# 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 UP TO 1550 (Figures 10 & 11)

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.

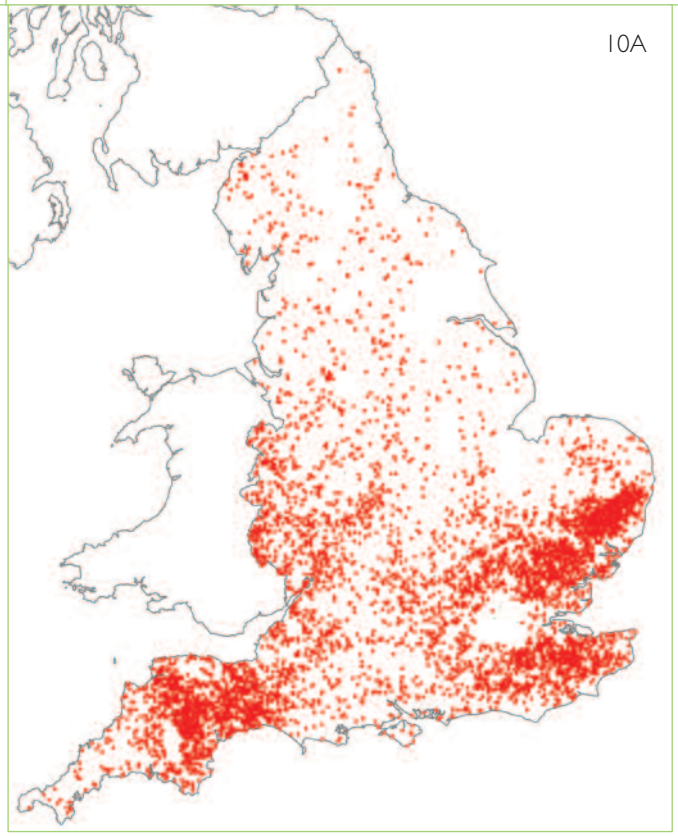
#### 4.1.1.1 Survival and Value

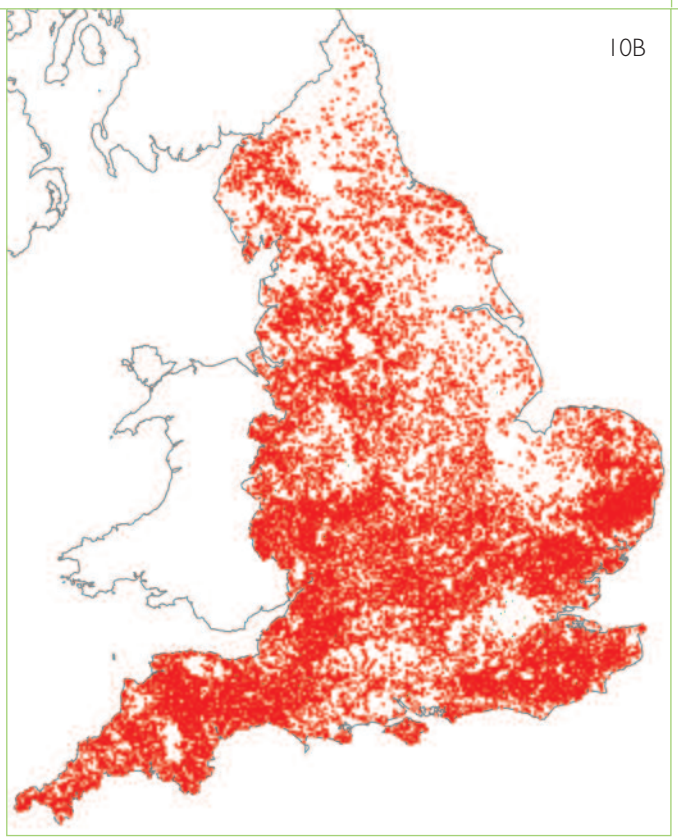
All survivals of this period are of great rarity and significance. The best-known survivals are the great barns of secular and especially ecclesiastical estates. These comprised the foci of farmyards with ancillary buildings that have been almost completely swept away, for which documentary but very 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 10 & 11)

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

10 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. 




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

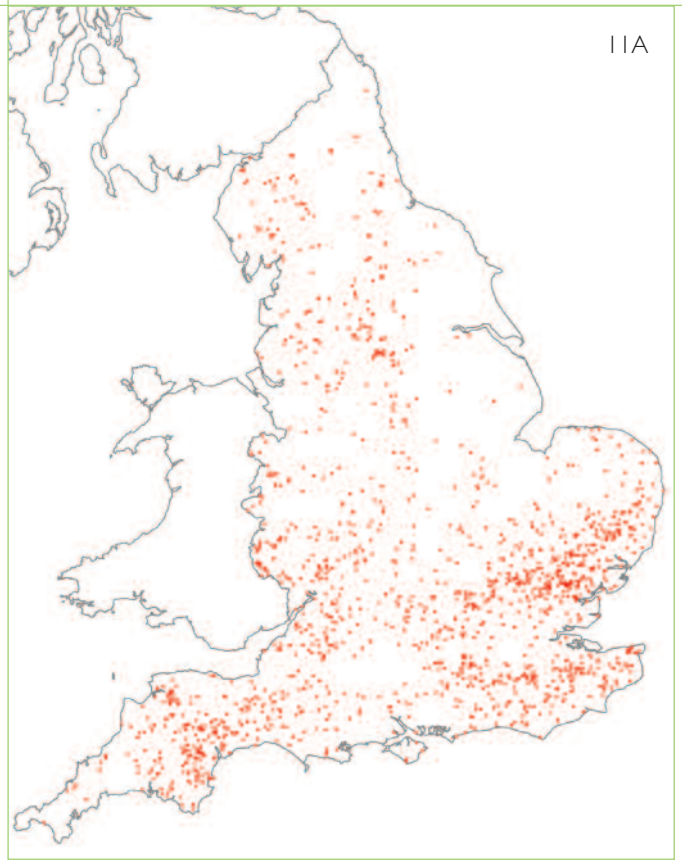
Substantially complete farm buildings of this period are rare. They will often provide the first surviving evidence for the development and strengthening of regional traditions and building types: for example, the timber-framed West Midlands barns that replaced earlier small cruck barns; the linear farmsteads 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.

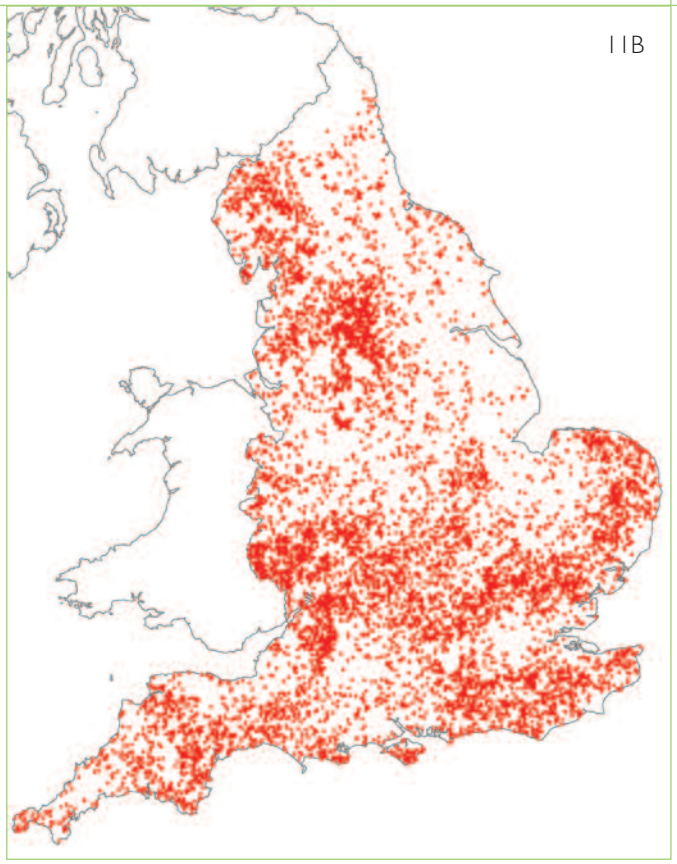
### 4.1.3 1750 TO 1880

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

11 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.


'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 24, 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 THE NORTH WEST

The Region is divided into upland and lowland zones. Because of its wet climate and predominantly upland terrain coupled with heavy clay soils on the lowlands, much of the Region was best suited to pastoral agriculture. Cattle were the mainstay of the farming economy, and they have had a major impact on both the Region's landscape and the built form of its farmsteads.

The North West Region presented plenty of scope for colonisation and expansion, as the numbers of farming settlements and associated fields grew in the period up to the 13th century. The growth of population, and its expansion onto thinner and more marginal soils, was checked in the 14th century by a combination of disease, bad harvests and warfare, which in the case of the latter lasted intermittently from the 1290s well into the 16th century.

The size of farm holdings has historically varied greatly across the Region, from tiny, diffused communities in the remoter upland dales with their mixed and common lands in small town fields and meadows, to larger, nucleated townships in the lowland and coastal districts where there was more cultivatable land. Farm size remained relatively small (the majority being under 50 acres) across Lancashire into the later 19th century, the major exception being the arable farms of the drained eastern lowlands (Fletcher 1961, p.19; Mutch 1981, p.127). Elsewhere, and as the opportunities for wealth from farming emerged, many landowners and tenants had by this period amalgamated other small and medium-sized farms into large holdings. This was a process clearly evident by the 16th century in Cumbria, for example, and which accelerated rapidly after the late 18th century as the county became even more integrated into the national meat and dairying market and by-employment declined in importance (Winchester 1987, p.63; Duxbury 1994; Beckett 1982, p.107). Another example was the restructuring of farms in Cheshire for the dairy industry, resulting in the reduction by around half of existing farms between 1650 and 1800 (Foster 1995, pp.30–33).

By 1550 intra-regional distinctions between the pastoral economies of the uplands and the mixed arable-based economies of the lowlands were already strong. From the 15th century, there was a general extension of pasture for livestock farming throughout the Region. This resulted in large-scale sheep farming to supply wool for the burgeoning woollen and textile industry, and – particularly after import bans were imposed on Irish cattle in the 1660s – the opening of Cumbria and Galloway in Scotland to the supply and fattening of Scottish beef cattle onto lowland England. Throughout the Region the period from the later 17th century saw a decline in arable in upland and other pastoral areas, only larger farms appearing to retain large quantities of arable. There was a corresponding increase – sometimes in parallel with industrial diversification – of rearing, dairying and fattening, with large increases in the amount of land under permanent pasture through the transfer of arable to pasture, dairying for local and distant markets (particularly in the Lancashire and Cheshire Plain), and much more large-scale sheep farming. Cattle became a far more important source of income than sheep in the Region as a whole. Upland areas typically specialised in the rearing of store animals (i.e. young cattle), for fattening on pastures in lowland areas. In some areas, though, the extent of arable remained unaltered or increased. For example, in the Lancashire Plain demand for grain and green crops from the Liverpool and Manchester conurbations continued to make arable farming worthwhile, whilst in other areas there was a shift from corn to oats, supplying the urban markets for horse feed, as in Cheshire.

Many estate owners – both long-established and newly enriched – were transferring profits from industry and trade firstly to the development of their own parks and residences (from the late 17th century) and then to agricultural improvement (for example Garnett 1994, p.8). As in the West Riding of Yorkshire, the introduction of sheep and the textile industry transformed the economy of the southern Pennine uplands and surrounding areas. Domestic manufacture of woollen cloths in an agrarian climate naturally led to the development of a dual economy and sustained a massive population increase from the early 18th century. The rebuilding of yeoman houses seems to be directly linked to wealth gained from textile production (Pearson 1985, pp.111–117). It became possible for large sections of the Lancashire population to survive on otherwise non-viable agricultural holdings (see laithe houses, 5.3.1). The rural landscape in many places was devoted to supporting the needs of small-scale industries, for example coal extraction or growing flax and hemp. By the early 20th century, the small upland farms in the vicinity of the cotton towns specialised in milk production, importing cows in milk, feeding them on imported feed and selling them on for meat (Whetham 1979, pp.34–5).

The development of the railway network opened up new markets and allowed the transport of products such as fresh milk and butter to more distant urban markets. The increased productivity of hay and import of artificial feed enabled cattle to be kept in milk all year round. Smallholders and part-time farmers near urban areas also benefited, supplying oats, hay and straw to the towns (Hallas 2000, pp.402–10; Walton 2000, pp.389–401). The nature of the mixed and pastoral farming of the Region,

coupled with the increasing demand for animal products from its industrial cities, meant that agriculture in the North West did not experience the late 19th-century depression in farming to the same extent as the cornlands of southern England. The well-established farming systems of the Region required only minor developmental changes rather than wholesale shifts in practice.

## 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) 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 UPLANDS

The overall character of the uplands in the northern English regions is a result of a long history of mixed grazing and small-scale arable in the valleys, of pasture on the valley sides, and seasonal grazing of the rough pasture and unenclosed commons of the higher fells. Farmsteads are either isolated or clustered in small groups on the fell sides or in the valley bottoms as hamlets. The factors common to all the areas of the uplands are presented below, followed by area summaries.

The most important animals on upland farms 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 sheep farming. The most widely sown crop, and the one best suited to the short, wet summers, was oats.

