

# 4.0 Agricultural History and Farm Buildings

The existing stock of traditional farm buildings results from centuries of change and development. As a general rule, farmhouses (see 5.1) pre-date farm buildings, even in areas of 18th- and 19th-century enclosure. Larger-scale and higher-status buildings, which were consistently used for the same purpose or capable of being adapted to later uses, generally have the greatest chance of survival. It follows that barns are the overwhelming type of building to have survived from before 1750, and that steadings adapted or built anew in the later 18th and 19th centuries have retained evidence for a greater diversity of functions. Rates of survival differ both regionally and locally, but placing a building within its broad national and historical context will enable decisions on their wider value to be made.

## 4.1 AN INTRODUCTION TO ENGLISH AGRICULTURAL HISTORY AND FARM BUILDINGS: THEIR DEVELOPMENT, SURVIVAL AND SIGNIFICANCE

### 4.1.1 UPTO 1550 (Figures 9 & 10)

The 12th and 13th centuries were characterised by rising population, the colonisation of new land (through the drainage of fens, clearance of woods and expansion of farming on to upland moors) and the direct commercial management by estates of their land, whether this was dispersed among other holdings or ring-fenced in its own boundaries. The Church was a particularly active landlord, and monastic orders such as the Cistercians ran their estates from both home (or demesne) farms and outlying granges, which could be very large in scale (commonly 3 to 1000 acres in size). Climatic changes in the second decade of the 14th century, with increased rainfall and lower temperatures, led to famine. These troubles, compounded by pestilence (the Black Death of 1349 and subsequent epidemics), resulted in a sharp fall in population and the contraction or desertion of settlements on marginal soils. Direct cultivation by landlords continued on some home farms, but in most areas farms on estates became leased out – in whole or in part – to tenants, a process often accompanied by the breakdown of traditional customary tenancies. Other developments which accelerated from the 14th century included the amalgamation of farms into larger holdings, the enclosure of former communally farmed strips, and a steady growth in productivity sustained by greater emphasis on pastoral farming, new techniques and rotations of crops.

#### 4.1.1.1 Survival and Value

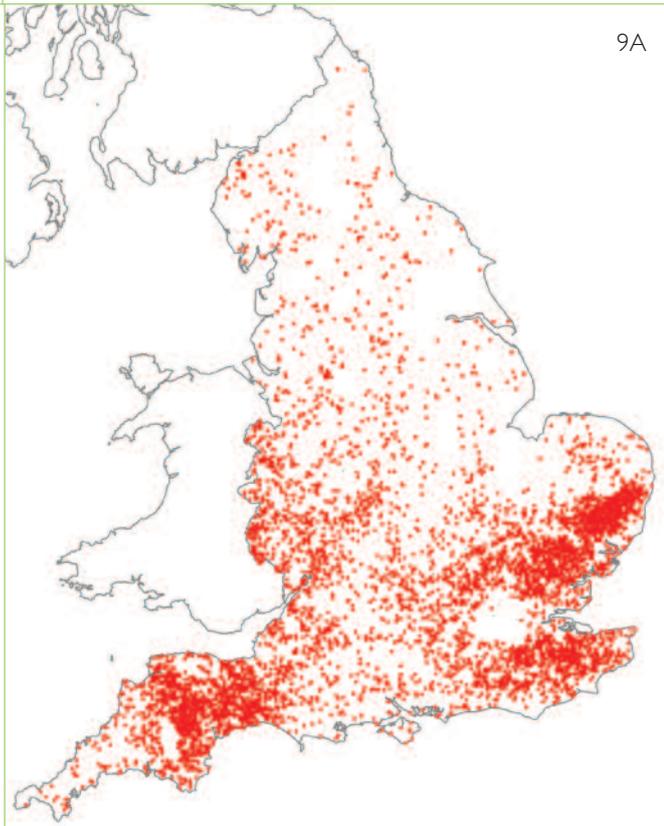
All survivals of this period are of great rarity and significance. The best-known survivals are the great barns of secular and especially ecclesiastical estates. These

comprised the foci of farmyards with ancillary buildings that have been almost completely swept away, for which documentary but very little archaeological evidence exists. The great cattle ranches (vaccaries) of the northern uplands have left no traces in terms of built fabric, although their impact on the landscape is still legible. Archaeological and documentary records – the latter particularly after 1350 – are similarly the main source of evidence for the farmsteads of peasant farmers, and for the emergence of a wealthier class of tenants and freehold farmers from the 13th century. In recent years evidence has brought to light farmhouses and occasionally barns of a wealthier class of farmers (both customary tenants and freeholders), providing the first evidence for wealth generated solely from local agriculture and of a class of farmers counted as among the wealthiest in Europe. These structures are concentrated in mid-Devon, the southern half of the West Midlands and in particular the South East and southern East Anglia.

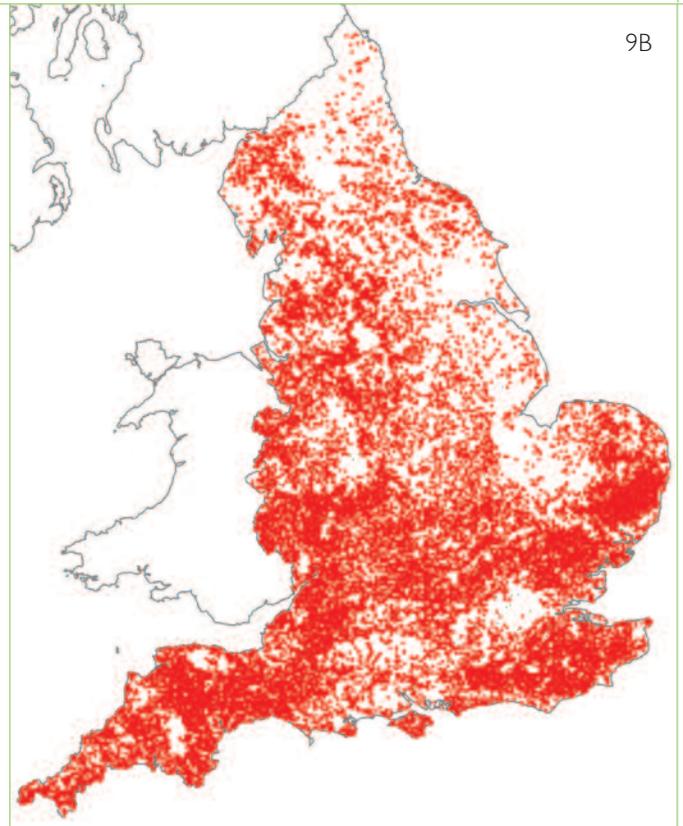
### 4.1.2 1550 TO 1750 (Figures 9 & 10)

Larger farmers and landowners initially benefited from the great land sales that followed the Dissolution of the Monasteries in the 1530s, while most farmers gained from rising prices and favourable leases. Agricultural productivity – particularly of grain – was spurred by a doubling of population from between 2.5 and 3 million to over 5 million by 1660, and an associated rise (by six times) in grain prices. After 1650, a fall in grain prices, a rise in cattle prices and demand from London and other growing urban markets, led to a rise in cattle rearing in the north of England, and of the dairy industry and specialised produce (such as hops and cider) in other areas. Improvements in transport, including the coastal and river trade, provided access to new markets. New rotations and crops, particularly clover, grasses and turnips, had become established by the end of this

9 Distribution of listed farmhouses in England, pre-1550 and 1550–1750. There is an obvious danger in making sweeping generalisations from such maps, but they do present valid questions for future analysis and research. Wealth derived from arable farming, including the proximity to the London market, dairying and fattening, wool and cloth production are obvious from the pre-1550 map. Here the distribution is thinnest for large parts of northern England, where rebuilding in stone – particularly from the late 17th century – had made its mark by 1750. Notable by their continuing thin distributions are the Lincolnshire and Yorkshire Wolds and Northumberland, where agricultural improvements and the re-planning of landscapes resulted in extensive rebuilding and re-siting of farmsteads after 1750. © Crown copyright. All rights reserved. English Heritage 100019088. 2005



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period on the light soils of East Anglia and adopted with varying success in other parts of the country. This period is strongly marked by the continuing process of enclosure and the related process of exchange and consolidation of farm holdings, the growth of farm size (especially in corn-producing areas), large estates and the widespread development of a landlord–tenant system. Landowners, notably the county gentry, emerged as ‘influential pioneers of new crops and new systems of farming’ (Thirsk 1984, p.xxiii). The consolidation of estates and holdings are reflected in the continuing – and in more anciently enclosed areas often the final – phase of enclosure. The national market became more integrated from the later 17th century, in tandem with the emergence of specialised regional economies. This, and the development and strengthening of local building traditions, are also reflected in the layout and design of both farmhouses and more substantial farm buildings.

#### 4.1.2.1 Survival and Value

Substantially complete farm buildings of this period are rare. They will often provide the first surviving evidence for the development and strengthening of regional traditions and building types: for example, the timber-framed West Midlands barns that replaced earlier small cruck barns; the linear farmsteads of the North Pennines; the development of bank barns in Cumbria; the growth of the southern English downland farmsteads with their

associated large barns. The smaller farms of anciently enclosed pastoral areas are the most likely to retain fabric dating from this period, although it is very rare for farmsteads to have more than a barn and house.

#### 4.1.3 1750 TO 1880

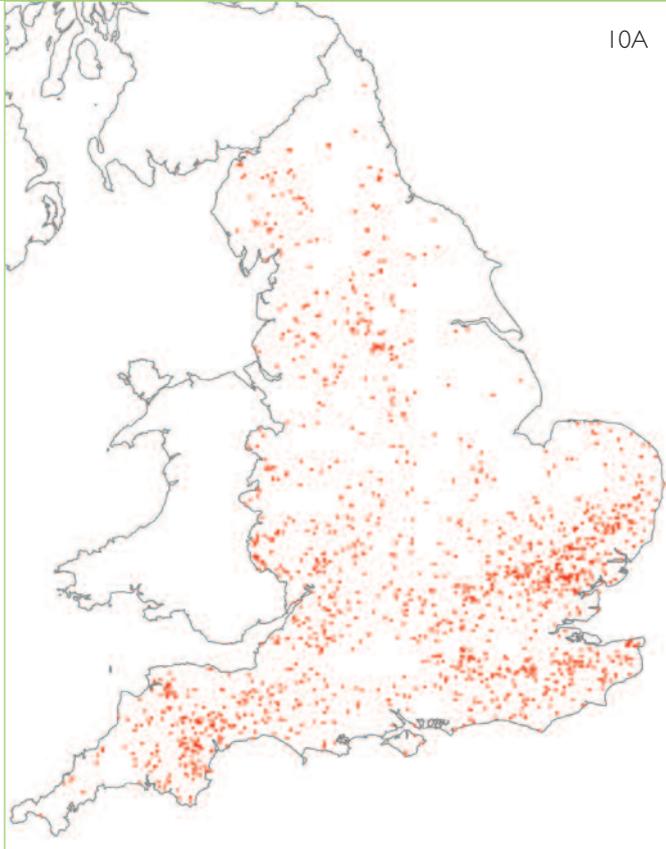
Agricultural productivity sustained a massive increase in population, which had risen from around 6 million in 1750 to over 16.7 million by 1851 and 26 million in 1881. This was the most important period of farm building development, commonly divided by agricultural historians into two periods: before and after 1840. Probably under 25% of the land area of England remained unenclosed by 1750, and the majority of this was enclosed by 1815. This was a process at first concentrated on the Midland clays (for the management of land as pasture for fattening) and then – from the start of the Napoleonic Wars in the 1790s – on the expansion of the cultivated area onto poorer and lighter soils such as the northern moorlands and the southern downlands, and poorly-drained land such as the Fens and the Lancashire mosses.

In the ‘High Farming’ years of the 1840s to 1870s, high-input/high-output systems – based on the availability of imported artificial fertilisers and manures (superphosphates, nitrates, guano and bones) and feeds such as oilcake brought on to the farm – replaced the

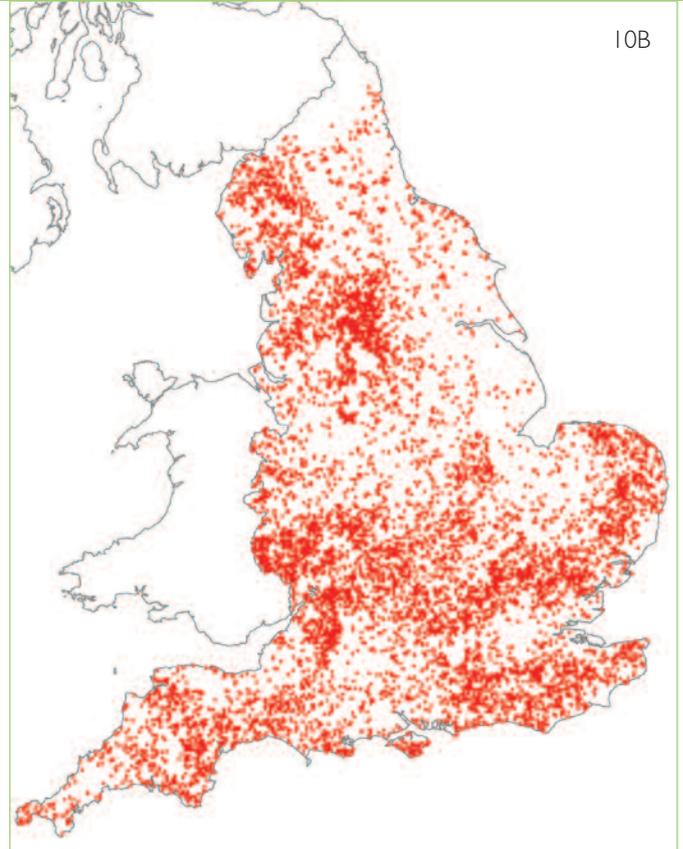
10 Distribution maps of listed barns in England, pre- 1550 and 1550–1750

The great majority of substantially complete pre-1750 barns have been listed. These maps pose important questions for future research. In the pre-1550 map, the concentrations in a belt around London, the southern Pennines and from the Feldon of Warwickshire into mid Devon conceal a wide range of sizes and types of barn, stretching from large aisled barns to relatively modest barns, which have not been replaced in later centuries due to farm size and other factors. Many of the outliers, such as in Cornwall and Durham, represent the building of substantial barns on ecclesiastical estates in the medieval period. In the 1550–1750 period, regional patterns of building and survival emerge more strongly, such as the concentration stretching from the Lancashire Plain to the southern Pennines, and the relative absence of pre-1750 barns in the planned landscapes of eastern and central England most profoundly affected by the agricultural improvements of the post-1750 period. The distribution for threshing barns of the 1750–1880 period reinforces rather than adjusts this distribution. Such maps present an obvious invitation to future analysis and research.

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'closed circuit' methods that relied on farm-produced feeds and manure. A major development – as observed by the agricultural journalist James Caird writing in the 1850s – was an increased distinction between the intensively cropped landscapes of the eastern half of the country, and the wetter and more pastoral-based economies of the western half.

There were several key drivers behind this development:

- Higher grain prices from 1750, peaking during the Napoleonic Wars (1794–1815), were joined from around 1840 by a steady increase in meat and dairy prices, both the result of population growth and the demands of an increasingly affluent urban population.
- The strengthening of a national market, facilitated by the ever-expanding transport infrastructure (of canals, improved river and road communications and the railways) and the growing importance of middlemen, both of which facilitated the marketing of food.
- Marked increases in land prices from the 1760s. This increased the incentive especially of estates to invest, outgoings on repairs and improvements occupying an increasing share of gross rentals from this period to as much as 25% by the 1850s (Mingay 1989, pp.602–3).

- Increasing interest and involvement by government: for example through the Board of Agriculture set up in 1793 (and which immediately set about the commissioning of its famous county studies in order to gather information on best practice); and from the late 1840s the establishment of loan companies for buildings and drainage, which added to the development of a national banking system.
- Textbook and journal literature such as *The Book of Farm Buildings* by Stephens & Scott Burn (1861), and the examples of best practice included in J Bailey Denton's *Farm Homesteads of England* (1863). Agricultural societies, from farmers' clubs to the Royal Agricultural Society of England (RASE) founded in 1837, played an important role through their shows and publications. The Royal Agricultural College was established at Cirencester in 1845, and – as seen in the founding of the Rothamstead experimental station in 1832 – the following two decades witnessed the development of agricultural chemistry and veterinary science.
- The accelerating trend towards larger farming units, both through purchase of smaller farms by more substantial tenants and freeholders, and through estate

policy. This was especially pronounced on the poorer soils, which often required the highest levels of capital investment.

- The role of estates, through the development of the land agent profession, investment in infrastructure (especially buildings and drainage) and the encouragement through leases of improved husbandry techniques by their tenants. Estate polices were also a major factor in the rationalisation of holdings and the emergence of larger farms.
- Enclosure. This was often a major factor in increasing output, through facilitating new rotations of crops and the improvement of grassland and stock management. Expenses associated with enclosure – of fencing, hedging and ditching (as much as 50% of the cost), and occasionally the construction of new steadings and buildings (which could be 17%) – increased the incentive of small owners and occupiers with little capital to sell to larger landowners (Wade Martins 1995, p.83). An additional incentive to enclosure was the doubling of rents that could result.
- Improvements in livestock, for example the emergence by 1850 of the Shorthorn as the leading cattle breed and the replacement of the horned wool-producing varieties of sheep by sheep bred for their meat and manuring value.
- The widespread adoption of improved grasses such as sainfoin and winter feed-crops such as turnips, accompanied by the production of better seeds and farm machinery and the efficient distribution of good manure by livestock increasingly wintered in yards or buildings.
- Drainage through traditional techniques, such as bush drains and U-shaped tiles and from the 1840s tile pipes, the use of these being concentrated on the heavy soils of the Midland clays.
- The improvement of soils through liming and marling.

Farmstead design was being affected by the widespread introduction of new types of building and layout, and from the 1840s by the widespread extension of mechanisation (for preparing feed and threshing), the increasing availability of mass-produced fittings and materials, and the adoption of industrial and scientific principles to the accommodation and feeding of ever-increasing numbers of livestock. The building of planned steadings for some estates and wealthy farmers, in the period up to 1840 concentrated in the eastern lowlands, was accompanied by the rebuilding or adaptation of many thousands of existing steadings with cattle yards and buildings, and the replacement of the traditional threshing barn by the multi-functional and much smaller mixing barn (see Figure 23, bottom). In some areas, regional differences were beginning to disappear: for example, the removal of floors and walls for livestock and lofts in the combination barns in the wood pasture

areas of Suffolk and the eastern Weald attest to the fact that they were becoming part of eastern England's arable region, as recognised by James Caird who conducted a survey of British agriculture for *The Times* in 1850–51 (Caird 1852).

