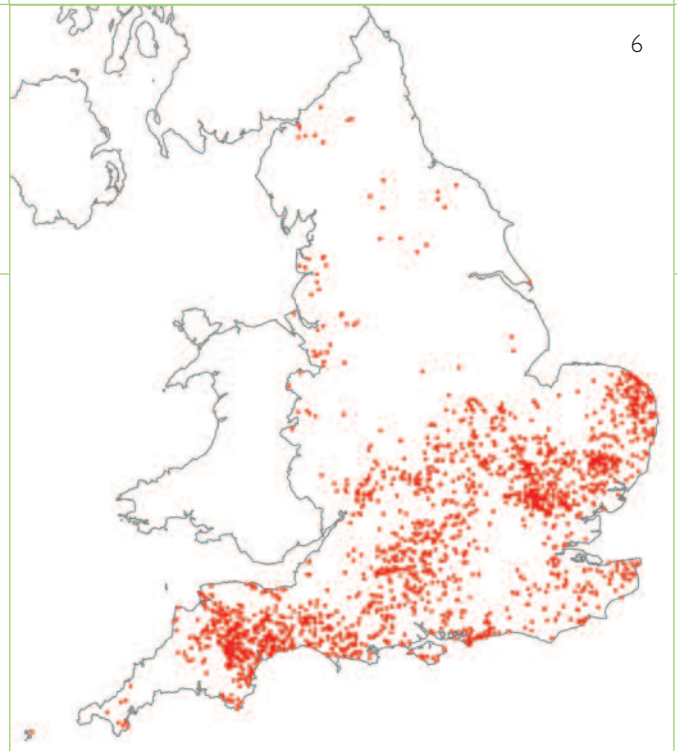


6 Listed thatched agricultural buildings in England  
 Particularly evident is the concentration of surviving thatch – the majority of which in agricultural buildings is listed – in southern England, despite its widespread replacement by materials such as corrugated iron from the late 19th century. Rebuilding, and reproofing in slate and tile, has removed the evidence for its formerly extensive use (in straw, heather and bracken) from much of northern England. Such a map presents an obvious invitation to future analysis and research.  
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6



core of granite. This sandstone varies from red and pink in colour (in the north east of the Region) to buff, and weathers very well. It was usually laid as random rubble although dressings are sometimes tooled and margined. Between the carboniferous limestone and coal measures (Tyne Gap and Mid Northumberland) is a narrow band of millstone grit.

The soft multicoloured sandstone of central Durham is everywhere evident in Teesdale and Weardale. The difference in the treatment and use of this traditional material on the wealthier and larger farmsteads of the late 17th to early 19th centuries, often sited on the lower slopes and valley bottoms, is striking when compared with the 19th-century miners' smallholdings of the upper dales. When designed to impress, the treatment of the stonework and the style of fenestration were important considerations. Cut and dressed stonework was used for the most high-status and formal farm complexes and, where rougher masonry was used, for the embellishment of quoining, door and window surrounds and the copings and kneelers to gable ends; its use can be particularly dramatic on the combined cart shed / granary ranges characteristic of the arable area of the Region. Finely worked, coursed sandstone blocks are also common to front elevations, with random rubble walling to side and rear elevations and ancillary buildings.

Watershot masonry, where the outer face is tilted to throw water off the walls, is a technique that was used in upland areas between the later 18th and mid-19th centuries. It has been recorded in Teesdale, through Weardale and up to Tynedale.

### 3.2.1.2 Earth

The use of mud and stud (see Yorkshire and Humber and East Midlands) is documented in the late 18th century (Frodsham 2004, pp.117, 121–3). Although there is clear documentation and surviving examples of solid earth structures in the North West and southern Scotland, there is no clear evidence of its use in this Region.

### 3.2.1.3 Timber

Timber for building was in very limited supply, and its use closely regulated, by the 16th century. Timber framing is thus extremely uncommon in this Region. This was particularly the case in the uplands, where stone walls replaced boundaries topped with brushwood

(Winchester 2003, p.62). The use of timber framing is confined to urban centres. The few examples of medieval barns that have survived are not aisled, and aisled construction is generally absent from the Region. Cruck-framed buildings, both substantial and impermanent, were common in the Region in the medieval period (Wrathmell 1989a, pp.249–56). The most common form of surviving cruck, concentrated in the south of the Region and associated with both linear farmsteads (see 5.3.2) and farm buildings is the upper cruck; the removal of upper crucks can leave distinctive slots in the walling.

### 3.2.1.4 Brick

The use of brick dates from the 17th century. It is mainly found in the south and east of the Region, in the Tees Lowlands and the South East Northumberland Coastal Plain character areas. Some brick buildings date from the early to mid-18th century but brick is most commonly found used in 19th-century farmsteads. Brick can be more widely found for minor detailing, particularly for the chimneystacks to engine houses.

## 3.2.2 ROOFING (Figure 8)

### 3.2.2.1 Thatch

Thatch, heather and bracken were used for roofing, but by the 19th century – along with the Yorkshire and Humber Region and parts of the North West – its use was very rare by national standards.

Straw thatching was common in the eastern arable lowlands (Emery 1994, p.117), the Cheviot Fringe, along the Coastal Plains and the Tweed. Small pockets of thatch may still be seen, for example, at Etal on the Cheviot Fringe.

7 Examples of walling materials in the North East Region

A – E The North East is an area dominated by stone buildings. There is a wide variety of building stones, from soft limestones and porous sandstones that are frequently white-washed, to better quality sandstones and igneous rocks. The range of stones contributes greatly to local distinctiveness and landscape character. (A and B Tyne and Wear Lowlands; C and E Cheviot Fringe; D North Pennines)

F Timber-framing is rarely found in the North East although there is

documentary evidence for its use. This granary (see Figure 25A) was built by Durham Cathedral Priory. (Tyne and Wear Lowlands)

G Timber boarding is rarely found on farm buildings as there is such a wealth of good building stone available. (Cheviot Fringe)

H Brick is not widely found in the Region; its use is generally restricted to the south-eastern part of the Region. (Tees Lowlands)

*All photographs © Jen Deadman*





8A

- 8 Examples of roofing materials in the North East Region
- A Before the 19th century the use of thatch was common but it is now a rare feature of roofs of the North East. Local thatching traditions included heather thatch and straw. (Tyne Gap and Hadrian's Wall)
  - B Some of the building stones of the Region are also capable of being split into slates, some of a considerable thickness, that were locally used for roofing. (North Pennines)
  - C Pantiles. The use of pantiles is a key characteristic of the Region, forming part of a wider distribution of pantiles that extends southwards along the eastern side of England as far as East Anglia. Plain tiles were not widely used on farm buildings. (Cheviot Fringe)
  - D Welsh slate. The use of Welsh slate increased as the railways made transportation easier and cheaper. Slate allowed a lower roof pitch to be used and was considerably lighter than stone slates – so less substantial and, therefore, cheaper roof trusses could be used. (Border Moors and Forests) All photographs © Jen Deadman



8B



8C



8D

The south-west of Northumberland is well known for the remarkable survival of a small group of heather or 'black thatch' buildings. This technique was once general in upland areas of the Region above the area where straw or reed thatch was found, but had also been used in the lowlands (Moir & Letts 1999, p.13; Chapman 1977; Chapman 1982; Emery 1986). By the 17th and 18th centuries, its use – typically in northern England in combination with layers of turf – was mainly confined to the heath and moorland of the Pennine uplands (Emery 1994, p.117; Emery 1985, 1986). It was used until the more common use, at a vernacular level, of stone slate. Heather is a poor roofing material in that it lacks the tight, even form of straw or reed; water does not run along it so much as through it. Consequently, speed in discharging the water is important and this

gives rise to steeper pitches than for lowland thatch. Proof that thatch was once commonplace is seen in the steep roof line (typically 60 degrees) evident as a scar on the gable of many buildings where the roofline has been altered – typically in the later 18th or 19th centuries – to accommodate the shallower pitch required by flags or tiles.

