RURAL HISTORY TODAY

Rural History Today is published by the British Agricultural History Society

Issue 41 | August 2021

Image above: Little Ashcombe, Exmoor (see p4). Photo: Emily Browne.

www.bahs.org.uk
@BAHSoc
www.facebook.com/bahsoc

ISSN 2632-8437 (Print)
ISSN 2632-8445 (Online)

Following the **science**

by John Martin, Sally Horrocks and Paul Merchant

Image: Poul Christensen

Experiments in direct drilling organised by Poul Christensen, ICI Development Officer in Staffordshire and Leicestershire, 1965.

Image: John Marshall

Use of tobacco in virus testing of potato plants, Dalreoch Farm, Perthshire, 1964.

The Royal Agricultural Society of England was established in 1838 to promote the use of science in agriculture, an aim evidenced in its motto 'Practice with Science'. In 1856, the Highland and Agricultural Society of Scotland (which had been founded in 1784 and was granted Royal status in 1948) launched a diploma in 'scientific and practical agriculture'. Although farming had previously experienced significant changes – especially in the mainly lowland 'agricultural revolution' of the eighteenth and early-nineteenth centuries – scientific initiatives had contributed little. The motto of the English society reflected a wider view among agriculturalists in Britain that a turn to science was needed to make farming more productive. However, the subsequent transition from 'Practice without Science' to 'Practice with Science' was leisurely.

The mid-nineteenth century period of 'high farming' was characterised by an increased use of resources which originated outside the agricultural sector, but the engagement with science was still limited. Farmers tended to allow much of the nutrient content of manure (achieved by the practice of feeding nutritionally rich oil cake to fattening cattle) to escape to the atmosphere from outdoor heaps and they were much more reluctant than farmers elsewhere in Europe to use inorganic fertilisers. By 1913, domestic production of sulphate of ammonia fertiliser vastly exceeded domestic demand and three-quarters was exported to Germany (where it was regarded as an essential prerequisite to growing good crops of sugar beet). Although the food shortages of the First World War led to a revival in the fortunes of agriculture and the promotion of more productive scientific methods of farming, this was temporary. By 1921 British farming was in a state of depression which lasted until the 1930s, with farmers more focused on economizing than adopting the latest scientific developments emerging from research stations and universities.

Influential networks

The Second World War and its aftermath saw the focus return to increasing productivity and by the 1950s a significant proportion of British farmers were applying the knowledge and products of agricultural science in their everyday practice. As they did so, they effected a transformation of agriculture; it was arguably more significant than any that had gone before. Between 1950

British Agricultural History Society

Scientist, farmer and government inspector with a new plant variety bred by the scientist. Dalreoch Farm, Perthshire 1954 (image: John Marshall)

and 1990 productivity doubled, with much of this increase due to new varieties of plants developed at plant breeding centres; agro-chemicals including herbicides, pesticides, fungicides and growth regulators; new machinery, and a new enthusiasm for artificial fertilisers. The amount of artificial nitrogen applied to fields in Britain increased 13-fold between 1945 and 1980, a rise which significantly exceeded that occurring in other European countries.

The cause of this turn to science was, in part, a matter of significant change in the way agriculture was supported after the 1947 Agriculture Act. But it also depended on a much-enlarged network of advisers employed by the new National Agricultural Advisory Service (NAAS) – renamed the Agricultural Development and Advisory Service (ADAS) in 1971 – and by companies such as ICI. Much of the work of these advisers involved conversations with individual farmers and talks to farming groups, and has left little in the way of written traces. But it is being brought to light through an oral history project at the British Library. Interviews with farmers, scientists and advisers are suggesting that the NAAS and ICI District Officers in the 1950s, '60s and '70s were acutely aware of the importance of personal and social factors in the delivery of scientific advice. By forming personal relationships with farmers, they facilitated an accommodation of scientific knowledge – and its products – with individual goals and local growing conditions. In short, they were able to sell science:

> *Many of them [farmers] like a visitor anyhow; they've only seen the postman. [laughs] Very rarely [as an ICI Development Officer in the early 1960s] were you told to go away. [...] They got to know of you [...] they were pleased to see you.*[1]

> *ADAS crop advisers [...] used to come and look at things [...] and between you, you could work out why the crop was failing, or whatever. [...] He will say one thing, and I'll say, 'Well it's not that, because of this,' and, you can quite quickly come to an answer.*[2]

If a model is required for encouraging today's farmers to adopt new ways of working, then that of NAAS/ADAS is worth considering.