#### 4.1.3.1 Survival and Value

Substantially complete examples of farm buildings of the 1750–1840 period are far less common than those of the post-1840 period, when many farmsteads matured into their present form and huge numbers of buildings were erected. Some, particularly the planned farmsteads of the period, represent new developments in farmstead planning or the architectural aspirations of landowners. Others continue to be strongly representative of both the variety and development of local and regional agricultural systems and local vernacular traditions, such as granite in west Cornwall or cob in mid-Devon, and even new materials such as clay lump (as developed in large parts of Suffolk and southern Norfolk).

#### 4.1.4 1880 TO 1940

For over 100 years, agriculture had been increasingly subject to national and international fluctuations in commodity prices, to its considerable benefit in the Napoleonic Wars and the High Farming years. However, after a run of poor weather in the late 1870s, the income from arable crops that farmers had enjoyed in the 1860s collapsed (for example, by 40% in wheat between 1880 and 1900) and farming entered a severe depression. Britain, its urban economy prospering through free trade, became by the 1930s the world's greatest importer of agricultural produce, including animal fodder, from both neighbouring parts of Europe and the New World. This was the beginning of large-scale importation of grain from the American prairies, meat in refrigerated ships from New Zealand and Argentina, and cheese and bacon from Europe. More than in any preceding period, British domestic policy (the supply of cheap food) and the world market now directly affected regional variations and the supply of capital to British farmers. The result was the concentration of grain production on the drier soils of the eastern and southern counties, and in the areas that experienced the greatest contraction from the High Farming peak of grain production a focus on meat and dairy produce in order to meet urban demand. The growing demand for liquid milk and the importation of dairy produce also led to a decline in the farmhouse manufacture of butter and cheese.

The Government endeavoured to boost production through price support. Against the backdrop of the U-boat menace during the First World War it sought to reduce the country's dependency on imported grain and attempted to extend and co-ordinate both advice and legislation (over hygiene, for example) through the

establishment in 1919–20 of the Ministry of Agriculture and Fisheries and county council committees and councils, in conjunction with organisations such as the National Farmers' Union (founded 1908). However, despite an increase in net output, the rising costs of labour, feeds and other inputs, combined with the decline in prices and rising levels of imports, ensured that little was invested in fixed capital. Arrears in rent characterised the period, even in years of relative recovery (such as after 1936 in arable areas). The holdings farmed by the new class of owner-occupiers – numbering 147,000 in 1927, as against 56,000 in 1909, the biggest change in land ownership since the Dissolution of the Monasteries (Whetham 1978, pp.160–61) – were burdened with debt.

As a consequence there was little fresh investment in farm buildings other than repair and modification, and any buildings constructed tended to be of the cheapest materials. Many, such as Dutch barns, were prefabricated, and concrete and corrugated iron or asbestos sheet were being increasingly used for the refitting of cow and dairy units and the repair of traditional roofs. National and local surveys, such as the 1910 Land Valuation Survey, attest to the growing levels of disrepair, especially of pre-improvement farm buildings using traditional materials such as thatch and timber. Reduced rents and growing building costs meant that only the wealthiest farmers and landowners continued to invest in model or experimental farms, and many of these concentrated on the production of meat and dairy produce; most built very little, perhaps investing in dairy buildings or cattle sheds in an attempt to attract tenants or meet increased demand in some areas for meat and dairy produce.

The continued promotion of scientifically based agriculture was matched by the application of new ideas on ventilation and farm hygiene to farm buildings, such as the regulations for dairying introduced in 1885. This was brought into effect mostly through the conversion of existing buildings (especially stabling into dairies) and to a small degree through new-build, notably on the smallholdings owned by county councils. Milking machines, where introduced, brought considerable changes to building layout, but the spread of mechanisation was very varied. By the mid-1930s, the mobile horsepower of the growing tractor fleet exceeded that of the stationary engine; the latter form of power having itself witnessed the transition to oil engines (from the 1890s) and electric power (not widespread until the 1950s). However, horses 'remained the dominant source of power' in the western half of England, and tractors were mostly confined to holdings of 300 acres or upwards, and the arable eastern areas (Whetham 1978, p.210). In the inter-war period, cereal, poultry and dairy farmers, and pig producers using imported North American feed, were in the vanguard of

cost-cutting innovation that had a strong impact on post-war developments. There were some examples of planned steadings that in their adaptation of modern industrial theory bucked the trend (Brigden 1992).

#### 4.1.4.1 Survival and Value

Planned steadings and buildings in some areas reflected the increased importance of dairying, particularly of liquid milk – the steadings of the Tollemache and Westminster estates in south Cheshire being one such example. The inter-war period witnessed the development of more intense forms of housing for pigs and poultry, and the replacement, as a result of hygiene regulations, of earlier forms of dairy cattle housing with concrete floors and stalls, metal roofs and fittings. County councils began building new farmsteads, in mass-produced materials but in traditional form, in response to the Government's encouragement of smallholdings of up to 50 acres (20 hectares). Alongside the construction of new farm buildings, traditional farm buildings were adapted to new needs, and the use of corrugated iron (mostly for repair) has guaranteed the survival and reuse of earlier buildings, particularly the increasingly redundant threshing barn.

#### 4.1.5 1940 TO THE PRESENT

The 1937 Agriculture Act anticipated the need to increase self-sufficiency, and the Second World War witnessed a 60% rise in productivity; this was the result of the growth in livestock numbers, increasing scientific and government control and guidance, more specialised systems of management and the conversion to arable of permanent pasture. The invention of artificial fertilizer (patented by Haber and Bosch in 1910) enabled otherwise uneconomic land to be brought into production, and finally made redundant earlier forms of fertilizer. The National Farm Survey of 1941–3 (Barnwell 1993) attested to the long years of neglect of the depression, less than half of the building stock being classed as in fair condition. The Agriculture Act of 1947 heralded the intensification and increased specialisation of farming in the post-war period, accompanied by the development of government and industry research and guidance. From the mid-1950s, strongly influenced by American models, there emerged a growing body of trade and advisory literature. The first of these, produced in 1956, highlighted the dilemma of 'old buildings too good to pull down but not suitable for their new purposes' (Benoy 1956). The Government provided grants to cover the capital cost of new building under the Farm Improvement Scheme (introduced 1957). The introduction of wide-span multi-purpose sheds in concrete, steel and asbestos met increasing requirements for machinery and for the environmental control of livestock and on-farm production, particularly of milk. The national stock of farm buildings grew by a quarter between 1945 and 1960 alone. The Agricultural Research

Council's *Farm Buildings Survey of England* (published 1967) estimated that the average farmstead contained 6 pre-1914 buildings, 2.4 from 1918–45 and 2.5 built since 1945.

## 4.2 FARMING IN YORKSHIRE AND THE HUMBER

Broadly, the Region divides into:

- the upland and transitional areas, which broadly corresponds with the Yorkshire Dales, Pennine Dales Fringe, North Yorkshire Moors and Cleveland Hills, the Southern Pennine area and its fringes;
- the lowlands, represented by the Tees Lowlands, Vale of Mowbray and Vale of York, Vale of Pickering, Yorkshire Wolds, Howardian Hills, Southern Magnesian Limestone, The Yorkshire, Derbyshire and Nottinghamshire Coalfield, The Humberhead Levels, Holderness, and the Humber Estuary area.

The production of wool, for internal and foreign markets, was a major aspect of the Region's economy in the medieval period. The 12th and 13th centuries witnessed the establishment of cattle-rearing stations (vaccaries) in the valleys of the Pennines and sheep farms (berceries) on upland fells, and of grange farms in lowland areas. Monastic houses such as Bolton Priory, Jervaulx and Fountains led the commercial development of livestock farming. Great landowners, including the Crown, made use of the uplands as private hunting forest or chase, and exploited them as part of large estates which linked upland and lowland farms together. The leasing and subdivision of these farms, and of hunting lodges, was well advanced in Yorkshire by the end of the 14th century (Platt 1969, pp.95–117). It led to the appearance of new holdings and steadings from the 15th century (Muir 1997, pp.156–9). Many farmsteads in this period also emerged from the sites of deserted villages, this being most marked in those areas – primarily the Vale of York, the North Yorkshire Moors and the Wolds – where the decline of arable was most keenly felt in the 14th century.

The most important animals in all areas except the Wolds were cattle, providing dairy products for home consumption and young stock for fattening on lowland farms. Many parts were too wet for sheep until at least the 18th century, when improved breeds and better drainage extended the range of hill and marshland farming. There are strong differences between the upland and lowland parts of this Region. Lowland areas were characterised by a predominant pattern of nucleated settlement, stronger manorial structures and their associated open fields, and of arable cultivation. Here had developed by the 17th century the largest farms in the Region, particularly in Holderness and on the Wolds

(Harwood Long 1960, p.105). In sharp contrast, and because of its wet climate and predominantly upland terrain, much of the western part of the Region and the North Yorkshire Moors were best suited to pastoral agriculture. The most widely sown crop, and the one best suited to the short, wet summers, was oats. Arable land and meadow land lay either in closes or in strips intermixed with small common fields, and was typically separated by a stock-proof boundary (often termed a head-dyke) from an 'outfield' area of less productive common pasture, which was subject to intermittent cultivation. Livestock were only permitted into the 'infield' area after the harvest of hay and crops, their manure serving to fertilise the land. Walled tracks led from the valley farms and settlements to the open moors, which were allotted to individual townships and communally managed in order to prevent overgrazing and the encroachments of individual ownership onto common land. Livestock were moved up and down the valley sides at different times of year: flocks of sheep grazed on the hill tops in summer and were brought down to the sheltered valley bottoms in winter and for lambing in the spring; cattle were over-wintered on the valley bottom and slopes and moved onto the hills in the late spring.

Enclosure by agreement and the reorganisation of holdings was making some progress in many parts of the Region from at least the 14th century, and this process accelerated between 1540 and 1750. The enclosure of open fields was well advanced by the 18th century in lowland areas. Throughout the uplands, the period after 1550 witnessed the enclosure of both infield land and valley-side pastures, enabling the growth and retention into the late summer of grass through the more systematic containment of livestock, and the dropping of their dung to enrich the land. The next phase of further subdivision and enclosure, signalling the end of the traditional infield-outfield system, was linked to the transfer of communal cow pastures and grazing rights to individual tenants (Winchester 2003, pp.61–73). New farmsteads were built, often off existing trackways around the 'infield' area and typically set within their distinctive 'intakes' of enclosed land. The period after 1750 witnessed the final phase of the enclosure of lowland open fields, of extensive areas of Pennine high commons and moors and the remaining open fields and extensive sheep walks of the Wolds; many of the upland moors were not enclosed until the High Farming years of the 1840s to 1870s (Chapman 2003, pp.154–5).

As in other parts of the northern uplands, such as the Lake District, small-scale tenant farming – held on favourable customary tenancies – remained as a strong characteristic of the upper reaches of the Yorkshire Dales and the southern Pennines. In exchange for rent, farmers could enclose land and transfer property as they wished (copyhold of inheritance). A major feature from the 17th

century in the Dales – coinciding with a period of buoyant livestock prices – was the rebuilding of houses and farm buildings in stone (Raistrick 1981, pp.60–63), this being especially marked in areas such as Swaledale where tenants enjoyed favourable conditions of customary tenure (Winchester 2003, p. 16). The development of industry and farming in this Region was closely linked, such as lead working in the Dales, linen weaving on the edge of common land in the Dales, Vale of Pickering and northern Vale of York, and metal working, coal mining and cloth working on the Pennine fringe and – together with cutlery and other trades – in the Southern Pennines area. The development of the textile industry from the later Middle Ages was facilitated by one of the natural resources of the area, abundant water, which was used for washing wool and waterpower for driving the fulling mills. The cloth trade was combined with farming to produce a flourishing dual economy managed by a prosperous class of yeoman farmers, some of whom achieved the rank of gentry, who also undertook the enclosure of land and the building of new houses and farm buildings (RCHME 1988). In the southern half of the Pennines and its fringes, home-based loom shops (with their distinctive rows of windows) were eclipsed from the late 18th century by water- and then steam-powered factories and the development on a large industrial scale of coal mining, quarrying and engineering; associated with this were developments in transport infrastructure including improvements to river navigation (particularly the Wharfe, Aire and Calder), canals from the mid-18th century (including the Leeds–Liverpool canals which opened the Atlantic market) and rail.

The farming side of the dual economy that characterised the small farms around the growing industrial centres of the West Riding fulfilled several functions. It provided cereals, meat and dairy produce (including fresh milk and eggs) for households; cash from the sale of surpluses; grass, hay and oat straw to feed transport animals as well as farm stock; and land for tentering cloth (Hey 1969). In contrast, communal arable husbandry persisted into the 18th century on the relatively better quality soils of the lowland plains, the Magnesian Limestone Ridge and the Wolds, which all lacked the fast-flowing water and natural resources of the West Riding. Here, most settlements have 'fewer and larger houses' (RCHME 1988, p. 119) and there is a much lower survival of pre-1750 smaller houses. The pattern of larger farmhouses and smaller cottages is indicative of a social structure where landlords and larger farms, not freeholders, were the driving force behind agricultural change, and where large symmetrical farmhouses characterised the rebuildings from the mid-18th century (Raistrick 1970, pp.89–91, 95–7).

The post-1750 period was characterised by more

efficient grain cultivation in the lowlands, the introduction of new crops and their integration into new rotations, more intensive cattle rearing and fattening, dairying for local and distant markets, and much more large-scale sheep farming. Besides celebrated improvers such as Sir Tatton Sykes of Sledmere (Yorkshire Wolds), the foundation of the Yorkshire Agricultural Society in 1836 provided the focus for others to exchange information and best practice. Specialist sheep breeding began in Wensleydale and Swaledale in the 18th century leading to the development of the Wensleydale breed for the lower slopes and valley floors, and the smaller Swaledale sheep, which were kept on the highest moors. Cattle had always been a far more important source of income than sheep in the Region as a whole, with the notable exception of the Wolds. Throughout the Region from the 1840s dairy farmers were able to export liquid milk by rail to towns and cities. The Region, despite the problems experienced in corn-producing areas as prices fell in the 1880s, fared much better through the Depression than the arable areas of southern England (Hallas in Collins 2000, pp.409–10).

## AREA SUMMARIES

These summaries have been compiled as preliminary statements on the agricultural development of the distinctive parts of the Region. Inevitably, these do not relate as strongly to county boundaries as distinct landscape zones. These are outlined below, either by including the Joint Character Area (JCA) title – see 2.1 – after the area heading or, if they approximate or relate to groups of JCAs, in the first line of the text. The sources for them are diverse, and include Historic Landscape Characterisation where completed, work in progress on developing historic profiles for the Joint Character Areas (see [www.cqc.org.uk](http://www.cqc.org.uk)) and sources listed in the bibliography. They are generalised statements, within which there may again be important differences in farming practice, settlement and estate patterns and landscape character.

### 4.2.1 Yorkshire Dales (JCA 21) (Figure 11)

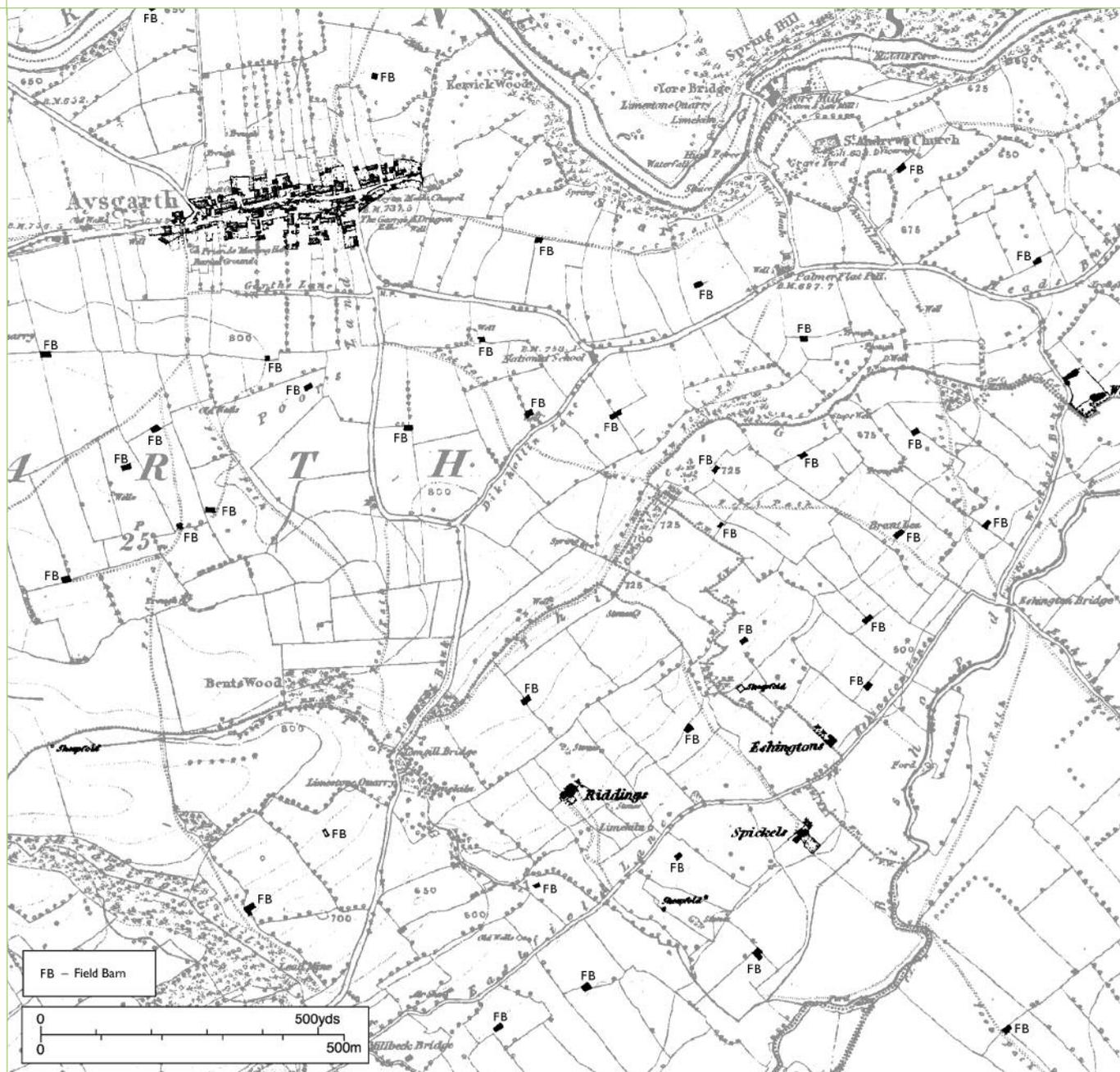
See North West for more on JCAs 33 (Bowland Fringe and Pendle Hill), 34 (Bowland Fells) and 35 (Lancashire Valleys), which extend along the south west side of the Dales character area.