### 3.2.2.2 Slate and stone

Slate was common in the uplands, in Weardale and Teesdale in particular. Stone slate verges are found on pantile roofs in lowland areas. Cumbrian and Scottish slate was used from the mid-18th century, and Welsh slate – usually imported through the coastal ports – was used from the 1790s (Pevsner 1992, p.9). The latter only became common after the mid-19th

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century, when the railways increased its availability and reduced the cost.

### 3.2.2.3 Tiles

Pantile roofs are a distinctive feature of the lowland parts of the Region. Like plain tiles, they had the advantage of being lighter than stone slates and so required less

timberwork in the roof. They seem to have had a fairly long period of popularity. Initially imported from the Dutch Lowlands as a form of high-grade ballast, by the early 18th century they were being manufactured in the Region. Ridges were finished in clay and stone, and lower courses were commonly roofed in stone slates (Emery 1994, p. 117).

## 4.0 Agricultural History and Farm Buildings

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

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

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

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

##### 4.1.1.1 Survival and Value

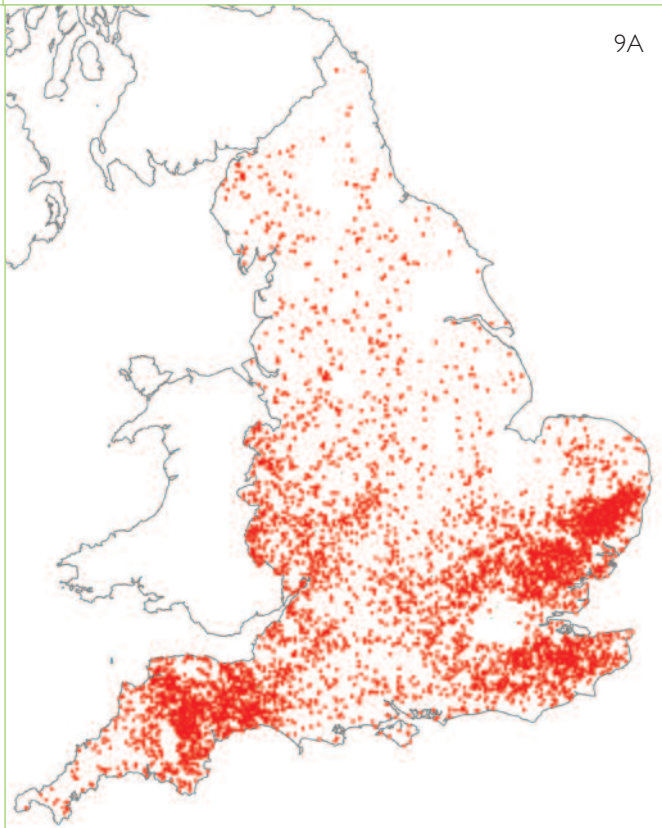
All survivals of this period are of great rarity and significance. The best-known survivals are the great barns of secular and especially ecclesiastical estates. These

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

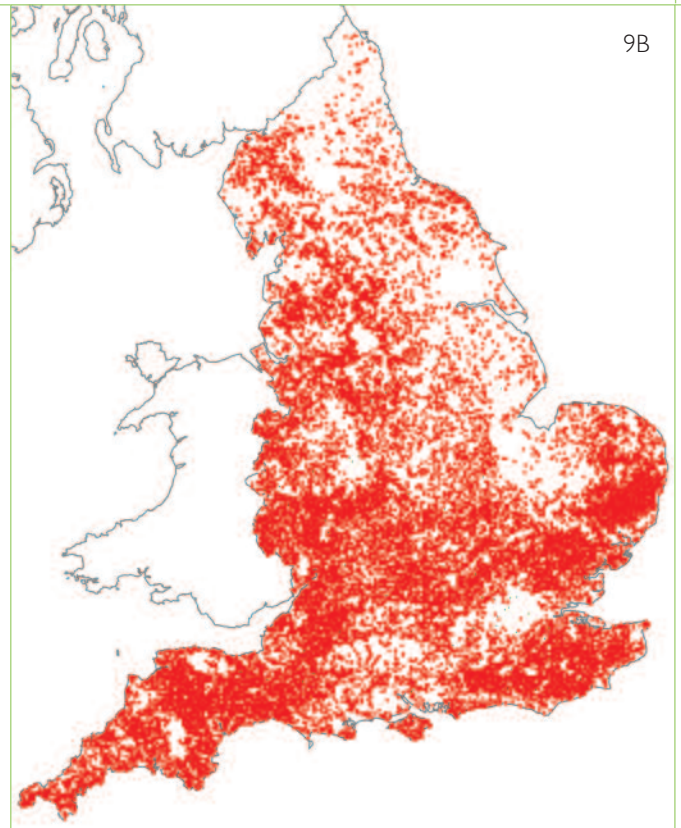
#### 4.1.2 1550 TO 1750 (Figures 9 & 10)

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

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



9A



9B

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

#### 4.1.2.1 Survival and Value

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

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

#### 4.1.3 1750 TO 1880

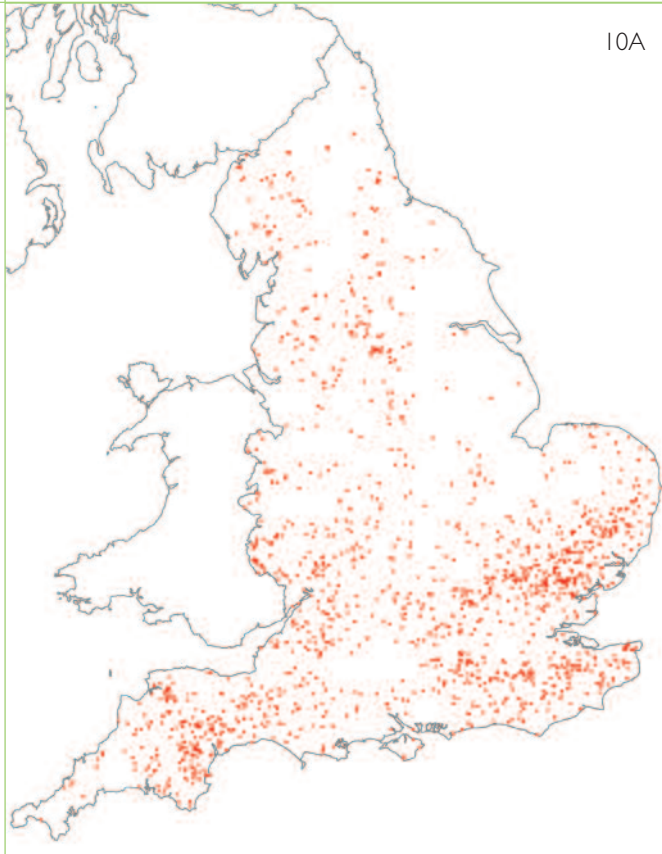
Agricultural productivity sustained a massive increase in population, which had risen from around 6 million in 1750 to over 16.7 million by 1851 and 26 million in 1881. This was the most important period of farm building development, commonly divided by agricultural historians into two periods: before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