Problematic practice

The negative effects of post-1950s farming with science are very well documented: landscape change, pollution, rural unemployment, soil degradation, climate change, damage to nature reserves and dramatic reductions in biodiversity across the farmed countryside. Farmers, scientists, advisers and land agents all acted under the generally accepted view that increases in production and productivity were more important than other considerations, including wildlife:

> *I think the general attitude was that ... pesticides were important for food production; what on earth does it matter if it kills a lot of birds? So what? It's an unimportant part of the scheme of things. It's progress.*[3]

Even those who later became pioneers in farming and nature conservation, worked at least until the late 1970s within this paradigm.

> *Yields increased because gradually chemicals came in, and, after a while we started using growth regulators, which ... didn't let the wheat crop grow very high. And then it had a stiffer straw. Then we could put more nitrogen on, then we got a thicker crop, and it got disease. So, the ... scientists, produced a spray to kill the mildew, ... or to keep it at bay anyway. [...] So by the 1990s they were, we were spraying our wheat crops with three herbicides, two growth regulators, two insecticides, and three fungicides. And then we wonder where all the wildlife's got to.*[4]

Or, to put it another way, inspired by Beck's analysis in *The Risk Society* (1992), the prevailing view was that environmental and social harms – many of which were initially imperceptible to most – were justifiable given the 'goods' of overcoming post-war scarcity and contributing to economic growth.

Most interviewees suggest that a focus on production and productivity did not begin to be seen by most as in any way misguided until the 1990s. Some set the date much nearer to the present, with the discussions leading to the Agriculture Act 2020. In any case, by the time the general picture changed, NAAS/ADAS had been privatised (along with its experimental husbandry farms). The advisers were no longer there to encourage farmers to change tack and help set things going in a new, environmentally-friendly direction. This matters, because if British farmers are to do something as revolutionary as to reach net-zero emissions by 2050 and to engage in the proposed Environmental Land Management schemes, it seems likely that they will need something like NAAS/ADAS, with teams of officers as welcome as was the local adviser to Poul Christensen's father in the 1950s:

> *The government had what they then called the National Agricultural Advisory Service and each county had the NAAS officer. And father developed a really close relationship with him and so a lot of the national research work that was going on would get fed back through. ... I mean John Dalton, he was the local guy, he used to come and sit in the kitchen ... and they'd talk about what was going on...*[5]

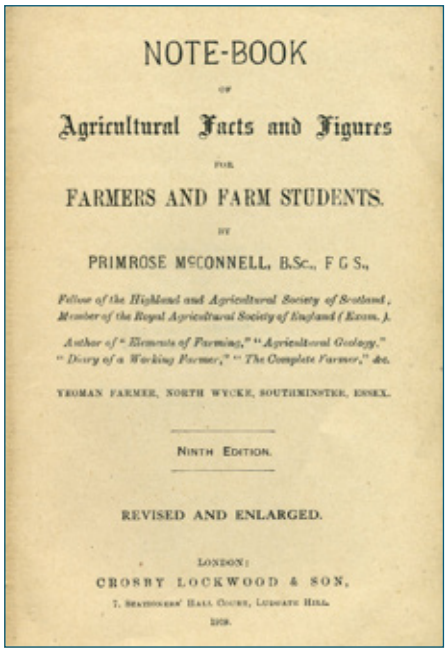
It remains to be seen whether the next agricultural revolution will be defined by 'Practice with Eco-Friendly Science'.

1 David Morris interviewed in 2019, British Library catalogue reference: C1828/11, Track 5.
2 Nicholas Watts interviewed in 2019 and 2020, British Library catalogue reference: C1828/14, Track 3.
3 Ian Newton interviewed in 2019, British Library catalogue reference: C1828/05, Track 5.
4 C1828/14, Track 4.
5 Poul Christensen interviewed in 2019, British Library catalogue reference: C1828/08, Track 1.

Retracing the **Primrose path**

Historians interested in tracking changes in agricultural practice from the late nineteenth century to the present day might well begin by comparing the various editions of *The Agricultural Notebook,* writes Paul Brassley.