Larger valley-floor settlements had developed by the 11th century, with common fields arranged around them. The 12th to 13th centuries saw limited colonisation of the Dales (and the Bowland Fringe area) by peasant farmers and the establishment of large cattle and sheep ranches by lay lords and in particular large monasteries such as Fountains and Jervaulx. These were increasingly rented out from the 15th century, and their remains can be traced as earthworks in the landscape (Moorhouse 2003b, pp.341–6).

Figure 11 Farmsteads in the landscape: Aysgarth (Yorkshire Dales)

The planned medieval village of Aysgarth still has linear farmsteads dating from the late 17th century, and mostly the 19th century. The period from the mid-19th century witnessed increasing numbers of these farms being converted to a variety of commercial and domestic uses. Surrounding the village are fields resulting from enclosure by agreement from common pasture and arable, including farmsteads dating from the late 17th century. In a broad band across the map is a landscape of ancient enclosure, the place names (Riddings, for example) indicating assarting from woodland prior to the 14th century. Based on OS 1st Edition 6" map 1843–1890.

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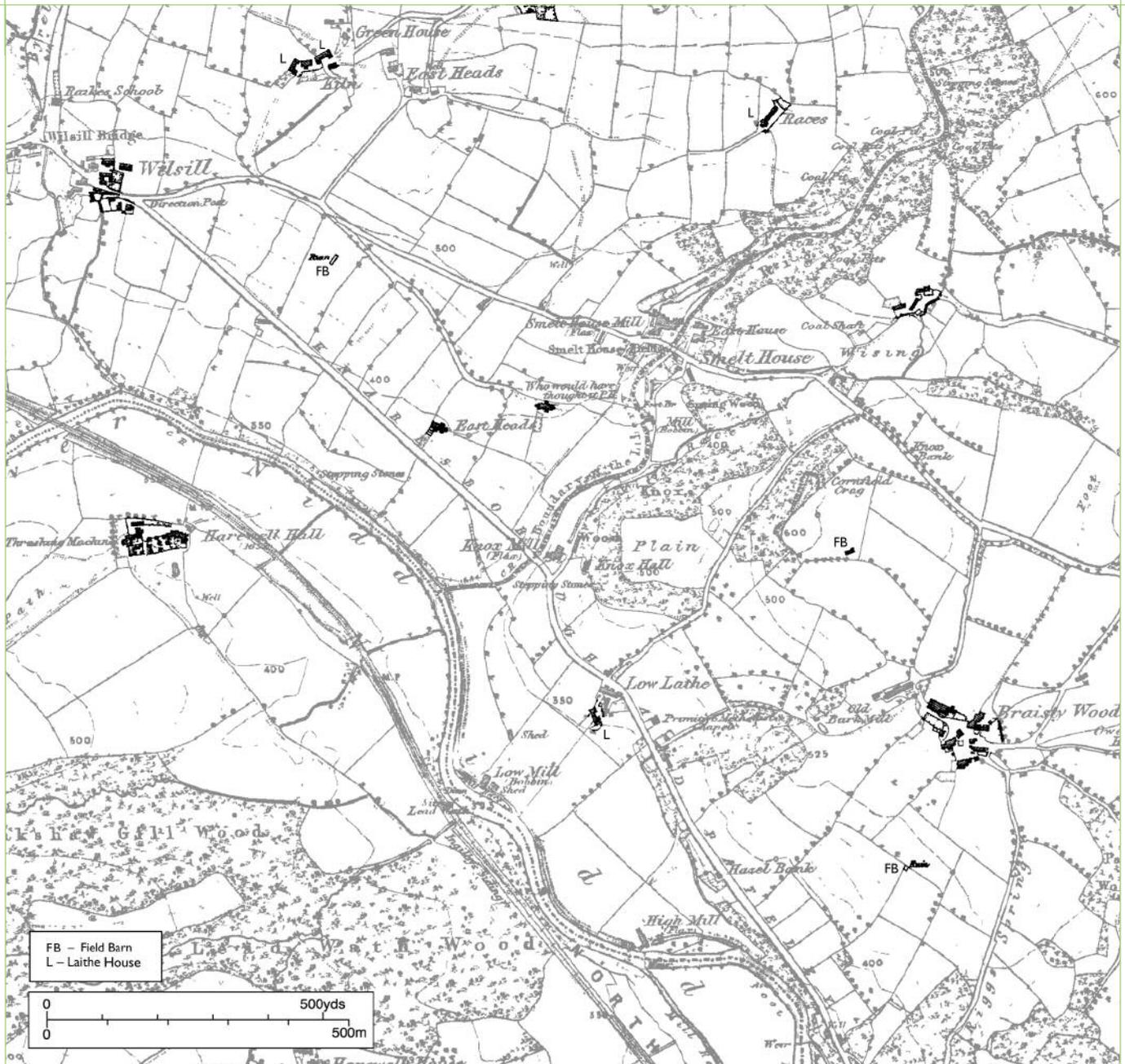
Enclosure of the area's small open fields from at least the 15th century was linked to the conversion of arable to meadow and the development of a highly-specialised dairying economy in which little or no corn was grown (White 1997, pp. 69–77). Small farm size was sustained through by-employment in the lead and textile industries (Butlin 2003b, p.152). The traditional system of farming has created the distinctive network of walled fields (see 4.2 above) and associated field barns (see 8.1.2) which wintered cattle, their manure being used to fertilise the surrounding hay meadows. Farms and fields were generally larger in the southern Craven Dales, where limestone afforded richer soils that could sustain some

arable cultivation and cattle fattening as well as dairying (Harwood Long 1960, pp.105, 111; Butlin 2003a, p.147). A decline in the lead and textile industries – which together with home-based linen and wool weaving had sustained an increase in population from the later 16th century – was accompanied by a decline in the population of the Dales after 1850, and the growth of urban centres in other parts of the Region.

Despite an increase in the numbers of sheep from the late 18th century, dairy farming continued to be important in the Dales, enhanced by the coming of the railway in the middle of the 19th century. The

## 12 Farmsteads in the landscape: Low Laithes (Pennine Dales Fringe)

Much of this landscape is characterised by ancient patterns of enclosure, including clearance from woodland, which is associated charcoal and small-scale coal mining and lead smelting. To the north, a track extends through East Heads (where a 17th-century former farmhouse and a 19th-century barn remain) into the areas of former rough grazing just to the north of the map. Braisty Woods to the east is a former cattle lodge of Fountains Abbey. Many of the farmsteads, predominantly linear in plan, date from the 17th century. Late 18th- and early 19th-century laithe houses (L) are strongly associated with the more regular patterns of enclosure on the meadows of the river Nidd, to either side of the road from Pateley Bridge to Knaresbrough, which was built in 1826–8 and cuts diagonally across the map close to the railway of 1862. Based on OS 1st Edition 6" map 1843–1890. © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2005) Licence numbers 000394 and TP0024



construction of the North Eastern Railway line, completed in 1876, facilitated not only the movement of large numbers of sheep and cattle to the markets of the industrial regions, but also the movement of fresh milk. By the end of the century the network had spread to encompass a large area as far south as London (Butlin 2003b, pp.153–4).

### 4.2.2 Pennine Dales Fringe (JCA 22) (Figure 12)

The Pennine Dales Fringe is a transitional landscape, sloping to the predominantly arable lowland east and stretching from the river Wharfe in the south to the

Barnard Castle area in County Durham (North East). It experienced broadly similar chronologies and patterns of enclosure to the Dales, there being a mix of small-scale and irregular enclosures of pre-14th-century date around some isolated farmsteads, the piecemeal enclosure of medieval strips around larger settlements and later 18th- and 19th-century enclosure in some lowland areas (eg Aske and Marske) and on the moors (eg Harmby Moor). Its many market towns (eg Kirkby Malzeard, Middleham, Masham, Richmond and Barnard Castle) mostly date as foundations from the 12th and 13th centuries developed on this lowland/upland fringe.

From the 14th century the leasing of vaccaries and the relaxation of hunting forest (especially in lower Nidderdale and upper Washburn Valley) led to the development of individual farms and hamlets. Arable-based farming developed with the fattening of cattle to the south and in the broad and fertile valleys of the Nidd, Ure and Wharfe. The pastoral economies of its smaller tributaries and valleys specialised in livestock rearing and dairying from at least the 16th century (Hey 1984, p. 83).

#### 4.2.3 Tees Lowlands (JCA 23)

The fertile soils of this area, which extends into the North East Region, supported many village settlements, many of which contracted to individual farmsteads after the 14th century and where the pattern of large-scale enclosure and establishment of new steadings away from village centres was generally complete by the 18th century. It was famed by the 18th century for the quality of its arable farming and for its degree of agricultural improvement, producing wheat, beans, corn, butter, store cattle and horses (Hey 1984, p.72). Farms in this area were well-placed to export to the emerging industrial centres of Middlesborough and Darlington, which experienced rapid growth from the late 18th century.

#### 4.2.4 Vale of Mowbray (JCA 24) and Vale of York (JCA 28)

The generally flat or gently undulating vales to the south retain subtly different characteristics, the Vale of Mowbray having a more varied topography than the Vale of York, with the land beginning to rise to the North Yorkshire Moors to the east.

Despite the varied pattern of fields, holdings and land use, some generalisations can be made. Most striking in contrast to the upland landscapes to the west is the dominance of nucleated settlements. These related to open arable fields, typically three or more in number and located on higher, better drained sites around the villages. In some cases these were intermixed with significant numbers of closes, meadows, woodland and pasture. Piecemeal enclosure had removed most of the open-field systems by the mid-17th century in the Vale of Mowbray, and by the later 18th century in the Vale of York (Hey 1984, pp.78–9; Butlin 2003a, p.143). There was a greater concentration on cattle rearing and dairying in the western half of this area, whilst in the east the emphasis was on horse breeding, and pigs were, and still are, fairly numerous (Butlin 2003a, p.143). Corn growing, cattle rearing or mixtures of the two were common land-use combinations by the late 17th century. Enclosure of common land on sandy soil (concentrated to the south and south-west of York, and the south and west of the Vale of Mowbray) was largely completed by the end of the 18th century, providing opportunity for drainage and other improvements in agricultural

methods. Arthur Young in his tour of 1776 distinguished between the better farms on sand and gravel and the poorer ones on clay. Farms were comparatively large, although there was still a high number of small farms under 50 acres surviving into the 19th century and sustained through by-employment in textiles (Sheppard 1960, p.48). The lighter soils were mostly subject to reversion to pasture from the 1880s, only to be transformed to arable again after 1940.

#### 4.2.5 North Yorkshire Moors and Cleveland Hills (JCA 25)

The extensive heather moorland plateau of the North Yorkshire Moors and the Cleveland Hills can be roughly divided into two parts: the main northern area of Jurassic sandstone, with occasional cappings of gritstone on the highest hills, and the lower southern limestone belt. Grouse moors and rough sheep pastures occupy the sparsely settled plateau with its heavy rainfall and thin acid soil. It is dissected by a series of dales and steep-sided river valleys where settlement is concentrated.

Major changes came with the foundation and development of monastic estates in the 12th century, many of whose valley-based specialised in sheep rearing for wool production. In the 13th and 14th centuries much valuable raw wool, a principal element of England's foreign trade, was collected from the area and sent to York or Hull, to be purchased by Flemish and Italian merchants. After the dissolution of the monasteries, these extensive estates came into the possession of prominent local families.

The present pattern of nucleated settlements – concentrated in the upland dales, along the coast and on the calcareous soils of the South Hambleton Hills – developed between the 9th and 13th centuries. Their open fields had been subject to increasing subdivision from the 14th century and enclosure was largely complete by the 18th century, with the exception of areas of open moor; larger areas to the south and along the coast, which were enclosed in the 19th century; some of the areas newly populated with farms in the mid-19th century on the thin and acidic soils of the high moors (eg at Sneaton and Allerston) quickly reverted (Butlin 2003a, p.146; Chapman 1976, pp.14-15). Isolated farmsteads in the valley sides and around the fringes of the open plateau are associated with oval or irregular enclosures of medieval or earlier date and intakes from the moor; the latter usually in the 16th and 17th centuries (Spratt and Harrison 1989, pp 79–110, 113–137). Isolated farms and estates also developed from the 14th century, as the monastic granges that had specialised in wool production and areas of extensive royal forest were leased off. After the Dissolution of the Monasteries, monastic estates came into the hands of prominent local families, such as the Duncombe Park

estate in the western part of the moors, where Sir Charles Duncombe had combined the monastic estates of Helmsley, Kirkby and Rievaulx estates in 1695. Rabbit farming, initially linked to the ecclesiastical estates, continued on a large scale into the late 19th century and has left numerous earthworks (eg the pillow mounds at Hutton Nab).

The settlements on the Moors/Vale of Pickering border had access to seasonally waterlogged grazing land in the Vale below and very long infield strips on the south-facing limestone slopes; trackways between them led to the outfield areas and the rough grazing on the moors (Roberts & Wrathmell 2002, pp.46–7). Drainage of the carrs in the Vale from the late 18th century reversed this pattern, as they became ideally suited to cereal crops and the slopes above were converted to grazing land for beef and dairy cattle (Butlin 2003b, p.150). Also from this period arable-based husbandry, combined with root crops, was practised on the deeper soils of the south and east of the Yorkshire Moors, and along the northern escarpment of the Howardian Hills from the later 18th century. These landscapes are largely characterised by post-1750 enclosure, with open arable landscapes. Prior to this date, much of the land was held by tenants occupying less than 15 acres, this being recognised by Arthur Young as a major impediment to systematic improvement (Young 1771, Vol 2: pp.76–8). The cruck-built and heather-thatched houses and outbuildings that characterised these small farms (and villages such as Pockley, Beadlam and Harome) were largely abandoned after this date as farms grew in size, although some were incorporated into farmsteads or converted into labourers' accommodation (RCHME 1987, pp.100–01) (see Figure 8B).

The market towns of the Moors retained a strong rural character and farming functions into the 20th century, agricultural buildings (see 5.3) being found outside the core commercial areas (RCHME 1987, p.118). At the end of the 19th century, the growing importance of butter, cheese and milk production combined with the rise of recreational land use including fox hunting and grouse shooting. Since 1920 the forestry commission has planted with soft woods much of the medieval Forest of Pickering and a quarter of the moorland has been converted to forestry or agriculture since 1950.

#### 4.2.6 Vale of Pickering (JCA 26)

The Vale is bordered by ground rising to the chalkstone of the Yorkshire Wolds to the south and the sandstones of the North Yorkshire Moors to the north. The flat valley bottom provided rich and seasonally flooded cattle pastures before drainage from the late 18th century. Farmsteads were concentrated in nucleated village settlements around the fringe of the Vale, with more irregular field patterns relating to medieval land use than

in the Vale of York. Some earlier farmstead sites, including shrunken medieval villages, moated sites and the grange farms of monastic and secular estates, are generally located on higher ground in the west of the Vale which is characterised by clay soils and earlier patterns of enclosure (Menuge 2003, pp.157–8). Most isolated farmsteads occupy new sites in relationship to post-1750 rectilinear enclosure, and are more common in the peaty soils east of the Vale which were subject to drainage by ditches and dykes in this period. From the late 18th century the Vale's extensive meadowlands sustained cattle rearing and fattening as the principal agricultural product, combined with extensive cropping – especially on higher ground – for roots and arable.

#### 4.2.7 Yorkshire Wolds (JCA 27) (Figures 13 & 14)

Arable and meadow was historically concentrated around the nucleated settlements in the valleys, within which are the irregular patterns of pre-1750 enclosure (Hey 1984, p.76). By the 16th century, sheep and barley husbandry had emerged as the mainstay of the farming economy of the Wolds, the area's many deserted medieval settlements bearing witness to the conversion of arable to sheepwalk from the 15th century. Lambs were sold to lowland graziers for fattening, whilst wool was dispatched to the clothiers of East Anglia and the West Riding. In the 18th century newcomers such as the Sykes and the Middletons were buying land on the chalk plateau, which they saw as ripe for development and for the creation of country estates (English 1990, p.147). The Wolds landscape was transformed by large-scale enclosure, mostly by parliamentary act and largely driven by new owners – notably the Sykes family of Sledmere and Willoughbys of Birdsall (Wade Martins 2002, pp.85–90). Over 70% of this area was enclosed by parliamentary act (Butlin 2003b, p.151), resulting in an extensive planned landscape of new roads with wide verges and large isolated farmsteads protected by shelter belts. Enclosure was accompanied by the conversion of old pasture to a new arable system geared to the export of grain via coastal ports to Scotland, London and the Low Countries. By the 1780s this was based on the folding of sheep on turnips and the production of manure from yard-based cattle in steadings or outfarms (Marshall 1788, Vol. 2: p.142). Dew ponds, dug into the chalk but lined with clay, allowed these dry lands to be used for both arable and livestock.