A key factor was the scale of landownership, including the Crown, which made use of the higher ground as private hunting forest or chase, and which linked upland and lowland communities together 'in the form of large, compact estates, embracing a number of townships' (Winchester 1987, p.3). One major consequence for farming and landscape was the development – particularly in the 12th and 13th centuries – of interlinked farms. Particularly important in the North West were the cattle-rearing stations (vaccaries) in the valleys of the Pennines and the western dales of the Lake District (Higham 2004, pp.113–9; Winchester 1987, p.6; Winchester 2003). Sheep farms – although not on the vast scale developed in Yorkshire – were typically located on the higher ground; Furness Abbey, for instance, being largely responsible for developing Hawkshead in Cumbria as a major wool-producing area.

Another key factor that sustained farming communities in the uplands was the huge proportion of inter-commoned grazing on the moorlands. Walled tracks were created, leading up from the valley bottom to the fell tops, giving access to the open moorland for summer grazing. 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 in buildings on the valley bottom and slopes and moved onto the hills in the late spring (see 7.1.2).

As in other parts of the northern uplands, such as the Yorkshire Dales, small-scale tenant farming – the legacy of the colonisation of upland dales by peasant farmers in the 12th and 13th centuries – remained as a strong characteristic of the upper reaches of the Pennines and the Lake District. In exchange for rent, farmers could enclose land and transfer property as they wished (copyhold of inheritance). From the 15th century, as the economy began to diversify into areas such as textile and lead production, the leasing out and subdivision of directly managed estate farms and areas of hunting chase (such as the Forest of Lancaster) led to the appearance of new holdings and farmsteads throughout the upland dales (and especially in Lancashire and Cheshire). These factors, and the vast reserves of open moorland for grazing, more than compensated for the much smaller size of farms in upland areas; the consequence was greater levels of prosperity by the mid-16th century (Winchester 1987, p.66).

Upland farms were typified by mixed arable and pasture in the valley bottoms, pasture in the valley sides and seasonal grazing of the rough upper fells. The arable land and meadows lay either in closes or in small common fields, around individual settlements or around dispersed groups of individual farmsteads. Medieval farmsteads in the upland dales could, if pioneer settlements in their own right, be ring-fenced in their own fields. Communally managed fields could be grouped around farmsteads clustered around them (as in Great Langdale, for example) or more centrally located in hamlets or villages (Winchester 1987, pp.69–72; Wade Martins 1995, p.49). A stock-proof boundary (often termed a head-dyke) typically separated an 'infield' area from an 'outfield' area of rough grazing subject to communal control (to

prevent over-grazing by individual tenants) and intermittent cultivation. Livestock was not permitted into the 'infield' area during the closed season when corn and hay were growing. The animals were allowed into the inner area in the open season after the harvest of hay and crops, their manure serving to fertilise the land.

Enclosure by agreement and the reorganisation of holdings was already making some progress in many upland parts of the Region from the 14th century. 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 final process of further subdivision and enclosure, signalling the end of the traditional open-closed season, was linked to the transfer of communal cow pastures and grazing rights to individual tenants (Winchester 2003, pp.61–73). Individual farms were thus created out on of the moorland sides between the 15th and 19th centuries, typically set within their distinctive 'intakes' of enclosed land. In the Lake District, as elsewhere in the Region, a pattern emerged over this period of specific tenants being allotted defined areas of fells (Winchester 1987, p.88). Vast areas of remaining moorland were enclosed from the end of the 18th to the middle of the 19th century, the pressure to create more productive pasture and especially arable land – and an increased desire on the part of customary tenants to lease or own their land outright – resulting in a dramatic new landscape of large square fields and mile after mile of straight boundary walls. In Cumberland alone 39,515 acres of waste were enclosed by parliamentary acts between 1760 and 1800 (Bainbridge 1942, p.63).

4.2.1.1 **Border Moors and Forests** (JCA 5)
Medieval or earlier origins are likely for the scattered valley hamlets and farmsteads. Seasonal grazing in the uplands from the prehistoric period has left patterns of small shieling settlements, some adopted for permanent settlement in later centuries. Cross-ridge dykes, sheep stalls and other scattered enclosures reflect centuries of pastoral farming, especially following the expansion of the 17th to 18th century. Reduced border hostility in the 17th century and an improved climate led to more settled agricultural practices, and agricultural improvement driven by landlords. Areas within the valleys were taken under plough to a far greater extent than ever before, and pastoral farming also expanded.

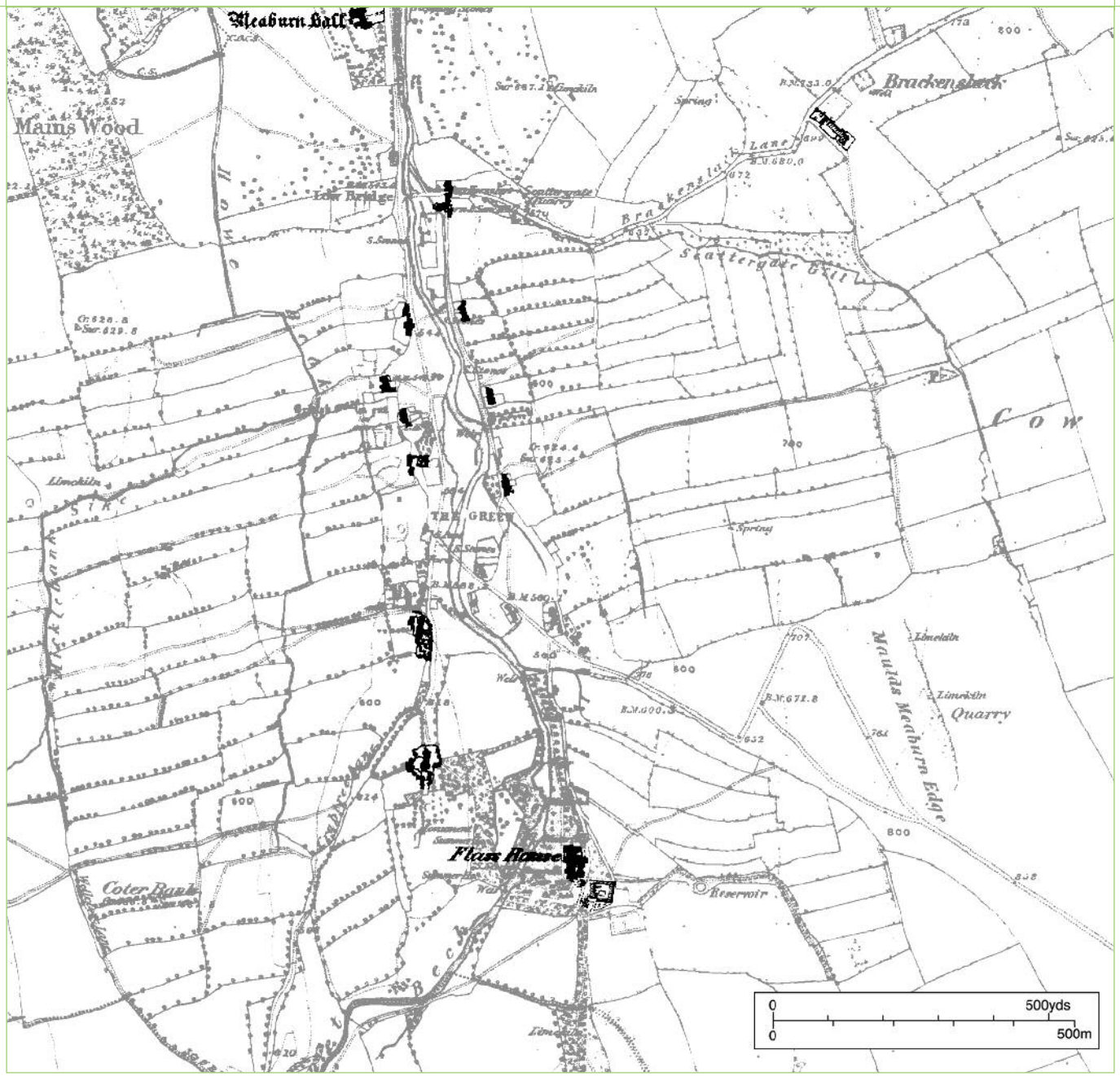
4.2.1.2 **North Pennines** (JCA 10).
The development of the area's distinctive patterns of tracks and droves is the product of the mixture of cattle rearing and cereal production that was still practiced in the medieval period. The lower reaches of the main dales have historically supported arable cultivation as well as pasture, and were generally enclosed by 1750. The middle and upper dales are almost entirely pastoral with small hay meadows – a pattern with medieval if not earlier origins. They were mostly subject to enclosure from the 17th century, maintaining long-standing divisions of in-bye and out-bye leading out to extensive grazing rights on the adjoining moorland. There was a further increase in farms from the 17th century, connected to the lead industry, and the establishment of large farming estates, coinciding with the formalisation and intensified exploitation of mineral rights in the 18th and 19th centuries. The moorland summits and plateau were used as common grazing pasture. Despite extensive enclosure in the late 18th to mid-19th century, 27% remains common land.

For more on this area, see North East.

4.2.1.3 **The Cumbrian Fells – Cumbria High Fells** (JCA 8) **and South Cumbria Low Fells** (JCA 19)
The pattern of small nucleated villages and hamlets and dispersed farmsteads is thought to be mostly 12th and 13th century in origin, the result of estates letting their tenants colonise the land. Relict ridge and furrow and lynchets (for example at Wythop) attest to the pre-14th-century extent of arable cultivation. The combination of fast-flowing water and an abundance of raw materials led to a proliferation of industries from the medieval period, including metal-ore mining and smelting, and wool production. In the upland Fells of Cumbria the period 1600 to 1750 made the most lasting imprint on the buildings and landscape. Increased prosperity, from both farming and the industries of the southern Lakeland area, particularly spinning and cloth making, resulted in a wave of rebuilding that swept across the area in the 17th and 18th centuries, leaving a stock of dated long, low, stone farmhouses stretching far up the fertile vales into the fells. The rebuilding of the farmhouses was accompanied by an increase in the provision for winter housing for cattle on gentry estates (see 6.1.2). On smaller farms it was not until the period after 1750 that increases in herd size from the average 6–10 head of cattle, which could be housed in the lower end of a farmhouse, required the construction of new animal housing (Marshall 1980, pp.512–13). Oats, grown both as a fodder crop for horses and also for porridge and oat cakes, made up as much as half of the cereals grown. Industrial crops included hemp and flax, which were grown in small quantities on most farms and provided winter employment (Dickenson 1852, pp.230–235).

As elsewhere, the period 1750 to 1820 saw a move towards farm amalgamation and with this an increase in the size of farms (Bailey & Culley 1794, p.205; Pringle 1794, pp.299, 301; Garnet 1849, p.36) although – sustained by the lack of a powerful gentry class – farms of between 40 and 100 acres were still the most

12 Farmsteads in the landscape: Maulds Meaburn (Eden Valley)
This village lies in the Lyvennet valley, and probably dates from a reorganisation of the landscape in the 12th century, when earlier isolated farmsteads were abandoned for villages surrounded by their common fields. Back lanes separate the strips from the tofts of the medieval village. Behind the tofts of the medieval village, which in their varying sizes represent the abandonment and amalgamation of farm holdings over time, lie strips which retain traces of ridge and furrow. Meaburn Hall to the north was rebuilt in the 16th to 17th century. The majority of the linear farmsteads date from the 17th century, although the majority of both the attached and detached farm buildings were rebuilt or newly constructed between the late 18th and mid-19th centuries. The steadings within the village have been mostly converted to other uses. *Based on 1st Edition OS 6" map 1843–1890. © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2005) Licence numbers 000394 and TP0024*




numerous (Dickenson, 1852, p.220). Sheep became a prominent feature of the Cumbrian fells from the mid-18th century. In open and enclosed fields alike, the farming continued to be determined by the yield of the land; a crop of grain was grown year after year for nine to twelve years, until the yields declined and then the land was put back to grass (Bailey & Culley 1794, p.19).

4.2.1.4 **Orton Fells** (JCA 17)**, Howgill Fells** (JCA 18) **and Yorkshire Dales** (JCA 22)

The pattern of pastoral husbandry in this area is long established. In the medieval period the Orton Fells, for example, was a centre of sheep-rearing for quality fleeces based principally around the granges of large monastic houses (including the Premonstratensian Abbey at Shap). Within the valleys there is a low density of small farming hamlets and isolated farmsteads, some dating from the establishment (in the 12th and 13th centuries) and letting (from the 14th century) of vaccaries (stock farms). Strip enclosures to the rear of the properties and droveways or outgangs lead out to the common land. The present settlement pattern was formalised in the medieval period, probably in the 12th to 13th century as a result of woodland clearance, with well spaced

nucleated/linear villages clustered around spring lines on the margins of the Orton Fells. The Howgill Fells mostly comprises rough grazing, the practice of farming families in adjacent valleys holding rights to seasonal grazing and other benefits extending back to the medieval period and further.

Many of the farms along Dentdale in the Yorkshire Dales date from the 12th and 13th centuries, and a predominantly pastoral economy developed linked to the textile industry.

For more on the Yorkshire Dales see Yorkshire and the Humber.