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

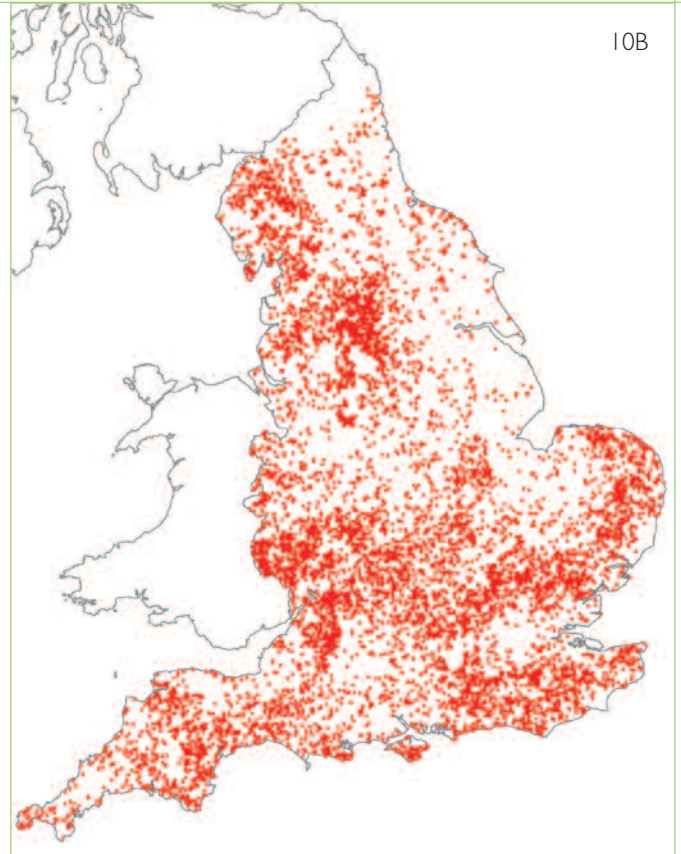
## 10 Distribution of listed barns in England, pre-1550 and 1550–1750

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

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10A



10B

'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 policies 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 25, 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 housing for dairy cattle with concrete floors and stalls, and metal roofs and fittings. County councils entered the scene as a builder of new farmsteads, built 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 EAST

By the 15th century intra-regional distinctions between the pastoral economies of the uplands and the mixed arable-based economies of the lowlands were already strong. A pattern had emerged in upland areas of tenant farmers holding enclosed fields and meadows interspersed with those of their neighbours and open communal fields (Tuck 1991, pp.179; Brassley 1984, p.34). In contrast larger, nucleated townships and a more mixed arable-based economy were typical of the broader and more fertile lower upland dales, lowland and coastal districts. Here there was more cultivatable land organised around two or more open fields laid out in strips (Butlin 1964, p.119; Tuck 1991, p.175). Villages were typically smaller than in the Midlands, and the extent of rough pasture contributed to the fact that open fields (townfields) took up a much smaller proportion (up to 50% in the lowlands) of the land area (Roberts & Wrathmell 2000, pp.45–6).

Large estates have dominated the development of landscape and architecture in much of the Region, particularly in Northumberland. Great landowners, including the Crown, made use of the uplands as private hunting forest or chase, and exploited them as part of large estates with inter-linked farms which embraced lowland areas. The 12th and 13th centuries had witnessed the establishment of stock farms (vaccaries) in the valleys of the Pennines and sheep farms on upland fells, and of grange farms in lowland areas. New holdings and steadings appeared from the 15th century, due to the leasing and subdivision of these farms, the enclosure of common arable and pasture and the reorganisation of holdings into the hands of a smaller group of wealthier customary tenants (Tuck 1991, p.588). Enclosure was also accompanied by the engrossing of holdings and the abandonment or conversion of farmsteads to domestic use, accompanied by the dominance of a handful of farms (Chapman 1970, p.91).

In those parts of the Region where large estates were dominant, and increasing in impact from the late 16th century and after the Union of Scotland and England in 1603 (which helped bring to an end the intermittent instability that had characterised the border areas from the 1290s), commercial stock farming and the replacement of customary by leasehold tenure were linked to the reduction and restructuring of farms (Brassley 1984, pp.49–50). By the 18th century large country houses, often incorporating earlier medieval fortified structures, were built in the lowland and transitional landscapes and set in designed parklands. Many of their owners – both long-established and newly enriched – were transferring profits from the coal

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, the Dukes of Northumberland around Alnwick, the Blacketts around Wallington), in response to the major urban expansion and the growth of industry in the Region.

In these landscapes – and particularly in Northumberland – the large size of estates facilitated the redrawing of landscape on a scale comparable to the reshaping of the Scottish lowland and later highland landscapes. In the Cheviots, for example, single-tenancy farms, often over 1000 acres in extent, were replacing old multiple-tenancy 'fermtouns' (settlements usually characterised by longhouses, see 5.3.2) with new farmsteads and cottages. Settlements were either abandoned altogether, or reduced to individual steadings. The period between 1650 and 1750 witnessed a peak in the rate of desertions (Jarrett & Wrathmell 1977, pp.108–119). Throughout the Region, the period after 1750 witnessed the final phase of enclosure and the establishment of new farms, and the addition and reconstruction of old farmsteads in the villages and hamlets. Hodgson, writing in 1827 in his *History of Northumberland*, stated: 'Many villages in Northumberland have entirely gone down, but farm houses and cottages have risen up in their place in more convenient situations, a mode better adapted to the growth of good principles and usefulness than the village systems' (Hodgson 1827, p.337).

In the 17th and 18th centuries, upland farmers became engaged in a lively cross-border trade in cattle from Scotland that was comparable to but not as intense as in Cumbria. Although grain was imported into the Region, mainly from East Anglia, the amounts were relatively small and by the early 18th century it had been able to increase its food production to supply its rapidly growing population (Brassley 1984, pp.43–5). The main agricultural improvements were made after 1750. A general feature was the appearance of alternate systems of husbandry using turnips and other forage crops (Thirsk 1967, pp.27–8; Brassley 1984, pp.47–51, 53–6). It also witnessed the arrival of a new agricultural prosperity based on more efficient grain cultivation, more intensive cattle rearing and fattening, dairying for local and distant markets, and much more large-scale sheep farming in both lowland and upland areas. By around 1800, the arable land in lowland areas had increased considerably, grain being exported via Berwick, Alnmouth and other ports. The 'Corn Road' opened up the area around Hexham in the Tyne Valley to Alnmouth. The development of the railway network opened up new markets or allowed the transport of products such as fresh milk to urban markets. Smallholders and part-time farmers near urban areas also benefited. Overall, the incentive was the rapid emergence of industry and

commerce as the major employers in the Region, facilitated by a 'complex network of specialist suppliers' – coal mining employing more workers than farming in County Durham in 1851 (McCord 1995, pp.252–3).