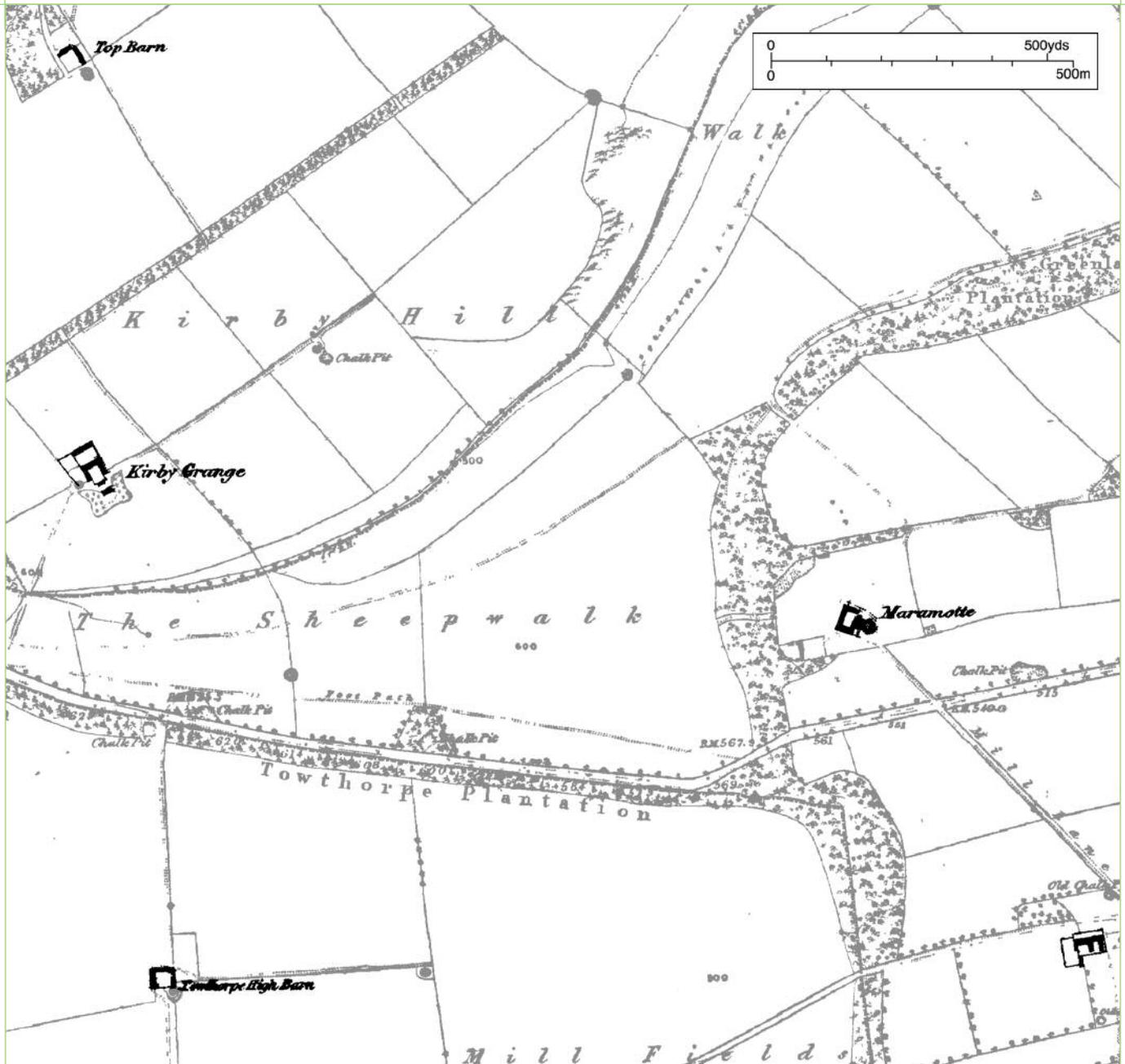
#### 4.2.8 Howardian Hills (JCA 29)

Despite its high concentration of deserted and shrunken medieval settlement, this area is still dominated by its nucleated villages. Parklands and estates (for example, Castle Howard, Newburgh Priory) were particularly influential in this area, and much of the area (especially the plateau) is characterised by large-scale enclosure of the 18th to 19th centuries (Butlin 2003b, p.151). Farmsteads were resited out in the fields, and estate

### 13 Farmsteads in the landscape: Sledmere (Yorkshire Wolds)

Sir Christopher Sykes was directly involved in the enclosure of Sledmere and Croome from the 1770s, initially in the extension of the park which includes a farmstead designed as an eyecatcher by the Yorkshire architect John Carr. All of the farmsteads and their designed landscape were built for the Sykes estate, classical designs for the facades by Sir Christopher surviving in the estate papers. Their courtyard arrangements are clearly visible on the maps. Based on OS 1st Edition 6" map 1843-1890.

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villages built. By the late 18th century, the area's agriculture resembled that of the Wolds, arable being particularly dominant on the northern escarpment at the junction with the Vale of Pickering, although in contrast to the Wolds there were more extensive areas of pasture in its sheltered valleys.

#### 4.2.9 Southern Magnesian Limestone (JCA 30)

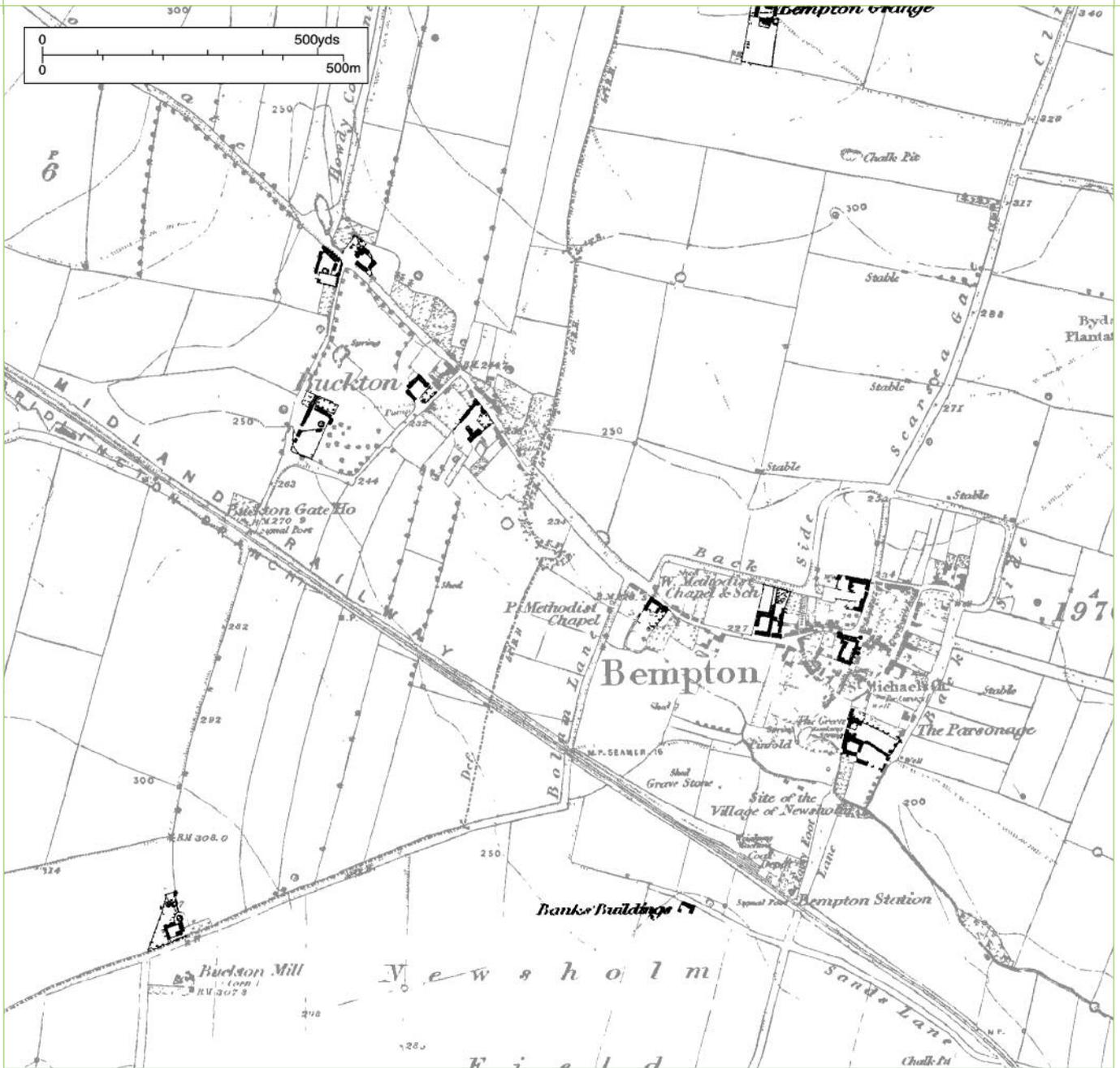
The Pennine chain and bordering areas are divided from the central lowland valley landscapes by this narrow area, which extends from near Bedale in North Yorkshire to just north of Nottingham. It is named after the stone which contributes to the character of its buildings and the fertility of its soils. Nucleated settlement is

predominant. The elevated ridge is well drained and ideally suited to arable production, and open-field farming was extensive until the later 17th century, after which the present-day predominant pattern of large-scale fields and isolated farmsteads was established (Hey 1984, p.81). Pasture was historically concentrated on its steeper slopes and the valley bottoms. Earlier enclosures are concentrated around villages and to scarp-slope landscapes, the latter with some associated farmsteads. Isolated farmsteads otherwise relate to shrunken settlements, former medieval grange farms and the 18th- and early 19th-century large-scale and regular enclosure that extends across much of its rolling landscape. Large estates developed from the 16th century, as also did

14 Farmsteads in the landscape: Bempton and Buckton (Yorkshire Wolds)

Prior to the late 18th century, both Buckton and Bempton were, like many settlements along the coastal fringe of the Wolds and Holderness, dominated by their surrounding open fields. The rapid increase in the size of farms can be seen in this map, the L and T-shaped plans relating to cattle yards being also typical of this area. Based on OS 1st Edition 6" map 1843–1890.

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large farms (Beastall 1966, pp.41–2). To the south the exploitation of the concealed coalfields made a considerable impact on settlement and the landscape from the late 19th century.

**4.2.10 The Southern Pennine area and its fringes**

This includes:

- the Southern Pennines (JCA 36), which extends from the south of the Yorkshire Dales to the northern boundary of the Dark Peak in the Peak District National Park;
- the eastern end of the Lancashire Valleys (JCA 35), to the west of Skipton and which mostly falls in the North West Region;

- the Yorkshire Southern Pennine Fringe (JCA 37) which includes Bradford in the north, Halifax, Huddersfield and extends to just south of Sheffield;
- and the north-eastern fringes of the Dark Peak (JCA 51), which mostly lies in the East Midlands Region.

Three large river systems, the Aire, the Colne and the Calder, drain the upland plateau eastwards to the heavily urbanised areas of the Yorkshire Southern Pennine Fringe and the Nottinghamshire, Derbyshire and Yorkshire Coalfield. The area has a strong industrial heritage associated with the textile, engineering and manufacturing industries. The area's urban centres were transformed from marketing centres to major centres of

production for the textile industry from the later 18th century. The cutlery and steel industries around Sheffield had experienced strong growth from the mid-17th century, and despite its centralisation around the river Don still involved farms on a seasonal basis (Hey 1969). The principal extractive industries that experienced strong growth from the late 19th century were coal mining and quarrying.

The textile-producing areas, particularly the Upper Calder valley to the north-west of Halifax, grew in prosperity from the 14th century. The cloth trade was combined with farming to produce a flourishing dual economy managed by a prosperous class of yeoman farmers, some of whom achieved the rank of gentry, who also undertook the enclosure of land and the building of new houses and farm buildings (see 6.1.2.1). In the Upper Calder Valley (Southern Pennines), for example, the 'vast majority of surviving houses' – storeyed and built of stone, with wings at one or both ends – had been erected by 1700 (RCHME 1988, pp.107–113).

Development is mainly confined to the major river valleys that dissect the landscape, leaving the surrounding hillsides as enclosed pasture and rough grazing. Settlement is marked by high to very high density of dispersal, with small hamlets (typically set around commons and greens to the north) and many individual farmsteads of medieval origin surrounded by early patterns of enclosure (Roberts & Wrathmell 2000, p.47). Pastoral farming has dominated the agricultural history of the area, with sheep on the moorland rough grazing and a mix of dairying and rearing with some fattening in the valleys. Arable cultivation was more dominant in the east of the area. Farming was often combined with home-based weaving, coal mining, quarrying and (around Sheffield) the cutlery industry. The small and irregular fields around settlements are either medieval in origin – many probably assarted from woodland – or (particularly in the South Pennines and the Southern Pennines Fringe) were developed in the 17th and 18th centuries as weavers' subsistence plots surrounding villages. The building of new farmsteads was linked to the larger-scale enclosure on the valley sides, dating from at least the 15th century and accelerating from the later 16th century, and the large-scale and regular Parliamentary enclosure of remaining common grazing grounds or moorland on fell tops from the later 18th century, the latter initially (and briefly generally) for arable cropping.

#### **4.2.11 Nottinghamshire, Derbyshire and Yorkshire Coalfield (JCA 38)**

This character area is 34% urban. It includes Leeds in the north, Wakefield, Barnsley, Rotherham and most of Sheffield and extends to just north of Nottingham. The

area has a long history (from the medieval period) of rough grazing and pastoral farming in the west (sheep, beef and some dairying) giving way in places to arable cultivation in the east. Estates, some with medieval origins, were developed by wealthy industrialists. Major mining growth after 1870 led to the development of new settlements. Market gardening developed around the urban centres, which expanded rapidly from the late 18th century. Many remaining areas of common land (eg Eccleshall, Hallam Moors) were enclosed with new farms in the late 18th and early 19th centuries.

#### **4.2.12 The Humberhead Levels (JCA 39)**

This area is a low-lying, mainly flat landscape created largely by the floodplains of the Ouse, Derwent, Ure, Nidd and Fosse, and from prehistory has been used as a source of summer grazing, fishing, fowling and fuel by its surrounding communities. There are subtle changes in geology and soils. Nucleated settlements were concentrated on the drier ground to the north of the area, and the low levels of isolated farmsteads occupy the sites of medieval granges and specialist farms, settlements that contracted after the 14th-century and post-17th-century enclosure (Roberts & Wrathmell 2000, p.47). Selby Abbey and its granges became active in the drainage of the marshes, but the major phase of reclamation began in the 17th century with the help of Dutch engineers. The process of 'warping' – flooding areas with tidal waters carrying fertile alluvial silt – has been an important factor in the agricultural development of the landscape by bringing low-lying peat moors into cultivation. The drier northern part of the area contains some early enclosure, whereas the marshes continued to be enclosed during the 18th and 19th centuries when the process of draining the area was assisted by improving technologies including, in the later period, steam-powered pumps (Raistrick 1970, pp.82–4). A population increase in the same period was underpinned by hemp and flax production, and the establishment of weaving communities. Arable production with root crops experienced rapid growth from the late 18th century, and the Humberhead Levels is now one of the most productive arable areas of the country.

#### **4.2.13 Holderness (JCA 40)**

This area has a mixed geology of boulder clay on the higher ground intermixed with sand, gravel and hillocks. Settlement is mostly nucleated, with a more dispersed pattern including moated sites to the centre (Roberts & Wrathmell 2000, pp.46–7; 2002, p.57). The area has a long history of mixed arable and pasture, and extensive use as summer grazing land for surrounding settlements prior to drainage and enclosure. Systematic drainage of this area commenced in the 12th and 13th centuries, and after a period of neglect resumed in the 17th century (Harwood Long 1960, p.21; Siddle 1967). Wheat and beans were exported from this area in the 18th century

(Hey 1984, pp.77–8), and arable production combined with root crops and vegetables increased with drainage in the 19th century. The boulder clay (glacial fill) over most of the area was enclosed first, whilst the peat soils around Hull were not enclosed until the late 17th and 18th centuries. In parts of the area, isolated farmsteads formed part of this early enclosure. The coastal farmland from Hornsea to Bridlington was subject to extensive early to mid-19th-century enclosure, with straight roads and tracks, and the formation of new farmsteads.

#### **4.2.14 The Humber Estuary and to the south**

The Humber Estuary (JCA 41) had a long history of drainage and reclamation similar to that of the Humberhead Levels. Most of the isolated farmsteads date from after the 17th century, and landscapes such as Sunk Island were characterised by large-scale post-1750 enclosure and associated farmsteads.

See East Midlands Region for more details on Lincolnshire Coast and Marshes (JCA 42), Lincolnshire Wolds (JCA 43), Central Lincolnshire Vale (JCA 44),

Northern Lincolnshire Edge with Coversands (JCA 45). The northern tips of these character areas extend into this Region.

The Lincolnshire Coast and Marshes had generally limited arable but benefited from the long-standing practice of fattening cattle from Wolds farms, with extensive grazing for sheep. The area south east of Barton-upon-Humber was dominated from the medieval period to the 18th century by open fields, interspersed with some isolated farmsteads of medieval or earlier origin. The Lincolnshire Wolds was also transformed – like the Yorkshire Wolds – by post-1750 enclosure for arable production. The reclamation of the Ancholme Valley fens (Central Lincolnshire Vale) north of Brigg was largely completed in the early 18th century, and produced a still larger and more regular pattern of fields, invariably bounded by ditches. The Coversands around Scunthorpe was transformed by later 18th- and early 19th-century enclosure for improved pasture and sheep–corn farming, although earlier enclosure persists around the smaller settlements.

# 5.0 Farmstead Types

## 5.1 NATIONAL OVERVIEW

Farmsteads perform several basic functions: providing shelter for farmers and their families; the housing and processing of crops; the storage of vehicles, implements and fodder; the management and accommodation of livestock. Building functions can be usefully distinguished between crop processing and storage (barns, hay barns, cider houses, oast houses and farm maltings, granaries) and the accommodation of animals (cow houses and shelter sheds, ox houses, stables, pigsties) and birds (dovecots and poultry houses). These functions can either be accommodated within individual specialist structures or combined with others into multi-functional ranges.

The great diversity of farmstead plans (Figure 15) provides a very direct reflection of the degree to which these farm-based functions are located in specialist or combination structures and ranges. The resulting diversity of form and scale is the direct outcome of the significant variation in farming practice and size that occurs both over time and from place to place. Individual farm buildings, for example, could be:

- Small-scale and highly dispersed, as in the wood–pasture landscapes of the Kentish Weald and the Suffolk clays;
- Set out in strong linear groupings, especially in northern pastoral areas with little corn and longer winters and where there was an obvious advantage in having cattle and their fodder (primarily hay) under one roof;
- Arranged around yards, examples being the large aisled barn groupings of the southern English downlands and the large planned layouts built in accordance with ideas being spread through national literature and contacts.