Primrose McConnell



NOTE-BOOK

OF

Agricultural Facts and Figures

FOR

FARMERS AND FARM STUDENTS.

BY

PRIMROSE McCONNELL, B.Sc., F.G.S.,

Fellow of the Highland and Agricultural Society of Scotland; Member of the Royal Agricultural Society of England (Exam.); Author of "Elements of Farming," "Agricultural Geology," "Diary of a Working Farmer," "The Complete Farmer," &c.

YEOMAN FARMER, NORTH WYCKE, SOUTHMINSTER, ESSEX.

NINTH EDITION.

REVISED AND ENLARGED.

LONDON:

CROSBY LOCKWOOD & SON,

7, STATIONERS' HALL COURT, LUDGATE HILL.

1878.

It was first published in 1883 by Primrose McConnell, then aged 27, as the *Notebook of Agricultural Facts and Figures for Farmers and Farm Students.*

As he explained in the preface, when he was an agricultural student, he 'felt the great want of a book containing all the data connected with the subject he was studying'. Since it didn't exist, he wrote it himself. It was of a size, six inches by four inches, to fit in a pocket. The first 16 editions followed this format (though the book grew thicker and thicker) until the 17th, published in 1982, when it became an agricultural textbook in conventional format. The 21st edition, edited by Richard Soffe and Matt Lobley, and published by Wiley Blackwell, appeared at the beginning of 2021.

McConnell was the son of an Ayrshire tenant farmer.[1] The name 'Primrose' had been in the family from the time when it was connected with the estates near Edinburgh of the Primrose family, who became Earls of Rosebery. On leaving Ayr Academy, McConnell was apprenticed to a Glasgow engineering firm. He did not complete his apprenticeship but went to the University of Edinburgh to study agriculture. The university did not at that time award degrees in agriculture but prepared its students for the diploma examinations of the Highland and Agricultural Society of Scotland. McConnell obtained his diploma in 1878, at the age of 22. When the university instituted agriculture degrees in 1889, he returned to become the second student to pass the BSc examination.

By then he was married, and farming in Essex. Advertisements of vacant farms in the county had appeared in the Scottish agricultural press, and McConnell was one of the first of what became a considerable migration. In the same year that he published the *Notebook,* he and his father took on the tenancy of Ongar Park Hall farm, 636 acres of stiff clay between Epping and Chelmsford. Cereal prices were falling, so they ran it as a dairy and livestock farm. Twenty years later he had made enough money to buy his own farm. It was North Wycke, near Southminster in Essex; 500 acres of flat land between the Crouch and Blackwater estuaries, with 'nothing higher than a tree or a house between me and the Ural Mountains'. His main enterprise was a 100-cow dairy herd, an enormous herd at the time, mostly Shorthorns and Ayrshires, but with a few Friesians too, all housed in a purpose-built cowshed. But as well as farming he was also a writer: another five books in addition to the *Notebook*; his own magazine, *Farm Life*, which ran for about ten years before the First World War; substantial sections of the multi-volume agricultural encyclopaedias that were popular at the beginning of the twentieth century, and a constant flow of articles for the major agricultural journals.

McConnell died in 1931, shortly after bringing out the 11th edition of the *Notebook*. His son, another Primrose, who followed his father as an agricultural graduate from Edinburgh, would probably have carried it on, but he had been killed at the end of the First World War. The family decided that no one author was competent over the full range of material that the book covered, and that the next edition should be entrusted to an agricultural college. The Second World War intervened, the copyright passed to Farmer and Stockbreeder publications, and they commissioned Dr Ian Moore, then Principal of Seale-Hayne College in Devon, to produce the 12th edition, with the aid of numerous other contributors, in 1953. Seale-Hayne came to dominate the contributor lists up to the 20th edition, but the college, by then part of Plymouth University, closed in 2004, and the current edition has been written by contributors from all over the UK, although the editors are former members of Seale-Hayne staff.

> Unsurprisingly, the content has changed over time. There is now much more science, the long lists of the characteristics of different livestock breeds have gone, the lists of cereal varieties have been replaced by references to a website, and the treatment for milk fever is no longer to force air into each of the cow's teats using a syringe; intravenous calcium borogluconate is now recommended.

