the Food and Environment Research Agency's wildlife programme for the Radio 4 programme, *More or Less*, he estimated (based on farm survey data) that there would be about 90 rats in and around the agricultural buildings of a typical farm, which came to roughly seven million country rats (in contrast to 3.1 million city rats). Farm rats today are therefore a significant problem.

Rats have been present on British farms, however, for a very long time. As described by Richard Lovegrove, country rats were killed, from the sixteenth century, under the auspices of various 'vermin' directives aimed at protecting grain. From the late nineteenth century Rat & Sparrow Clubs rewarded their competitive members by the rat tail. For the Victorians, ratting was an established, unsentimental and ongoing part of farming practice; woven into the local economy as a seasonal necessity complimenting the regular and necessary work of the expert rat-catcher. Rat catchers traditionally had a very good knowledge of rat behaviour, based on experience, and utilised that knowledge to manage catching. They even kept live rats for show (to advertise their skills) and for sport in town. By the turn of the nineteenth and twentieth century there



Rats and Flour Sack by C. Tudor (1945) Reproduced by courtesy of Abbot Hall Art Gallery, Lakeland Arts Trust, Kendal, Cumbria

was therefore a long-established body of material on tackling rats, often published by the Incorporated Society for the Destruction of Vermin and aimed directly at farmers and other specialists. But, rats do not always succumb to human management, which means that there have been moments when the topic of farm rat control has hit the national stage as a much larger problem.

In 1910, East Anglian country rats were suspected of carrying bubonic plague and it was this 1910 outbreak in England that led ultimately to a new bounty being placed on their tails. A well-known pest for farmers, it brought the country/farm rat to wider (urban) public attention as something more than a distant and picturesque rural nuisance, or subject of boyhood vernacular sport.

Letters were sent to *The Times* and the subject came to the attention of the Royal Institute of Public Health and of Parliament. The local authorities, under direction of the Local Government Board and with advice from the Board of Agriculture, issued an Order requiring the local sanitary authorities to exterminate the rats and preventing them from entering property. The Lister Institute sent staff to Suffolk to examine the rats and 'their special flea parasites'. Dr Martin, the then Director of the Institute who led the investigation, had previously been Chair of the Advisory Committee of the India Office on Plague. Therefore, though in 1910 this was not deemed a matter for direct/centralised state intervention, the possibility of plague and the associated risk posed by the movement of rats

Above: Ancient woodland – bluebells flourish amongst pollarded hazel (see page 4).

Professor Karen Sayer looks at the history of rat control since the 18th century and suggests that it was a concern for the destruction of food supplies that led to government involvement.

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escalated the issue to the national level. As stated by Lord Lamington, in the debate recorded at the time in *Hansard*, a 'rat does not confine its operations to the district of one local authority. That is the whole danger.' And, this alone was enough to necessitate a new approach to rat control.

As a consequence of this, between 1900–1950, rat killing was 'modernised': official and county advisors drew on the work of academic population studies; the killing of rats on farms shifted from trapping and blocking, to the use of newly-patented anticoagulants such as Warfarin. New forms of economic costing quantified the damage done to farm buildings and machinery; the consumption, soiling and contamination of food, seed and fodder in store; and the risks posed to both animal and human health through disease. This shift paralleled the observation that country rats travel, and the case for a national (even international) multi-disciplinary approach was made because of their itinerant habits. In 1919 Lord Aberconway framed his Rat Destruction Bill as crucial to post-war reconstruction, and argued that scientists, bacteriologists, farmers and agricultural societies supported him, because the tunnelling, nomadic rat undermined modern Britain. When it passed into law, the Rats and Mice (Destruction) Act 1919 covered ships in port, urban and rural environments. And, WWII saw a sharpening of this WWI perception and response.

During the interwar and post-war period National Rat Week was advertised in every borough during the first week of November throughout the national press and in posters. A Pathe newsreel entitled 'Kill That Rat!' spread much the same message. The ostensible aim was to promote rat destruction and to that end 1½d was paid for every rat tail. Poison was supplied free of charge by local Health Officers to applicants who had infested properties, and those Health Officers then inspected the properties, tracked (1), the number of baits given out, (2) premises (old and new) recorded as infested,

(3) the premises with a reduced population and (4) those free of rats. Reports from each Medical Officer of Health in every Borough were then sent back to the Ministry of Agriculture and Fisheries via the County Agricultural Committees.