A critical factor in farmstead planning is also the relationship of the farm buildings to the working areas within and around the farmstead and the farmhouse. The major working areas were trackways to surrounding fields and local markets, ponds and cart washes, the areas for the movement of vehicles and animals, the accommodation of animals and the platforms where hay and corn would be stacked, the latter prior to threshing in the barn. The size of the areas for stacking corn (known as rickyards in most of the country) varied according to local custom and the extent of arable crops kept on the farm.

Local tradition and status were the principal reasons for whether the house was accessed through the yard and buildings were attached, or whether the house

looked toward or away from the yard. Internal access between dwelling house and farm buildings was a feature of farmyard architecture in much of Europe. However, in England from the 13th century it became much more common to have separate entrances, even where buildings and houses were joined. The role of women in the farmyard was commonly restricted to 'milking cows, feeding pigs and calves, making butter and cheese, tending poultry, and occasionally tending with the hay and corn harvests' (Whetham 1978, p.81). This led to the integration into the house of processes such as brewing and dairying, and a formal separation of the house and gardens from the farmyard, especially in the case of post-1750 remodellings and larger farms typically over 150 acres. In such instances, the house could face toward its own home close or garden.

The development of the farmhouse has been the subject of regional and national studies (Barley 1961, for example). Farmhouses can tell us much about the former prosperity and development of steadings, such as the major phases of rebuilding that affected parts of southern England in the 15th to early 17th centuries and the wealth introduced through cattle rearing in parts of northern England in the century or so after 1660. In summary, the most common farmhouse plan of the medieval period, traceable to the 12th century, has the main entrance in one side wall to an entrance passage (usually with a door opposite) that separated an open hall (to allow smoke from the fire to escape through the roof) from a lower end, which could house a kitchen, services and in some areas livestock. The hall served as the main living and eating room, status and space determining whether there would be an inner chamber (for sleeping or a private area) beyond. By the end of the 16th century, farmhouses in most areas of England (except in the extreme south-west and the north) had been built or adapted into storeyed houses with chimneystacks. There was a strong degree of regional variation, for example in the positioning of the chimneystacks and their relationship to the main entrance. From the later 17th century, services in some areas were being accommodated in lean-tos (outshots) or rear wings. From the mid-18th century houses that were more symmetrically designed (with central entrances, chimneystacks on the end walls and services placed to the rear of the front reception rooms) became standard across the country. As a general rule, farms over 70 acres needed to look beyond the family for additional labour, and so rooms for live-in farm labourers – usually in the attic or back wing of the house – became a feature of many farmhouses.

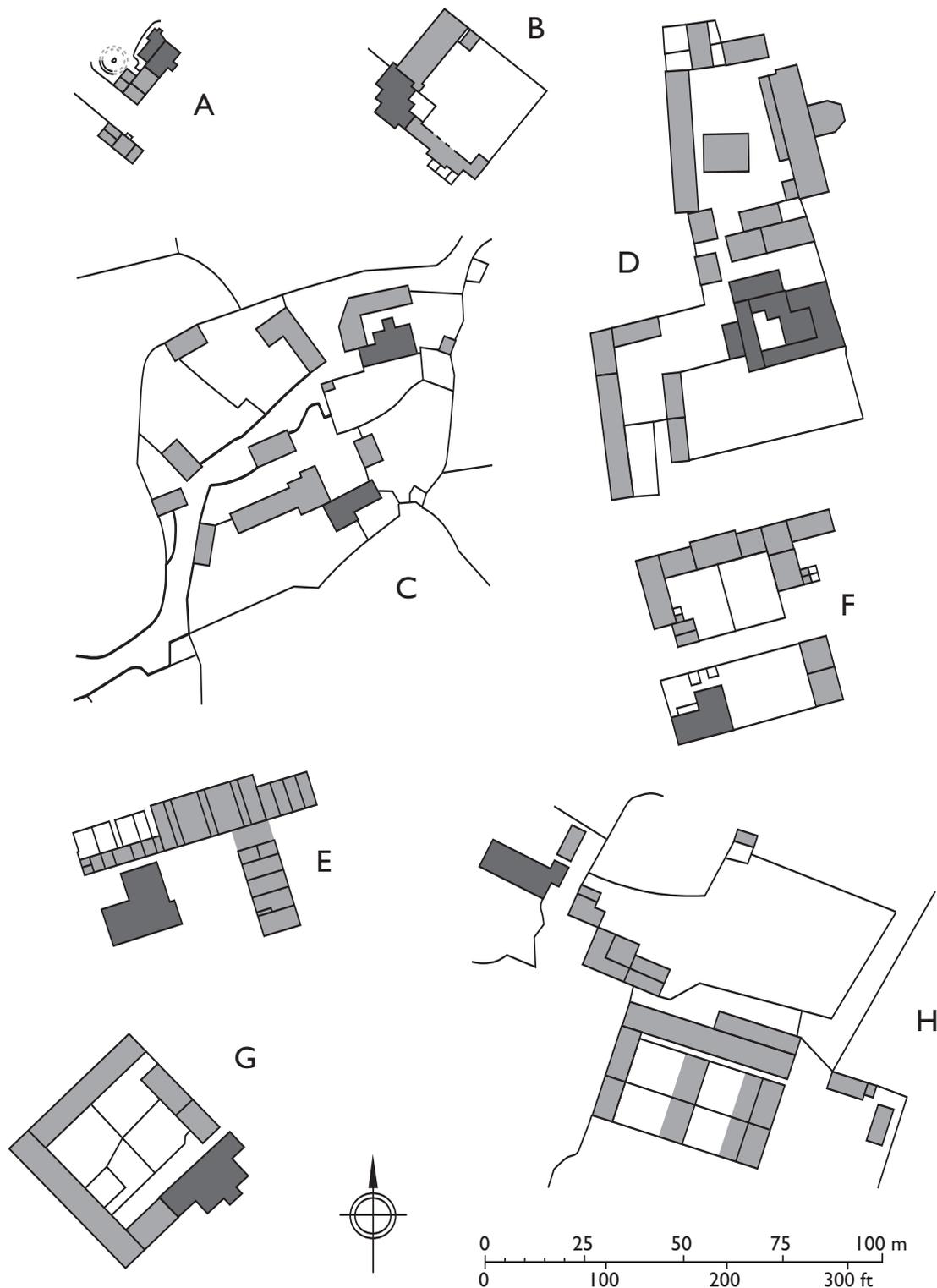
15 Farmstead plan types (Farmhouses are shaded darker)

- A Linear plan. House and farm building attached and in line. This is the plan form of the medieval longhouse but in upland areas of the country in particular it was used on small farmsteads up to the 19th century.
- B L-plan including the farmhouse. Such plans can be a development of a linear plan or can represent a small regular courtyard plan (see E-G, below).
- C Dispersed plan. Within this small hamlet the farm buildings of the two farmsteads are intermixed, with no evidence of planning in their layout or relationship to the farmhouses. Dispersed plans are also found on single farmsteads, where the farm buildings are haphazardly arranged around the farmhouse.
- D Loose courtyard. Detached buildings arranged around a yard. In this example the yard is enclosed by agricultural buildings on all four sides with the farmhouse set to one side. On smaller farms the farmhouse may form one side of the yard, which may have agricultural buildings to

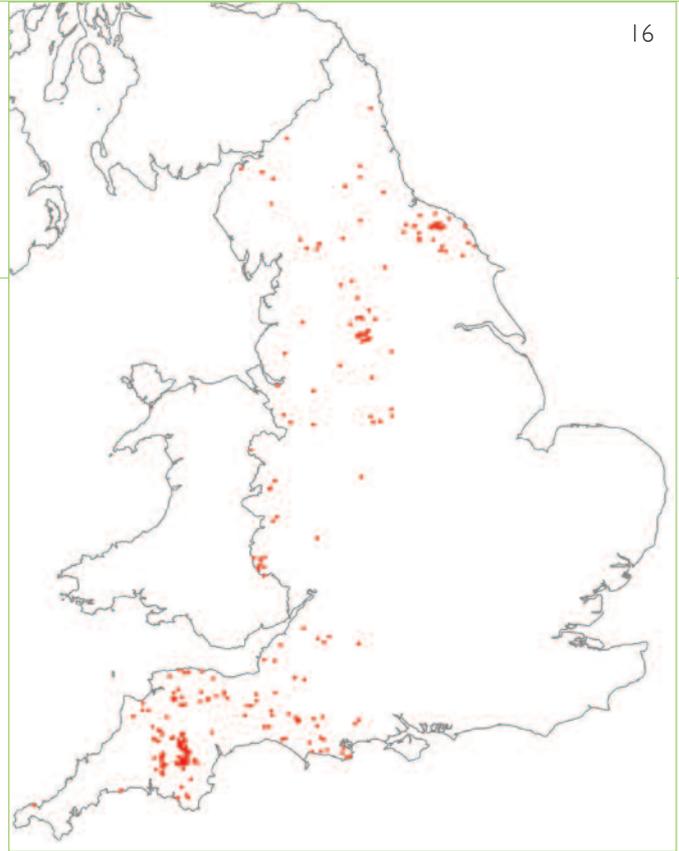
only one or two of the remaining sides.

- E Regular courtyard L-plan. Two attached ranges form a regular L-shape. The farmhouse is detached from the agricultural buildings.
- F Regular courtyard U-plan. The yard, in this example divided into two parts, is framed by three connected ranges. Again, the farmhouse is detached.
- G Full regular courtyard. The yard is enclosed on all sides by buildings including, in this example, the farmhouse. Other examples are formed by agricultural buildings on all sides with the farmhouse built to one side.
- H Regular courtyard E-plan. This plan form (and variations of it with additional ranges) may be found on some of the larger planned farmsteads where livestock were a major part of the agricultural system. Cattle were housed in the arms of E, the 'back' of which provided space for fodder storage and processing.

*Drawn by Stephen Dent © English Heritage*



16 Distribution of listed longhouses in England. Surviving longhouses – a proportion of which have been recognised as such in listing descriptions – represent only a small proportion of a building type that was once prevalent across large parts of western and northern England. The concentration of a fine group of surviving longhouses on the eastern fringes of Dartmoor is particularly prominent. Recent research has shown that in some areas such as north Yorkshire many village-based farmhouses have longhouse origins that have previously not been recognised.  
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The predominant farmstead plan types, which are closely related to farm size, terrain and land use, are listed below. There are many variations on these themes, particularly in the manner in which fully evolved plan groups can, as a result of successive rebuilding, contain elements of more than one plan type.

### 5.1.1 LINEAR PLANS

This group comprises farmsteads with farm buildings attached to, and in line with, the house. It includes some of the earliest intact farmsteads in the country.

The earliest examples of linear plans are *longhouses*, which served as dwellings for farmers' families and housing for cattle. Each longhouse had a common entrance for the farmer's family (accommodated at the up-slope end of the building) and livestock, the cow house being marked usually by a central drain and a manure outlet at the lower gable end. Longhouses were often found grouped together and associated with strip farming of the surrounding fields. Documents and archaeological excavation indicate that they had a widespread distribution in the north and west of the British Isles in the medieval period, but that in much of lowland England they were either absent or being replaced by yard layouts with detached houses, barns and cow houses from the 14th century (see, for example, Gardiner 2000 and Figure 16). Such re-buildings are commonly believed to be associated with the decline of smaller peasant farmers and the emergence of a wealthier peasant class. Longhouses, and their variant types with separate entrances for livestock and farmers, continued in use in parts of the South West, the Welsh borders and the northern uplands and vales into the 18th and 19th centuries. Those built in or before the 17th century were originally entered from a passage, which also served as the entrance to the house. However, during the 18th century social pressures led to the provision of a separate dividing wall and byre door, and to the demolition of some byres and the conversion or rebuilding of others to domestic or new agricultural use (barns, for example). The piecemeal rebuilding and conversion of both lower end and house-part that this permitted tended to discourage total reconstruction, inevitably limiting the ability to respond effectively to changing requirements. These later changes are clearly visible in the buildings, as is evidence about the size and layout of the original byres, and of the arrangement of the passage (against which the stack heating the main

part of the house was positioned) that once formed the common entrance to these longhouses as a whole. The initial dominance of the longhouse in some areas is significant, since, as a house type capable of almost infinite adaptation, it exerted considerable influence on the subsequent evolution of farmsteads.

Linear layouts (including the *laithe house* of the Pennines) are now most strongly associated with the hill farms of northern England (North East, North West and Yorkshire and the Humber). A major reason for the persistence of the layout in northern England was that it was suited to smaller farms (of 50 acres or less) needing fewer buildings – other than for the storage of subsistence levels of corn for the household and livestock, and the housing of some milk cattle, poultry and pigs. The close proximity of farmer and livestock during the winter months was another factor, cattle being stalled indoors from October to May. It was also a layout ideally suited to building along the contours of a hillside and so this farmstead plan remained in use in upland areas of England into the 19th century.

Linear plans have often evolved as a result of gradual development, for example in the rebuilding of a lower end for the cattle as service area for the house, and the addition of new cow houses, stabling and barns in line. Linear layouts will often be associated with loose scatters or even yard arrangements of other farm buildings.

### 5.1.2 PARALLEL PLANS AND L-SHAPED PLANS

These invariably enclose two sides of a yard, and often represent developments from earlier linear plans, if they

have not been constructed in a single phase. L-shapes often evolve from the addition of a barn or byre to an original linear farm, or can represent the partial re-organisation of a dispersed plan. They are typically found on farms in the 50- to 150-acre bracket, and can be formal or highly irregular in appearance, with or without scatters of other farm buildings.

### 5.1.3 DISPERSED PLANS

The buildings of this group appear to be arranged haphazardly around the farmstead. Dispersed plans are typically found on smaller farms in stock-rearing or dairying areas, where a large straw yard for cattle was not required. They can range in size from the very small – for example a farmhouse and combination barn – to large groups of two or more blocks or individual structures, some or all of which may combine a variety of functions.

### 5.1.4 LOOSE COURTYARD PLANS

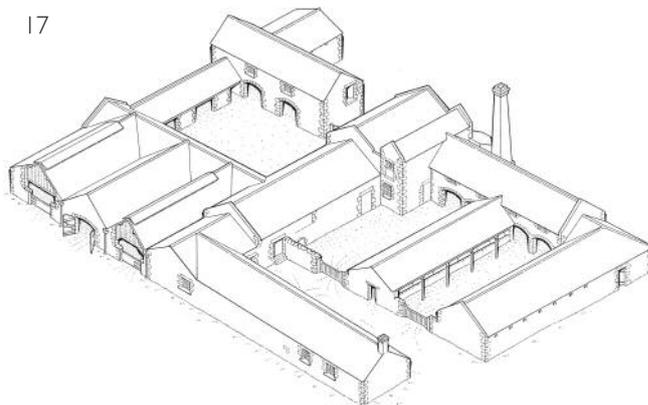
This group is characterised by single or double yards flanked by buildings on three or four sides, with or without scatters of other farm buildings close by. There are excavated and documented examples of this layout dating from the 13th century (in Hallam 1988, pp.860, 889) associated with: the base courts of large baronial and episcopal establishments; with moated manorial sites (where the farm buildings were arranged either within or outside the moat); and with the farms of an emerging wealthier class of peasant, the latter often replacing two or more previous steadings with longhouses (Le Patourel in Miller 1991, pp.843–65). This plan became most strongly associated with large arable farms: for example, many farmsteads on the downlands of southern England have one or more barns providing shelter to a south-facing yard (as recommended but not always followed), typically bordered by a stable, granary and later shelter sheds.

### 5.1.5 REGULAR COURTYARD PLANS

Formal courtyard layouts, where the barns, stables, feed stores and cattle shelters were ranged around a yard and carefully placed in relation to one another in order to minimise the waste of labour, and where the manure could be conserved, were recommended from the mid-18th century and many are documented from this period, although no surviving groups can be dated before the 1790s. The earlier examples are courtyard or U-plan with the barn forming the central block, and shelter sheds, stables and enclosed cow houses the two side wings. The fourth side could be no more than a wall with a gateway, or contain further sheds or smaller buildings such as pigsties, or be distinguished by a house (usually looking away from the yard). From the 1820s and 1830s, extra yards made E or even double-E plans.

17 A large regular courtyard plan (North Northumberland Coastal Plain Character Area), dating from the early to mid-19th century and placed within a landscape affected by large-scale reorganisation and enclosure from the 18th century. This large farmstead was devoted to fatstock housing and incorporates three open yards lined with hemmels and a covered yard with a root store (left, with open doors). The farmstead also incorporated a stationary steam engine, which would have powered threshing machines, as well as fodder-preparation machines such as chaff cutters and cake breakers. Although rarely built to this scale in the Yorkshire and Humber Region, large regular courtyard farmsteads are concentrated in areas that were similarly affected by reorganisation such as the Yorkshire Wolds and on the Tabular Hills west of the North Yorkshire Moors. © English Heritage

17



The ultimate examples of courtyard farmsteads are the planned and model farms of the late 18th- and 19th-century estates (Figure 17), the ideas for which were widely disseminated in textbooks and journals (Wade Martins 2002). They are generally associated with holdings over 150 acres, and are far less likely than the other plan types to be associated with other loose scatters of buildings.

## 5.2 FACTORS INFLUENCING FARMSTEAD CHARACTER

The occasional merging of plan types can make the variations on these principal themes seem almost infinite. The identification and analysis of the broad patterns of plan types can reveal much about the impact of the factors that influence farmstead character.