After 1850 the extent of arable continued to decline in favour of permanent pasture especially on some of the heavier claylands. However, not all parts of the Region made significant improvements. The nature of the mixed and pastoral farming of the Region, coupled with the increasing demand for animal products from the industrial cities, meant that agriculture in the North East did not experience the late 19th-century depression in farming to the same extent as across much of the south of England. In some areas from the 1870s – and especially in the 1920s and 1930s – there was a marked reduction in the acreage of arable crops and an increase in grassland (Whetham 1979, pp.174–8).

## AREA SUMMARIES

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

Broadly, the Region divides into three agricultural areas:

- The uplands, an area which broadly corresponds with the Cheviots, Border Moors and Forests, and the North Pennines character areas. The uplands of the North East Region share many features with those of northern England (and specifically the Pennines and Cheviots).
- A transitional zone along the foothills of the upland area, generally represented by the Pennine Dales Fringe, the Durham Coalfield Pennine Fringe, Mid Northumberland and the Northumberland Sandstone Hills character areas.
- The lowlands, represented by the North Northumberland Coastal Plain, Cheviot Fringe, the South East Northumberland Coastal Plain, the Tyne and Wear Lowlands, Durham Magnesian Limestone Plateau and the Tees Lowlands character areas.

## 4.2.1 UPLANDS

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. Bigg, a variety of barley, rye, wheat and peas, were most commonly grown in the uplands, but the most widely sown crop, and the one best suited to the short, wet summers, was oats.

Ring-fenced single farms with no subdivided fields – often the products of colonisation by individual farmers early in the medieval period – were mostly found at the upper limits of settlement, such as in the Forest of Teesdale above Newbiggin. The more general pattern in upland areas was for arable land and meadows to lie either in closes or in small common fields. A stock-proof boundary (often termed a head-dyke) 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 (Butlin 1964, pp.118–9). Livestock were not permitted into the 'infield' area during the closed season when corn and hay were growing. They were allowed into the inner area in the open season after the harvest of hay and crops, their manure serving to fertilise the land.

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). Throughout the uplands, farms thus created out of the moorland sides between the 15th and 19th centuries are set within their distinctive 'intakes' of enclosed land. Additional factors in both enclosure and the creation of new farms were the decline of hunting in the wider landscape and the population increase from the 15th century, the latter sometimes linked to the emergence of a dual economy based on industrialisation in the upland dales. There was a further increase in farms from the 17th century, connected in the North Pennines to the boom in the lead industry.

A vital feature of the upland farming economy was the huge proportion of inter-commoned and communally regulated 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. The movement of livestock (particularly cattle) to summer pastures on the high ground (a process known as transhumance) had been a key component in the economies of upland valleys probably since the prehistoric period (see 7.1.2). Vast areas of 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 resulting in a dramatic new landscape of large square fields and mile after mile of straight boundary walls.

#### 4.2.1.1 The Cheviots (JCA 4)

Romano-British farmstead clusters are often associated with extensive rigg-and-furrow field systems, some terraced into the steeper slopes, which may be contemporary in date or medieval in origin.

Villages and hamlets often retain in-field patterns of great antiquity, used for the most intensive cropping. Distinctive farms with intakes from the surrounding moorland developed from the 15th to the 19th century. Medieval or earlier origins are likely for the scattered nucleated villages in the foothill valleys, associated with inter-commoning drove roads. Deserted medieval villages and hamlets together with visible remains of abandoned field systems indicate a period of greater population and farming diversity prior to the 14th century. By the later medieval period the Cheviots was largely given over to sheepwalks: according to Bishop Richard Pococke, by the turn of the 18th century the Cheviots, 'produced the best and soundest mutton, and the country is almost wholly laid out in sheepwalks' (Hodgson 1915, p.220).

The upland landscapes remained largely open as common pasture until the parliamentary enclosures of the late 18th and 19th centuries. These are characterised by large rectangular fields marked by stone walls ('dykes') or defined by hedgerows on lower slopes.

#### 4.2.1.2 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 stells 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. The lower valleys of Redesdale and North Tynedale in particular demonstrate 18th- and 19th-century agricultural improvements: large regular fields of permanent and improved pasture divided by walls and fences, with earlier patterns of enclosure in the sheltered valleys.

#### 4.2.1.3 North Pennines (JCA 10) (Figure 11)

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.

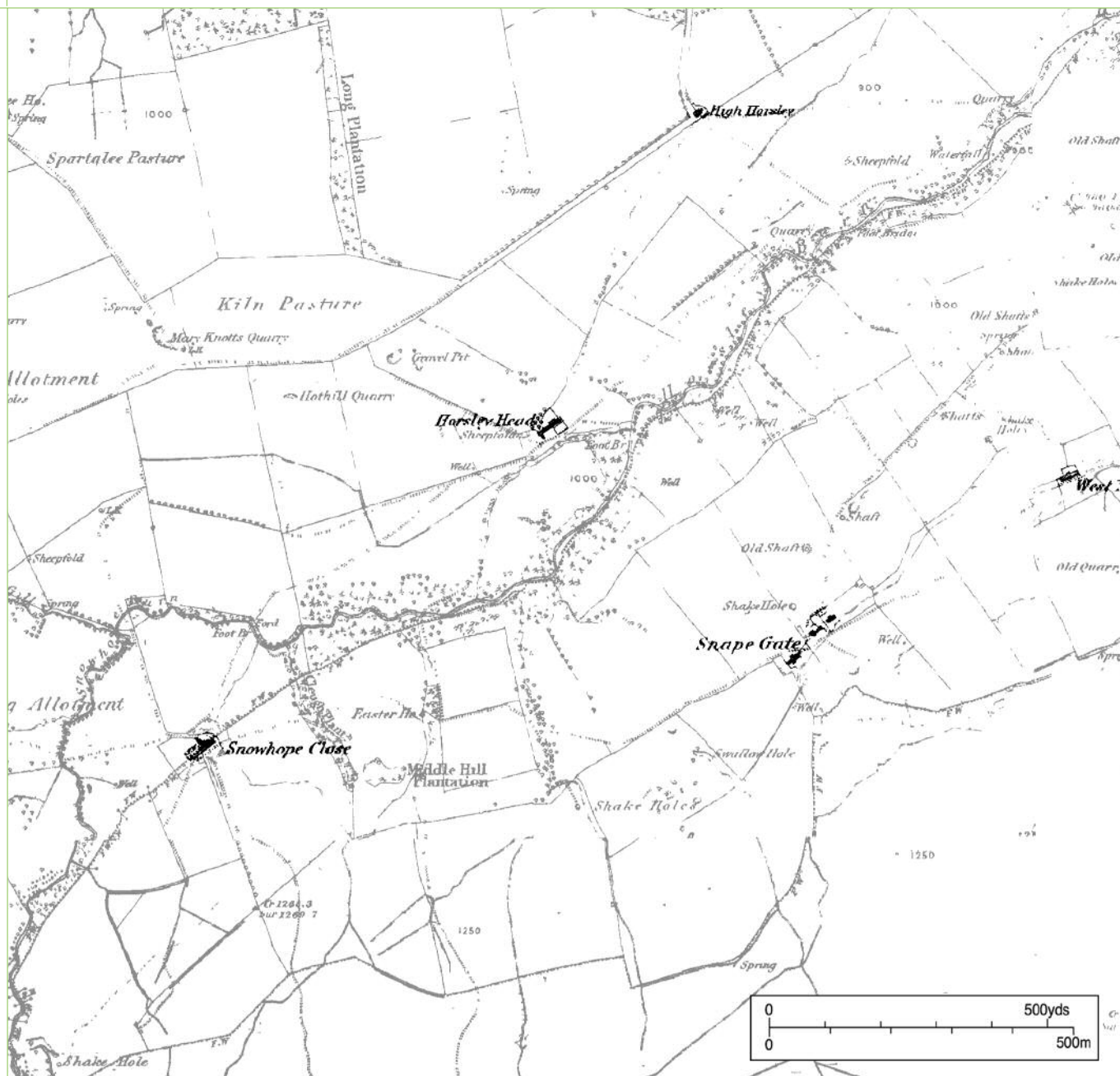
The heads of the dales (Upper Weardale, Teesdale, Allendale and South Tyne Valley) were populated with vaccaries in the 12th and 13th centuries, many of these and also medieval parks becoming subdivided as farms and hamlets from the 15th century. The leasing out and subdivision of directly managed estate farms and hunting lodges led to the appearance of new holdings and farmsteads throughout the upland dales from the 15th century, as Brian Roberts has demonstrated for Weardale (Roberts 1977, pp.177–9, 182–3, 187–8). Small-scale tenant farming – on favourable terms of customary tenure as in the uplands of Yorkshire and the North West, remained as a strong characteristic of the upper reaches of the North Pennines.

