

# 7.0 Key Building Types: Animals and Animal Products

## 7.1 CATTLE HOUSING

### 7.1.1 NATIONAL OVERVIEW (Figure 25)

There are great regional differences in the management of cattle and the buildings that house them. This extends to how they are described in different parts of the country: for example, 'shippon' in much of the South West; 'byre' in northern England; 'hovel' in central England. Stalls, drains and muck passages have also been given their own local vocabulary.

Evidence for cattle housing is very rare before the 18th century, and in many areas uncommon before the 19th century. The agricultural improvements of the 18th century emphasised the importance of farmyard manure in maintaining the fertility of the soil. It was also recognised that cattle fattened better and were more productive in milk if housed in strawed-down yards and buildings, and fed with carefully measured quantities of nutritious turnips and imported feed. There is hardly a farmstead without 19th-century adaptations for increased livestock accommodation.

The introduction of hygiene regulations early in the 20th century for the production of milk resulted in new floors, windows and stall arrangements being inserted. Animal welfare standards are also important; cows on farms seeking Soil Association assurance require more than double (at 6 square metres) the space of tethered beasts in traditional cow houses. Some, particularly under split-level barns, are too low for modern usage and so have been preserved by abandonment or occasional use by sheep.

Characteristic features of cattle housing include:

- Externally, lower and wider doorways than stabling, with wall ventilation slits (adjustable sliding ventilators from the early 19th century) and holes in gable ends or side walls for the throwing out of muck (especially in areas with limited straw for bedding, where cattle were wintered indoors).
- Internally, ceilings were typically low and there was very little light. Hay was stored above in lofts, and in some examples (such as the Pennines) on either side in 'sink mows', increasing the warmth and airlessness. It was not until the later 19th century that the importance of a well-ventilated cow house became fully appreciated. The size of the haylofts increased as more cows were kept and the production of hay rose; their ceilings were higher and air ducts went from the cow house up on to the roof above the hay barn.

- Interior stalling and feeding arrangements. Cows were usually tethered in pairs with low partitions of wood, stone, slate and, later, cast iron between them. As the breeding of stock improved and cows became larger, the space for the animals in the older buildings became limited and an indication of the date of a cow house can be the length of the stalls or the width of the building. Feeding arrangements can survive in the form of hayracks, water bowls and mangers for feed.
- Variations in internal planning, cattle being stalled along or across the main axis of the building and facing a wall or partition. They were fed either from behind or from a feeding passage, these often being connected to fodder rooms from the late 18th century.

In the following descriptions of buildings for cattle the wide variety in the means of providing accommodation for cattle, both over time and regionally, can be seen .

#### 7.1.1.1 Longhouses

In this type of building the family and animals used a common entrance and the cattle (typically prized dairy cattle) were stalled at one end, usually the end down-slope. Examples (often high status in terms of their size, detail and construction) survive in parts of the north and west of England and are usually the only evidence for cattle housing before the 17th century. They were more widespread in the medieval period (see 5.1.1 and Figure 17).

#### 7.1.1.2 Ox houses

Oxen were the favoured animals for draught work on the farm in the medieval period, although in some parts of the country horses were already replacing them.. They survived in some areas into the 19th and even 20th centuries. Ox houses can be very difficult to identify, the most distinguishing feature being wide doorways and wider-than-average stalling (see 7.3.2).

#### 7.1.1.3 Combination barns

See 6.1.2. These were used for cattle accommodation from the 17th century, and in northern aisled barns from at least that period.