### 5.2.1 FARM SIZE

Generally, larger holdings were more likely to be provided with larger and/or more buildings. In the 18th and 19th centuries, the 'contemporary rule of thumb' was that a man was needed for every 25 or 30 acres of arable and every 50 or 60 of pasture' (Mingay 1989, p.953). Statistics on the numbers of farms by size can be misleading: although 71% of holdings were under 50 acres as late as 1880 (Howkins 1994, p.53), the proportion of land area taken up by small farms was much smaller and regionally very varied. By the 1850s, medium-size farms – typically mixed arable holdings – were between 100 and 299 acres, and occupied nearly half of England's acreage; as much as one third was taken up by large farms of over 300 acres, these being best placed to invest in 'High Farming' (Mingay 1989, p.950). Farms of 500 acres and above were found

on the chalk downlands of southern England, and in the Lincolnshire and Yorkshire Wolds: 1000 acres was not uncommon in these areas (Prince in Mingay 1989, p.82). These farms had greater access to capital and were usually associated with corn production, which typically demanded more labour for carting, harvesting and threshing and increasingly for yard and stock management: strawing-down yards, lifting the heavy manure-laden straw into middens and carts and spreading it on the fields. Smaller farms, typically found in dairying and stock-rearing and fattening areas, required fewer large buildings and were less likely to have the capital to expend on rebuilding farmsteads to fit with developing agricultural practice. The very smallest (of under 50 acres) thrived in fruit-growing and market-gardening areas (often clustered around urban sites), and in locations such as west Cornwall and the Pennines where there was gainful by-employment in industry – for example the weaver-farmers of the West Riding linear-plan farms, noted by Caird (1852), who kept dairy cattle on holdings of around 20 acres, supplying nearby towns with milk (Mingay 1989, p.940).

### 5.2.2 ESTATE POLICY

Estates, and thus landlords and their agents, have been massively important in English rural history, with tenants occupying some 85% of the farm area until the land transfers of the early 20th century mentioned in 4.1.4 above (Mingay 1989, pp.943–4). The character of an area thus can be strongly influenced by the estate of which it was part. Family insignia, estate-made bricks and the styling of cast-iron windows or ventilation grills can all give a unity to buildings over several parishes and this is as true of farm buildings as of cottages and village schools. Typically, and observable from 1350 onwards (Le Patourel in Miller 1991, p.846), improvements by landlords were aimed at attracting good tenants in either times of plenty (when capital expenditure could secure an increase in rent) or depression (when it could forestall a decrease). By the mid-17th century, home farms were being developed as examples of best practice for tenants. Between 1650 and 1750 landlords assumed increasing responsibility – in comprehensive lease agreements – for fixed capital works (particularly barns and houses) and after 1750 the influence of estates can be seen in the planning and design of buildings and entire complexes for home farms and tenant farms (Thirsk 1985, pp.72, 235; Thirsk 1967, pp.680–81; Wade Martins 2001). Estates often erected new buildings in order to attract tenants with the working capital to invest in their land and thus, through increased productivity, maintain rents at a high level. The policies of larger estates often discriminated against smaller holdings and the maintenance of their buildings. County studies (for example, Wade Martins 1991) have demonstrated how varied estate policy in

similar areas could be, despite the rise of the land agent as a professional class, increasing access to farming literature and the ironing out of many glaring inconsistencies in estate practice by around 1850. The small estate is less well understood (e.g., Collins et al 1989).

### 5.2.3 LOCAL VARIATION OF FARMING SYSTEMS

The type and form of built fabric display regional variations that are more firmly linked to the broad pattern of land use and its landscape context (whether wood pasture, enclosed or open landscapes). In East Anglia the older timber-framed, evolved farmstead groups with ample barn provision and multi-functional buildings are associated with the small, well-hedged fields typical of the wood-pasture regions, while the large planned farms of brick or brick and flint are found on the later enclosed areas of heath (Wade Martins 1991; Wade Martins & Williamson 1999). The differences within Wiltshire are also clearly demonstrated by the farm buildings: the chalkland typically has loose courtyard plan steadings with their large-scale barns serving specialist corn and sheep husbandry; the smaller farms associated with dairying and cheese production in the northern wood-pasture area are of a more dispersed plan (Slocombe 1989). The yard management of stock also displayed a strong variation dependent on regional or estate practice. Thus the long-established practice of buying store cattle in spring and selling them on in the autumn survived longest in areas with rich grasslands, such as the Somerset Levels and the east Midlands, in contrast to Norfolk and the eastern lowlands where yards were filled over winter, even during the lean years for the beef industry in the 1930s (Whetham 1978, pp.290–91).

### 5.2.4 INTERNAL WORKINGS OF THE FARMYARD

The layout of the farmyard should firstly be seen in relationship to its immediate setting: of crop storage and processing buildings to the fields; of yards, platforms for corn, haystacks and cart sheds to trackways. Secondly, an important characteristic is the degree to which the layout of the farmstead was related to function. The planning of farmsteads to maximise efficiency engaged an increasing number of writers from the 1740s, who generally rated traditional layouts poorly against the perceived benefits of ordered and ideally planned layouts that minimised, for example, the time it took to process a stack of corn, transport the straw to the cattle yard and grain to the granary or mixing room. Many such writers, however, did not display sufficient understanding of the other factors – land use, terrain, weather, farm size, location in village or open countryside – that dictated layout. The most comprehensive analyses of local farming systems in relationship to farmstead layout are contained in Barnwell & Giles (1997).

### 5.2.5 DEVELOPMENT OF FARMING SYSTEMS

Archaeological evidence from deserted medieval settlements has shown how linear plans, including longhouses, were replaced by loose courtyard arrangements as owners prospered and their holdings grew larger (Lake 1989, pp.81–2; Gardiner 2000). Evidence from the tithe maps and first-edition 25-inch maps for sample Norfolk parishes showed that nearly half the farms were of an irregular layout in 1840 with very few regular E- or U-shaped courtyard plans. By 1880 dispersed layouts had reduced to an eighth, with E- and U-plans accounting for about a quarter of farms (Wade Martins 1991, p.199).

### 5.3 FARMSTEAD PLANS IN YORKSHIRE AND THE HUMBER

The plan forms of farmsteads in the Region display massive differences in terms of scale. Dispersed plans are common throughout the Region, the principal differences being in terms of scale and between linear farmsteads, mostly now concentrated in upland landscapes, and the courtyard steadings of the Wolds and pockets in other areas. The surviving stock of farm buildings is the result of continuous adaptation and rebuilding, and the great bulk of it in this Region post-dates 1750. Evidence for the diverse range of earlier buildings (barns and hay houses, ox houses and wagon houses) comes from both archaeological and documentary sources such as 17th-century surveys (RCHME 1987, p.152). The examination of earthworks and records together has revealed the layouts of medieval manorial complexes and the platforms of cruck-framed timber buildings including linear ranges on peasant tofts, field barns and helms (Moorhouse 2003a, pp.192–4; Moorhouse 2003b, pp.312–8). Some farms and hamlets in the Yorkshire Dales have preserved the outlines of the vaccaries from which they originated, in particular the yards around which the milking shed, cheese house and other buildings were arranged (McDonnell 1990, pp.27, 33–39). In other lowland areas, there is evidence that farms were focused around 'foulds' for cattle prior to any buildings for cattle being erected (Hey 1969, p.112).

#### 5.3.1 LINEAR PLANS

Linear layouts are present throughout the Region, in lowland areas including the Wolds being found with a small number of village-based 18th-century and earlier farmsteads. They are uncommon in lowland areas, where surviving examples are commonly of pre-19th-century date. They are dominant in the Pennine uplands and very common in the Pennine fringe areas and the North Yorkshire Moors. Examples display an enormous range in scale and status.

Buildings were often added to one end or another to produce an elongated range or simply to join together individual buildings or groups formerly not connected.

Linear farmsteads dating from the late 17th century are widespread and dominant in the Yorkshire Dales and indeed throughout the Pennines and its fringe areas. Eighteenth-century and later examples often have a cart shed, stable and first-floor granary separating the house from the barn and cow house (Moor 2001, pp.37–8). An overwhelming number of linear farmsteads date from between 1650 and 1750, after which the symmetrical two-storey house became more common. As farm size increased so did the number of buildings required, particularly for housing cattle, which were normally in-wintered for up to six months in upland areas of northern England (Grundy 1970, pp.3–5). A second range of buildings could be built along the valley side, parallel to the farmhouse, their design constrained by the dictates of the landscape. Very few linear plans are without a scatter of subsidiary buildings, and some – as in the North Yorkshire Moors – developed into plans of two or three blocks of attached buildings (RCHME 1987, p.156).

##### 5.3.1.1 Longhouses

In the North Yorkshire Moors, it is clear that the longhouse plan was dominant until the 18th century. These buildings were typically single storey, smaller than surviving examples in the South West and West Midlands, and were able to accommodate the eight to twelve cattle of the average yeoman farmer (RCHME 1987, p.8). From the early 18th century they were being replaced by two-storey houses with attached buildings, and adapted with the conversion of lower ends into domestic or service use (Figure 8B). In the late 18th and early 19th centuries great numbers in the North Yorkshire Moors were swept away or remodelled in the course of the enclosure movement (RCHME 1987, p.13, 38).

There is mounting evidence for surviving longhouses elsewhere in the Region; for example, inventories demonstrate their use in the Vale of York (Harrison 1991) and Nidderdale (Pennines Dales Fringe: Jennings 1984, p.475) and record their existence in the 17th century and earlier in Teesdale (Harrison 2001, pp.75–6). Some of these have survived, in adapted form, to the present day. There is some fragmentary evidence for their survival in Cleveland (Harrison & Hutton 1984, pp.12, 45) and, to a greater extent, in the North Yorkshire Moors and the Vale of Pickering. In the Yorkshire Dales – where heather-thatched single-storey houses were increasingly replaced by stone and slate houses from the later 17th century (Fieldhouse & Jennings 1978, p.244) – many farmhouses retain evidence of rebuilt lower ends (now serving as outbuildings or integrated into the domestic plan); if subject to systematic investigation, it may be clear that much of the Dales was populated by longhouses until the 18th century. Recent work by English Heritage in Helmsley (Vale of Pickering) has indicated that the town centre as well as the periphery was full of

### 18 Farmstead plans in Yorkshire and the Humber

A Linear farmstead (Yorkshire Dales)

B Laithe house (Yorkshire Dales)

C Regular courtyard (Howardian Hills)

A © Jeremy Lake; B © Countryside Agency / Mike Williams;

C 328774 © Mr Chris Broadribb Taken as part of the Images of England Project

18A



18B



18C



longhouses, which have had a considerable impact on the form of its architecture.

#### 5.3.1.2 Laithe houses

A regionally distinct linear plan-type shared with adjoining parts of the North West is the laithe house, the word 'laithe' or 'lathe' being a northern English dialect word for a combined barn and cow house (RCHME 1986, p.178). The house and farm buildings are usually of one build, but there is no cross-passage or inter-connection between the domestic and agricultural parts and both the roofline and the width of the various components may differ. Typically the farm buildings housed hay, corn, cattle and occasional other functions (such as stabling). Typical of the central Pennines, but also found in Cumbria and Bowland and Rossendale in Lancashire, examples date from the mid-17th century but are not common until after 1750, with a concentration in the 1780–1840 period. They typically served farms of about 30 acres or less, and are most densely concentrated in the Pennine part of West Yorkshire and Lancashire, where dual income from farming and industry – primarily textiles, but also lead working – enabled smallholdings to be economically viable (RCHME 1986, pp.178–183; Brunskill 1987, pp.106–110). The weaver-farmers of the West Riding (in the Southern Pennines area) as noted by Caird in 1851, for example, kept dairy cattle on holdings of around 20 acres, supplying the nearby towns with milk (Mingay 1989, p.940). Around Sheffield

there is evidence for complexes with workshops serving the cutlery industry.

#### 5.3.2 L- AND T-SHAPED LAYOUTS

In the lowland areas of the Region it is more common to find houses forming part of L-plan groups or – particularly on larger farms and those established on new sites – detached from the farm buildings. In Holderness and the Humberhead Levels T- and L-shaped layouts are commonly found, with cattle yards sheltered by northern barn ranges. A pattern emerging from some recent surveys is of substantial remodelling of later 18th-century enclosure farmsteads (often comprising a house and barn only) with shelter sheds and yards for fatstock, combination barns and cart shed/granary ranges in the early and mid-19th century (Birdsall, 2000; Harrison 2002, pp.9–10).

#### 5.3.3 COURTYARD LAYOUTS

Whilst small farms could be provided with formally planned yards, courtyard plans were most commonly developed on arable-based farms established as a result of enclosure from the later 18th century; for example, on the Sledmere estate and the Tabular Hills to the west of the North Yorkshire Moors (RCHME 1987, pp.159; 162).

Large-scale courtyard plans – including planned layouts – are mostly concentrated on the large farms of the arable lowlands (Vales of York, Mowbray and Pickering) and in the Southern Magesian Limestone, the Tabular Hills and

throughout the Wolds. This was particularly true of those areas affected by wholesale enclosure and the activities of improving estates, where new steadings were built away from village centres. In 1788 William Marshall noted the appearance of new courtyard farmsteads facing south in large parts of the Wolds (Marshall 1788, pp.127, 251). Almost all are associated with farmhouses adhering to the new type of centralised double-depth plan. A small number of courtyard plans are found in those areas of Pennine upland subject to large-scale and regular enclosure at the high point of arable farming during the Napoleonic Wars. Many courtyard and L-plan farmsteads are associated with the use of horsepower for crop and fodder processing (see 6.1.2.3) and went through a second phase of improvement in the mid-19th century when cattle yards were divided to provide for greater specialisation in stock-rearing methods, and occasionally when steam engines were inserted (Wade Martins 2002, pp.222–3). The buildings associated with farmsteads in these areas are predominantly of post-1750 (and mainly post-1840) date, the houses associated with them displaying the eclipse of the longhouse by the lobby-entry plan from the early 17th century and then of more centralised plans with rear service wings from the mid-18th century (Figure 8F). Farmhouses in the Wolds, often of three storeys, could include accommodation for the substantial proportion of live-in farm workers; there are some examples of detached

housing for labourers (as in the North East) on these substantial farms (Sheppard 1961, pp.47, 49; Pevsner 1972, pp.79–86).

Yorkshire was an area with one of the highest concentrations of substantial landowners in the country in 1883, with 143 owners of more than 3,000 acres spread across the three Ridings. A number of planned farms associated with their estates date from the period 1750–1790, such as the Sledmere estates on the Wolds. Strickland, writing in *The General View* in 1812, described the typical Wolds farm as a courtyard layout comprising a farmhouse with barns, implement sheds and stables around a single cattle yard. Mid-19th-century farms are also well represented in the county. The most impressive example is that built at Enholmes Farm, Patrington, in 1849 by William Marshall, a flax spinner from Leeds. This huge complex, with tramways serving five rows of cattle boxes, demonstrates a transitional stage between covered yards in which cattle were stalled and later kept loose (Wade Martins 2002, pp.85–90, 121–3, 222–3). It is important, however, to stress that tenants could continue to be responsible for erecting buildings themselves, often not adhering to national models, as can be seen on the Duncombe Park estate in the North Yorkshire Moors where plaques record buildings erected by tenants not the estate (RCHME 1987, p.154).

# 6.0 Key Building Types: Crop Storage and Processing

The analysis of key building types presented here could be presented by function rather than building type, as many functions relate to parts of buildings or parts of entire ranges or farmstead types. As the relationship between farmstead form and function has been outlined in Section 5, Section 6 will comprise a conventional overview of the key functional types. It will be noted in some regions that so many of these functions are combined in one combination barn or farmstead type that they cannot be easily teased out as a separate theme. Nevertheless, the national framework sections do present an overview of on-farm functions, and where relevant their rarity and survival, that are applicable nationally.

## 6.1 BARNES

### 6.1.1 NATIONAL OVERVIEW

In the British Isles and other parts of northern Europe, the harvested corn was often stored and processed inside a barn. After threshing – typically a process that occurred gradually over the winter months – the straw usually remained in the barn awaiting its use as bedding for livestock, while the grain destined for market or next year's seed would be stored either in the farmhouse or in a purpose-built granary.

Barns are often the oldest and most impressive buildings on the farm and are characterised by:

- Internal space for the storage of the unthreshed crop and an area (the threshing floor) for beating by flail the grain from the crop and for winnowing the grain from the chaff in a cross draught. This was also an area for the storage of straw after threshing.
- Externally, typically large opposing doors on the side walls to the threshing floor; although the size of openings is subject to much regional variation. Barns on large arable farms commonly had large threshing doors, sometimes with porches, into which a laden wagon would draw up and unload the crop. In some parts of the country the crop would be forked into the barn through pitching holes, and the threshing doors would be much smaller. Small winnowing doors sufficed in many pastoral-farming areas.
- Blank external walls, in mass-walled buildings often strengthened by buttresses or pilasters. Mass-walled barns usually had ventilation slits or patterned ventilation openings, and the wattle or lath infill to timber-framed barns was often left exposed. In some

areas, the crop would be unloaded from a cart or wagon into the barn through pitching holes.

The distinctive form and plan of barns remained comparatively little altered between the 13th and 19th centuries. Surviving pre-1750 barns represent only a small proportion of the original population, their date, scale and landscape context being major factors in determining their survival. There is only one complete survivor of the 2–2,900 tithe barns that existed on Cistercian estates in the pre-1550 period (Brunskill 1982, p.35). Local studies have indicated that small and pre-18th-century barns are most likely to survive on farm holdings of less than 150 acres that have not experienced major growth in subsequent centuries (Wade Martins 1991, p.160). These are concentrated in landscapes of ancient enclosure, improving estates and the process of enclosure in the post-1750 being linked to often wholesale rebuilding.