Like the brush that has had several new heads and a few new handles, it's still the same book that McConnell first published 138 years ago – but completely different.

1 For an account of McConnell's life see P.Brassley, 'A Pioneer in Everything': Primrose McConnell, 1856–1931, *Journal of the Royal Agricultural Society of England*, vol. 156 (1995), pp. 172–8.

The moorlands of Britain are some of the nation's most environmentally and culturally important ecosystems, writes *Leonard Baker*.

The reclamation of Exmoor Forest

Despite their significance, few works have analysed the agricultural 'improvement' and 'reclamation' of moorland landscapes in the nineteenth century – particularly the ways new technologies, social relationships, cultures of improvement and environmental moralities intertwined to shape both the everyday processes and long-term ecological consequences of reclamation.

In 1818, John Knight, an iron founder from the Midlands, purchased the Royal Forest of Exmoor for £50,000 (now approximately £2.8 million). Over the next five decades, the Knight Family and their tenants enacted a complex scheme of drainage, irrigation, farm building, and agricultural cultivation that would become the largest single reclamation project in southern England. The amount of time, labour and capital expended on Exmoor exceeded many of the famous canal and railway building schemes of the period. Unfortunately, the attempted improvement of Exmoor has often been marginalised in narratives of agricultural development due to a lack of documentary evidence and clear chronologies. However, the discovery of a previously unknown historic archive, combined with the application of innovative palaeoecological research, promises to shed new light on the dramatic transformation of the Royal Forest.

The 'Reclaiming Exmoor' Project

A major new project, 'Reclaiming Exmoor', brings together expertise in palaeoecology and history to explore the influences, processes and ecological consequences of nineteenth-century moorland reclamation and agricultural 'improvement'. A grant from the Leverhulme Trust is funding two years of research (2019–2021) at the Universities of Exeter and Plymouth, led by Professors Ralph Fyfe and Henry French. Additionally, collaboration with the Exmoor National Park Authority and Exmoor Mires Partnership – an alliance of governmental agencies, companies and community groups dedicated to 're-wetting' over 3000 ha of peatland, enables the research to inform and support ongoing conservation and restoration projects across Exmoor's moorland ecosystems.

The historical evidence of improvement activities contained within estate accounts, correspondence and records, will provide the first secure chronologies for the activities of the Knight Family on Exmoor between 1818 and 1870. This will then be combined with palaeoecological evidence for the long-term environmental impacts of these activities, based on pollen, fungal spore and charcoal analyses. As such, the project will assess the relationships between human activities and motivations, and ecological processes and legacies on Exmoor. By understanding the environmental, cultural, philosophical and social imperatives behind reclamation processes, this interdisciplinary project will conduct a 'holistic' study of agricultural improvement. This will allow us to understand how the Knight Family approached Exmoor, and more precisely detail how reclamation was undertaken and the consequences of human activity on the past, present and future ecology of moorland across Britain.

Scottish-style sheepfolds at Buscombe Beeches (image: Rob Wilson-North)

Unexplored archives

It has been nearly one hundred years since C.S. Orwin conducted the last academic study of the reclamation of Exmoor Forest.[1] Although he accurately detailed the broad strokes of improvement, new archives have emerged that provide insights into the complex implementation and everyday processes of cultivation, drainage, irrigation and infrastructure construction. In 2016, a large cache of estate papers and correspondence was discovered in the attic of a descendant of John Knight, which reveals how he committed his family to a dramatic, ambitious, and often seemingly illogical 'crusade' to remake Exmoor into a productive and picturesque farming estate.

Between 1819 and 1821, John Knight laid the foundations for a new mansion at Simonsbath; enclosed the entire 60 km^2 estate within a singular 'boundary wall'; built five new cottages and farmsteads; laid over a hundred miles of new roads; created the foundations for an extravagant canal system; and excavated an interconnected network of surface drains and water-carriages that eclipse many modern irrigation programmes. The immense cost of these schemes, averaging £7500 a year, was only matched by their ecological consequences. In 1849, an agricultural report recorded that the local rivers were now 'brown as a cairngorm with

Left: Blackpitts Gate Sampling Site (image: Emily Browne)

An open forest

Exmoor has always been an open or desolate moorland and its 'Royal Forest' title was largely symbolic (or ironic). It had nearly no trees on it, until the Knights arrived, and no Royalty had seen the place since the 11th Century. As such, it was the least 'Royal' and least forested of all the Royal Forests.

bog-water from Exmoor' becoming 'injurious upon meadows' throughout Devon.[2] The 'reclamation' of Exmoor was thus more geographically extensive and ecologically intensive than previously assumed.