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 farmsteads have around them distinctive, patterned small enclosures, some probably reflecting 17th- and 18th-century 'miner-farmer' smallholdings. By the 19th century purpose-built villages (i.e. Allenheads and Nenthead) emerged, importing the terraced housing patterns of the industrial townscapes, joined by a wide variety of 'squatter' settlements complete with small agricultural plots. The import of cheaper lead from abroad led to the abandonment of the lead mines and the desertion of many of the associated settlements and smallholdings in the late 19th century, leaving parts of the uplands sparsely populated.

11 Farmsteads in the landscape: Weardale, Durham (North Pennines)

Some farming families of Weardale managed to make a living through combining agriculture – mainly cattle and sheep farming – with working in the nearby lead mines. The extensive moorland provided the smallholdings with sufficient grazing and their enclosed fields on the valley sides provided hay for winter fodder. The farmsteads usually consisted of linear ranges comprising the farmhouse and a byre. The decline of the British lead industry in the late 19th century left most of these smallholdings unviable, and the landscape is scattered with the abandoned ruins of these farms. Based on OS 1st Edition 6" map 1843–1890.

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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.

**4.2.2 THE LOWLAND AND TRANSITIONAL ZONES**

There is a central transitional area formed by the overlap between the mainly pastoral farming upland areas to the west and the lowlands to the east. The meeting of pastoral and arable farming is still evident in the character of the present-day landscape, in its mix of hill and vale farming systems. In the foothills of the upland areas, glacial deposits provided some areas of better soils

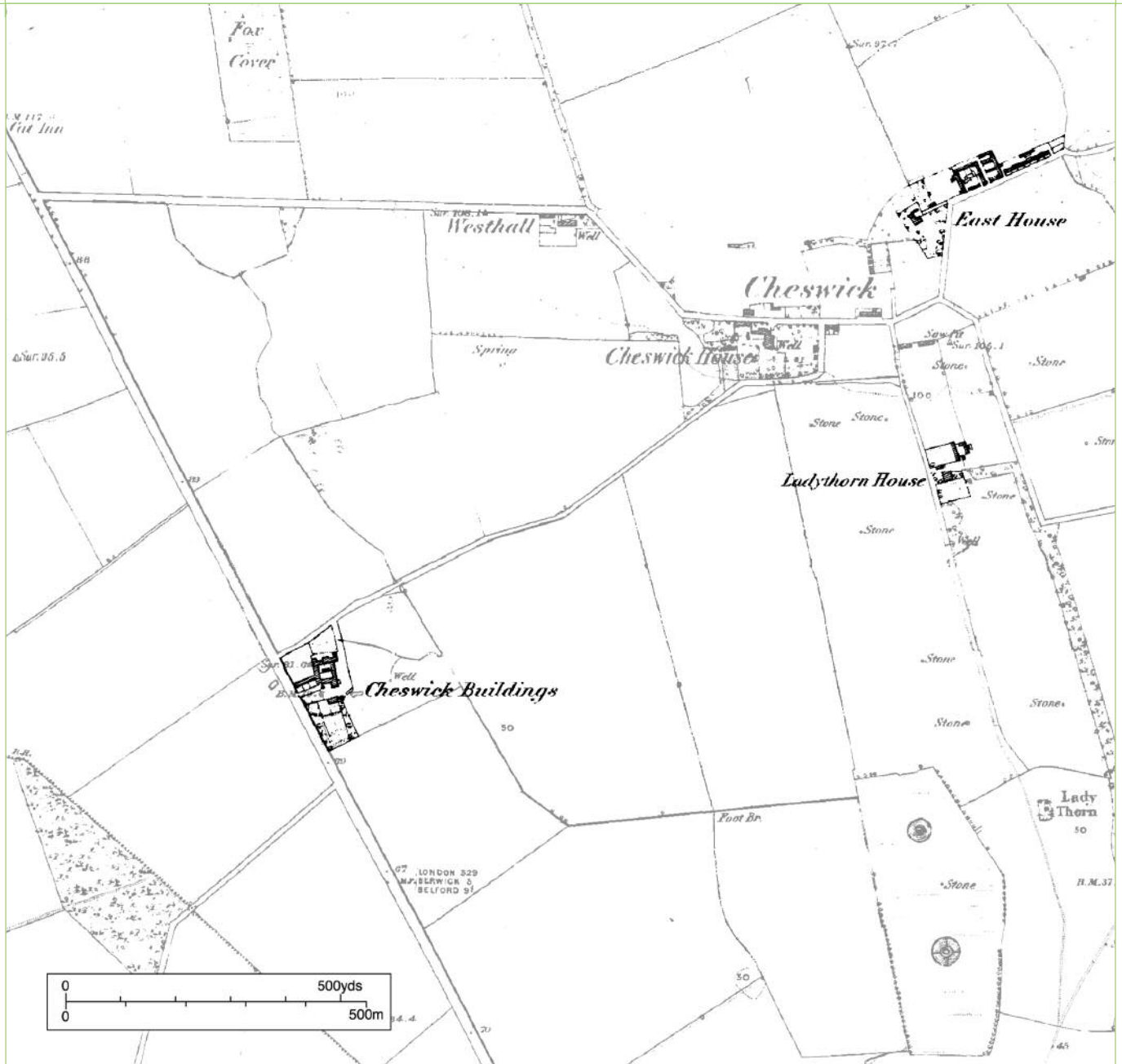
allowing more arable, giving the farmsteads of this area a higher value than those of the uplands (Brassley 1984, p.35). Cultivation of these lower slopes in the medieval period was based on three or four large common arable fields, sometimes with areas of meadow intermixed. By the 18th century barley had emerged as the principal grain crop, but cattle (for fattening and dairying) and sheep (for fattening as well as wool) comprised the mainstay of the agricultural economy (Brassley 1984, p.36).

