

Archaeology and agriculture: insights from an Essex farmer

Following the publication of his book *Farming Transformed in Anglo-Saxon England* (Windgather, 2018), an archaeological study of agricultural development in seventh- to ninth-century England, Mark McKerracher heard from a number of readers.



One, David Bloomfield, a farmer and local historian in his seventies from Brentwood, Essex, suggested that he might be 'groping in the dark over understanding harvesting and cereal storage'. Here, Mark provides an edited transcript of some of their subsequent conversations and correspondence, together with his reflections on the insights provided.

► **David Bloomfield:** The very greatest part of my life I was a working farmer. I have hand milked, stooked and stacked cereal sheaves, and made and stacked loose hay. I have also acted as binder following the scythe.

I always have been interested in history... I've worked out my version of a lot of things that academics don't understand. How can they? They don't have the same background.

The central argument in *Farming Transformed* (hereafter 'FT') is that, between the seventh and ninth centuries AD, arable farming in Anglo-Saxon England became much more productive, with greater cereal surpluses. In support of

this, I drew particularly upon two strands of archaeological evidence: charred plant remains and structural remains.

Reconsidering charred plant remains

For decades, archaeobotanists have made deductions about past agricultural regimes from charred plant remains – largely cereals and arable weeds – which are usually seen as the result of accidental conflagrations of harvested crops (FT, p.83). Mr Bloomfield suggested a different origin and introduced me to the term 'cavings' for those parts of the cereal plant which remained once the grains had been removed. In the archaeobotanical literature, the non-grain parts of harvested cereals are generically referred to as 'chaff', a word for which Mr Bloomfield had an alternative definition:

► Your frequent referral to burnt cereals is easily explained by the fact the cavings were usually burnt ... to dispose of the weed seed. This practice certainly kept the wild oat at very small populations until the coming of the combine.

Now cavings, in its pure form, is the actual pieces which enclose the grain... as a general term, [it is used] to cover all the material that was wind-blown away from the grain. If the flail-man was doing oats or wheat, he would carefully save that, because that would mix with the hard feed for working horses... Horses were given supplementary feed if they were working hard, which was based on cereals, and they weren't allowed to eat just a cereal mix on its own: it was very bad for the digestion. So they mixed it with cavings – or chaff, which was cut hay – so that they didn't bolt this more concentrated feed.

With this definition, 'cavings' corresponds to the archaeobotanist's 'winnowing by-product' (FT, p.87). In Anglo-Saxon archaeology, it is extremely rare to find charred deposits with high proportions of such cavings, relative to grain. This is probably due, in part, to the fact that grains survive the process of charring better than the other, more fragile parts of the cereal plant (FT, p.85). But this pattern might also suggest that, unlike the practice witnessed by Mr Bloomfield, the cavings were not habitually burned in bulk after the barn



Image from the Luttrell Psalter. Originally published/produced in East Anglia, circa 1325–1335. British Library



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work, but were rather, as in his further comments, fed to livestock. The dearth of such cavings at many excavated sites has sometimes led to the assumption that these were 'consumer' sites receiving clean grain from elsewhere. But if we think of the material as cavings rather than waste, then we need not expect the material to be preserved at either 'producer' or 'consumer' sites.

Reconsidering corn-driers

In terms of structural remains, arable growth in Anglo-Saxon England is suggested by the appearance in the archaeological record, from the seventh century onwards, of 'corn driers' and new storage facilities, such as granaries and at least one helm, i.e. an elevated platform for the open-air stacking of harvested crops (FT, pp.70–80). Mr Bloomfield contends, however, that corn-drying ovens would not have been necessary, especially not in tandem with open-air storage. Rather, he argues, cereals would have been harvested when dry, and then stacked:

► I can't understand why there was any need for corn-drying kilns, apart from what I think are called hulled grains, where they put them in to crisp the ear, the cavings which were around it, so that they would come off easily. But [for successful milling] ordinary corn has to be dry, otherwise it just won't mill... you can't put wet material in the stack, because it will heat and the corn will damage, and it will get hotter and wetter, and you will not be able to mill it. You have to only put dry material in the stack.

If you wait until the corn is really ripe and dry before you put it in the stack, as soon as you use the reaping hook (or much later, the scythe), the chances of shedding a lot of grain – especially wheat and oats – is so great that you couldn't do it. So you knew the exact time to cut it... and the saying was, I believe, that you left it in a field to hear the church bells twice on two Sundays, depending on the weather, of course. And you had to be very careful to make sure that you parted the sheaves so that they would dry. [To check if a sheaf was dry] the test was to put your fingers under the band, and if it was cold – this was when the sun was up – then it wasn't dry, then you didn't cart it away...

Mr Bloomfield's comments here echo Gavin Bowie's argument that grain driers were long important in the north and west of the British Isles, but not in the south and east except during the Late Roman period of high-input agriculture (Bowie, 2017). Given that post-Roman corn-driers have been identified by archaeologists in southern Britain, these are important objections.

'Corn-drier' is a convenient off-the-shelf interpretation for excavated oven-like structures, particularly those associated with charred plant remains. But have we archaeologists presumed too blithely a universal need to dry corn? Mr Bloomfield acknowledges the parching of hulled wheats as an alternative function but, since free-threshing cereals heavily dominated Anglo-Saxon and medieval English farming (FT, p.96–106), this possibility cannot realistically account for every so-called corn-drier that has been excavated. Structures found in specific association with the remains of germinated grains are more often interpreted as malting ovens (e.g. Hardy *et al.*, 2007). Given the oft-presumed importance of beer in Anglo-Saxon society, should we assume by default that malting was the primary function of such structures, whether or not germinated grains happen to have been preserved within them? Indeed, nearly four decades ago, replica Romano-British ovens at Butser Ancient Farm proved inefficient at drying moist grain but could produce satisfactory malt for brewing (Reynolds, 1981, pp.36–43). So, should 'malting oven' be the archaeologist's default interpretation, in place of 'corn-drier' – at least in Anglo-Saxon and medieval England?

On reflection

These examples illustrate how the insights of a farmer – whose understanding of agricultural history is born of practical experience – have caused me to reflect on the presumptions concealed within archaeological commonplaces such as charred by-products and corn-drying ovens. Conventional terms like these inevitably come with pre-packaged interpretations, and however much I may try to unpack these ideas, I wonder how often I am guilty of putting the terminological cart before the living, breathing horse. Mr Bloomfield has reminded me, politely and firmly, that the horse must always come first.

References

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