In the meantime, attempts were made in Britain to use rat skins for profit, which as the then Parliamentary Secretary to the Board of Agriculture, Sir A. Boscawen said, might create a market and therefore 'serve an additional incentive to rat destruction.' Proposed uses, discussed in 1921, included 'the manufacture of gloves for motor drivers' and also 'slippers'. Boscawen was reluctant to see this as a viable commercial prospect, but when pressed said 'we are taking every possible step to place the use of rat skins on a commercial basis.' The *New York Times* had reported in 1897 that rat skins made 'a very durable leather, and are used a good deal,' in America 'much of it masquerading as kid. ... There are dealers who make as many as 20,000 pairs of rat skin gloves a year, and a very good business it is.' In fact this was a common approach to animals thought of as vermin or pests, turning what was by definition a useless creature to some useful human purpose and thereby to give it an economic value. Because of the cultural associations of the rat, it was still necessary to pass the rat leather off as something else for this to be viable.

The more significant aim, however, was to raise awareness of rats as vermin and the ways in which the rat spread disease, as it said on the posters, to 'man and animals'. The damage done by rats, costed in the 1951 posters at £1,000,000,000 annually, and the ability to reproduce rapidly, quantified as '800 offspring in one year', was designed to shock. But, the aim (and this may indeed be where the most alarming figures come from) was not just to distress the public, but also to educate them into the realisation that rats cluster near houses, factories and shops, in sewers, and on farms around food bins and in animal housing, i.e. anywhere that they can get something to eat and stay warm. Was there any basis for the figures on the posters? Probably not, given that the poster had the same figure of £1,000,000,000 on it in 1938.

In public discussions of the rat in the inter-war period, and often beyond, we see an elision between the Black or Ship Rat (*R. rattus*), which climbed into lofts and lived in houses in close contact with human beings, and the Brown Rat (*R. norvegicus*) which preferred to keep its distance by burrowing and living in tunnels, and had largely replaced the Black rat in Europe from the mid eighteenth century. The rat itself, as a universal 'menace', offers us a new, incidental insight into changing farming practices and the significance of farm produce to the nation.

FUTURE CONFERENCES

► Details of conferences can be found on the BAHS web page:



www.bahs.org.uk

Land and credit: Mortgages and Annuities in the Medieval and Early Modern Countryside – a symposium

Juliet Gayton summarises the results of a symposium held in July 2015 in Cambridge, supported by a grant from the BAHS Conferences and Initiatives Fund.

The participants discussed the use of land as collateral in rural credit markets of England and Continental Europe during the period up to 1750. Conventional historiography has tended to paint a picture of desperate indebted peasants borrowing from rapacious land-grabbing lenders. Was this in fact the case?

A series of nine papers presented research outcomes from England, Belgium, France, Italy, the Netherlands and Spain. The themes addressed included the incidence of borrowing and lending in time and space; instruments used; who borrowed and who lent and their apparent motivation; recording procedures; and possible influence of tenure, usury laws and legal systems.

All countries showed an active land and credit market using instruments such as *mort and vif gages*; *pledges*, *annuities*, *renten*, *obligations* and *censals*. In England the mortgage predominated, whereas in Continental Europe the majority used annuities. In medieval English manors mortgage activity was patchy and of less volume than that found on the Continent. However Early Modern research showed that England caught up later. The sums of money obtainable using land as security were far higher than for goods and chattels alone, so land enabled a significant increase in credit obtained. The pattern everywhere showed an overwhelmingly 'local' market. Borrowers and lenders lived near each other and so had local knowledge upon which to base trust in credit relationships. Few distant city dwellers were involved.

Source documentation in earlier research was often litigation records of defaulters, which may have given the impression that credit was needed in desperate circumstances. However symposium papers showed different sources. Although more recent English research has relied upon manorial records and title deeds which are patchy in their survival and fragmented in location; in Continental Europe there was widespread use of notaries



Detail of painting by Peter Breughel the Younger

and local authorities who kept more centralised registers at the point of agreement of the loans. It was found from these that only a small proportion of borrowers defaulted, so the majority were not borrowing in desperate circumstances. Moreover the lenders seemed interested in investment rather than acquiring land. Leniency by Continental judges and the development of the equity of redemption in England gave increased protection to defaulters, so lending with the hope of land grabbing would have been a difficult and long process. On the rare occasions that they received the land in forfeit the lenders often sold it.