4.2.1.5 **Forest of Bowland and Bowland Fringe and Pendle Hill** (JCAs 33 and 34)
The central fells and moorland formed part of the medieval hunting forest of the Earldom of Lancaster. Increased population pressure led to woodland clearance and colonisation of the Bowland fringes in the 12th to 13th century, based around a cattle-rearing economy. Many farms developed from the 15th century as vaccaries and parts of the Forest were leased or sold off, the consequence being a landscape of scattered farms and irregular fields, especially to the north, to the south of the Bowland Fringe and in the Hodder Valley. Local landowners also created private deer parks, which themselves became much desired features of country estates: for example, around Pendle Hill and the upper reaches of the Hodder valley. Much of the higher common land and the lower fellsides within the Forest of Lancashire, especially to the west of the Bowland Fells, remained unenclosed until taken into large rectilinear grazing enclosures, primarily for sheep: this commenced in the 16th century, small areas of upland enclosures being created through Parliamentary Acts. By the later 19th century, most farms in this area specialised in the supply of milk, butter and mutton to urban markets (Fletcher 1961, p.19).

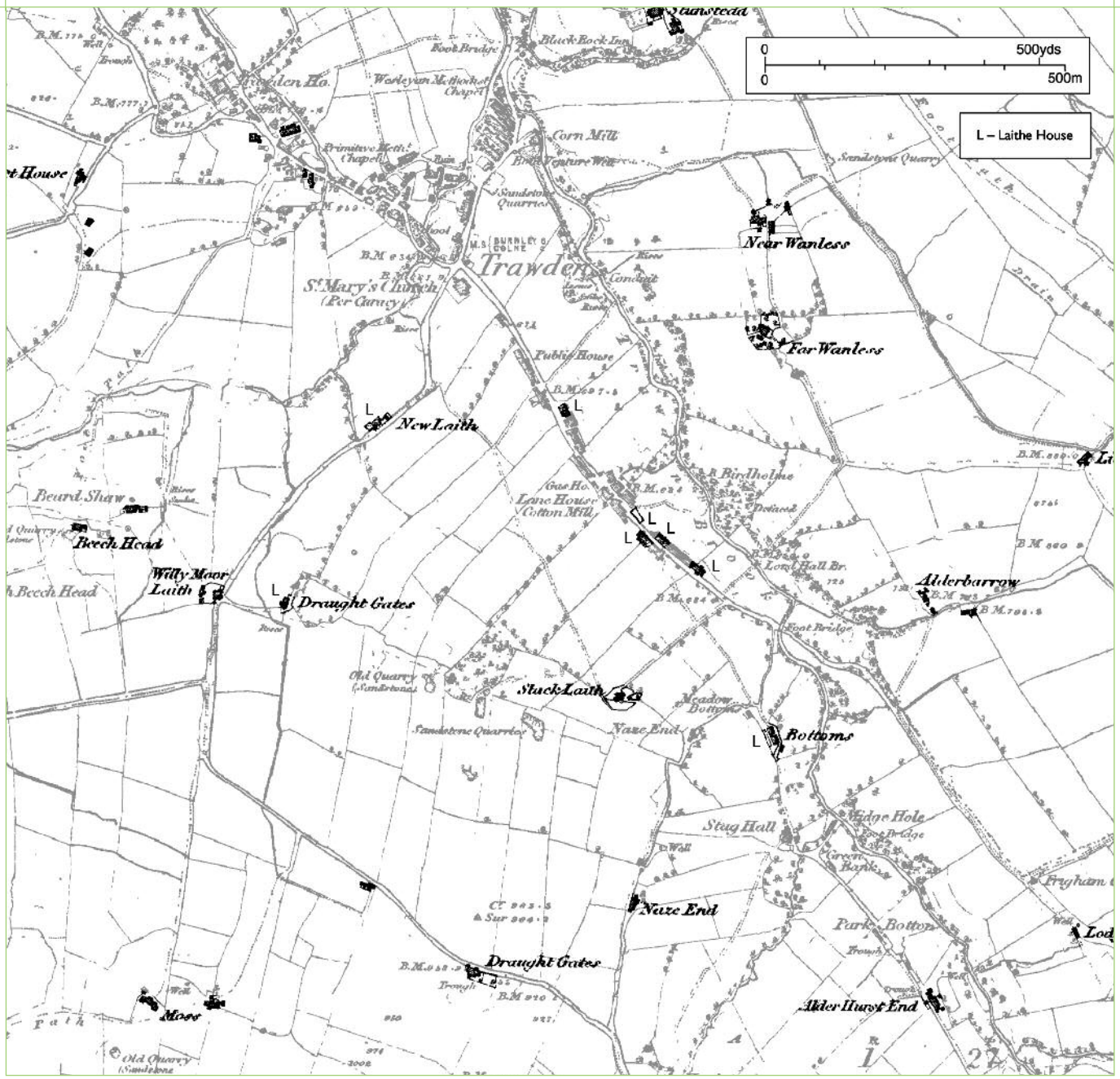
4.2.1.6 **Southern Pennines** (JCA 36)**, Manchester Pennine Fringe** (JCA 54) **and Dark Peak** (JCA 51) (Figure 13)
Over this area cattle rearing and some fattening was joined by sheep rearing for wool from the 15th century. This area experienced early growth of the textile industry, giving rise to distinctive patterns of yeoman-clothier farmsteads and minor gentry farmsteads, some of these relating to early estate centres. Large barns of pre-1750 date, both aisled and cruck, are consequently found in this area (see 6.1.2). Small and irregular fields are typically clustered around settlements, either the product of medieval assarting from woodland or 17th- and 18th-century weavers' subsistence plots. There is also a distinctive pattern of field and farmsteads associated with miner-farming in the Rossendale Hills, by-employment throughout this area sustaining small farms and distinctive laithe houses (see 5.3). Larger-scale enclosure on valley sides date from at least the 15th century; walled tracks gave access to seasonal grazing on the moorlands, which were subject to more regular enclosure in the later 18th and 19th centuries. In addition to the grazing of sheep, a major activity in the South West Peak from the 13th century in particular, the heather moorlands were conserved for grouse shooting from the early 19th century. The canals from the mid-18th century opened up much of this area's industries, including coal mining and quarrying, to trade via the west coast ports.

For more on the Dark Peak, a small part of which lies within this Region, see East Midlands. For more on South West Peak see West Midlands.

4.2.2 **LOWLANDS**
Lowland areas in the Region were, in contrast to the uplands, characterised by a much greater variety and richness of soils and more communally managed land, in the form of strips or small pieces located in open fields or interspersed amongst woodland, lowland moor and marsh. Most lowland communities operated an open- or common-field system, but generally without the strict rotations and fallow of the three-field system of the Midlands as the scarcity of drier land meant that a fallow year was economically unviable. As in the uplands, a pattern emerged in many areas of the more intensively cropped 'infield' being separated from an outfield area subject to intermittent cultivation. Most of the Region's common arable and pasture had been enclosed by the 1750s, pockets of communal open-field farming – such as in northern lowland Cumbria – surviving into the 19th century. The result is the predominance of anciently enclosed landscapes carved out of the woodland in Cheshire and central Lancashire, and exploitation of the upland dales and fells as pasture. In the medieval period, 20% of the lowlands comprised wetlands (the so-called mosses) and moorland (Higham 2004, p.6), used as common grazing and a source of fuel and other by-employments, which was subject to drainage and enclosure from the 16th century and particularly after the 1850s.

4.2.2.1 **West Cumbria Coastal Plain** (JCA 7)**, the Solway Basin** (JCA 6) **and the Eden Valley** (JCA 9) (Figure 12)
From the earliest times, the Cumbria Coastal Plain, the Solway Plain and the Eden Valley had a different system of husbandry and society to their adjacent upland areas. Villages were more usual than the scattered isolated settlements and hamlets of the upland parts of the Region, with more arable cropping and fattening. Earthworks and other evidence indicate that the villages were predominantly formed in the 12th and 13th centuries and replaced an earlier pattern of dispersed

13 Farmsteads in the landscape: Trawden (Southern Pennines)
Most of the isolated farmhouses, including three paired groups (Stunstead, Wanless and Beardshaw Head) and those in and around Hill Top, date from the later 17th century, by which time income from the textile industry – typically coupled with farming – had made the wider parish one of the wealthiest in this part of the Pennines. Some of the farmstead sites – and the patterns of enclosure around them – date from after the disafforestation of the Forest of Trawden in 1507. Industrialisation increased the nucleation of settlement in Trawden itself, the southern spur of which, extending to the mill, was developed with laithe houses (many absorbed into terrace rows) surrounded by late and regular patterns of enclosure. Laithe houses also associated with later patterns of enclosure extend northwards from Hill Top. *Based on 1st Edition OS 6" map 1843–1890.*


settlement, still partly visible in the medium to high densities of dispersed farmsteads in the landscape (Roberts 1996; Roberts & Wrathmell 2000, pp.52–3). Extensive areas of rough grazing – including the mosslands of the Cumbrian plain – and of common pasture characterised the area, although as in upland areas this was subject to increasing rates of enclosure (and new farmsteads) from at least the 15th century. Large common fields played an important role in the medieval farming system, and patterns of curved strips are often preserved in the form of later field boundaries running from the village street to the limits of the arable land, particularly in the Eden valley and the Solway Plain. In some areas enclosure was complete by the 18th century, as in much of the West Cumbria Coastal Plain, where fields are medium to small scale, in contrast to the predominant large-scale and late enclosures of the Eden Valley.

The bulk of crops was used as fodder for livestock, particularly the production of store cattle and sheep. The production of wool – linked to medieval monastic houses such as Furness and Holme Cuttram – was eclipsed from the 17th century by the fattening of cattle.

There was a marked concentration of cattle in northern Cumbria and the Solway Basin (also known as the Solway Plain) as these areas had easy access to the main cattle fairs. The number of farmers keeping cattle through the winter (and thus needing in-wintering facilities) also increased from the late 17th century with the increase of the Scottish cattle trade. Dairying was more important on the smaller farms. Mid-19th-century reports suggest that not only was there an increase in the growing of turnips, particularly on the lower areas where increased drainage was making it possible, but also in the cultivation of wheat. This change from dairying and grazing to corn and fatstock had been noted by the late 18th century (Bailey & Culley 1794, p.199). This would mean that more buildings and yards would be needed, not only to house and manage stock, but also to process and store corn.

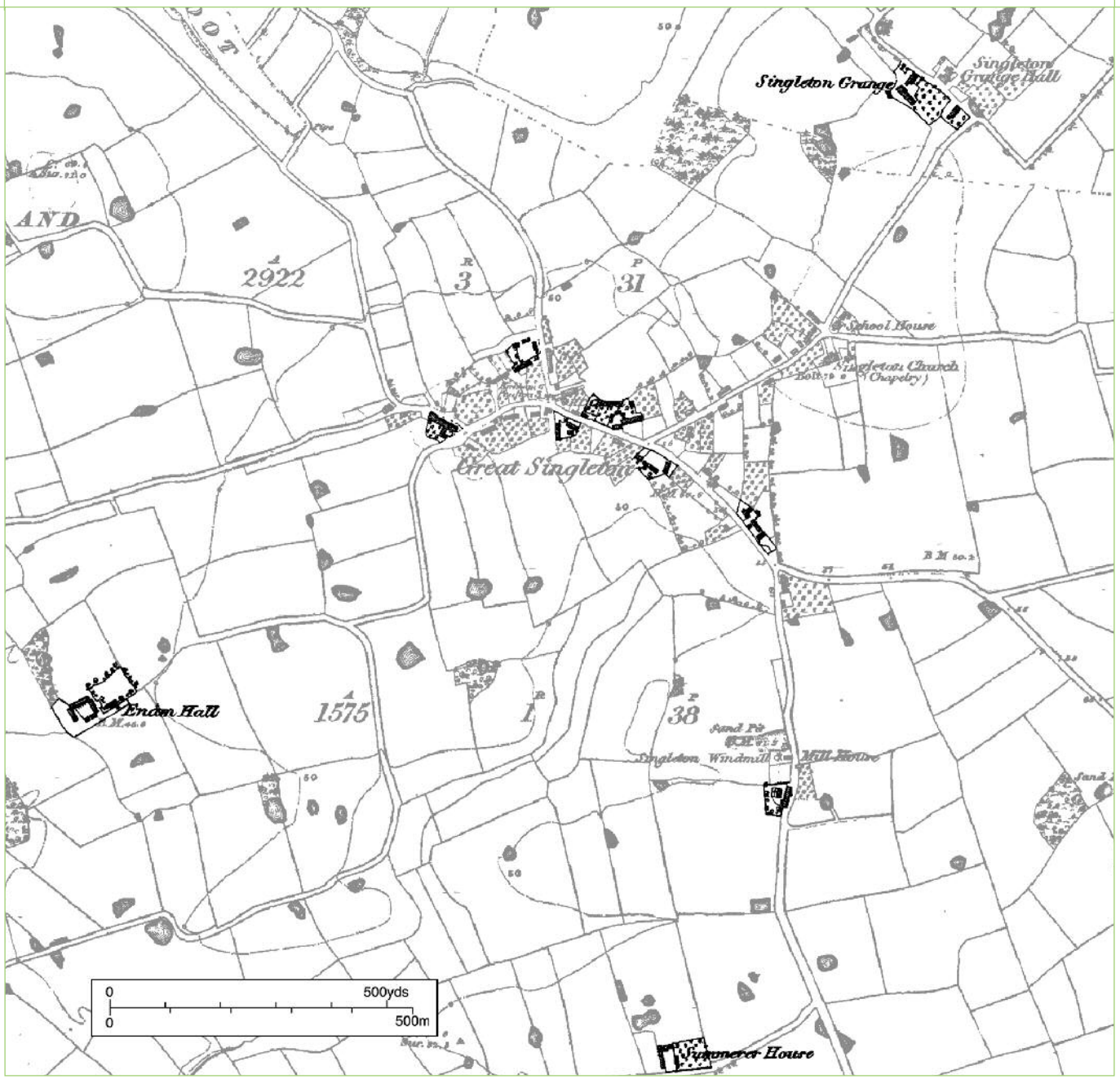
The Cumbrian gentry and peerage, although small in number (only 5% of the farms in Cumberland and Westmorland were owned by large estates), had a major influence on the development of agriculture in these lowland areas through the promotion of selective animal breeding, improved cropping techniques (such as turnips and clover) and new courtyard steadings on their home farms.