#### 7.1.1.4 Open-fronted sheds

The earliest of these were the two-storey linhays of the South West, with cattle accommodated below a hayloft. Shelter sheds, facing on to yards and either with haylofts above or simply single-storey, were increasingly built from the mid-18th century. Cattle yards with open-fronted sheds were typical of mixed farming areas where cattle

## 25 Cattle housing

- A & B Wooden cow stalls and slate cow stalls, the latter as found throughout the northern uplands. (A Durham Coalfield Pennine Fringe; B Yorkshire Dales)
- C Cow houses needed to be well ventilated, by either slits in the wall or windows. Horizontal sliding hit-and-miss ventilators, as here, achieved wide popularity in the mid- to late 19th century. (Vale of York)

- D A range of looseboxes, easily distinguishable by its rows of doors providing access to individual cubicles for fattening. (North Northumbrian Coastal Plain)
- E The interior of a covered yard, on a home farm of the mid-19th century. (Shropshire, Cheshire and Staffordshire Plain)
- A–C © Jen Deadman; D & E © English Heritage / Michael Williams



were housed on the steading as fatstock and for their manure. Common internal fittings were mangers and hayracks, and sometimes stalls.

### 7.1.1.5 Lean-tos (outshots)

These were attached to other buildings (particularly barns) and farmyard walls, either as part of the initial

phase of build or (particularly if the barn is pre-1750 in date) a later addition. These could be either open-fronted or closed with doorways to individual cow houses or loose boxes.

### 7.1.1.6 Free-standing cow houses

These comprised either single-storey ranges, or two-

storey ranges with haylofts. Pre-19th-century examples of the former include the neathouses of the claylands of Suffolk and examples of both types are found in the West Midlands. In cattle-rearing areas calf houses have also been found; typically they are smaller in scale and often sited close to the house.

#### 7.1.1.7 Looseboxes (Figure 25D)

Mostly dating from the 1850s, these served as accommodation for sick or calving beasts, bulls or most commonly fatstock. They comprised individual boxes or more usually a row of boxes with a central or rear feeding passage. The latter were usually distinguished externally by continuous rows of doors. There was often a feeding passage along behind them, with a feed store at one end. If used for fatstock, the floor of the boxes was sunken and the manure would build up in them during the winter. They reflected a realisation that warm and dry conditions would promote weight gain (through minimising heat loss) and retain the quality of the manure. Double rows would have a central feeding passage and were to be found on many farms by 1860.

#### 7.1.1.8 Covered yards

By the 1850s it had been proved by agricultural chemists that the nutritional value of manure would be better preserved if it were under cover, and as costly feeds produced richer manures, the incentive to protect them was great. The problem was that it could be difficult to provide enough ventilation, but this could be overcome by complex systems of louvers and shutters. Some continued to be built as the depression in grain prices focused attention on livestock production. The best-known examples of covered yards are on the most expensively designed model farms of the mid- to late 19th century, almost all of them being estate-owned. The introduction of roofs to existing yards became general in fatstock areas from the late 19th century and especially after 1940. Dairy cattle are now typically housed in portal-framed sheds erected in the post-war period.

### 7.1.2 CATTLE HOUSING IN THE EAST OF ENGLAND (Figure 26)

#### Pre-1750

This Region has some significant early examples of cattle housing. There is documentary evidence for the stall-feeding of cattle on hay and fodder in the Flegg Loams in the 13th century (see 4.2.5) and the stall feeding of cattle on cabbages and other fodder including turnips from the late 17th century (Thirsk 1967, p. 51; Holderness 1984, pp. 234-5). Before 1750 in Norfolk there is little evidence for the in-wintering of cattle, as opposed to their housing in yards (Wade Martins & Williamson 1991, p. 123) and the housing of cattle in lean-tos to barns facing into cattle yards. Documents and maps from Suffolk of the 16th century and later refer to

cattle housing called 'neathouses', many being sited out in the pastures rather than in the farmyard. On the High Suffolk clays a dairy industry based on cabbage-fed cows was important until the end of the 18th century. Arthur Young noted that every farm was 'well furnished with neathouses, where the cows had standings' and were tied three feet apart. However these were only used for milking and feeding (there are references to milking yards in the Suffolk claylands), rather than keeping in all winter; many dairy cows were kept outside, often tethered in the fields during the winter, and moved to neathouses with their calves after calving, thus reducing the need for buildings (Young 1786, pp.203-4). Surviving examples are difficult to identify, although 18th- and 19th-century examples – identifiable by their lack of lofts, internal subdivision and window openings, unlike stabling – have been recorded (Aitkens & Wade Martins 2002, p. 18). There is abundant documentary evidence for cow houses in the other neighbouring county of Essex – for instance, a very detailed survey dated about 1556 of Ingatestone, near Chelmsford (Ryan 1986) – but no surviving structures have yet been identified.