In summary, the symposium contributions showed that throughout Europe, the rural credit market using land as security was widespread and active. However a different picture from the old historiography emerged, in which investment and money for big life-cycle events were the major objective of the borrowers, and investment the aim of the lenders. The polarisation of land holding size in rural areas did not result from this activity, and the processes in the credit markets were more benevolent around default; and reliant upon personal and local relationships than previously thought. Research is ongoing and it is hoped to publish the symposium papers in an edited book at the end of next year.

The organisers, Drs Chris Briggs and Juliet Gayton record their gratitude to the BAHS.

NEW BOOKS

Elizabeth Griffiths introduces us to a second volume of the fascinating accounts of Alice Le Strange; this time dealing with her farming activities.

Her Price is Above Pearls Family and Farming Records of Alice Le Strange, 1617–1656

In her debut, *Consumption & gender in the early seventeenth century household; the world of Alice Le Strange*, (*Rural History Today*, 22, 2012), Alice appeared as the consummate housewife and manager of domestic affairs, leading her grateful husband to note, under a flap on the front of her 5th household book, ‘her price is above pearls’.

In this volume attention turns to Alice’s role as a farmer, estate manager and guardian of the family finances and her performance in this field was even more remarkable. To illustrate the range of her abilities and the scale of her achievement, a selection has been made from her vast archive; this includes her sheep accounts, kept from 1617 to 1655, the early records for her own estate at Sedgeford and her notes on the family finances. Thanks must go to the Norfolk Record Society for generously supporting this publication.

Women, of course, were no strangers to keeping accounts and managing estates but Alice appears to have been exceptional, as her husband, Sir Hamon indicated in his will when he thanked her ‘for her ever incessant industry in straynes of knowledge above her sex to the just, faithfull and laudable advantage and advancement of my estate.’ Women often assumed responsibility for the estate as widows, but Alice and Hamon were different; they operated as a genuine working partnership almost from the start of their marriage in 1604.

At first, Alice concentrated on the household, taking over the general disbursements from Sir Hamon in 1609, introducing household books with weekly kitchen accounts in 1613. Significantly, these accounts included the estate receipts, a task Alice took over from her elderly father, Richard Stubbe of Sedgeford.

Much of Alice’s enthusiasm for farming and accountancy can be explained by her background and the education she received from her father. He had been family lawyer to the Le Strange family since the 1580s and married the widow of John Le Strange of Sedgeford. Alice, the only child of this union, was born in 1585 and became heiress to her mother’s estate and the lands the Le Stranges leased from the Dean and Chapter of Norwich, which Stubbe renewed in 1601. So, from her teenage years, Alice knew she would enjoy a landed inheritance. At the same time, Stubbe secured Alice’s betrothal to Sir Hamon Le Strange, orphaned in 1592 and reliant on the advice of his guardians and trustees. From the outset, Sir Hamon knew he could trust his young wife and was fully aware of her training and abilities.

The most poignant discovery was the sheep accounts Alice kept for her five children. These tiny flocks, established with her father’s help in 1617, replicated the

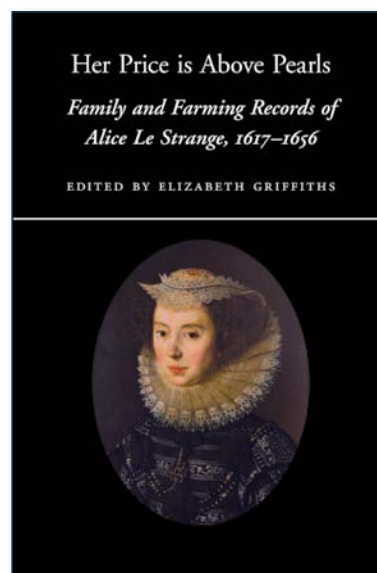
education Alice had received in sheep farming and started a process by which she consciously passed on knowledge and skills to her successors. Sir Hamon shared her objectives, and, in his will, thanked for ‘her most pious and painful education of my children’. Their strategy proved successful as their eldest son Sir Nicholas adopted similar methods in his drainage notebooks.