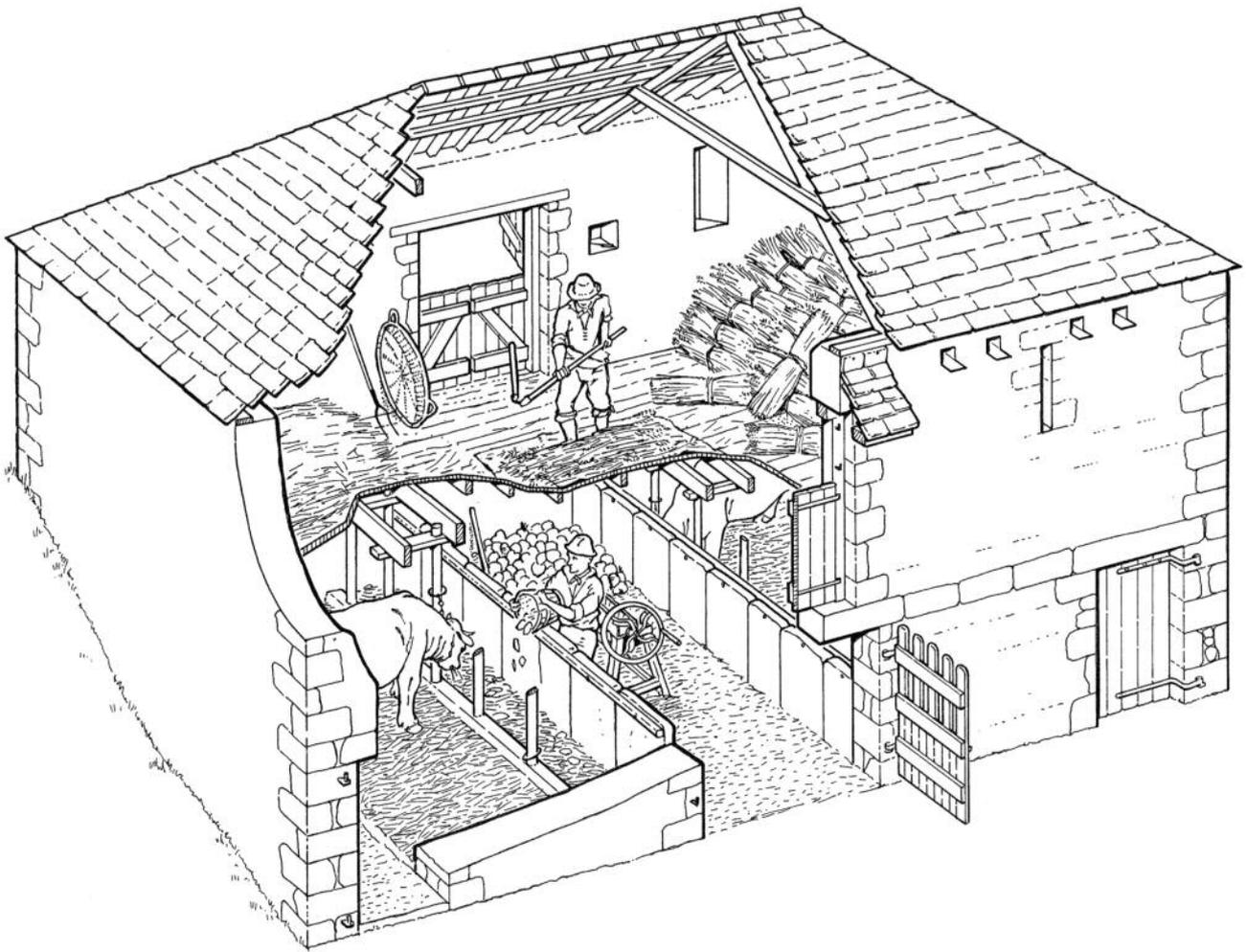
Major variations were in the five following areas.

#### 6.1.1.1 Plan form

In the most common form of plan the threshing floor was in the centre, although it could be sited off-centre or at one end. A greater span was enabled by aisled barn construction, either in single or double aisles. This was common in East Anglia and the South East (Rigold 1971 and 1973), and for high-status buildings outside that area, including a group mostly dating from between 1570 and 1650 in the Pennines (Clarke 1972 and 1974).

Outshots or projecting lean-tos were commonly added to barns, for housing carts, livestock and other functions. The number of additional external openings indicates accommodation for other functions, ranging from minor doors enabling the barn to house functions such as clipping sheep when empty, to lofts and stabling,

19 A bank barn showing the first-floor barn over ground-floor shippens and a fodder-preparation area. This example is a true bank barn in that it is built along a bank, giving ground-level access to the entrance of the first-floor barn. Some bank barns, called 'variant bank barns' are set-end on to the slope and have the upper level access into the gable. Although not widespread in Yorkshire and the Humber, bank barns are found in the western parts of the Region. © English Heritage



### 6.1.1.2 Size

Barn size can be strongly indicative of the former extent of arable and holding size, ranging from very small in dairying or stock-rearing areas, to very large on the much larger holdings of arable areas. The practice of mowing rather than cutting by sickle the corn crop, widespread by the 19th century, also had an impact on barn size, as large quantities of straw – ready for feeding cattle in the yard – would need to be accommodated.

In the medieval period it was common practice to house all the crop in the barn, but in later centuries the unthreshed crop could be raised off the ground by a platform or by staddle stones (see 6.2 and Figure 25), and stored in an open yard (rickyard) or a staddle barn. Examples of the latter, typically of late 18th- to early 19th-century date, survive on the downland farms of Hampshire, south Wiltshire and east Dorset. Ricking was not a common practice in southern England until the 19th century, but was noted by observers as being common in northern England and Staffordshire in the 17th century (Colvin & Newman 1981, p.97; Peters 1969, p.65).

### 6.1.1.3 Combination Barns

There is increasing evidence in many parts of the country for threshing barns to have originated from at least the 17th century as combination barns, which incorporated other functions in the main body of the barn such as the housing of livestock. These ranged from the end bays of the barn to the aisles of Pennine barns or the ground floors of split-level buildings (Figure 19). Multi-functional two-level barns, including bank barns and their variants, were increasingly adopted from the late 18th century (and noted by the writers of the county reports for the Board of Agriculture) – often along with the introduction of mechanisation – in many areas of England (Barnwell & Giles 1997, p.156).

### 6.1.1.4 Evidence for mechanisation

The introduction of machine threshing after its invention in 1786 led to the erection in existing barns of additions to house machinery, for chopping and crushing fodder as well as threshing grain. Early machines were powered by horse engines in special-purpose semi-circular buildings, which projected from the barn and were commonly known as 'gin gangs' in the north of England. Steam, water and wind power were also used (Figure 20).

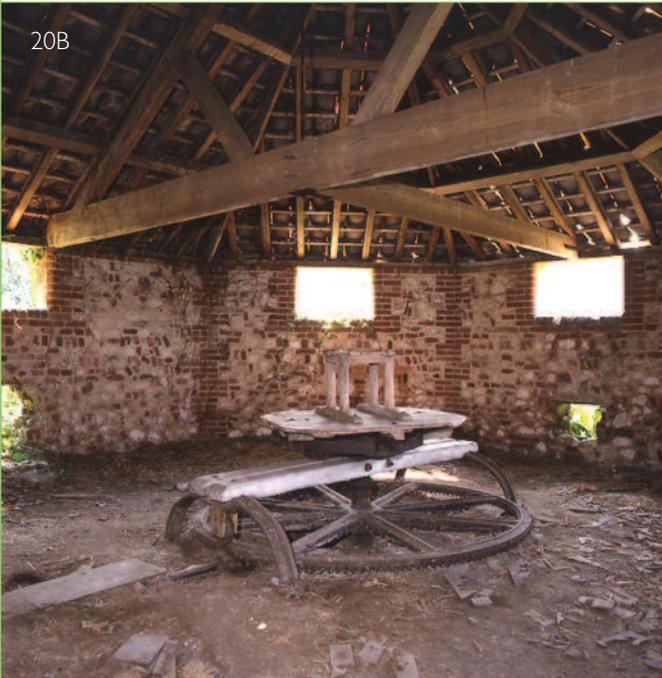
20 Power in barns: national examples

- A A projecting horse engine house attached to a barn, unusually sited at the end of the building. (Humberhead Levels)
  - B The interior of a horse engine house that contains a rare example of an in situ horse gin. (North West Norfolk)
  - C A water wheel, providing power to the feed-processing machinery in a home dairy farm, remodelled in the 1890s. (Breckland)
  - D A farmstead that incorporated a fixed steam engine to drive threshing and other crop- and fodder-processing equipment. (Cheviot Fringe)
  - E The use of portable steam engines often left no physical evidence within the barn structure but in some cases drive shafts and fly wheels survive in-situ. (Dorset Downs and Cranborne Chase)
- A © Jeremy Lake; B & C © English Heritage / Michael Williams; D © Jen Deadman; E © Bob Edwards

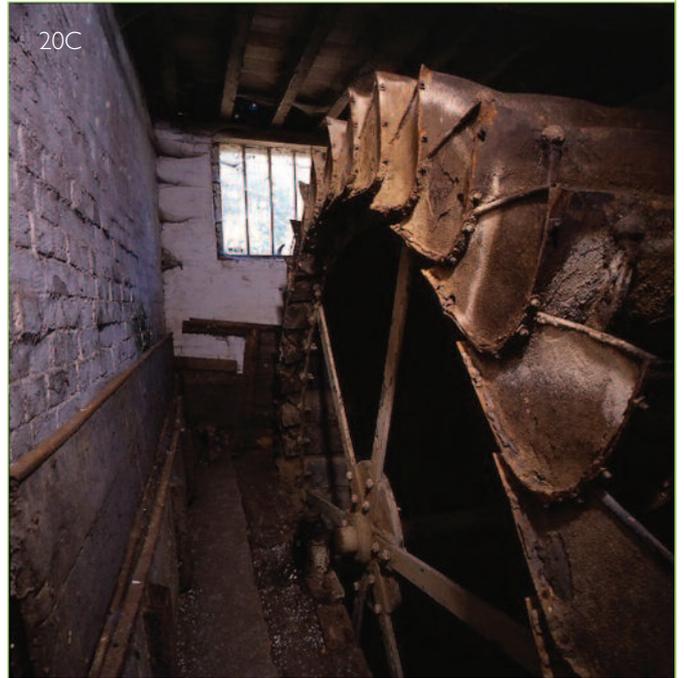
20A



20B



20C



20D



20E



The uptake of machinery varied across the country. In areas where labour was expensive mechanisation found favour; horse engine houses and evidence for water power being most common in the lowlands of Yorkshire and the Humber and the North East, in parts of the West Midlands and in the South West peninsula (especially Cornwall). In the southern counties, where

labour was cheap and abundant until the 1850s or later, few barns bear evidence for the introduction of machinery (Hutton 1976).

From the early 19th century the traditional barn began to be replaced by large multi-functional buildings with threshing and fodder-processing areas linked to granaries,

straw storage and cattle housing. These could project from the north of courtyard plans (as was common in Northumberland) or be integrated into other types of plan. In some areas, such as the eastern lowlands from Nottinghamshire northwards, the barn was from the 1850s reduced to a small feed-processing room (Figure 23, bottom).

The introduction of the portable steam engine and threshing machine meant that tackle could be taken to the stack. This was widespread by the 1850s, and heralded the end of the traditional barn as a processing building.

Features relating to the use of power are highly vulnerable and rare, particularly horse wheels.

#### 6.1.1.5 Evidence for reuse and adaptation

Careful inspection of barn interiors may reveal evidence for reused timbers (a common practice), in addition to former floors, partitions, doors and windows. This may well indicate that a present open space was divided off at one end or even provided with an additional floor. The high point of barn building occurred during the 18th and early 19th centuries, as grain yields rose and new land came into cultivation. Additions were commonly made to existing barns or additional barns built. It is also likely that where a barn was originally multi-purpose, the animal housing was removed and a separate barn or cow house built.

Mechanical threshing had removed the need for a threshing floor and the uses to which the barn was put changed. As cattle gained in importance at the end of the 19th century barns were converted into mixing houses for fodder. The introduction of steam-powered machinery (whether fixed or mobile) usually involved the cutting of a hatch in the barn wall in order to allow belting to enter. Alterations might well involve the dividing of the building with partition walls and floors.

#### 6.1.2 BARNs IN YORKSHIRE AND THE HUMBER

(Figure 21)

In this Region barns that functioned only as buildings for crop storage and processing, and characterised by large and opposing double doors allowing wagons to be drawn through the barn for unloading, are principally concentrated in the Vales of Mowbray and York. In much of the Region the crop was loaded into the barn from outside, and pitching windows and small winnowing doors, opposite the main barn entry, are common features. Larger threshing bay doors (as in the Craven area of the Dales) are typically found where larger quantities of corn were grown (Mason 1989).

A small number of barns, mostly aisled, survive on the grange and home farms of secular lords (for example,

the later 13th-century barn at Whiston Manor, owned by the Furnivall family: Tyers & Groves, 2002) and ecclesiastical estates (for example the buildings, including a part-framed barn with upper malting floor; at Nostell Priory near Wakefield). The largest barns – aisled and cruck buildings, many built as combination barns – are concentrated in the Southern Pennines area to the west of the Southern Magnesian Limestone, on the home farms of gentry estates. Dating from the mid-15th century, and associated with an emerging wealthy farmer and gentry class, is a large group of aisled barns concentrated around the Southern Pennines area, also extending into Lancashire. Some of these examples are late medieval (RCHME 1987, p.163) but most appear to have been built between 1570 and 1650. In the Southern Pennines, particularly in the Calder Valley where a wealthy class of yeoman clothier–farmers emerged in the later 15th century, these can be significant structures with the addition of one or more aisles with impressive timbered arcades and king-post or queen-strut roofs. Many of their aisled houses are believed to have originated between 1475 and 1575 as timber-framed buildings that were encased in stone during the period 1580–1700, with lower ends built originally for the storage of cloth, occasional cross wings and fine runs of mullioned windows and decorative details. These aisled barns continued to be built into the late 17th century, and their functions of threshing and processing were often combined with stabling and cattle housing.

In upland areas, the earliest examples of barns – dating up to and including the 17th century – comprised single-storey, dry-stone wall structures, three or four bays long, the roofs often supported on crucks with a threshing floor and an adjacent walled-off cow byre. In the prosperous Calder Valley crucks only survive in small houses and outbuildings, in contrast to the much poorer Southern Pennine Fringe (especially the Colne and Holme valleys) where cruck-framed yeoman houses and barns survive, reflecting the lack of capital to rebuild farmhouses and barns (RCHME 1988, pp.36–41). The greatest concentration of cruck barns is in south-west Yorkshire and north Derbyshire: a common arrangement has a through entry to a stone-flag threshing floor with a separate entrance to a lean-to for housing cattle, some of which are certainly of late 17th- and 18th-century date rather than being 19th-century additions.

The combination of functions in a single building was, as in the North West and North East, prevalent throughout the Region. Fully or partly storeyed combination barns, built in stone and either attached to the house or built separate, were being constructed in this Region from the 15th century at least. They are found in a variety of forms which include:

21 Barns in Yorkshire and the Humber

- A Linear farmstead with barn attached to the farmhouse (Yorkshire Dales)  
Combination barns incorporating cattle housing and, sometimes, stabling are commonly found across the Region on farms of all sizes.
- B A mid-17th-century aisled barn on a gentry farm. (Lancashire Valleys)
- C A 17th-century unaisled combination barn. (Yorkshire Dales)
- D A large brick-built combination range of the 1790s. (Yorkshire Wolds)
- E A brick barn forming part of a L-plan range with an open-fronted

- shelter shed attached. This form of barn, with pitching holes either side of the entrance, is particularly characteristic of Holderness and adjacent parts of the Vale of York. (Vale of York)
- F Barns that provided crop storage and processing only tend to be relatively small, typically of three bays (North Yorkshire Moors and Cleveland Hills)  
A & C © Jen Deadman B 324894 © David K. Gibson Taken as part of the Images of England Project; D & E © Jeremy Lake; F © English Heritage



Aisled threshing barns with cattle accommodated in the aisles, facing into the central nave. The form of aisled barns in this Region – in contrast to the South East and East of England Regions – provided a large floor area that served a multipurpose function, incorporating both a storage area for hay and crops and stalls for cattle. Such

barns typically had wide aisles, often nearly as wide as the nave, achieved by the use of relatively low-pitched roofs, and separate doorways into the areas where cattle were stalled. These doorways were often built into the end walls, providing access for cattle directly into the aisles, and there is evidence for gable-end entries into

byres or sheep houses on monastic granges and on peasant tenements in the Dales (Le Patourel in Miller 1991, pp.877–9; Moorhouse 2003b, pp.315–7).

*The bank barn*, (Figure 19) which is concentrated in the North West Region, is also commonly found on the western edge of this Region (Brunskill 1987, p.116; Whittaker 2001, p.4), particularly in the Dales but with some examples also in the Dark Peak. Surviving examples date from the later 18th century, although there are examples of earlier variant bank barns (built across rather than along the slope) in the Dark Peak. For more on bank barns, see North West.

*L-plan arrangements* with cattle housing attached to the barn. These were built on both large gentry farms from the 17th century or possibly earlier in the South Pennines area in particular – for example at Thorpe Farm Barn, Almondbury (a high-status cruck barn with an outshut for cattle, and a rear wing with exposed framing rebuilt in 18th-century stone). There are many examples dating from the later 18th century, particularly in the west of the Region and in Holderness and the adjacent parts of the Vale of York (See Walton 1947, pp.17, 34–7).

*Integral or later outshuts*, the entries being both from the gable ends and sides of the barn. Surviving examples, whether representing single-build or adapted buildings, date from the later 17th century and are concentrated in the Yorkshire Dales and the Southern Pennines area.

*Lofted cow houses at one or both ends of the barn, accessed from doors in the gable end*. These are principally concentrated in the north and west of the Region. As with the earliest examples of similar structures and bank barns in the North West Region, the earliest examples of this type of barn, dating from the late 17th century, primarily represent the activities of gentry and the wealthier yeoman class of farmer. Normally the downhill end of the barn is broadened to take two rows of stalls for cattle, with three doorways in the gable end giving access to the central feeding passage and manure passages, an arrangement related to the gable-end entries found on some aisled barns.

*Lofted cow houses at one or both ends, accessed from separate entries in the side wall*. These are found throughout the Region and in increasing numbers from the late 18th century. They often had narrow or double doors to the threshing floor.

*Fully-storeyed barns*, with a threshing area to the centre flanked by cattle housing and/or stabling, with either a hayloft or external steps to a granary above at one or both ends. The threshing barn is externally characterised by ventilation slits. These are principally concentrated in

the eastern and northern part of the Region, and also in the Dark Peak, and date from the later 18th century. Marshall recognised structures of this type (calling them 'chamber barns') in his survey of 1788 (Marshall 1788, pp.128–32).

*Laithe houses* of the Pennines (see 5.3) include combination barns with high, arched entrances to a barn (hay and corn) with stabling and a cow house (often for as little as six cattle) at the lower end (Figure 18B).

In these combination buildings, there are many variations on the above themes variously incorporating cattle housing, stabling and first-floor granaries with stone steps.

### 6.1.2.1 Mechanisation

Horse engines were installed on the larger lowland farms from the early 19th century to work threshing and feed-preparation machinery, and are concentrated in the Wolds, the Vale of York and Holderness. The surviving population are a very small proportion of the original total. By the mid-19th century steam engines were being installed on the largest of farms, but in contrast to the North East, are rarely found (as engine houses with stacks) in this Region.