4.2.2.2 **Morecambe Bay Limestones** (JCA 20) **and Morecambe Coast and Lune Estuary** (JCA 31)
Lime, which with marl was an important boost to fertility through the Region, was being made in kilns in numerous places around Morecambe Bay where wheat as a grain crop was being introduced from the 1660s (Marshall 1980, p.513). In contrast to the coastal plain and valleys of the Morecambe Bay Limestones, the grazing of livestock formed the predominant aspect of the limestone outcrops and hills until larger areas were ploughed up from the late 18th century. There are large areas of pre-17th-century irregular enclosure, particularly around settlements, but much of the area is dominated by enclosures of the 17th to 19th century this is particularly the case with the mosslands of the Morecambe Coast and Lune Estuary, which retains evidence for small-drainage in the medieval period but was much affected by drainage from the late 17th century, firstly by windmills and later by steam power. The drained land was used for both arable cropping and grazing livestock. By the mid-19th century the land around the bay was naturally well drained and let in large farms, 'producing beautiful crops of wheat, oats or barley, turnips and seeds' (Garnett 1849, p.35). The supply of arable produce and roots to yard-fed beef cattle declined in importance over the course of the 19th century, as the need to supply Barrow-in-Furness and other emerging urban markets grew (Fletcher 1961, p.19).

4.2.2.3 **Lancashire Plains and Valleys – Lancashire and Amounderness Plain** (JCA 32)**, Lancashire Coal Measures** (JCA 56)**, Lancashire Valleys** (JCA 35)**, Manchester Conurbation** (JCA 55)**, Sefton Coast** (JCA 57)**, Merseyside Conurbation** (JCA 58) **and Mersey Valley** (JCA 60) (Figure 14)
This is a complex landscape of mostly dispersed settlement, small areas of medieval open field, and extensive pasture – the latter including coastal marshes (as in the Sefton Coast connected by parallel roads and tracks to inland areas), lowland mosses and heath – the eastern fringes with access to upland moor. Wealthier farmers and the gentry were able to build substantial farmsteads and farmhouses between the 15th and 17th centuries, the economies of estate centres in the Lancashire Valleys in particular being linked to the surrounding uplands. Large barns of pre-1750 date, both aisled and cruck threshing and combination barns, are consequently found in the Lancashire Valleys and the Lancashire Coal Measures (see 6.1.2). From the 16th century onwards this area saw a gradual progression from a predominantly rural economy with a traditional pattern of settlement and land use into one in which industry, including coal, metal working and textiles, played a greater part. This had a significant impact on the landscape and agriculture of the area – through the loss of land to the expanding towns, the growing of flax for the textile industry, demand for produce, and in some instances the purchase of farms by the owners of the factories. This latter was not primarily for their agricultural value, but as a means of gaining control over the water supplies that powered their machinery.

Many of the townships in lowland Lancashire contained large areas of wetland (mossland), which supplied important resources such as peat and rough grazing for local communities. Between the 12th and 14th centuries, population pressures drove small-scale drainage works to bring the drier edges of the mosslands into cultivation. This process was resumed on a far larger scale from the late 17th century, aided by windmills and from the early 19th century by steam pumps, and despite being hindered by repeated flooding, was successfully completed by the 1850s. The wetlands of the Fylde (Lancashire and Amounderness Plain) also emerged, as a consequence of drainage, as an important area for grain production and, increasingly in the 19th century, dairying (Fletcher 1961, p.18). The principal area of post-1750 enclosure lies in the former mosslands to the north of the Ribble, especially north of the River Wyre, and in a large, slightly more fragmented arc along the western edge of the area south of the Ribble Estuary. The process of reclamation produced a more rectilinear landscape of medium- to large-scale fields and new farmsteads. By the early 20th century, the arable farms of this area were also

14 Farmsteads in the landscape: Singleton (Lancashire and Amounderness Plain)
This map shows a landscape of few nucleations but high numbers of small hamlets and scattered farmsteads set within fields that are generally of early enclosure. Some of the fields immediately surrounding Great Singleton have the slightly curving boundaries suggestive of former strips. Most of the farmsteads are small and consist of loose courtyards; only Summerer House at the south edge of the map appears to have a regular L-plan farmstead. This landscape has undergone major change since the late 19th century with the large-scale removal of field boundaries and the straightening and removal of some roads. *Based on 1st Edition OS 6" map 1843–1890.*

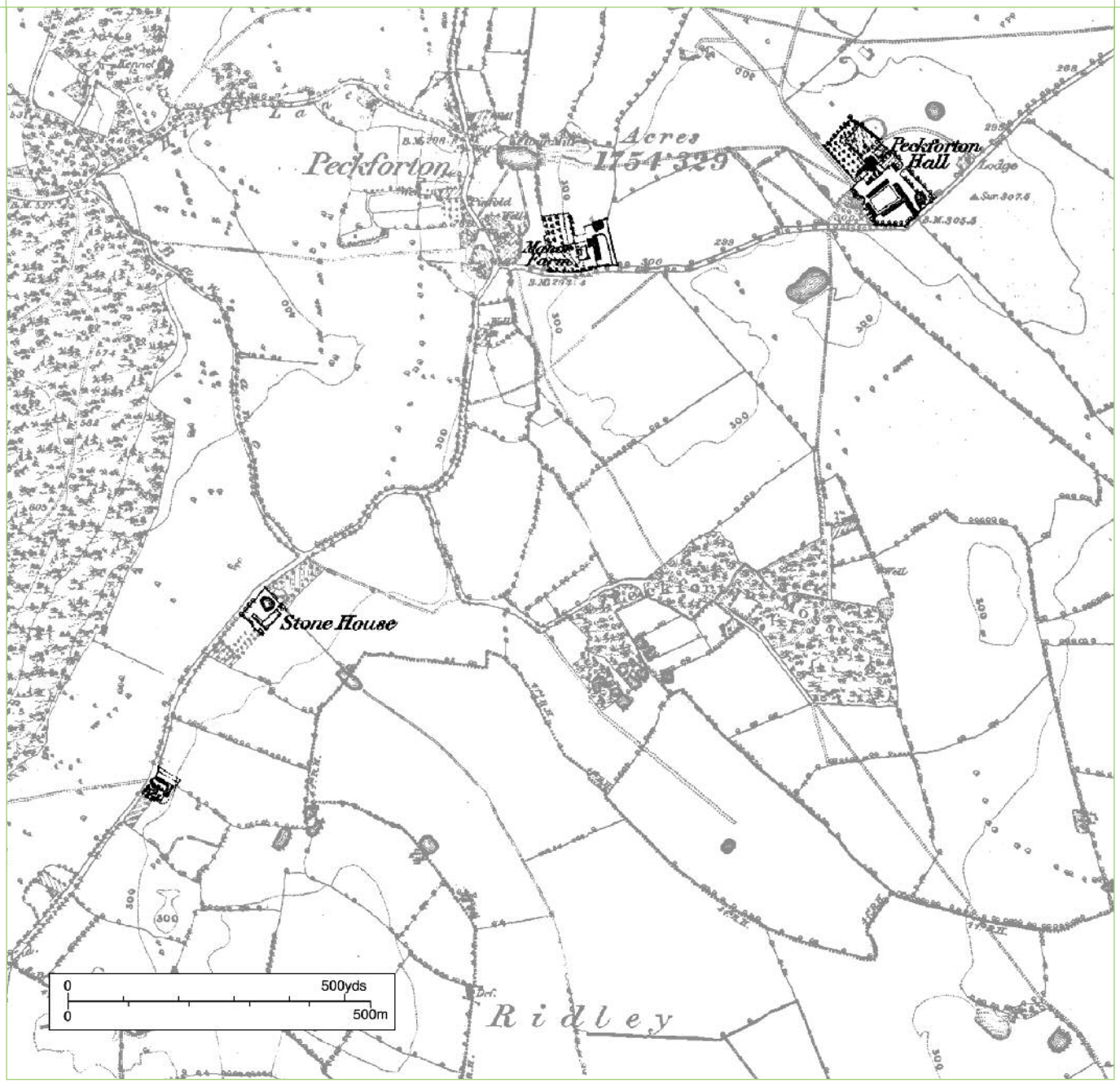




producing market produce, chickens and eggs for the industrial towns, some on a very large scale (Whetham 1979, pp.34–5).

The Ribble Valley floodplain (Lancashire Valleys) is dominated by pre-17th-century irregular enclosure associated with villages and dispersed farmstead, the dominant field forms to the north-east being more planned and rectilinear, reflecting episodes of moorland enclosure along the fringes of the Forests of Trawden and Pendle in the period 1600 to 1850. This area, mixed husbandry from the medieval period, specialised in the supply of milk and butter to the surrounding towns by the later 19th century (Fletcher 1961, p.18).

In the Lancashire Coal Measures the density of dispersed settlement and the expansion of the towns and villages reflects the development of industry between the 17th and 19th centuries, beginning with the mining of coal seams, the Lancashire cotton industry and continuing into the development of glass and copper production and diverse manufacturing. For the most part this area and the Mersey Valley is characterised by successive changes to the underlying pattern of ancient fields: improvements and modifications in the 18th, 19th and 20th centuries

15 Farmsteads in the landscape: Peckforton (Cheshire Sandstone Ridge)
Although originating as a landscape of early enclosure, the generally smaller fields of early enclosure with hamlets and scattered farmsteads, this is an estate landscape with only two main farms: one a large T-plan, the other an 1870s L-plan. In this area many of the large estates developed through the amalgamation of small farms from the 18th century. *Based on 1st Edition OS 6" map 1843–1890.*


matched to urban demands. The resulting pattern was predominantly arable to the north of the Mersey and mixed with dairying (the cheese industry) to the south. To the east mosslands were reclaimed for arable in the early to mid-20th century in characteristically broad and regular fields with few raised boundaries.

#### 4.2.2.4 The Wirral

There is some ancient enclosure relating to dispersed farmsteads, but in this area the communal fields that related to its nucleated villages were enclosed in the 18th and 19th centuries; arable cropping for nearby urban centres was much more prevalent than in adjacent areas.

#### 4.2.2.5 Cheshire Plain Shropshire Staffordshire and Cheshire Plain (JCA 61) Cheshire Sandstone Ridge (JCA 62) (Figure 15)

From the earliest times Cheshire has been grassland country, with no more land under the plough than was necessary to feed stock. It is in origin a landscape of ancient enclosure and very high levels of dispersed settlement (as in the southern half of the adjacent Lancashire Plain), with blocks of more large-scale and regular enclosure such as on the Cheshire Sandstone Ridge and in areas profoundly affected by farm amalgamation and the activities of estates. Traditionally – and since the 14th century – cattle rearing and fattening has taken place in the north of the county and dairying

in the south and west where soils are heaviest (Hewitt 1929, pp.56–9). By the 16th century families with 10 to 50 acres and generous common rights formed the stable core of Cheshire's rural communities. In the forests of Macclesfield and Delamere a different system of grassland farming was adopted, where both cattle and sheep were reared and forest husbandry employed.

The distinctive slow-ripening cheese of the Cheshire Plain, an area which extended into adjacent parts of Shropshire, Staffordshire and Wales, was being produced on a commercial scale from the 16th century, for example on farms around Nantwich, in order to supply the army en route to the port of Chester (Lake 1983, pp.30–31). From the late 17th century, Cheshire cheese was exported via the ports of Liverpool and Chester, transported on the Trent and Severn to supply London and other markets and – from 1739 – the Navy. After 1770, the development of the canal system facilitated access to burgeoning industrial markets in the West Midlands and the North West. Agricultural developments to meet this demand were spearheaded by large farms (including tenants renting them from the demesnes of gentry) and estates, notable features being a massive increase in the dairy herd sustained by improvements in the management of cows and pastures, and the development through amalgamation and enclosure of ring-fenced dairy farms (Foster 1994).

In the 19th century the newly created northern urban markets provided the stimulus for the change to liquid milk production, as did the increasing competition from foreign cheeses; yet it did not necessitate a fundamental change in agriculture. The rapid development of the industrial towns also demanded a considerable increase in production, requiring ongoing improvements in farming techniques and an intensification of production – with grain grown for fodder and its byproduct (straw) for bedding. As a pastoral area, Cheshire's experience of the post-Napoleonic and late 19th-century depression was less intense than that of grain-producing areas.

By the 18th and 19th centuries, over half of the agricultural land in Cheshire was lying on estates of over 3,000 acres. Holland noted in 1813 that not only were there considerable numbers of smaller landlords, but also an active land market had drawn into the county a large number of new landowners who had made their money in trade, such as the Daintrys of North Rode, who built a number of courtyard steadings in east Cheshire in the 1820s (Barnwell & Giles 1997, pp.122–3).