In 1620, on the death of her father, Alice’s workload multiplied as she inherited the estate at Sedgeford. The lands at Sedgeford were farmed on an infield and outfield system, which supported three flocks and three foldcourses; half the rent was paid in barley, so the emphasis was on maximizing corn production. This was done by more stringently regulating the outfields, which were only cultivated 50% of the time, with a view to gradually absorbing them into permanent cultivation with the infields. To achieve this end, Alice commissioned three maps accompanied by a written survey; these documents provide a unique insight into the working of the infield and outfield system and how it was improved by an enterprising landowner in the first half of the seventeenth century.

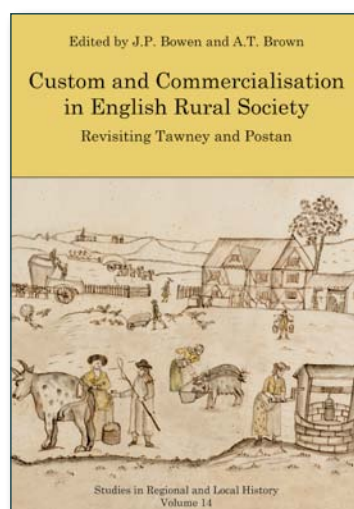
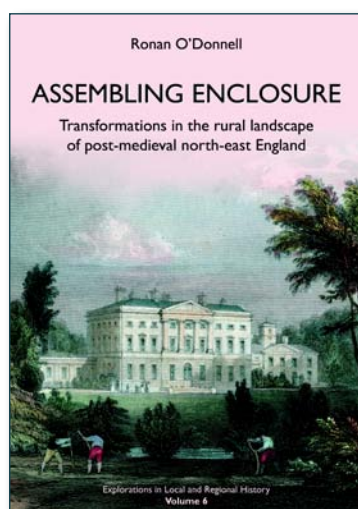
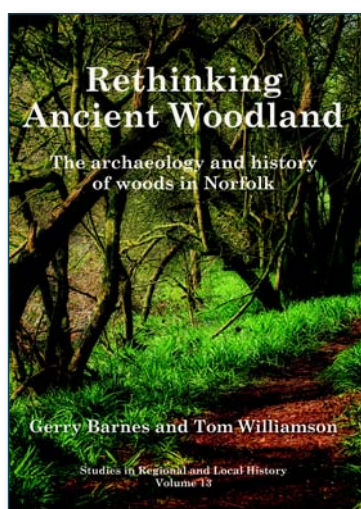
However, it was not all plain sailing; disaster struck in 1643. In retribution for the part Sir Hamon and his royalist sons played in the siege of Kings Lynn, parliamentary forces destroyed their flocks, horses and corn. No estate receipts survive for the 1640s, but the sheep accounts vividly illustrate the depth of the crisis, with Alice having to re-stock the Ringstead flocks charging headage payment for sheep from friends, neighbours and relatives and collect minute sums from tithes of wool and lambs; every penny counted. By 1650 estate receipts for corn, sheep and wool had recovered to the levels of the early 1630s.

Needless to say, Alice was not best pleased with the turnaround in their fortunes and vented her feelings in her summary of the family finances. Her purpose was to justify her management to her successors, but in doing so she provides historians with an extraordinary insight into how these estates were financed and kept afloat.

► Copies of *Her Price is Above Pearls* (376 pp. 5 illustrations, 8 tables and a map in a pocket) can be obtained online from www.norfolkrecordsociety.org.uk. Price £18 plus £4 postage.



UH Press: punching above its weight



Christopher Dunkley
of the University
of Hertfordshire
Press describes
some of their recent
publications.

It's been a busy few months for University of Hertfordshire Press, one of the UK's leading publishers of regional and local history. As one of the UK's smaller university presses we focus our activities on a relatively small number of subject areas. The Press has gained a reputation as a leading publisher of books about Romany Gypsy life, culture and history.