Cattle housing in the Suffolk claylands could also be incorporated within barn or stable ranges (Aitkens & Wade Martins 2002, p. 18). The growing of turnips from the late 17th century allowed for the keeping of more cattle and an increased number of store cattle were being bought in for fattening. The cool weather and agricultural depression of the 1660s to 1680s meant that landlords were encouraged to build neathouses to keep tenants. In 1670 John Bond of Common Farm, Rishangles, was to have £10 spent 'for building a cowhouse' because of 'the hardness of the tymes'. However by the time of the tithe maps virtually all the neathouses away from the main farm complexes had gone and the small number of cattle now kept were likely to be yarded. Contemporaries commented on the poor quality of the Region's cattle accommodation (Theobald 2000, pp. 176-90). Any examples of cattle housing built before the early 19th century are extremely rare and this makes those that are identified all the more significant.

#### Post-1750

By the end of the 18th century the value of manure for the increased yields of the agricultural revolution was being appreciated, and by the mid-19th century the fattening of cattle had become a major industry in this Region. Cattle accommodation in this Region took several different forms:

The provision of *shelter sheds* around straw yards where manure would build up during the winter. The earliest examples of these, as recorded in Norfolk, comprise lean-tos on the south walls of barns (Wade Martins 1991, p. 183). These brick buildings were usually roofed

26 Cattle housing in the East of England Region

A Pre-18th-century buildings for cattle are rare. This timber-framed cow shed or neathouse was built in the 16th century but may have originally served as a stable. Timber-framed structures were often replaced by more robust brick buildings (South Suffolk and North Essex Claylands)

B Across much of the Region buildings for cattle consist of open-fronted shelter sheds, often attached to a barn and forming part of a larger yard. Large examples of shelter sheds with mixing barns could be arranged to form E-plans as in photograph C, creating two cattle yards where straw and manure would be trampled by the animals. Such planned farmsteads are usually associated with 19th-century improving estates. (B Mid Norfolk; C The Fens)

D & E The covered cattle yard was the final development in cattle housing. The earliest covered yards date from the 1850s but spread in popularity in from the 1870s and again in the early 20th century. (D Bedfordshire and Cambridgeshire Claylands; E South Suffolk and North Essex Claylands)

F A specialist cattle-fattening building found only in the Flegg and Broads of the north-east of the Region. Cattle were housed in the side aisle with fodder (mostly turnips) stored in the central area. (North East Norfolk & Flegg)

A, C, D & E © English Heritage / Michael Williams;  
B © Jeremy Lake; F © Susanna Wade Martins

26A



26B



26C



26D



26E



26F



with pantiles and supported along the open front with brick, cast-iron or wooden piers. Sometimes looseboxes formed part of the range. There were troughs and racks along the back wall, the troughs sometimes supported on chains so that they could be lifted as the level of litter in the yard rose. These regular U- and E-plan yards are to be found across the predominantly estate-owned areas of the Region such as north Norfolk where new farms were built on newly enclosed land. They are also found in the areas where brick and stone building predominated but are less usual in the timber-framed parts of the Region and are unusual in the claylands of South Norfolk, Suffolk and North Essex. In these areas free-standing buildings were roughly grouped around a yard and linked by walls or temporary hurdles to form an enclosure.