Although the 19th century heralded a great improvement in the management of grassland, and greater efficiency achieved by more economic building design and refined dairying practices, it also brought some changes to the traditional landscape pattern of the county. Landowners engaged in the large-scale reorganisation of their holdings often completely rebuilt farmsteads, with Georgian and Victorian farms and country houses replacing less substantial dwellings. In the north east of the county in particular, large estates with extensive associated parks were established, often replacing the basic settlement pattern of dispersed farmsteads, hamlets and small villages. Rebuild was frequently the theme rather than an adaptation of the old, with a consequent loss not only of traditional farm buildings but clues to earlier farming traditions. The Crewe, Tollemache and Westminster estates were especially active in the centre and west of the county.

# 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 16) 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.

16 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, with agricultural buildings to only one or two of the remaining sides.

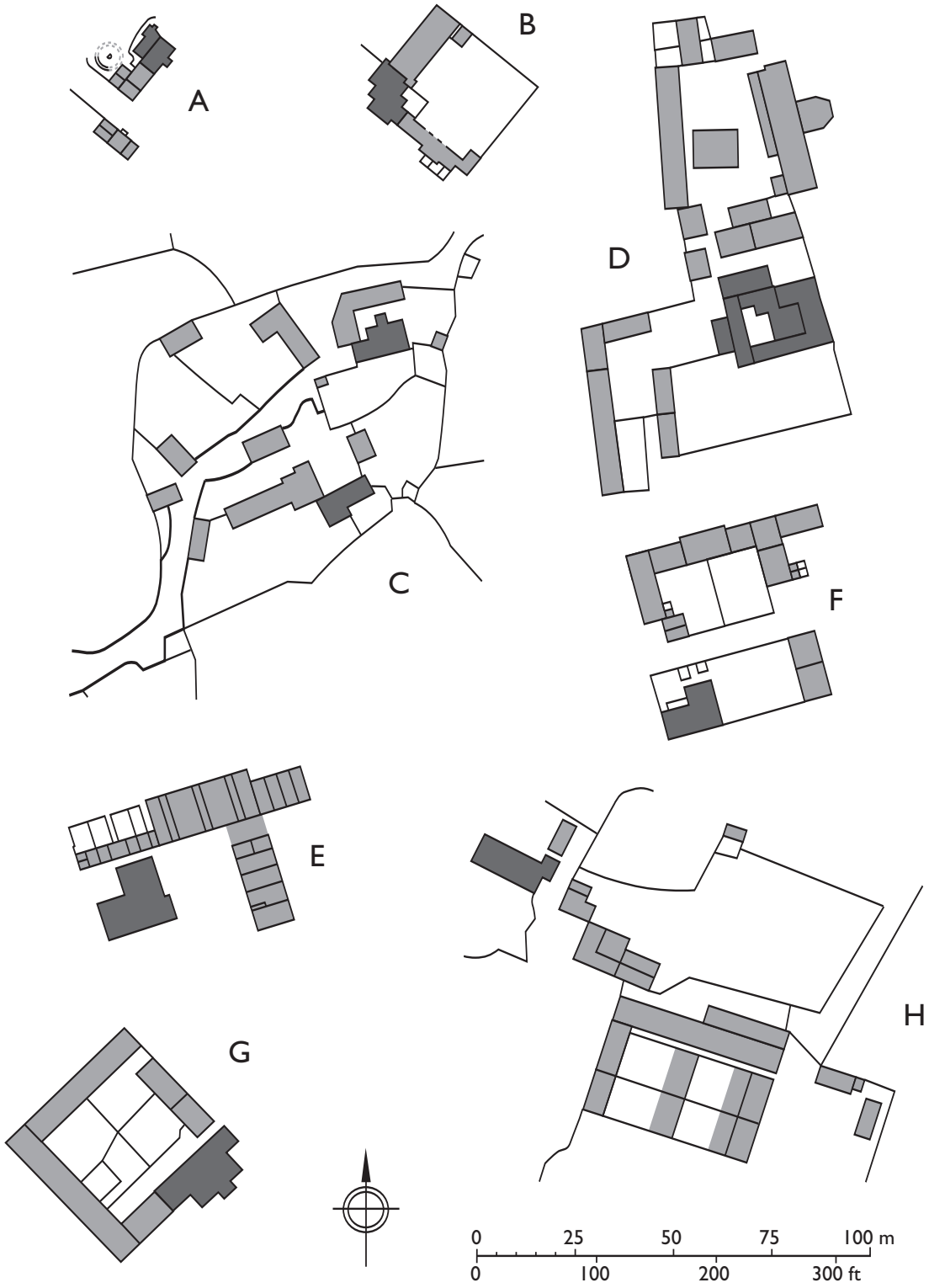
E Regular courtyard L-plan. Two attached ranges form a regular L-shape. The farmhouse is detached from the agricultural buildings.

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*



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 17). 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

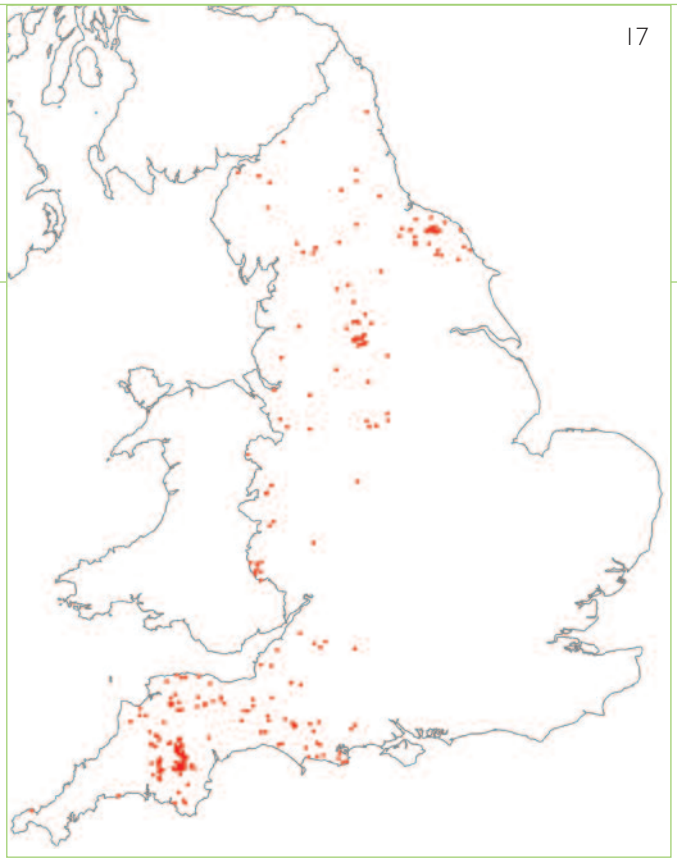
These invariably enclose two sides of a yard, and often represent developments from earlier linear plans, if they have not been constructed in a single phase. L-shapes often evolve from the addition of a barn or byre to an original linear farm, or can represent the partial re-organisation of a dispersed 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



17 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.


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.

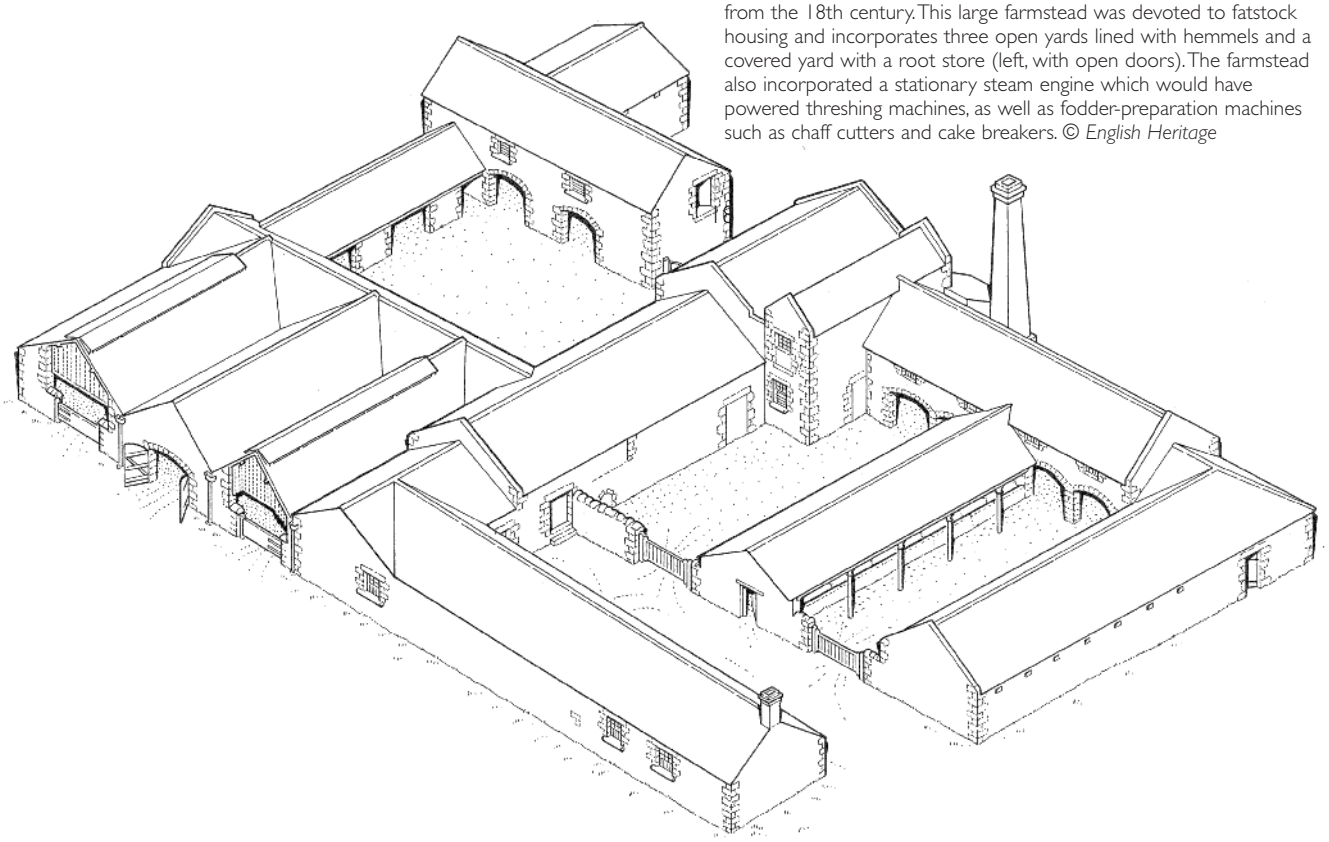
The ultimate examples of courtyard farmsteads are the planned and model farms of the late 18th- and 19th-century estates (Figure 18), the ideas for which were widely disseminated in textbooks and journals (Wade Martins 2002). They are generally associated with holdings over 150 acres, and are far less 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: straw-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



18 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. © *English Heritage*

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

19 Farmstead plans in the North West Region
Linear plans are predominant in the upland areas of the Region with sometimes long ranges of buildings of different dates (A Ribble Valley, Lancashire Valleys). The laithe house, a house and combination farm building of one date is typical of smallholdings where farming and industrial activities such as textiles were combined. There is no interconnection between the house and the farm building (B Southern Pennines). Courtyard plans are generally associated with the lowland parts of the Region. In the Cheshire Plain, for example, reorganisation of farmsteads in the 18th and early 19th centuries usually resulted in the construction of L-plan farmsteads. (C Shropshire, Staffordshire and Cheshire Plain) © *Jen Deadman*