Our series *Studies in Regional and Local History* began in 2003 with *A Hertfordshire demesne of Westminster Abbey: Profits, productivity and weather* by Derek Vincent Stern and Chris Thornton. In October the series reached volume 13, with *Rethinking Ancient Woodland: the archaeology and history of woods in Norfolk* by Professor Tom Williamson, co-authored with Dr Gerry Barnes MBE. which delivers a significant reappraisal of exactly what constitutes ancient woodland. The conclusion is not cosy and comfortable, it is contentious in some circles, but there is no doubting that anyone with an interest in landscape history and conservation will find the book essential reading. We followed this up with Ronan O'Donnell's *Assembling Enclosure: Transformations in the rural landscape of post-medieval north-east England*, a study drawing on Actor Network Theory to re-assess the familiar topics of enclosure and improvement in the landscape history of Northumberland. Next was an engaging collection of essays that explores the relationship between custom, a contested set of rules based on historical precedent, and the development of commercial practices in rural England from the thirteenth to eighteenth century. *Custom and Commercialisation in English Rural Society* is co-edited by J.P. Bowen and A.T. Brown and includes chapters by Christopher Dyer, John Broad, David Rollison and others.

Custom and Commercialisation, coming up in February, attacks its subject with impressive range. The broad chronological structure of the book,

crosses five hundred years and offers case studies from south-western, western and northern England to highlight the regional diversity of medieval and early modern England. The series has cemented our reputation as a publisher of high-quality, affordable scholarly work.

A second series, *Explorations in Local and Regional History*, designed to showcase the work of early-career academics, is a continuation and development of the 'Occasional Papers' of the University of Leicester's Department of English Local History, a series started by Herbert Finberg in 1952. Volume 7, O'Donnell, *Assembling Enclosure* is the latest in the series.

While our geographical scope is very broad, we also have regular output that is much closer to home. Hertfordshire Publications became an imprint of UH Press in 2001 and publishes local history books with a focus on Hertfordshire. The imprint is an association between UH Press and the Hertfordshire Association for Local History. In 2015 it published *Archaeology in Hertfordshire: Recent Research* by Kris Lockyear (ed.) to celebrate the life and work of Tony Rook, a leading practitioner of archaeology in the county. The book is based on a conference marking Mr Rook's 80th birthday.

In 2014 David Stocker wrote "The University of Hertfordshire has become an important publisher of landscape studies. Their distinctive jackets now raise expectations of ground-breaking work in this field and – with their reasonable prices – they populate many university reading lists."¹ Being small, we like to think we are also friendly and approachable. We hope that you will take time to explore our back catalogue online.

► For further information go to: www.herts.ac.uk/uhipress and join us on Twitter @uhipress and Facebook www.facebook.com/uhipress to find out more about what's coming up next in our publishing schedule and what events we are planning around our latest titles.

¹ Stocker, David (November 2014). 'Hertfordshire: A landscape history – book review'. *The International Journal of Regional and Local History*, Vol 9 No. 2.

The sheep house system on the chalklands of Wiltshire and Hampshire in the late medieval period

This short paper considers a significant aspect of capital investment in the sheep farming system on the Winchester ecclesiastical estates, composed of the bishopric manors, and those of St Swithun's Priory which serviced Winchester Cathedral; these manors were concentrated on the chalk hill and vale country of Wiltshire and Hampshire.

Gavin Bowie
concludes his study of
Chalkland medieval
sheep farming with
this piece on
the importance of
sheep housing on
monastic estates.

Mark Page in a paper of 2003¹ notes the considerable investment made by the Winchester ecclesiastical estates in the construction and maintenance of sheep houses in the late medieval period. The aim here is to explain why this investment was made, and the purpose of the enclosures and buildings involved. It is clear that the capital investment in the sheep house system was sustained until at least the major sheep murrains of the early 1430s. The system was capital intensive, but the labour input was relatively low; this meant that the system remained viable when famine and plague in the 14th century reduced the work force available.

The chalk landscape was one of large open fields. Ditches, fences and hedges would be few and their use limited to delineating the boundaries of the arable open fields and the 'common' uncultivated downland which provided pasture for livestock. It was in the interest of all concerned to eliminate any trees and scrub bushes which threatened grass growth on this common permanent pasture. The only other permanent enclosures would have been the paddocks and small fields directly attached to a landlord's demesne or a peasant's holding. There was therefore little shelter available for livestock.

The farmed landscape was closely managed – this would have been essential in order to avoid starvation in an agricultural economy that always hovered round about the subsistence level.