The farms of the coastal lowlands were larger than those of the foothills, with the largest farms being found in the

12 Farmsteads in the landscape: Cheswick, Northumbria (North Northumbrian Coastal Plain)

In the 18th century much of this landscape was re-written. Large estates cleared away the small villages and reorganised the fields, creating large regular fields that were worked from large planned farmsteads that often incorporated the most modern ideas about animal husbandry, work flows and the use of mechanisation. The large regular courtyard farmsteads were geared to the large-scale production of meat. The populations of the small villages were re-housed in terraces of cottages (hinds cottages) such as those seen adjacent to East House Farm (see cover image), which was built in the 1840s for the Haggerston estate. The farm manager's house (grieve's house) was usually sited close to the farm enabling him to observe the working of the farm. This process of change transformed the area from one of the most agriculturally backward parts of the country to the forefront of best agricultural practice. To the east of Cheswick House, next to the saw pit as marked on the map, is a rare surviving longhouse that predates the re-planning of this landscape. Based on OS 1st Edition 6" map 1843–1890.

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Tweed valley and the northern part of the coastal plain of Northumberland. As with the transitional area, in the 17th and 18th centuries arable farming was mixed with cattle and sheep farming, although the arable produced as much as one third of the farmer's wealth (Brassley 1984, pp.36–7). Rotational cropping using turnips, and enriched by the dung of large sheep flocks and farmyard cattle, had by the early 19th century led to a marked increase in productivity – for example of wheat for export. By the late 18th century, a distinction had emerged between the large farms of the lowlands of

Northumberland and the smaller farms of south-east Northumberland and Durham, particularly in the coal-mining areas (including the Durham Coalfield Pennine Fringe) where farms rarely exceeded 50 acres (Bailey 1810, p.67). Cattle numbers per farm in Durham (commonly five or six) were one third of the average further north (Brassley 1984, p.39). Dairying, which extended to the export of butter and cheese from the Region's ports, emerged as an important industry, and the liquid milk trade developed in close proximity to Newcastle and the emerging industrial centres associated

with the coal industry and (in the Pennine valleys) lead mining. Livestock rearing and dairying developed from the 17th century at the head of the Tees valley (in the Pennine Dales Fringe) in tandem with the development of the textile industry

As a result of topography, soils and land use, there are strong local differences within these lowland and transitional zones.

#### **4.2.2.1 North Northumberland Coastal Plain (JCA 1) and South East Northumberland Coastal Plain (JCA 13) (Figure 12)**

The most intensively farmed arable land, and the largest farms, are found along the North Northumberland Coastal Plain and South East Northumberland Coastal Plain, an open landscape with large, regular fields that between the 17th and 19th centuries replaced a complex pattern of nucleated settlements linked to small medieval fields, open-field systems and extensive pastures. The coastal railway line opened new markets and supplies of materials (e.g. Welsh slate) in the 1840s, and stimulated the development of ports and seaside resorts. The coal industry in the South East Plain also stimulated markets.

#### **4.2.2.2 The Northumberland Sandstone Hills (JCA 2)**

These extend in a wide north–south arc across the county, separating the vales of the Cheviot Fringe from the Northumberland coastal plain. Earthwork remains of villages and hamlets, and of ridge-and-furrow cultivation, suggest that medieval settlement – subject to shrinkage and desertion from the 14th century – was quite extensive to the south and east of the main plateau. On the lower slopes widespread rotational farming was introduced by the 19th century within patterns of broad and regular enclosed fields centred on large farms or farming hamlets. Elsewhere within the hills the medieval and later settlement pattern is characterised by isolated farmsteads and small hamlets. The summits and upper slopes were used as hunting chase and common pasture in the medieval period, with some emparkment for deer. Rothbury Forest and other upland areas were enclosed as private land under Parliamentary Acts in the early 19th century, and apportioned for improved and semi-improved pasture.

#### **4.2.2.3 Cheviot Fringe (JCA 3)**

Enclosure of the lowland and vale landscapes was largely completed by the late 18th century, in contrast to the more arable-based economy around the larger-scale and mostly post-1750 enclosures on the productive alluvial terraces of the Till Valley and Milfield Plain.

#### **4.2.2.4 Tyne Gap and Hadrian's Wall (JCA 11)**

More settled border conditions from the 17th century promoted the development of county house estates,

some derived from fortified predecessors, and agricultural improvements. Grain export was enabled by the turnpike constructed from Hexham to the coast in the mid-18th century, and east–west communications further improved by General Wade's military road along the wall. Railways within the Tyne valleys opened up still further markets from the mid-19th century as well as the residential development based on employment in Newcastle. The wider valley floors to the east supported arable cultivation as well as pasture, usually managed from single manor farmsteads in each of the small and widely spaced villages. These are often the result of agricultural reorganisation by estates of village agriculture in the 17th and 18th centuries. The flanks of the valleys and the narrower western vales are farmed from regularly spaced isolated farms and farm hamlets, the result of new agricultural expansion from the late 17th century onwards.

#### **4.2.2.5 Mid Northumberland (JCA 12)**

A number of the area's nucleated settlements were reduced in size or abandoned through the 14th and 15th centuries in particular, leaving earthwork traces of their former extent and of ridge-and-furrow cultivation. The development of estates was a major factor in the reorganisation of landscapes from the 17th century, with former common arable around settlements in the lower lying areas to the south and east being subject to enclosure in the 17th and 18th centuries and higher rough pasture ground generally from the later 18th century.