Palaeoecological analysis

Even this extensive new archive cannot provide a complete picture of the ecological consequences of the reclamation of Exmoor. Consequently, this project will develop new, high-resolution records of ecological change over the last five hundred years, so placing the nineteenth-century reclamation of Exmoor into a detailed eco-historical framework. This will involve the analysis of pollen, fungal spores and charcoal preserved in peat samples collected from across the former Royal Forest. The distribution of different types of plant pollen in these samples can be used to estimate the changing patterns of vegetation. Similarly, fungal spores will tell us about grazing pressure in the past, whilst microscopic charcoal provides insights into historical patterns of burning. In essence, these tools will not only enable us to corroborate the documentary evidence, but also potentially discover the aspects of reclamation schemes that were left unreported or unrecorded. The project will then seek to locate the position, timing and impacts of improvement.

Critically, a palaeoecological study will also enable us to assess the long-lasting environmental impact of the activities of the Knight Family on Exmoor. Their mass drainage and irrigation schemes may represent one of the most dramatic ecological transformations of the last thousand years in the Royal Forest, which has been a largely open landscape since at least the second millennium BCE.

White Rock Cottage in the Barle Valley (image: Rob Wilson-North)

Internal colonialism?

The campaign for 'improvement' on Exmoor was immense, but often scarcely rational. John Knight planned to specialise in arable production, at altitudes where barley or oats were rarely grown successfully, and positioned new buildings as much for their aesthetic impact as for their practicality. Yet it is clear from the documents that the reclamation of Exmoor was about more than profit. In correspondence and reports, Exmoor was presented as a 'void and empty space', with its 'hostile' soil a material reflection of the economic inefficiency and moral turpitude of local cultivators. In contrast, the new farmers recruited from outside the region were presented as 'heroic' settlers who would complete the 'bleak, wild and bold undertaking' to 'conquer the rugged moor'.[3] These pseudo-colonialist discourses legitimised and empowered the denigration and dispossession of native peoples, animals and landscapes. The aforementioned 'boundary wall' that was completed in 1821,

Exmoor boundary wall (image: Rob Wilson-North)

for example, was specifically designed to eliminate customary practices of seasonal grazing. Despite the attempted assassination of a steward in 1834, the Knights steadfastly persisted in importing 'foreign' labour from Ireland, tenants from Lincolnshire, and livestock from Scotland, forging a national network of 'internal colonialism'.

As in many regions across the world, the 'colonisation' of Exmoor appears to have left lasting scars on local ecosystems and biodiversity. Even today, reversing the effects of the chemical fertilisers and drainage systems used to 'improve' Exmoor's peatlands is the focus of the Exmoor Mires Partnership. By utilising historical and palaeoecological analysis, the environmental alterations of the nineteenth century can be set against later moorland 'improvement' activity across Britain. Understanding how the twin processes of 'reclamation' and 'improvement' were discursively constructed and materially deployed is, consequently, vital to the ongoing conservation of these unique and valuable environments.

▶ Project website: **www.plymouth.ac.uk/research/centre-for-research-in-environment-and-society-ceres/reclaiming-exmoor**

Local tensions

John Knight was not impressed by local farmers, believing them to be 'exploiters' rather than 'cultivators' so brought in labour from Ireland, including workers from his in-laws' estate in County Kerry. He also brought in new tenants from Lincolnshire and sought to replace the native Exmoor sheep and ponies with 'improved' stock from the Highlands. Local farmers wrote angrily to the regional newspapers that these 'foreign' men knew nothing of local methods and were spoiling the land. In response, the Knights claimed that the new tenants were more 'knowledgeable' men than the backward yokels who had previously farmed Exmoor.