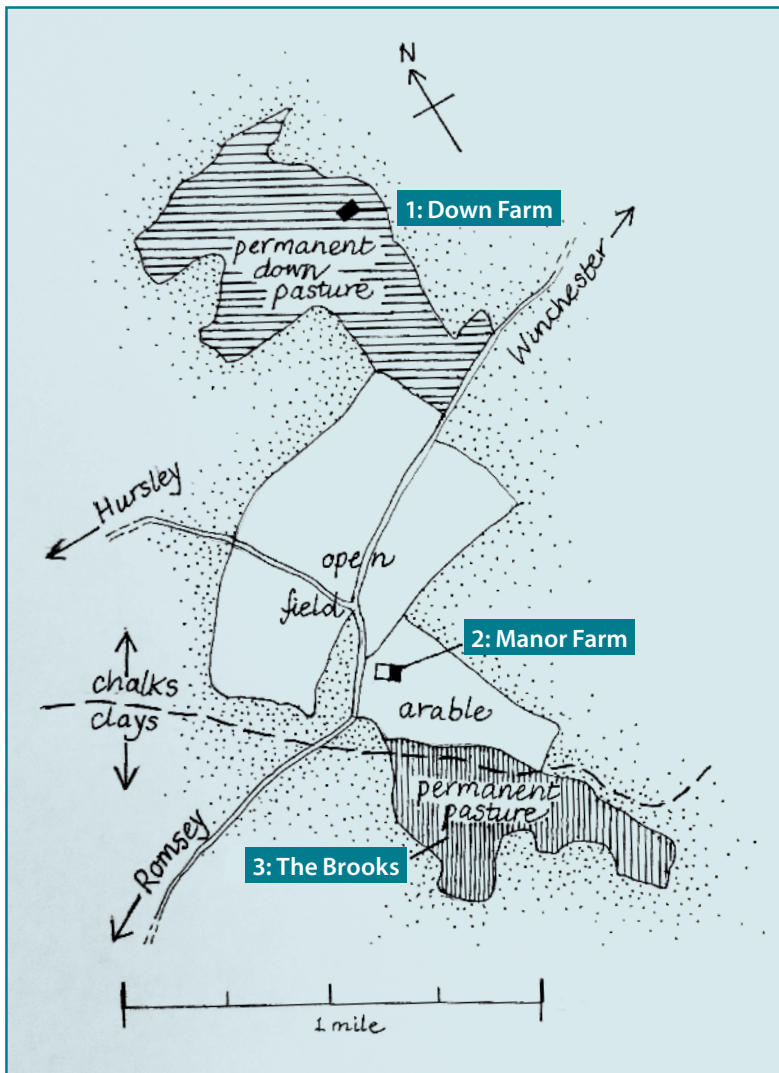
The sheep house was typically a timber-framed thatched building with wattle and daub walls. It was constructed in bays like a barn, but was about half the height of a barn with doors at each end. Sheep houses could be large – up to 20ft x 150ft in plan. It was the shepherd's base for 5 months of the year, and he would sleep there at night. It provided a dry and secure space in which to store the winter feed rations, and also an appropriate environment in which to keep and treat sick and ailing sheep but there would not be sufficient space to house many healthy sheep. Instead, they were kept in a

rectangular fixed fold or enclosure of about one acre beside the house. These enclosures were usually made up of a ditch and a fenced hedge; the hedge was made dense and stockproof to provide both shelter for the sheep and security from feral animals. The enclosures also functioned as paddocks to facilitate stock management. The combination of sheep house and fixed fold was described by Walter of Henley in the late 13th century as 'la eyre de bercherie'. Contemporaries shortened this to bercherie.

The bercheries invariably had one or more dew ponds located close by. These were generally made in small natural depressions in the ground, but were artificial in that they were lined with a puddled clay and straw mixture to make them watertight.