19A

19B

19C

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

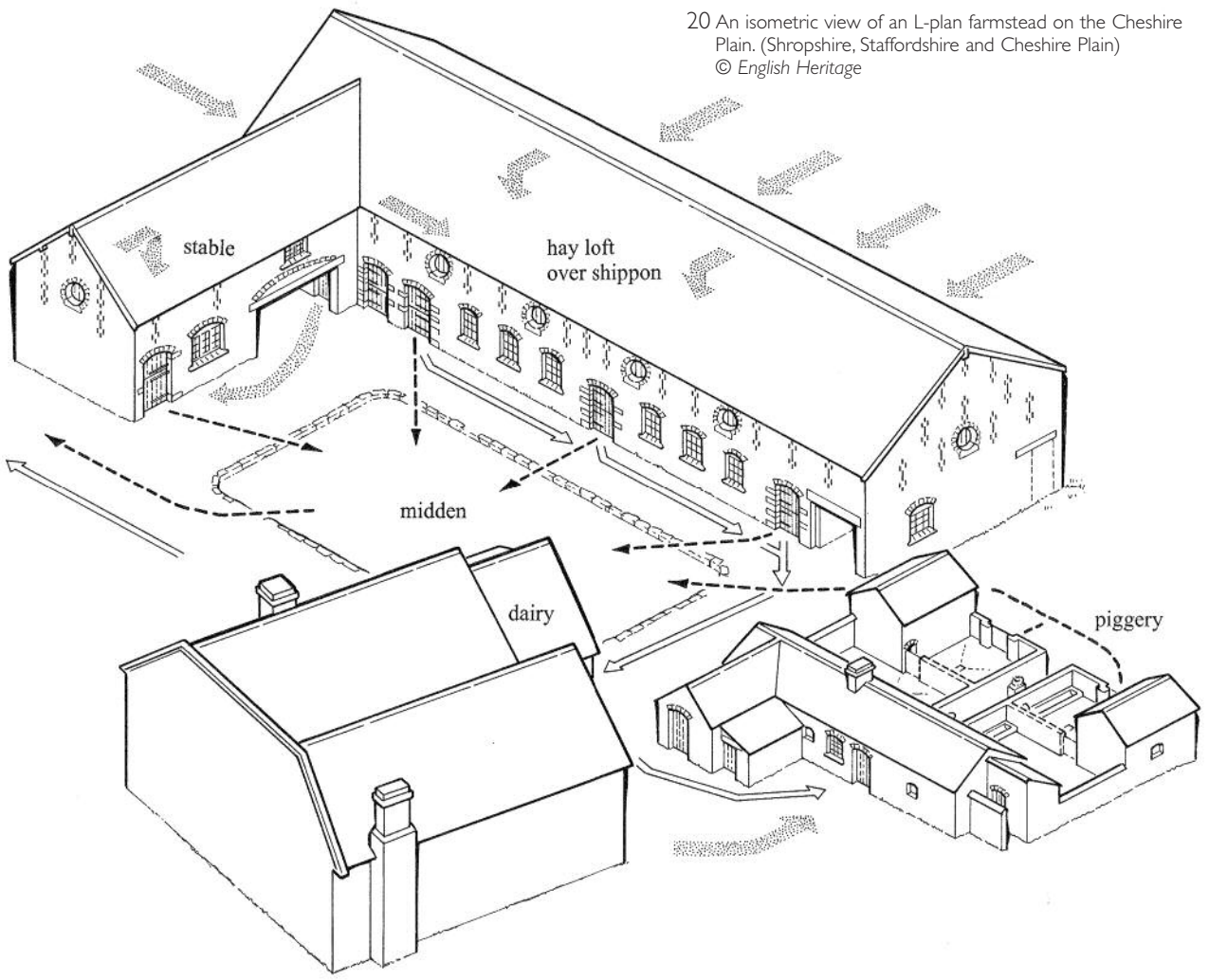
The layout of the farmyard should firstly be seen in relationship to its immediate setting: of crop storage and processing buildings to the fields; of yards, platforms for corn, haystacks and cart sheds to trackways. Secondly, an important characteristic is the degree to which the layout of the farmstead 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 THE NORTH WEST

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 between the defensible bastle houses and linear farmsteads, mostly now concentrated in upland landscapes, and the courtyard steadings of the coastal lowlands and inland vales. The small-to-medium sized




20 An isometric view of an L-plan farmstead on the Cheshire Plain. (Shropshire, Staffordshire and Cheshire Plain)


farms of upland areas were less likely to undertake complete reorganisations of the farmstead and so traditional buildings were added to, typically as more cattle were kept, resulting in parallel and dispersed plans. In the textile-producing areas of Lancashire and Yorkshire the 'fold' pattern was common and involved several cottages sharing a common yard. Blake Tyson's work on reconstructing Cumbrian farmsteads from documentary sources is outstanding in a national context (see Bibliography, 10.2).

### 5.3.1 FARMHOUSES

In all cases the farmhouse plays a key role in the layout of the farmstead. The plan forms of houses, particularly for the period up to the 1750s, are subject to considerable regional variation. Single-depth linear layouts, with services (including the dairy) at one end or in an outshut were common by the mid-17th century. Milk houses and dairies were typically incorporated into house plans (Pearson 1985, pp.88–95). In some examples, the services would be provided in a rear wing. In contrast to upland areas, where a plan with the chimneystack backing onto an entrance passage was certainly dominant by the 17th century, lobby-entrance houses (so-called because they had the main entrance into a lobby built against the chimneystack) became increasingly popular in lowland areas and in isolated pockets (such as Borrowdale in the Lake District). In all parts of the Region, symmetrically designed double-depth houses with central entries and services contained in the rear rooms were being built after the 1750s. They are commonly associated with the later rebuilding of earlier steadings or the construction of new enclosure and regular plan farmsteads.

### 5.3.1 BASTLE HOUSES

The bastle house is a building type particular to the Border area of northern England (Figures 21 and 22). Over 200 examples are known in Northumberland with the distribution extending into Cumberland, the North Pennines and south of the Tyne Gap as far as Allendale, Weardale and the South Tyne Valley (Ryder 2004, p.265). Nineteen defensive bastle houses dating from the 16th and 17th centuries have been identified in Cumbria, all within 20 miles of the Scottish border (Ram, McDowell & Mercer 1970, pp.74–79; Brunskill 1978). The cattle were housed on the ground floor, usually with the doorway in a gable end, and the domestic space was in a room above, accessed by a ladder or later an external staircase. With stone walls up to 1.2m thick, the bastle house and its walled enclosure (the barmkin) offered farmers a defensive retreat where the family and stock could be secure from cattle rustlers in an area that remained lawless into the 17th century. Bastle houses

21 Distribution of listed bastle houses in England. Bastle houses are only found along the Borders area of northern England and reflect the turbulent history of the area.



generally date from the 16th to the 17th centuries although some are earlier (see North East for further details on bastle houses).

### 5.3.3 LINEAR PLANS

Linear plans are found throughout the Region, being uncommon in the Lancashire and Cheshire lowlands and predominant in many upland areas. They are associated with houses of hearth-passage plan and symmetrical houses of post-1750 date, with farm buildings of different dates attached and in line with the farmhouse. They vary greatly in scale, from substantial examples found from the South Pennines through to the Solway Plain to the laithe houses (see below) of the southern Pennines. In upland areas there was an increase in cattle numbers during the 18th century and in linear groups specialised in dairying and the rearing of stock, with little provision for corn. Linear farmsteads were described by Bailey and Culley in their report on Cumberland: 'Where farms are so very small, no great extent of offices is wanted; a barn, a byre for housing their cattle in winter, and a small stable, are in general all that is necessary… they are mostly at each end of the farmhouse' (Bailey & Culley 1794, p.208). 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 developed into plans of two or three blocks of attached buildings.

Linear farmsteads can also be found absorbed into courtyard and L-plan steadings. Such later rebuilding of elements of these ranges, or conversion from agricultural to domestic use, can make the identification of early linear layouts difficult (Messenger 1973, p.49).

#### 5.3.3.1 Longhouses

Longhouses are recorded and documented throughout the Region, for example in the Solway Plain (Jennings 2003, pp.33–51), but intensive fieldwork in some areas – for example the Lancashire Pennines (Pearson 1985, p.15) – has not revealed the same densities of numbers as in neighbouring Yorkshire. Before the 17th century single-storey longhouses were typical in the Fylde (part of the Lancashire Plain area), but from the early 17th century these buildings were largely superseded. From the early 18th century cross-wings and outshots became common features of farmhouses of the area.

By the later 18th century double-pile farmhouses were typical (Watson & McClintock 1979, pp.21–8).

#### 5.3.3.2 Laithe Houses

A regionally distinct linear plan-type shared with adjoining parts of Yorkshire and the Humber 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, and there is no cross passage or inter-connection between the domestic and agricultural parts; both the roofline and the width of the various components may differ. Typically the farm buildings housed corn, cattle and occasionally other functions (such as stabling). 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. They are found in Cumbria and Bowland, 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.178–83; Brunskill 1987, pp.106–10). The weaver-farmers of the West Riding 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).

### 5.3.4 DISPERSED PLANS

Dispersed plans occur throughout the Region, particularly in lowland areas and including high-status groups. Sixteenth-century records of farmsteads in

22 Bastle houses
Bastle houses were fortified farmhouses, usually of high status, in which the family lived at first-floor level. This was accessed by a ladder that could be withdrawn in times of trouble, with their cattle housed on the ground floor. Thick stone walls, small window openings and added steps up to the first floor are characteristic features. Bastle houses reflect the turbulent history of the borders area of the north of England, especially between the mid-16th and early 17th centuries. (A and B Cheviot Fringe)
© *Jen Deadman*


22A


22B

Cumbria mention houses, barns and cow houses, implying that they were separate buildings (Denyer 1991, p.133; Tyson 1994), evidence for barn and livestock under one roof being more unusual (Tyson 2000, p.184). Some 19th-century estate maps show that in some areas dispersed plans – and possibly the separation of functions into individual structures – were commonplace prior to rebuilding into more unified plans (Messenger 1975, pp.330–33).

### 5.3.5 COURTYARD PLANS, INCLUDING L-PLANS

From the 18th century farms of over 150 acres in many of the lowland areas would typically be served by a farmstead ranged around a courtyard. Courtyard arrangements were still rare in Cumberland in the 1790s (Bailey & Culley 1794, p.208). However, almost 60 years later, 'The open square form of ground plan, with the dwelling forming one side and the out-offices the other three and the dung heap in the centre of the enclosed space [was said to be] the most common arrangement of the modern farm yard' (Dickenson 1852, p.277). Many of these 'improved' farmsteads in the lowlands of Cumbria incorporated bank barns into their layouts (Wade Martins, 2001; Lund 2002, p.42), including those of Lord Lonsdale on his estates around Lowther. These were far more practical, and are the finest examples in a national context of planned groups incorporating bank barns in courtyards of buildings with the house on one side (Messenger 1975, pp.26–351). These farmsteads, and the landscapes around them, formed 'islands of planned countryside' amongst the predominant landscapes formed by customary tenants, marked by more irregular patterns of enclosure that often preserve patterns of medieval cultivation (Winchester 2005, pp.43–7). Courtyard plans can occur in upland areas, all being associated with improving estates from the late 18th century.

L-plan groups are found throughout the Region, and as has been noted above can be developments from linear ranges. There are large examples of L-plan and courtyard groups in the Eden Valley and the Lancashire and Amounderness Plain, in the former area associated with stock fattening and in the latter with dairying as well as fattening. On the Lancashire and Cheshire Plains, where dairying was predominant, the most common farmstead layout was the L-plan, although on some larger farms a U-plan was adopted (Morgan & Miller, 1990; Barnwell & Giles 1997, p.126). Dairy farms typically had a combined barn and fodder house built at right angles to the cow-house range, often separated by a cart entry for loading hay and corn into the first-floor lofted areas. Pigsties would usually be placed close to the house, either attached to the L-shaped range or as an individual element of the farmstead. This type of broad L-shaped plan can be found throughout the Cheshire Plain, and remained a predominant feature from the early 19th century to the inter-war period (Barnwell & Giles 1997, p.144). T-shaped plans similarly occur.

# 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 BARNS

### 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.

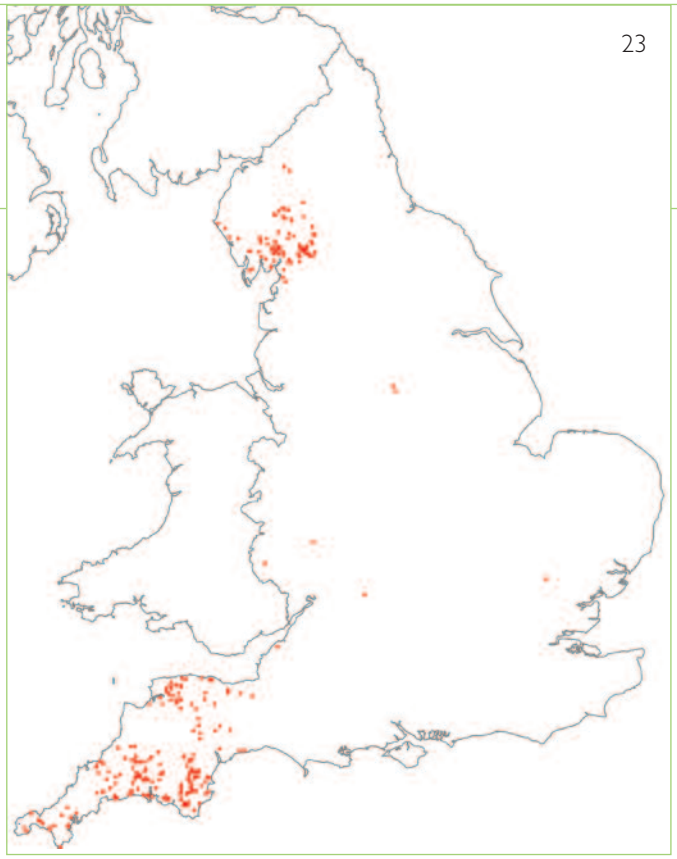
The distinctive form and plan of barns remained comparatively little altered between the 13th and 19th centuries. Surviving pre-1750 barns represent only a small proportion of the original population, their date, scale and landscape context being major factors in determining their survival. There is 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,



23 Distribution of listed bank barns in England
The concentration of bank barns in Cumbria and in Devon, Cornwall and south-west Somerset in the South West Region, is clear from this map. However, this map does not reflect the true density of bank barns as the majority dating from the mid-19th century are not listed.




### 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 28), 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. Multi-functional two-level barns, including bank barns and their variants (Figure 23), 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 25). 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 28, bottom).