#### **4.2.2.6 Durham Coalfield Pennine Fringe (JCA 16) and Northern part of the Pennine Dales Fringe (JCA 22)**

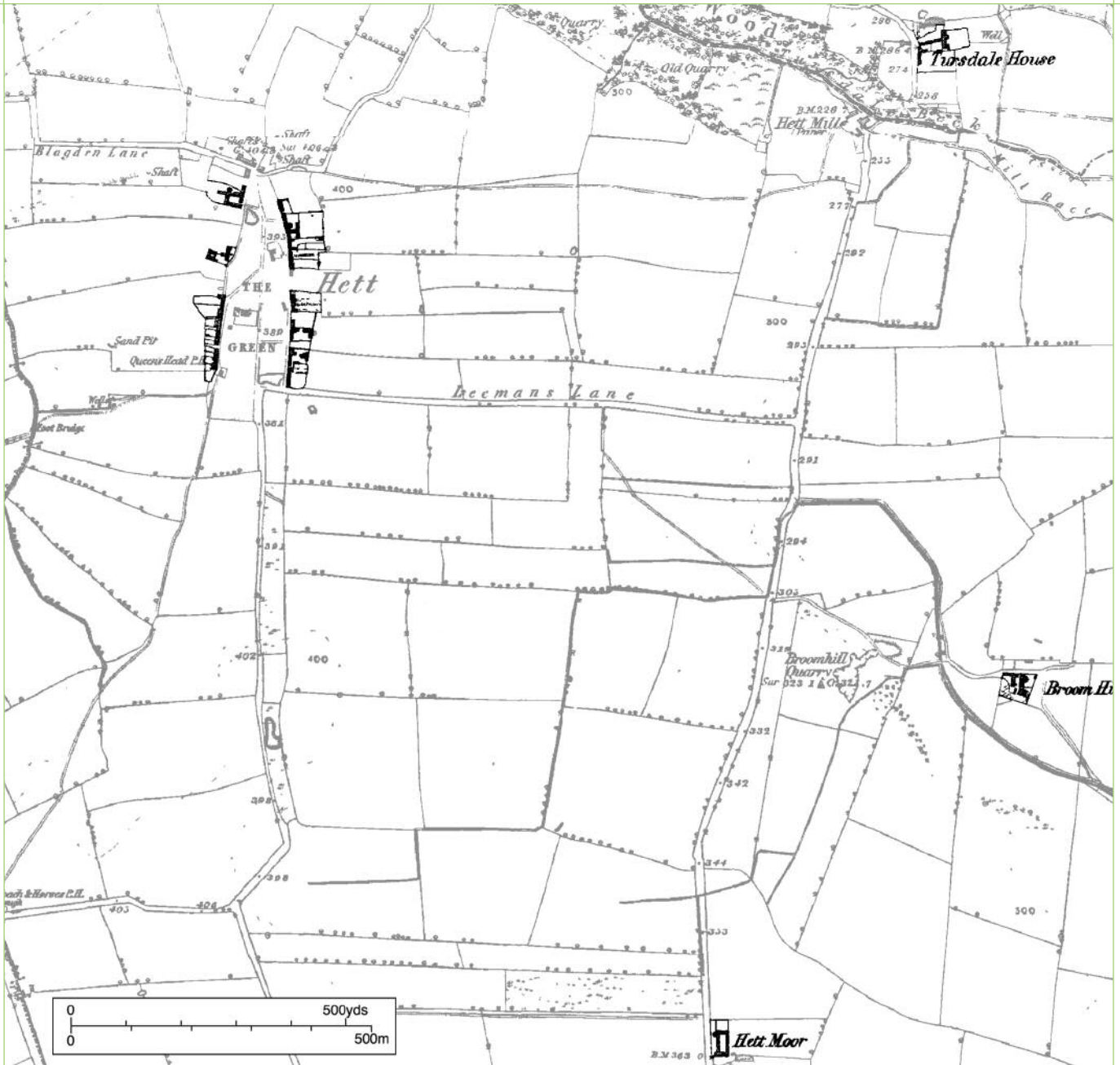
This landscape dips towards the Tyne and Wear Valleys and here the coal and related industries expanded rapidly from the later 18th century. The landscape was divided into large regular fields in the 17th and 18th centuries (the eastern and southern valleys having occasional survivals of earlier irregular enclosures in steep folds and adjacent to villages). Common fields were largely enclosed by private agreement in the 17th century; wastes and commons on the upland fringe were enclosed between the late 18th and mid-19th centuries.

#### **4.2.2.7 Tyne and Wear Lowlands (JCA 14), Durham Magnesian Limestone Plateau (JCA 15) and northern edge of the North Yorkshire Moors and Cleveland Hills (JCA 25) (Figure 13)**

Arable production has been a feature of the plain since at least the medieval period. Farming was reorganised to match the demands and markets provided by the coal industry, which expanded from medieval and earlier origins after the 16th century and particularly during the 19th century. The enclosure of common fields from the 15th century led to farmsteads being relocated to new

13 Farmsteads in the landscape: Hett, Durham (Tyne and Wear Lowlands)

Hett is a characteristic 'green village' typical of the Durham area with its rows of farmsteads and cottages set either side of a wide green. The farmsteads shown on this map include a larger steading with a courtyard arrangement, reflecting the amalgamation of earlier farms that is typical of this area. Most of the buildings shown were small farmsteads, with at least one of the surviving farmhouses having raised crucks. It is probable that for many of the smaller farmers of the village the local coal mines, recorded from the medieval period, and quarrying offered additional employment opportunities. Surrounding the villages are fields that, as shown by their slightly curving boundaries, represent the enclosure of former open field strips. The creation of these fields, by agreement, is likely to have occurred between the 16th and 18th centuries. In the north-east corner of the map extract is Tursdale House, a former manor house on the site of a shrunken medieval village. Based on OS 1st Edition 6" map 1843–1890. © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2005) Licence numbers 000394 and TP0024



sites or left in village centres, the Durham Magnesian Limestone Plateau having a large number of deserted medieval settlements. Enclosure of the arable fields was complete by the close of the 18th century and the remaining commons and open pastures enclosed from the 18th century. The large regular fields reflect the ease with which open fields of the medieval townships could be re-ordered in the 17th and 18th centuries as production was reorganised around larger centralised

farming units, many linked to coal-enriched country estates. The fertile loam-based soils of the Tees Lowlands have underpinned a predominantly arable-based economy, the large-scale enclosure of the open fields being largely complete by the 18th century. The Cleveland area – generally regarded as backward by contemporaries – specialised in horse breeding, with the Cleveland Bay gaining widespread recognition (Hallas 2000, pp.402–10).