## 6.2 GRANARIES

### 6.2.1 NATIONAL OVERVIEW (Figures 22 & 23)

Once threshed, grain needed to be stored away from damp and vermin. It would be sold off the farm or retained for animal feed. A small number of specialist granaries built by large landowners, in particular the monastic institutions, survive from the 14th century. Most granaries are of late 18th- and 19th-century date, the need for more storage for grain often coinciding with the necessity for more cart and implement space at a time when commercial farming and markets were expanding and more implements introduced on farms. The construction of detached granaries raised off the ground, along with the heightening of plinth walls to timber-framed barns, was also a reaction to the threat posed by the rapid spread of the brown rat from the early 18th century (McCann 1996).

Internally granary walls were usually close-boarded or plastered and limewashed, and the floor made of tight-fitting lapped boards to prevent loss of grain. Grain bins, or the slots in vertical timbers for horizontal planking used to make them, are another characteristic feature: close-boarded partitions allowed different crops to be kept separate (Figure 22). Window openings were typically small, and, with ventilation being the main objective, the openings were generally either louvers, sliding vents or grilles.

22A The interior of a granary over a cart shed showing the grain bins, which allowed different grains, and even the crop from different years, to be kept separate. (North West Norfolk)

B Ventilation was important to keep the stored grain dry. Air circulation could be achieved through small windows with shutters, hit-and-miss ventilation grilles, windows with fixed louvers or, in this example, adjustable louvers. (Hampshire Downs)

A © English Heritage / Michael Williams; B © Bob Edwards

Grain was typically accommodated in:

- The lofts of farmhouses, a practice common before 1750.
- Small, square or rectangular structures raised above ground level on mushroom-shaped staddle stones or brick arches and accessed by moveable wooden steps. Internally, they may have been fitted with wooden partitions to create grain bins. They were clearly related to the helm, which, according to documents from the 15th to 17th centuries, comprised timber platforms on staddle stones and were concentrated in the Midland counties (Dyer 1984; Needham 1984; Airs 1987; Barley 1990, pp.165–7): none have survived or been excavated. Most are of late 18th- or 19th-century date. Examples abound in Cambridgeshire, Berkshire, Sussex, Hampshire and Wiltshire, but extend into Dorset, Devon and Cornwall. Free-standing granaries are commonly timber-framed, clad in weatherboard or infilled with brick, but brick or stone examples have been found, particularly at the western edge of their distribution. The larger free-standing granaries were of two or even three floors (Figure 23).
- The upper floors of farm buildings, most commonly barns – observable from the 14th century (Le Patourel in Miller 1991, p.872) – and from the 17th century in the South East and East Anglia, much later further north and west, above cart sheds (see 6.3.1). Exteriors are usually marked by shuttered windows for ventilation. The side walls are sometimes weatherboarded, even in regions where weatherboarding is unusual, again to help ventilation. Examples date from the 17th century in arable areas. A separate external stair often gave access to the granary door (Figure 23, bottom). There was often a trap door into the cart shed below with a hoist beside it to allow for the loading of sacks. The granary floor had to withstand heavy weights so was stoutly built. In a few instances the granary was situated over cowsheds or stables, but generally this was frowned upon because the damp and smells from the animals below could taint the grain. Because of the value of the crop, granaries were often the only farm building to be locked, sometimes with a dog kennel or goose house under the steps to deter thieves.

A very small number of pre-18th-century detached granaries have survived, and timber-framed granaries – detached or located over cart sheds or stables – are



clearly far less likely to have survived to the present day than examples in stone or brick. Interior fittings such as grain bins and features such as louvered windows are particularly vulnerable when a change of use is contemplated.

### 6.2.2 GRANARIES IN YORKSHIRE AND THE HUMBER (Figure 24)

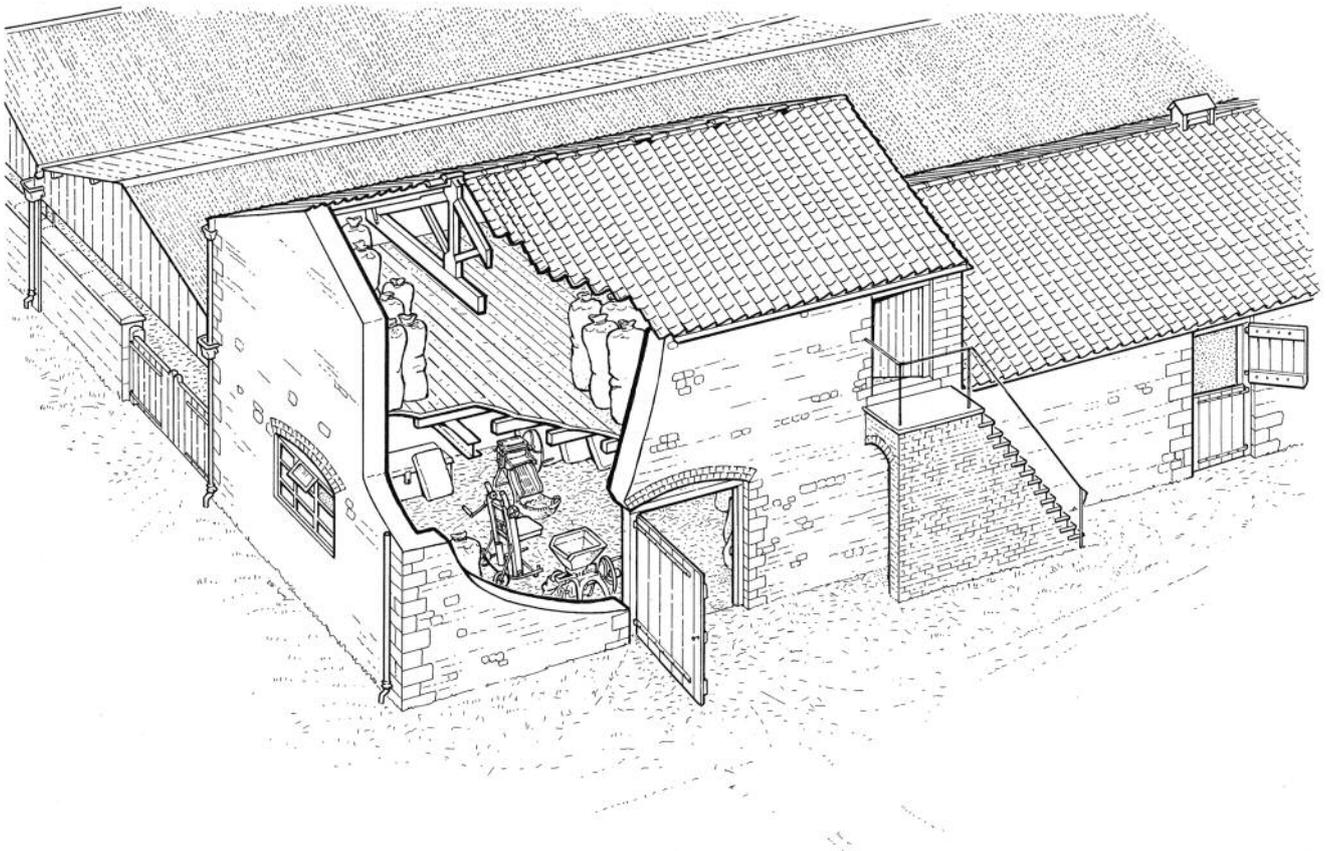
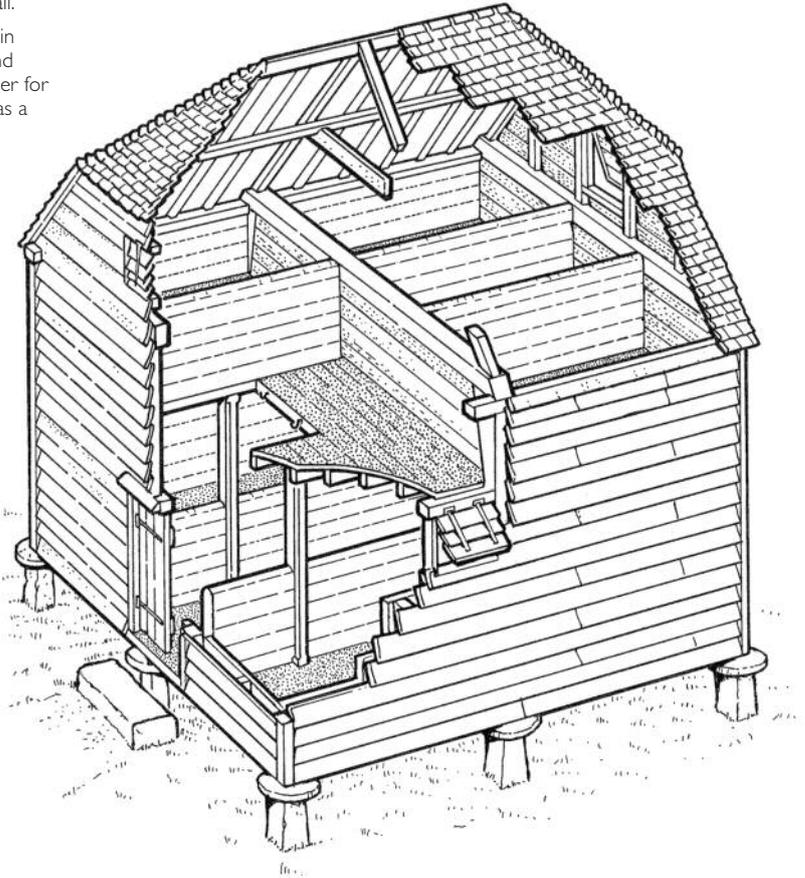
On many upland farms the production of grain was of minor importance and the small quantities stored would often be kept in the farmhouse: steps to a first-floor granary can be found on many Yorkshire Dales farmhouses, and on larger farms typically sited above a cart shed. Separate granaries were rare before the late 18th century in the North Yorkshire Moors (RCHME 1987, p.174). The combined granary/cart shed, with gable-end steps, hinged shutters to first-floor windows and arched openings to the cart bays, is typical of Holderness and Humberhead, the Vale of Pickering, the Wolds and the North Yorkshire Moors. Very similar examples are found in the Lincolnshire Wolds and elsewhere in the east of the East Midlands, and in lowland areas of the North East.

## 23 Granaries

Top: A free-standing timber-framed granary on staddle stones. This example has two floors and is fitted with grain bins on both levels. Staddle-stone granaries are concentrated in a band from Wiltshire to Essex and in South East England with occasional examples being found as far west as Cornwall.

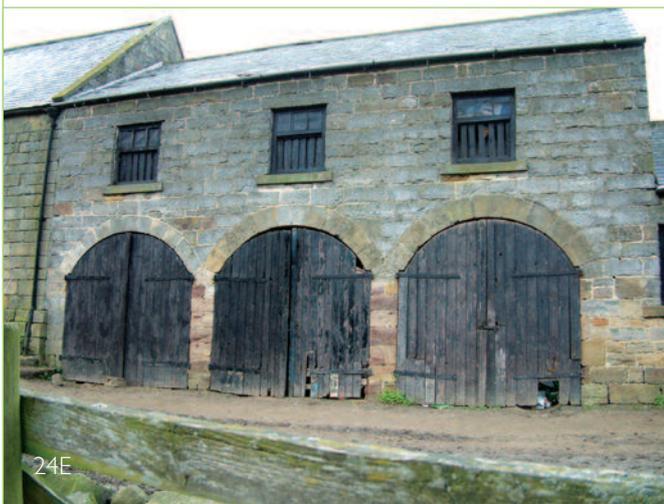
Bottom: Granary occupying the first floor of a mixing barn in Lincolnshire. In this mid-19th-century building the ground floor is devoted to the preparation and storage of fodder for cattle whilst the first floor, reached by external steps, was a granary. In similar buildings in this area only part of the building may have a loft for grain storage.

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24 Granaries and cart sheds in Yorkshire and the Humber  
 Both granaries and cart sheds in the Region typically form part of combination buildings, with granaries being located above stables (A and B Yorkshire Wolds) or, more often, over cart sheds (C, E and F). In C the granary is positioned over a single-bay cart shed at the end of a larger range of lofted stables and cow houses. Single-storey cart sheds (D) are relatively uncommon but still typically form part of a

range, in this case attached to a stable. In E the cart shed retains its boarded doors and the granary above has hit-and-miss window vents, a feature common on many 19th-century granaries in the Region. The later 19th-century range in F has cast-iron piers to the cart shed (C, E and F North Yorkshire Moors and Cleveland Hills; D Yorkshire Dales)  
 A © English Heritage / Michael Williams; B, E & F © Jen Deadman; C © English Heritage; D © Jeremy Lake



### 6.3 CART SHEDS AND IMPLEMENT SHEDS

#### 6.3.1 NATIONAL OVERVIEW

The cart shed housed not only carts for transporting muck to fields, the harvest to the steading and grain to market, but also the implements needed (primarily for arable cultivation) on the farm. It could also

accommodate the coach or pony trap. Left outside, wooden implements could shrink and crack in the sun, while rain and snow caused iron to rust, jamming any moving parts. Cart sheds often faced away from the farmyard and were often close to the stables and roadways, giving direct access to the fields. They have been found as additions to barns, but are more

## 25 Hay barns in Yorkshire and the Humber

Hay was typically stored in lofts above animal accommodation, either within the farmstead or in field barns. From the later 19th century some larger farms in the Region built large open-sided barns using

local stone. Iron-framed Dutch barns were also introduced during this period. (A and B North Yorkshire Moors and Cleveland Hills)  
© Jen Deadman



commonly found as detached single- or double-storey buildings, in the case of the latter invariably with a first-floor granary (see 6.2.1). The size of cart-shed ranges serves as a rough indication of the former arable acreage of the farm. In some parts of the country, often in pastoral areas, the difficult terrain meant that wheeled vehicles were not widely used and so cart sheds tended to be few and smaller; perhaps of only one or two bays. One bay was sometimes enclosed with a wide door for the storage of small implements, or perhaps a pony trap. Cart sheds and implement sheds with lockable doors did not appear in any great numbers until the mid-19th century, when horse-drawn hoes, and later reapers and mowing machines, became more prevalent (Walton 1973; Mingay 1989, pp.532–44).

Examples of pre-19th-century date, concentrated on estate farms and in the arable lowlands, are extremely rare.

### 6.3.2 CART SHEDS IN YORKSHIRE AND THE HUMBER (Figure 24)

Cart sheds nearly always form part of one of the main ranges of buildings and are rarely detached structures. James Tuke observed that carts and wagons were larger in arable than dales landscapes (Tuke 1800, p.9), an observation confirmed by the buildings. The one-bay cart sheds of upland farms contrast with the more common two- or three-bay cart sheds of lowland farms.

## 6.4 HAY BARNS AND OTHER CROP-RELATED BUILDINGS

### 6.4.1 NATIONAL OVERVIEW

Hay would be kept in lofts over the cow house and stable, stored in stacks or in purpose-built barns. The latter differed from corn barns in that they were open-sided to allow a good flow of air through the hay. They

comprised little more than a roof supported on brick, stone or iron piers with solid gable walls. They mostly date from the second half of the 19th century, and are more typical of the wetter pastoral west than the arable east. A very small number of timber hay barns with adjustable roofs – as commonly survive in the Netherlands – survive intact, mostly in Yorkshire. The agricultural depression from the 1870s meant that dairy farming was one of the few branches of farming to remain profitable, leading to an increase in the production of hay. This period saw the introduction of some of the first mass-produced iron farm buildings, such as Dutch barns for hay storage, and also of airtight clamps for the preservation of silage. Silage towers were built in small numbers in the inter-war period, but were not generally adopted until the 1960s (Shaw 1990).

As the use of fodder crops, such as turnips, and overwintering of cattle became countrywide, there developed a need to store the fodder in earth clamps or small rooms. In some of the better-planned farmsteads the root and fodder stores would be incorporated into the cattle housing, usually located close to where the cattle were stalled with access between the two. On smaller farmsteads the root store was either a separate building or formed part of a combination building, perhaps being associated with a granary or workshop. At present, it is not possible to identify any particular features of these buildings, other than the building materials, that are regionally characteristic.

Some areas of the country developed a specialisation in the production of particular crops such as hops or fruit. In some cases these crops required the construction of particular buildings that are regionally characteristic: for example, the oast house/hop kiln of the South East and West Midlands and the cider house of Herefordshire and the South West.

Small kilns for drying corn and particularly malt for brewing have been recovered through excavation (Le Patourel in Miller 1991, p.875) and a small number of much larger and more solidly constructed examples survive from the 17th century, especially in the North West and South West. Surviving examples of corn-drying kilns, concentrated in upland farming areas, are very rare. The processing of corn to flour was undertaken in mills normally powered by water or wind. Mill buildings are often found isolated from farmsteads but occasionally they can form part of the farmstead.

#### **6.4.2 HAY BARNs AND OTHER CROP-RELATED BUILDINGS IN YORKSHIRE AND THE HUMBER**

(Figure 25)

Hay was commonly stored in combination barns and field barns, and the area of space given over to its storage is testament to the importance of the hay crop as the main means of sustaining cattle over the winter months in this Region. Many larger farms were provided with a purpose-built hay barn. This was usually a separate structure with open sides that allowed adequate ventilation of the hay whilst keeping it dry. There are many mid- to late 19th-century examples of this type in the Wolds and

Holderness/Humberhead Levels (Pevsner 1972, p.84), and in the Tees Lowlands and the Vales of York and Mowbray. There are also a small number, especially in the Southern Pennines, of small hay barns with adjustable roofs. These are all 19th century in date, but most probably reflect a much earlier tradition of protecting the hay crop – identical to that still found in the Netherlands (Harvey 1997).

In upland areas it was not always possible to fully ripen the grain sufficiently by natural means, and so corn-drying kilns were used. Farmers usually shared a kiln, which when built for communal use would often be located on common land. The kiln consisted of a firing chamber with a drying floor above. Sometimes the kiln was built into a bank so that both the firing chamber and the drying floor could be tended from ground level. Occasionally a kiln was incorporated into another farm building. From the 18th century it became usual to add kilns to a water mill, leading to farmstead kilns being abandoned (Brunskill 1987, pp.96–7). The example at Riddings Cottage, Bolton Abbey (Yorkshire Dales), had slate drying floors supported on stone joists (Mason & Pacey 2000). From the later 18th century, perforated clay tiles typically replaced the slate floors.