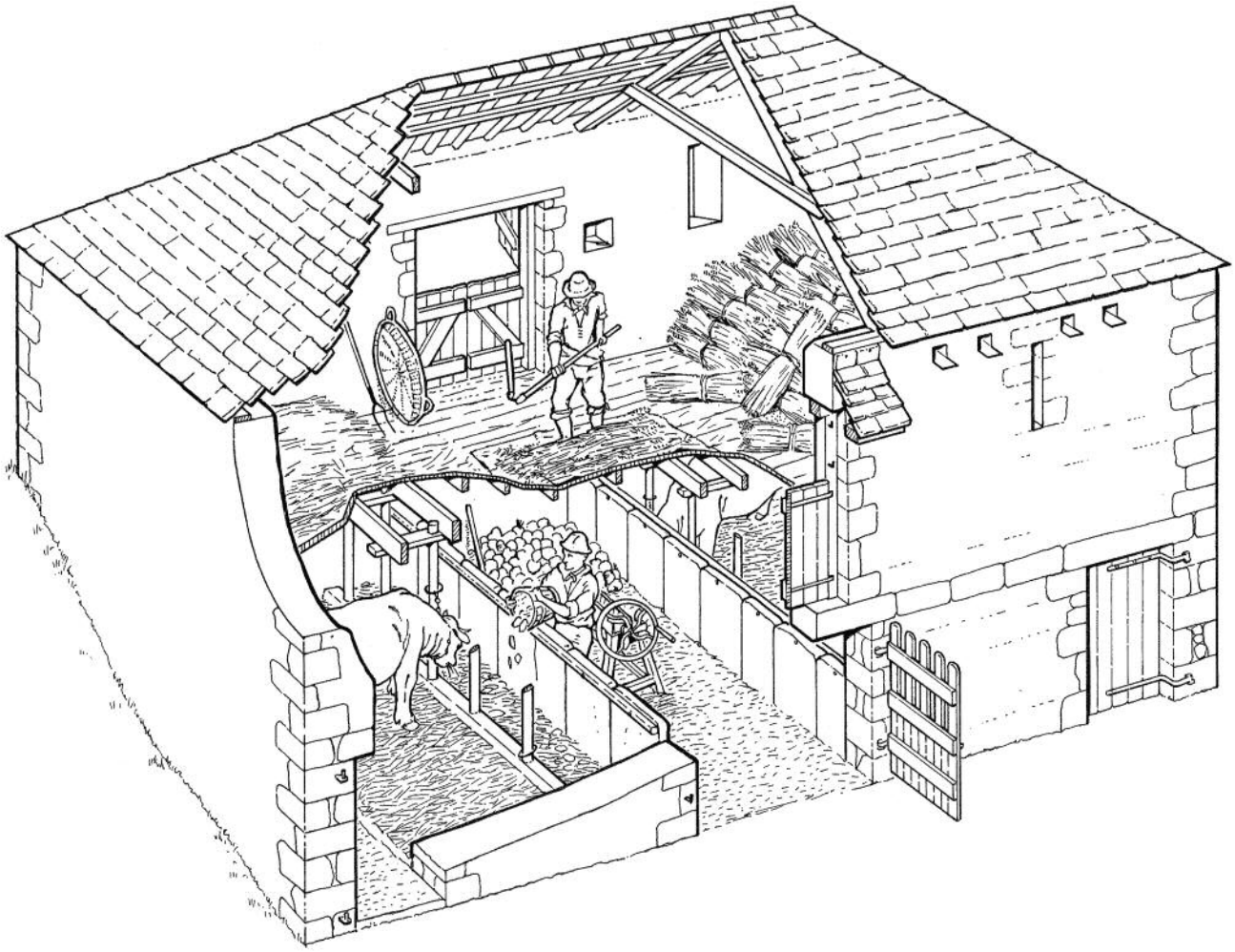
The introduction of the portable steam engine and threshing machine meant that tackle could be taken to the stack. This was widespread by the 1850s, and heralded the end of the traditional barn as a processing building.

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

24 A bank barn showing the first-floor barn over ground-floor shippons and a fodder-preparation area. This example is a true bank barn in that it is built into a bank giving ground-level access to the entrance of the first-floor barn. Some bank barns called 'variant bank barns' have the upper level access at the end. The North West Region contains the earliest bank barns in the country. © *English Heritage*



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 THE NORTH WEST (Figure 26)

Barns that functioned only as a building for crop processing, characterised by a central or off-centre pair of opposing doors, are encountered from the Solway Plain to the Lancashire Valleys, the South Pennines and the Cheshire Plain. High-status examples in these areas can be cruck-framed and exceed five bays in length, and relate to large farmsteads of the home farms of gentry estates; they are all of pre-1750 date. However, buildings that incorporated several functions – including the threshing of the corn crop, animal housing, fodder storage and sometimes a cart shed – are typical of the Region and were being constructed in the North West in a variety of forms from the medieval period. These range from large high-status examples, concentrated in the southern Lancashire lowlands and uplands. It is the way the combination of uses are incorporated into the building (using horizontal and/or vertical divisions) that lead to the distinctive forms of barns seen in the North West.

#### 6.1.2.1 Aisled barns

In the north of England there is a large group of aisled barns concentrated around the South and West Yorkshire Pennines, but also extending into the Lancashire Plain and Valleys and the South Pennines. The distribution of the northern aisled barns was first studied in the 1970s, when only twelve were known in the Lancashire Pennines. Some of these examples are late

25 Power in barns: national examples

A A projecting horse engine house attached to a barn. (North Yorkshire Moors and Cleveland Hills)

B The interior of a horse engine house that contains a rare example of an in situ horse gin. (North West Norfolk)

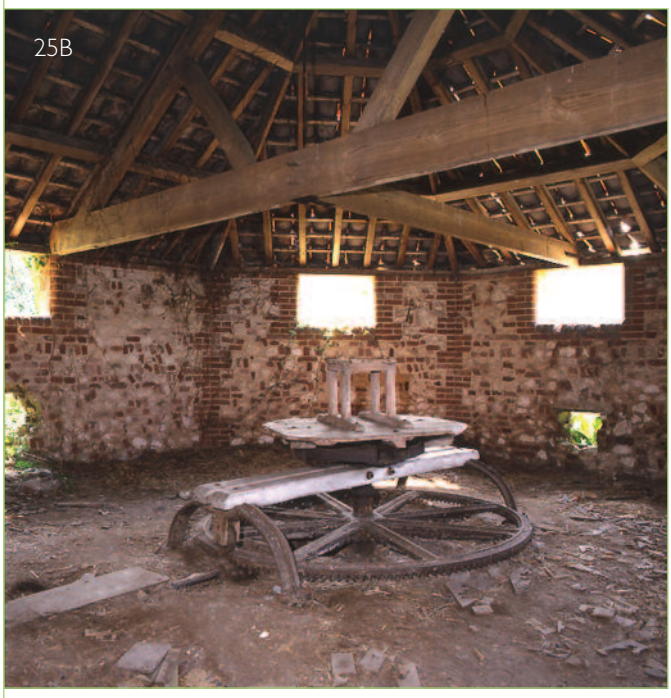
C A water wheel, providing power to the feed-processing machinery in a home dairy farm, remodelled in the 1890s. (Breckland)

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 & D © Jen Deadman; B & C © English Heritage / Michael Williams; E © Bob Edwards*


25A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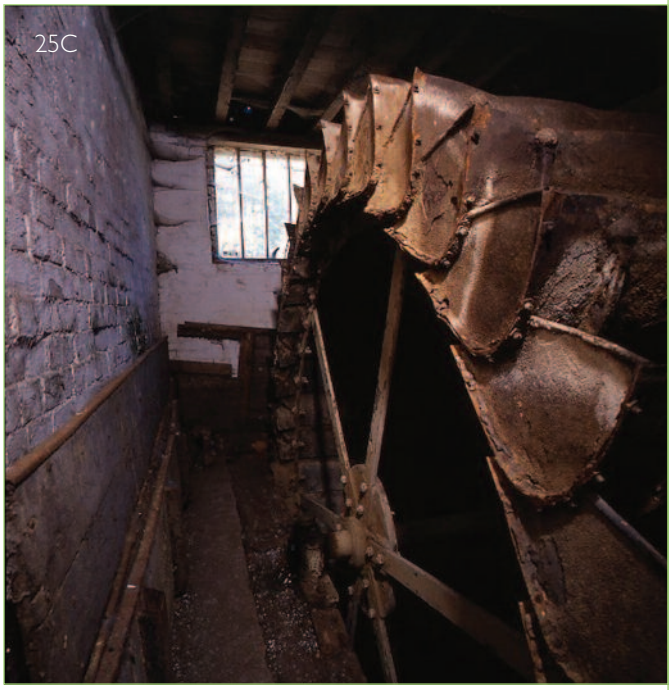

25C


25D


25E

medieval, but most appear to have been built between 1570 and 1650 (Clarke 1973). Many are associated with larger landholdings. The northern aisled barns vary greatly in size, construction and appearance. They are between three and eleven bays long with either single aisles or, more commonly, aisles on both sides of the building. Whilst almost all now have stone walls, some have been shown to have originally been timber framed with the wall framing later replaced in stone. In Lancashire the roof trusses are usually of king post construction.

The form of the aisled barn offered great versatility. It provided a large floor area that could serve a

26 Barns in the North West Region
Most barns in the Region are combination buildings incorporating housing for animals as well as crop-processing and storage areas. The division between these functions can be horizontal as in bank barns (A and B), or vertical as in on-the-level barns, such as aisled (C and D).

A & B Bank barns. A is a 'true' bank barn in that the threshing floor is accessed in its long side whereas in the 'variant' bank barn the upper level access is at the gable with the building set end-on into the slope. (A Penrith. Eden Valley; B Cumbria High Fells)

C A large group of aisled barns dating from the 15th to mid 17th centuries is concentrated around the South Pennines extending into Lancashire. This high-status barn built c.1605 is of nine bays with ox-stalls, added in c1610 in part of one of the aisles, and stables. (Lancashire Valleys)

D A typical on-the-level barn with a central threshing floor and shippons arranged across the width of the building to either side accessed by cross passages at each end. Although quite plain, the chamfers to window and door openings and inside, an aisled timber-frame, indicate a possible 17th-century date. (Lancashire Valleys)

E A rare survival of a timber-framed threshing barn of three bays with cow houses added later. The barn dates from the 16th century. (Shropshire Staffordshire and Cheshire Plain)

F A large early 17th-century cruck threshing barn of seven bays with brick walls. (Lancashire Valleys)

*A, C, D and E © Jen Deadman; B © Jeremy Lake; F © 357557 Mr Roy Finch. Taken as part of the Images of England Project*


26A


26B


26C


26D


26E


26F

multi-purpose function, incorporating both a storage area for hay and crops and stalls for cattle. Such barns typically have wide aisles, often nearly as wide as the nave, achieved by the use of relatively low-pitched roofs, and often separate doorways into the areas where cattle were stalled. The survival of fittings such as stall divisions is rare.

### 6.1.2.2 Partitioned barns

These comprise on-the-level barns with horizontal

divisions separating the storage and processing area from stabling or cattle housing. They are found throughout the Region and date from the late medieval period. In upland areas, the earliest examples of barns – dating up to and including the 17th century – comprise 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. Sometimes the dividing wall has gone, but a separate entrance survives that would presumably have originally led into a cow house, which could also have internal access from the barn itself.

Laithe Houses (see 5.3.1) 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 one end.

#### 6.1.2.3 'Lancashire Barns', and barns with a gable entries to lofted cow houses

Another distinctive arrangement, concentrated in an area from the South Cumbria Low Fells to the north of the Cheshire Plain, is the so-called 'Lancashire barn' (Brunskill 1982, p.109) where the downhill end of the barn is broadened to take normally two rows of stalls for cattle, with three doorways in the gable end giving access to the central feeding passage and manure passages. The extra width of the cow house end of the barn is achieved by an outshot usually on the front of the building. They are usually lofted and the byre may also be approached from the threshing floor. A small number of Lancashire barns survive from the 17th century associated with high-status sites but most date from the century after 1750 (Brunskill 1987, p.113).

Also common in this same area, with surviving examples dating from the 17th century, are barns with gable-end entries to cow houses: these typically have three doors (see Figure 33E).

#### 6.1.2.4 Barns with lofted animal houses with side entries at both ends

Another distinctive form of combination barn can be found across the lowland parts of the Region: a building of three, four or five bays comprising a threshing bay and cow house, with a loft over one side of the threshing floor and either a further lofted cow house or a stable at the other. The entrances to the animal accommodation are set in the side walls. Examples date from the 17th century, and are concentrated in the Pennines from the Dark Peak northwards.

In Cheshire barns pre-dating 1800 are relatively rare meaning there is little evidence for 18th-century barns incorporating cattle housing at ground-floor level as is seen in the neighbouring dairying area of North Shropshire (West Midlands Region). By around 1800 there are examples of specialised buildings similar to those found in Lancashire, particularly in the Fylde area, with lofted cow houses either side of a threshing bay/fodder storage and processing area (Barnwell & Giles 1997, pp.128–30). These occur also in the Solway Plain.

#### 6.1.2.5 Bank Barns

In Cumbria and the northern parts of Lancashire (from Morecambe Bay northwards) are found multi-functional bank barns, normally using a natural slope to provide level access to both floors. Bank barns are a distinctive and characteristic feature of the north of the Region. The only other parts of the country where they are found, although not in the same abundance as in Cumbria, is in adjoining parts of the North East and in the South West counties of Devon, Cornwall and Somerset.

Contemporaries commented that bank barns had several advantages in that by combining many of the functions and buildings of the farmstead under one roof, they reduced the cost of construction and maintenance (Whittaker 2001, p.14). They enabled animals to be fed and strawed down without movement from building to building and in hilly areas they made ideal use of sloping ground.

A distinction can be drawn between 'variant bank barns', built across the slope, and 'true bank barns' built along the slope.