1 C.S. Orwin, *The Reclamation of Exmoor Forest* (Oxford, 1929).
2 P. Pusey, 'On the Theory and Practice of Water-Meadows', *Journal of the Royal Agricultural Society of England*, 10 (1849), pp. 462–479.
3 Knight Family Correspondence, Somerset Heritage Centre, A/EJM/1/3/7, Robert Smith to Frederic Knight, 19 March 1852.

A pram in the **Clachan**

When historian *Elizabeth Ritchie* returned to the Isle of Lewis to spend lockdown lambing and raising a new baby at the family croft, she found the experience provided unexpected insights into rural pasts.

Donald MacLeod and daughter (image: the author)

Traditional Hebridean crofthouse with dry stone walls and thatched roof

Usually, we live on the east coast of mainland Scotland, visiting our croft once a month or so to do essential sheep tasks. But in March 2020, when it became clear that the country was going into lockdown just as lambing was about to begin, my husband Donald MacLeod and I, together with our four-month-old baby, returned to spend it on the Isle of Lewis. He had lost his job on lockdown and I was on maternity leave, so I was delighted at the thought that our daughter was going to spend what we thought would be six or eight weeks in her father's family village. It turned out to be a practical crash course on how babies profoundly affect the gendering of domestic and agricultural life.

It was 15 weeks before we could leave the island. In that time we lambed; hand-raised twin lambs; sheared; fed sheep in a twice daily pattern between house and field; searched for lost sheep; buried dead ones; learned the names of wildflowers; grew vegetables; battled the weather to make hay; and took our leisure in walks, jogs and cycles down to the shore or inland to the moor. I have never lived so intensely in one place. We took croft tasks and baby care in turns, darting between fields and house, or taking her with us in a robust pram which could cope with rough ground. As an historian of the family and of rural places at the University of the Highlands and Islands, I frequently lead seminars on the accuracy or relevance of the notion of 'separate spheres' to various social classes, time periods and places. Those weeks were to provoke new understandings in me, particularly into how and why gendered structures of family and community were as they were in pre-industrial societies.

Division of labour

Before we had a baby, we divided croft work based on skill and strength. I can catch a Blackface sheep, but Donald can do it easier and faster. When we move them, they respond better to me leading them, shaking a bucket of feed, so Donald would go behind, ensuring they kept moving. He made and mended fences while I maintained the 'sheep diary', medication records and audits. Our roles were partly due to biology, partly gendered training (not many girls get taught fencing skills) and partly individual aptitude. However, the arrival of our daughter changed that. Even though Donald is completely engaged in caring for his baby, in a way that many men in past generations would not be, her needs shifted the patterns we had established. Breastfeeding is a time-consuming process. I became based at the house while Donald did most of the outdoors work.

I was, however, desperate to enjoy some of that glorious summer sunshine. In my daily walks with the pram, I noticed some lush grass in sections of the village. In researching eighteenth-century childhood, I had found much evidence of children spending their summers herding cattle. I decided to attempt something similar. A few times I put the pram beside easily enclosed areas of grass, we erected a temporary fence and released the sheep. I had notions of reading books in the sunshine, but soon realised why children were required to provide constant supervision: there are always a few animals who will continually nose their way towards the boundary and find an escape route. But the method was good – the sheep fed on grass which needed to be kept down, while resting the infield.

In midsummer, communities historically took their herds up to the sheiling grounds – higher in the hills or further out into the moors – to take advantage of the pasture and to protect growing crops.

The family's flock on Lewis (image: the author)

Young people, especially women, stayed all summer processing butter and cheese to send back to the village, and moving the animals around fresh grazing.

At about that time of year we joined other crofters in the village to gather the ewes and their lambs, by now about three months old, and drive them out, in the traditional manner without dogs, for a mile or so to 'The Clachan'. This grassy area was a sheiling site close to the village and still has remnants of the stone and turf summer houses. There are many more sites, now unused, deep into the moor. The baby enjoyed jogging along the rough track in her pram, though before the advent of rubber tyres and suspension, she would have been carried next to me in a cloth. There are photos of this in the nineteenth century and I have seen it in practice in Malawi where babies are carried on the back so the mother can work with crops or process food, then easily swing them round to the front for feeding.