A number of separate bercheries were constructed on ecclesiastical manors which had large demesne flocks. For example at the bishopric manor of Twyford, on the southern edge of the Hampshire downs, 3 bercheries had been built by the early 14th century (see plan). These were made in order to accommodate a demesne flock of about 1500 sheep. One of the bercheries was at Hasely located in a dry valley on the permanent pasture in the north-east part of the manor, and probably used by the wether flock (Down Farm, 1 on the plan). Another was at Hevelestyng (Manor Farm, 2 on the plan) on the southern part of the manor near to Owslebury, close to one of the manor's arable fields and probably used for the ewe flock. The third was at Colvedon (The Brooks, 3 on the plan) on the south-west part of the manor, just off the chalks on the clays of the Hampshire Basin, and provided both a milder habitat and the pasture needed for over-wintering the hogg flock.

Walter of Henley provides a detailed description of how the system was managed during autumn and winter. The flock was based in the bercherie between Martinmas [11 November] and Easter [Lady Day, 25 March], 'entre le seynt martyn e pasche'. The sheep were kept in the bercherie at night, but only kept in during the day when the weather was bad, 'seyent



Plan of the bishop's manor estates in Twyford showing the sites of the three early fourteenth century bercheries

- 1: Location of bercherie for the wethers
- 2: Ewes bercherie attached to east end of the farm court
- 3: Winter pasture for the hogs

... pur tempeste'. A flock of say 500 sheep would be comfortable at night in a one acre enclosure, but would not benefit from being cooped up in it during the day. Normally the sheep would feed off what grass was growing round about the bercherie during the day.

The feed rations were given in cribs within the bercherie, probably to avoid waste. He writes that the sheep were to have more or less hay according to the weather, 'du feyn ou plus ou meyns solom ceo ke le tens est', and that the hay should be mixed with wheat or oats straw.

The sheep manure made in the bercheries during the autumn and winter months was carted to the arable fields in early spring. The manure was normally collected up after Lady Day (25 March), the onset of spring when the sheep quit the bercheries for the spring and summer months, and then carted out to the arable fields. It is probable that this manure was spread on the arable fields that were being prepared for sowing spring barley.

Normally this sheep manure was carted and spread by the manor's salaried carters or customary tenants, but occasionally contract labour was used.

For example in 1375 on the manor of Silkstead, on the southern edge of the Hampshire downs, 3s was paid to a man who was hired with his cart to carry out manure, along with the cart from the manor, from the sheep house to the field for 2 weeks. He took 1s 6d per week 'because there was no cart on the manor for him to use'.

It has been shown that the sheep house system was applied on the Winchester ecclesiastical estates in order to limit the risk involved in managing large flocks of sheep. It appears to have been developed with the principal aim of keeping as many sheep alive as economically possible during the autumn and winter months. The system made the most efficient use of the scarce and expensive feed rations available in autumn and winter, facilitated the treatment and possible recovery of sick and ailing sheep, and provided the necessary shelter and security for the sheep at night and during periods of foul weather. The system also provided manure which could have been used to secure crop establishment for the spring-sown barley.

Helpful advice has been given by Chris Dyer, John Hare and Ted Collins.

¹ Page, Mark (2003) The technology of medieval sheep farming: some evidence from Crawley, Hampshire, 1208–1349, *Agricultural History Review* 51, 137–54

Basildon at Bay: Or, The Last Stand of the British Tractor Industry?

*Peter Dewey brings
the story of the
British-made tractor
right up-to-date.*

Rural History Today is published by the British Agricultural History Society. The editor will be pleased to receive short articles, press releases, notes and queries for publication.

Articles for the next issue should be sent by 30 June 2016 to Susanna Wade Martins, The Longhouse, Eastgate Street, North Elmham, Dereham, Norfolk NR20 5HD or preferably by email scwmartins@btinternet.com

Membership of the BAHS is open to all who support its aim of promoting the study of agricultural history and the history of rural economy and society. Membership enquiries should be directed to the Treasurer, BAHS, Dr William Shannon, 12A Carleton Avenue, Fulwood, Preston PR2 6YA Email: bill_shannon@msn.com

Enquiries about other aspects of the Society's work should be directed to the Secretary, Dr Nicola Verdon History Subject Group, Department of Humanities Sheffield Hallam University, City Campus Howard Street, Sheffield S1 1WB Tel: 0114 225 3693 Email: n.verdon@shu.ac.uk

The second half of the twentieth century saw the British tractor industry reach its peak, followed by a long decline, as the home market became saturated, and one by one the international tractor corporations encountered financial problems.