Variant bank barns are generally earlier in date, with many examples being of pre-1750 date. Buildings of this form are found throughout the upland landscapes of northern Europe, and allow livestock to be accommodated on part of the ground floor. The gable was always built into the bank, with the barn projecting into the valley. It was thus able to use the cross drafts for winnowing grain and providing better ventilation across the livestock accommodation below (Denyer 1991, p.135). Access to the byres was usually at the gable end at the lower level with a central manure/feeding passage, and sometimes in the side wall. These 'variant bank barns' are said to be more common in eastern than western valleys, with a particular concentration in the Lune Valley, and were constructed throughout the 18th century (Brunskill 1987, p.116). There are also examples of these in the Dark Peak and elsewhere in the Pennines.

The earliest examples of the classic form of true bank barn built along the slope may be late medieval, the documentary and building evidence indicating that large-scale examples were built on gentry estates from the late 16th century and became widespread after 1750 (Tyson 1979, pp.88–9, 93; Tyson 1980, pp.113–126; Brunskill 1987, pp.115–17). Seventeenth-century examples tend to be high status and large, extending to as many as 13 bays (Whittaker 1989, pp.22–3) but as the



27A 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*

form became more widely used and extended down the social scale, smaller examples are typical. By the mid-19th century Dickenson could report that bank barns were the most frequently found type of barn (Dickenson 1852, p.277) although the lack of ventilation in 'the old underhoused cow house' where the headroom was generally too low, the floor roughly paved, uneven and undrained, was recognised as a problem by the mid-19th century when the conversion of the ground floor into a 'barn room' and the building of new cow houses was recommended (Webster 1868, p.27). Their design became increasingly standardised as they became an accepted part of the 'improved' 19th-century farmyard. Not all bank barns are built into a slope; some have a ramp to the upper floor.

Some south Lakeland bank barns have a characteristic first-floor covered gallery projecting along the face of the barn, usually on the side away from the main doors. Although they were often called 'spinning galleries' it is unlikely that they were ever used for spinning but they did provide shelter for the doors to the livestock below and gave some additional drying and storage space. Other regional variations include the use of stone cheeks and, in the south, brackets to support the pentice over the double doors to the threshing floor. The threshing floor was usually located above a central cart shed, although this element is absent from Langdale examples. A small number were not built into the slope, the upper floor being accessed from steps.

#### 6.1.2.6 Mechanisation

The threshing machine was also introduced in the first half of the 19th century, so that by 1851 it was, according to Dickenson, 'very general over all the grain-growing parts of the county (Cumberland)'. This involved the provision of some sort of power source. Dickenson found it surprising that in contrast to other counties such as Devon and Somerset with their fast-flowing streams, little advantage was taken of waterpower in Cumberland. Horses were far more usual, and horse engines were usually housed in round houses built on the sides of barns. In 1849, in west Cumberland, there were 306 threshing machines, of which 71 were driven by water, seven by steam, one by wind and all the rest by horses. In east Cumberland, however, water was being used more frequently (Dickenson 1852, p.241).

Horse engines were installed on the larger lowland farms from the early 19th century to work threshing and feed-preparation machinery. Wind power was much more unusual, and a windmill at Curwen's model farm at Schoose near Workington (West Cumbria Coastal Plain) is a unique survival. 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 in this Region.

There is in contrast very little evidence for mechanisation in the pastoral landscapes of Cheshire, where fodder processing did not require as much energy in conversion into food as arable until the introduction of oil engines in the early 20th century (Barnwell 2000, p.175).

## 6.2 GRANARIES

### 6.2.1 NATIONAL OVERVIEW (Figures 27 & 28)

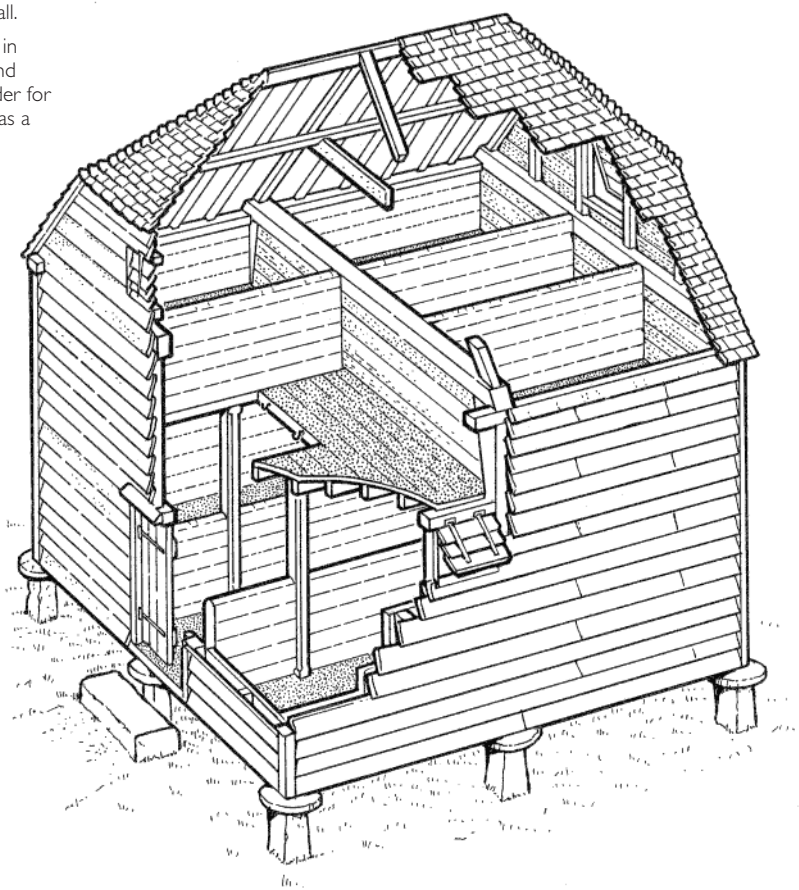
Once threshed, grain needed to be stored away from damp and vermin. It would be sold off the farm or retained for animal feed. A small number of specialist granaries built by large landowners, in particular the monastic institutions, survive from the 14th century. Most granaries are of late 18th- and 19th-century date, the

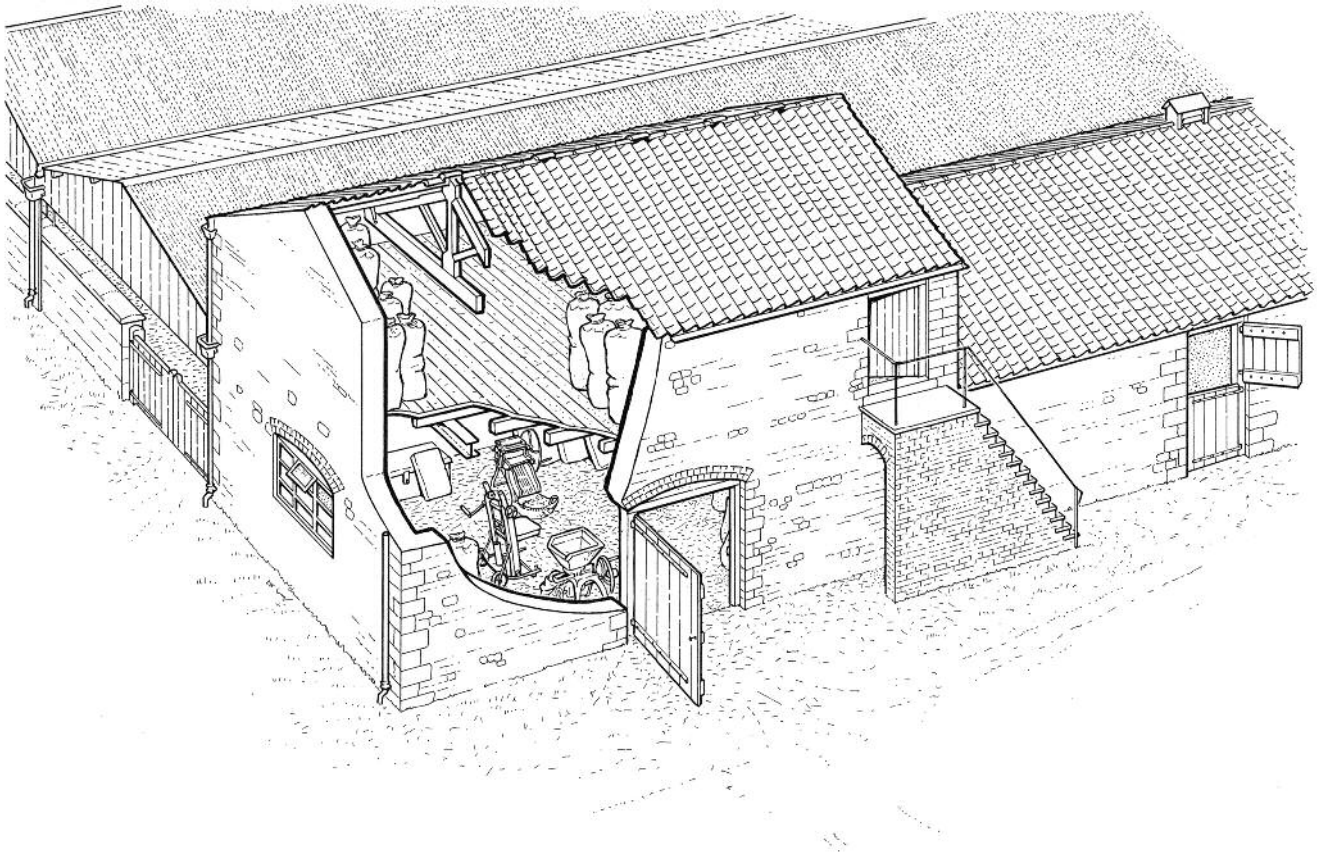
28 Granaries

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.







29A

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29C

29 Granaries and cart sheds in the North West Region
Granaries are almost always combined with other functions, either as a loft in a linear farmstead range (A Cumbria High Fells) or within a combination barn (Eden Valley). Similarly, cart sheds are usually found within a larger range (C Shropshire Staffordshire and Cheshire Plain)
*A and C © Jen Deadman; B © English Heritage / Michael Williams*

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 28). Window openings were typically small, and, with ventilation being the main objective, the openings were generally either louvers, sliding vents or grilles.

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 27).
- 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 (Figures 28 & 29). 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 THE NORTH WEST (Figure 29)

There are no known examples of granaries on staddle stones in the Region. In lowland areas granaries were typically located above stables or cart sheds, but do not form prominent elements in the group. On many upland farms the production of grain was of minor importance and the small quantities stored would often be kept in the farmhouse, or (more rarely) in a room accessed by steps and forming part of the house or a combination building. Where purpose-built structures existed they invariably formed part of another building, being either above a cart shed – for example as carts were introduced in the Hawkshead area of the South Cumbria Low Fells (Denyer 1991, 122) – or located on the first floor of a combination barn.

The wet climate of Cumbria, which could make grain growing and harvest a hazardous affair, led to efforts being made both to protect the cut crop and to dry the grain. Pringle, writing of Westmorland in 1797, thought that the barns were large enough to house all the cut crop before threshing (Pringle 1797, p.300) but 60 years later, Dickenson described open-sided Dutch-style barns (see Glossary, 10.0) on cast-iron pillars with timber roofs that were being erected to shelter corn stacks in Cumberland. These rather impermanent structures are unlikely to survive, but some more solid examples of masonry and brick have survived. Traditionally corn stacks were round and placed on stone pillars to protect them from damp and rats (Dickenson 1852, pp.233–4) but surviving examples are very rare.

## 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 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 THE NORTH WEST (Figure 29)

The implements required for a mainly pastoral system were limited. Few drills or hoes were to be found in Cumberland and Westmorland in the 1790s (Bailey & Culley 1797, p.213; Pringle 1797, p.308). Generally, in upland areas such as the Lake District and the Pennines, carts were a relatively late introduction, with sledges being the more usual method of transport until the 19th century. Single-bay cart sheds are the most common type. Many bank barns incorporate a cart bay beneath the winnowing door on the upper floor. In lowland Cumbria where there was more arable farming, separate open-sided cart sheds with a granary over are found, although few date from before the 19th century. In lowland Lancashire and Cheshire cart sheds nearly always form part of one of the main ranges of buildings – again usually over cart sheds or stables – and are rarely detached structures. Generally they are smaller than cart sheds found in predominantly arable areas in other parts of England.

## 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,

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30B

30C

30 Hay barns in the North West Region
Hay barns are commonly found on the pastoral farms of the North West Region. Most date from the 19th century and may be found located in the fields or at the main farmstead. Those of large lowland farms can be impressive buildings with decorative ventilation patterns in the brickwork.
(A South Cumbria Low Fells; B Solway Basin; C Shropshire, Staffordshire and Cheshire Plain)
*A © Jennifer Deadman; B © Jeremy Lake; C © 404733 Mr Michael Tuck Taken as part of the Images of England Project*

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 over-wintering 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 THE NORTH WEST (Figure 30)

A common feature of many larger pastoral farms was the hay barn. This was usually a separate structure with open sides that allowed adequate ventilation of the hay whilst keeping it dry. In some parts of the Region the hay barn could be built in the fields whilst in lowland areas throughout the Region they typically form part of the farmstead. They could be built to substantial proportions

and given decorative treatment in both the form and detail of the ventilation patterns, particularly in the farmsteads of the Cheshire Plain.

In northern and upland areas of the Region 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 few examples that survive had slate drying floors supported on stone joists. From the later 18th century, perforated clay tiles typically replaced the slate floors.