Fieldwork

By July we wanted to make our own hay. The weather was poor, so we took it in turns to rake and turn it between showers. On better days we sat the baby on a waterproof jacket. One of us worked near her, nipping back to sit her up again or comfort her, thus only getting half as much work done, while the other gathered hay as fast as possible in more distant corners. This individualised family method of fieldwork was highly inefficient. In the past, extended families or communities worked together, and I speculate that the babies and toddlers were at the edge of the field watched by some older children, while breastfeeding mothers popped back and forth between their infants and their tools.

As I changed her nappy beside the sprouting potatoes, I thought of babies from time immemorial who were changed outdoors on a patch of soft grass rather than a plastic mat. Though I do wonder about nappies. What did they use? Just cloth, or perhaps they collected and dried absorbent sphagnum moss? Or, at least with toddlers in the summer, did they simply go naked below the waist with any 'accidents' being absorbed outdoors or covered with a fresh layer of sand or earth on the house floor?

I have never envied the close-quarter living of full houses and crowded-in neighbours that I read in Sanitary Inspector reports from this village. But the nuclear family isolation of lockdown really emphasised the inefficiency of one isolated adult to one child. Having an older child or elderly relative to keep an eye on a squad of little ones, so able-bodied mothers could focus on completing work, was necessary in the more labour-intensive lives of the past. While I want to avoid the trap of biological determinism, I have come to appreciate the sense of breastfeeding women (which included most women in their prime decades) having primary responsibility for work involving food, garden, textiles or animals which can be done close by the house. I have also come to appreciate the near impossibility of getting through any sort of a workload without the mutual assistance that close living can provide. In most ways Lockdown 2020 was a unique situation. However, it gave me a glimpse into what were normalities for countless people for countless generations across the rural world.

Crofting and community

Crofting is a form of agricultural land tenure in Scotland and is subject to specific regulation. Most crofting areas are in the former counties of Argyll, Caithness, Inverness, Ross & Cromarty, Sutherland, Orkney and Shetland and cover around 25% of the land mass. A croft is a unit of land, not a building, and is traditionally tenanted, though some crofts have now been purchased. In 1886, after the clearances of the late eighteenth and early nineteenth centuries (in which tenants were forcibly removed by landowners to make way for commercial sheep or arable farming, or to provide labour for the kelping industry) the Crofters' Holdings (Scotland) Act was brought in; this provided various legal protections, including security of tenure. There have been several legal reforms since then.

Crofts range in size from under half a hectare to over 50 hectares, and are farmed on a small-scale basis, usually with sheep – though crofters sometimes raise cattle, goats, or pigs and often grow potatoes. Many have a share in hill grazing, held in common with other crofters from the township.

‘Deep Mapping’ Estate Archives

Readers of *Rural History Today* will be aware of the incredible depth of information held in the archives of landed estates, writes Shaun Evans.

These archives were created and preserved as part of the processes of acquiring, managing and inheriting land, and often contain records stretching from the medieval period to the twentieth century and relating to virtually all aspects of society converging on the influence of estates and their owners.