*Specialist fattening buildings.* Where cattle were being reared for their meat, fattening was a main consideration and buildings were designed primarily for efficient feeding. Specialised buildings took advantage of specific landscapes and opportunities. An example of this can be found in the cattle houses on the edge of the grazing marshes of the Norfolk Broads. Only a few examples of these sheds survive as evidence for a very localised system in which cattle were housed down side aisles, separated by a central feed-storage area entered through double doors at either end (Figure 26F). This specific type of building has only recently been recognised and it is likely that significant local variations are awaiting identification elsewhere.

*Looseboxes.* From the 1840s, the price of fatstock was rising and more intensive fattening systems were being introduced. The first development was the dividing up of yards so that groups of cattle could be managed individually. More capital intensive was the provision of looseboxes. The Norfolk farmer and MP Clare Sewell Read wrote, 'Where the landlord provides boxes, tenants are only too glad to avail themselves of the change. There can be no doubt that cattle do best in them and make the richest manure, but the first outlay entails a heavy expense on the proprietor.' (Wade Martins 1991, pp. 185–6). These boxes were arranged in rows with a feeding passage along behind them, often with a feed store at one end. Double rows would have a central feeding passage and were to be found on many farms by 1860.

*Covered yards,* which are documented throughout the Region from the 1850s. Some covered yards were still being built as the depression in grain prices focused attention on livestock production. They were expensive and were mostly found on estate farms. The Chelmsford-based architect, Frederick Chancellor, produced designs for Essex, Cambridgeshire and Hertfordshire landowners. At a meeting of the Surveyors' Institution in 1883

Chancellor, 'who has had very extensive experience, having erected forty or fifty covered homesteads during the last thirty-five years', was reported as saying that, 'after a great deal of thought and experience, he did not think there was any homestead equal to a covered homestead' (Clarke 1899, p.85).

After the mid-1870s, many landlords were building extra yards for cattle to persuade tenants to stay. Many of these brick and flint ranges, often with date stones of between 1875 and 1900, survive on estate farms in Norfolk (Wade Martins 1980, pp. 179–184).

## 7.2 DAIRIES

### 7.2.1 NATIONAL OVERVIEW

The dairy, where milk was stored and turned into butter or cheese, was usually located within the farmhouse (at its service end or in a rear room) or located in a lean-to at the rear of the house. Some dairies were separate buildings but, as the women of the household usually managed the dairy, they were normally situated close to the house. Within the dairy, which was commonly cool and damp, milk was poured into large shallow pans and the cream left to rise to the top before it was skimmed off and churned (usually with a plunger) in order to make butter. New types of churn appeared in the mid-19th century, the most important invention being the centrifugal separator in 1890. On some estates, the individual dairy building could be quite ornate in design; they were often circular, with a tall conical roof and plenty of ventilation, cool tiled floors and a low marble, slate or tiled shelf running almost all the way around inside.

Cheeses were made from the preservation and treatment of the curd, the solid mass that separates from the thin whey: harder cheeses were made from skimmed milk, softer cheese such as Cheshire from whole milk. After pressing, it needed space for storage. In areas where cheese making was important the dairies often had a room above called a cheese loft, where cheese was stored while maturing, or there would be a separate cheese house, the equivalent of the arable farmer's granary. In the 19th century more ornate dairy buildings were built on some of the larger farms, often located within the garden of the farmhouse rather than in the working farmyard.

Dairying for urban markets was already a specialised enterprise by the 1750s, and winter feeding and the ousting of less-productive breeds by the Dairy Shorthorn (after 1820) boosted yields. By the 1850s, butter production for the market was concentrated around towns, and the first small dairy factories started production around 1870. Cheese making in East Anglia gave way to cereal farming and fattening after 1800

27 A typical stable interior for working horses, showing the stalls that prevented the horses biting and kicking each other; the hay rack and cobbled floor. (Dorset Downs and Cranborne Chase) © Bob Edwards

(Holderness in Mingay 1989, pp.160, 158). Commercial cheese making and foreign imports (from the colonies) made inroads from the 1860s, and by around 1914 farmhouse butter was being sold only in Devon and Cornwall, and cheese made only in Cheshire, Leicestershire and the vales of Dorset and Somerset (Whetham 1978, pp.11, 15). Changes in hygiene regulations and the centralisation of production through the 20th century had a major impact on dairies, with the majority becoming redundant to their original use. Changes in use may have resulted in the removal of fixtures such as slate or stone shelves for cooling the milk.