The peak of output was in 1963, with sales of 241,933 tractors. But by 2000 the figure was down to 48,086, with the home market only taking 10,422¹. Accompanying this decline was a series of mergers and takeovers, leading to plant closures, so that by the end of the century there were only three tractor factories in the UK: Massey-Ferguson at Coventry; Case-IH (formerly International Harvester) at Doncaster; and CNH (=Case New Holland) at Basildon, Essex. There is now only one – CNH Basildon.²

All three of these factories were (or are) vulnerable to the decisions made by the multinational corporations which own them. The first to go was Massey-Ferguson, whose factory at Banner Lane, Coventry had in 1946 produced the first British Ferguson tractor. In 2002 the owners, AGCO, announced that it would be closed, citing as reasons the failure of Britain to join the Euro, and thus vulnerability to cheap imports, and the international trend to larger machines.³ The factory closed in 2003, and was subsequently demolished, its site now being occupied by housing.

The Doncaster factory of Case-IH at Wheatley Hall Road, from which the first British International Harvester tractor had emerged in 1949, was next to go. After a short few years under new owners (Argo SpA), making tractors branded as McCormick, it was decided to close it. The reason given was that production volumes had sunk to uneconomic levels, as European markets had weakened, tractor sales in the USA had slumped, and the sterling/dollar exchange rate had made exports to the USA more expensive.⁴ The last tractor rolled off the production line in December 2007. Demolition of the factory followed soon afterwards, and the site is now the Wheatley Hall Industrial Park.

This leaves the CNH factory at Basildon. It was purpose built by Ford of Great Britain as a tractor factory, and opened in 1964. It has been from the start a large operation, the site covering some 40 hectares. In 1991 Ford sold its tractor interests to Fiat. In 1999, the Basildon tractors were relabelled as New Holland. CNH is controlled by a holding company (Exor), which is in its turn controlled by the Agnelli family (founders of Fiat). In the Ford era, it produced the Ford series 2000-7000 models, and was the first to produce a tractor with four-wheel drive fitted as standard in the factory; previously 4WD had only been fitted post-production by small firms such as County and Roadless. To date, it has produced 1.6 million tractors, and 3.1 million



CNH tractor factory at Basildon, Essex

engines. There have been recent improvements in factory layout and component delivery.⁵ It is something of a showpiece, and in 2012 opened an impressive new Visitors' Centre, from which 2,000 people a year tour the works. It was visited by the Prime Minister and his Deputy Prime Minister in 2012, and recently this year (on December 13th) featured prominently in a BBC 'Countryfile' programme.

Superficially, Basildon is doing well. It is a highly mechanised facility, producing 23,000 tractors a year (in 2013). Ninety percent of its production is exported, and it is profitable. Yet there are uncertainties. The high proportion of exports reflects the weakness of the home market, which for all makes of tractor is only about 12,000 annually. Basildon itself only sold 3,805 tractors in the home market in 2013, and was not quite the largest seller in the UK market – this was John Deere, with 4,016 machines (all imported). Basildon ceased to make engines in 2008, and is now an assembly plant, putting together components from outside. In 2009 the production engineering department was closed, its functions being taken on by other sections of the CNH group. Finally, it is distinctly under-utilised, being capable of producing around 30,000 tractors a year.

So far, the particular factors which led to the closure of Coventry and Doncaster have not applied to Basildon, and it may survive for some time. It has a history of producing a quality product, has a skilled labour force, and is still profitable. Yet the same could have been said of Coventry and Doncaster at the time of their closure. Whether these factors are enough to ensure Basildon's longer-term survival is uncertain.

¹ Peter Dewey, *Iron Harvests of the Field: the making of farm machinery in Britain since 1800* (Carnegie Publishing, 2008), p. 294.

² This not quite true; there is also the JCB factory at Cheadle, Staffordshire, which produces the JCB Fastrac farm tractor, but JCB is a minor producer of farm tractors. In 2013 only 108 JCB agricultural tractors were registered in the UK. [from the website of the Agricultural Engineers Association].

³ 'US owner to shut Massey Ferguson tractor plant', *the Guardian*, 26 June 2002.

⁴ 'McCormick's Doncaster factory shuts its doors', *Farmers Weekly*, 14 December 2007

⁵ 'Factory of the Month: The Only Way is Essex', *The Manufacturer*, 27 November 2012.