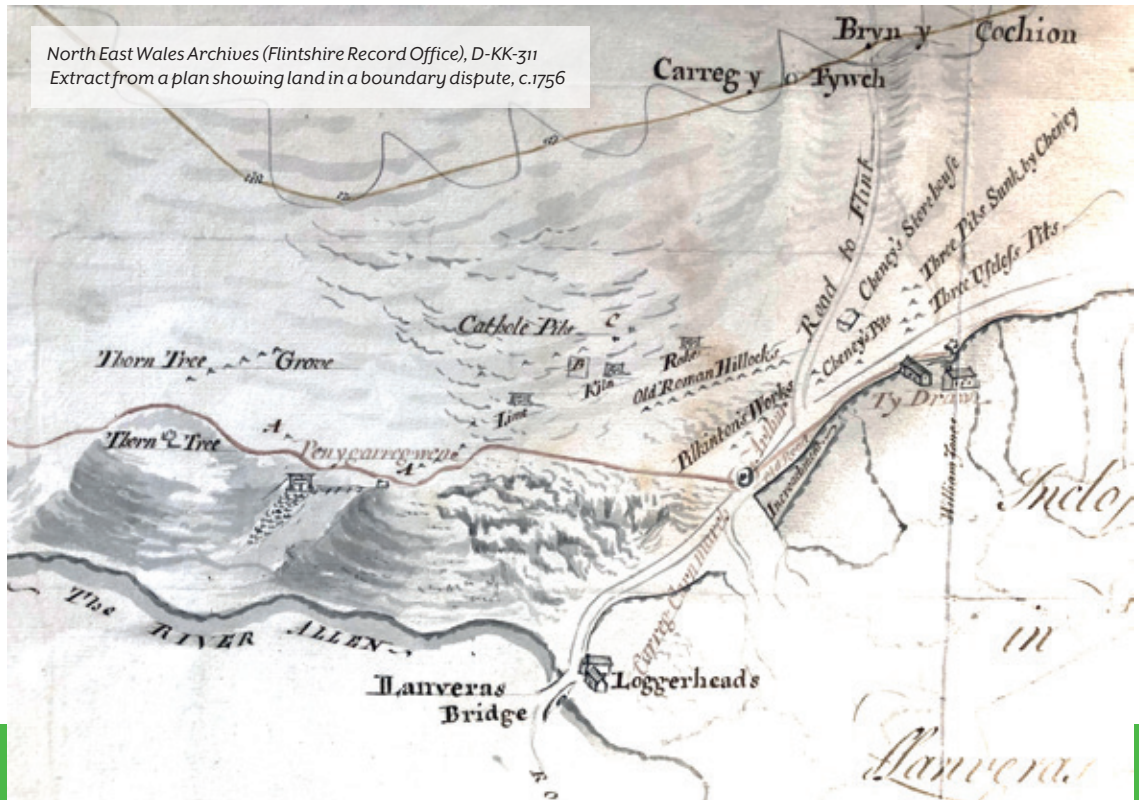
These collections form an integral part of the nation’s archival holdings, preserved in a network of county record offices, university archives and national libraries, as well as in private ownership. They are full of information on specific places: individual farms, fields, towns, villages, woodlands, houses, roads, parks, gardens, quarries, mines and rivers – as well as the individuals and communities who lived and worked within these spheres. However, because of the sheer scale and complexity of some of these archives, it is often difficult to comprehend both individual and associated records (and the processes, activities and actions to which they refer) in relation to their specific landscape or context.

Welsh case study

A new research project, funded by the Arts and Humanities Research Council, is seeking to address this challenge. The ‘Deep Mapping’ estate archives project is testing a new digital methodology for analysing estate landscapes between the sixteenth and twentieth centuries. Focusing on a case study area in north-east Wales which was packed with small and longstanding gentry estates, the objective of the research is to construct a Geographical Information System which will facilitate spatial arrangement and searching of multiple estate archives. This essentially involves the positioning of historical records in a direct relationship with their landscape setting, or specific ‘places on the ground’. The ‘deep map’ will cover an area of 125km² on the eastern slopes of the Clwydian Range and Dyffryn Alyn in Flintshire and Denbighshire. It is being developed through the comprehensive geo-referencing and polygonization of core cartographic layers (1st edn. OS, Tithe and Enclosure mapping) which will provide a framework for the incorporation of the variety of estate records (maps, plans and surveys, sale particulars, rentals, title deeds, leases, accounts and correspondence etc) held in the archives produced by the area’s landed estates. It is envisioned that the chronological layering and spatial arrangement of records will afford valuable insights into how estates in the area shaped the use, appearance and management of land and landscape over time, with further opportunities to analyse an array of social, cultural and economic themes and issues.

The collaborative project is an initiative of the Institute for the Study of Welsh Estates (ISWE) a research centre based at Bangor University to enhance understanding of the role of estates and country houses in the histories, cultures and landscapes of Wales. ISWE has a programme of projects and activities, especially at doctoral level, which is contributing towards an advancement of this objective.

▶ To find out more about ISWE’s work visit their website at **iswe.bangor.ac.uk** or follow on Twitter **@YstadauCymru**



North East Wales Archives (Flintshire Record Office), D-KK-311
Extract from a plan showing land in a boundary dispute, c.1756

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 5 December 2021 to Dr Rebecca Ford: **rebeccafordmail@gmail.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. Details of membership are available on the website: **www.bahs.org.uk** where there is also a contacts page for general enquiries.

ISSN 2632-8437 (Print)
ISSN 2632-8445 (Online)