# 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 14) 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.

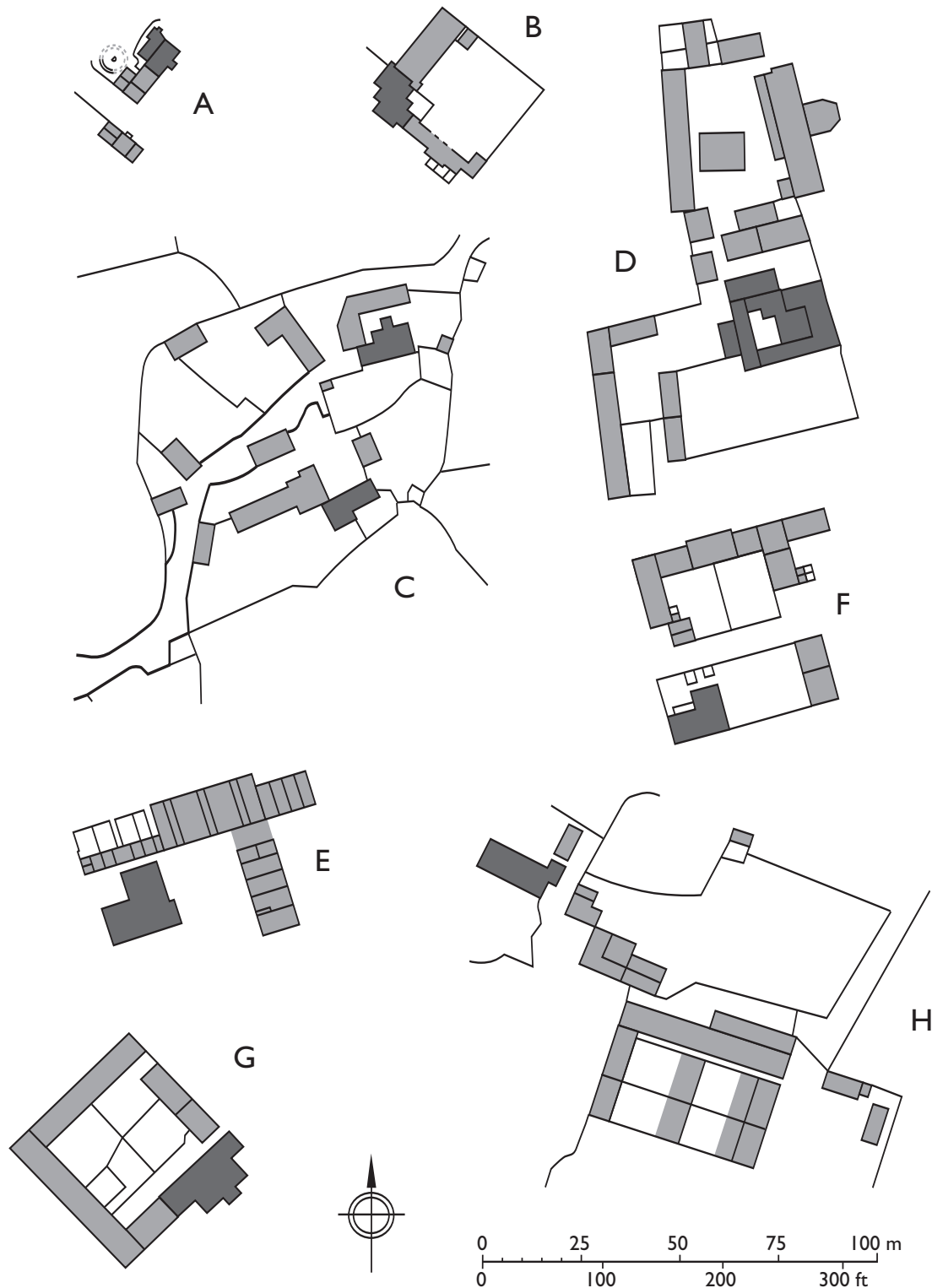
14 Farmstead plan types (Farmhouses are shaded darker)

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

only one or two of the remaining sides.

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

*Drawn by Stephen Dent © English Heritage*



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 plan 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 15). 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 (Figure 8B), 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.

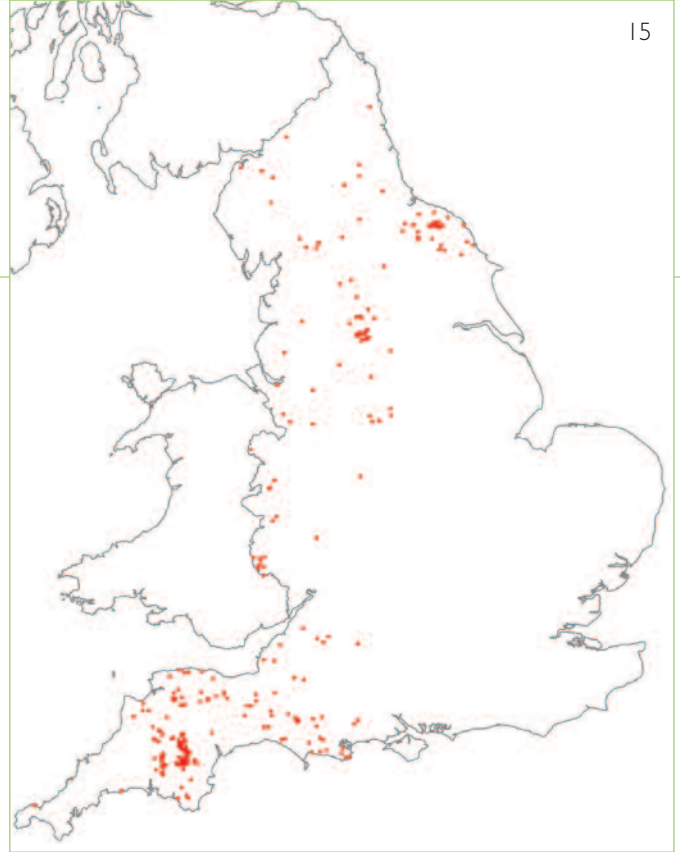
### 5.1.3 DISPERSED PLANS

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

15 Distribution of listed longhouses in England. Surviving longhouses – a proportion of which have been recognised as such in listing descriptions – represent only a small proportion of a building type that was once prevalent across large parts of western and northern England. The concentration of a fine group of surviving longhouses on the eastern fringes of Dartmoor is particularly prominent. Recent research has shown that in some areas such as north Yorkshire many village-based farmhouses have longhouse origins that have previously not been recognised.  
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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 16), the ideas for which were widely disseminated in textbooks and journals (Wade Martins 2002). They are generally associated with holdings over 150 acres, and are far less likely than the other plan types to be associated with other loose scatters of buildings.

## 5.2 FACTORS INFLUENCING FARMSTEAD CHARACTER

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

### 5.2.1 FARM SIZE

Generally, larger holdings were more likely to be provided with larger and/or more buildings. In the 18th and 19th centuries, the 'contemporary rule of thumb was that a man was needed for every 25 or 30 acres of arable and every 50 or 60 of pasture' (Mingay 1989,

p.953). Statistics on the numbers of farms by size can be misleading: although 71% of holdings were under 50 acres as late as 1880 (Howkins 1994, p.53), the proportion of land area taken up by small farms was much smaller and regionally very varied. By the 1850s, medium-size farms – typically mixed arable holdings – were between 100 and 299 acres, and occupied nearly half of England's acreage; as much as one third was taken up by large farms of over 300 acres, these being best placed to invest in 'High Farming' (Mingay 1989, p.950). Farms of 500 acres and above were found on the chalk downlands of southern England, and in the Lincolnshire and Yorkshire Wolds: 1000 acres was not uncommon in these areas (Prince in Mingay 1989, p.82). These farms had greater access to capital and were usually associated with corn production, which typically demanded more labour for carting, harvesting and threshing and increasingly for yard and stock management: strawing-down yards, lifting the heavy manure-laden straw into middens and carts and spreading it on the fields. Smaller farms, typically found in dairying and stock-rearing and fattening areas, required fewer large buildings and were less likely to have the capital to expend on rebuilding farmsteads to fit with developing agricultural practice. The very smallest (of under 50 acres) thrived in fruit-growing and market-gardening areas (often clustered around urban sites), and in locations such as west Cornwall and the Pennines where there was gainful by-employment in industry – for example the weaver-farmers of the West Riding linear-plan farms, noted by Caird (1852), who kept dairy cattle on holdings of around 20 acres, supplying nearby towns with milk (Mingay 1989, p.940).