The sale of liquid milk had become massively important in many areas by the early 20th century (Whetham 1978, pp.9–10). The stand for milk churns, often built at the farm gate to save the milk cart or lorry from having to come to the farmstead, and the abandonment of all but a handful of farmhouse dairies and cheese rooms for new milk-production plants were the other visible consequences of these developments.

The industrialisation of much of the dairy industry meant that the majority of farm dairies were redundant by the mid-20th century. Where the dairy was part of the farmhouse it is usual to find that it has been brought into domestic use, typically resulting in the removal of any fittings associated with butter or cheese making. Any survivals of dairy equipment in situ are rare. Detached dairy buildings may also have been brought into an alternative use, again usually resulting in the removal of associated fittings. Surviving historic dairies are both rare and highly vulnerable. Cheese rooms are now especially rare and hard to identify.

### 7.2.2 DAIRIES IN THE EAST OF ENGLAND

Dairies were incorporated in the planning of farmhouses rather than built as separate structures. Cheese rooms and dairies are well-documented in the claylands (e.g. Holderness 1984, p. 230). Biddell describes a cheese room or 'large upper chamber, shelved on both sides, with lattice windows at the ends for securing a draught', which he saw as a child, 'but has long been dismantled and used for other purposes' (Biddell 1907, p.306). It is worth looking for these cheese rooms in the upper floors of farmhouses.

In the claylands of Suffolk, the backhouse served as a combined kitchen / dairy / brewing area. They could be detached structures, only a very small number surviving unconverted, and from the 17th century were mostly added as lean-tos along the back of the farmhouse.



## 7.3 STABLES

### 7.3.1 NATIONAL OVERVIEW

After the barn, the stable is often the oldest building on the farmstead. The high value of horses to the running of the farm meant stables were well built and often placed near the house, with easy access to the fields, and given a certain level of architectural and decorative treatment. A few stables dating to before 1700 have been identified in local surveys, while many more date from the 18th century. One of the reasons for this rise in number was the decline in the use of oxen.

The size of stabling was, like granaries and cart sheds, loosely linked to the arable acreage of the farm. The number of horses needed to work a farm changed little until the arrival of the tractor, with one horse for every 20 acres being the frequently quoted figure. Smaller farms still needed a team of horses, so even a 50-acre farm might well have four horses. Most farms still kept a few working horses until the 1950s, and they were finally replaced by tractors during the 1960s. Farmsteads, and the farmyards attached to manor and gentry houses, often had stables for riding and coach horses, the upper floors commonly being used as accommodation for stable hands. These were usually well appointed and in some cases were used as displays of wealth and status, incorporating architectural detailing not found on most other farm buildings.

Stable interiors are characterised by:

- Horses commonly stalled in pairs with wooden stall divisions between them to stop them kicking each other (Figure 27). Cast-iron stable fittings often replaced wooden ones. More elaborate stalls and mangers were confined to the riding-horse rather than carthorse stable, but on many small farms the riding horse would have been kept alongside the working animals. In early (pre-1750) examples, the stalls are across the end walls; in later examples the stalls are along the side walls, allowing a lengthening of the building and thus housing more horses.

## 28 Stables in the East of England Region

- A Relatively few early timber-framed stables survive. This stable forms part of a courtyard group. (North West Norfolk)
  - B Some timber-framed barns of 16th and 17th century date were originally constructed as multi-functional buildings incorporating cattle housing or stables. This large barn had three bays of stables, one of which was converted to provide additional barn space in the 18th century. (South Suffolk and North Essex Claylands)
  - C A 19th-century brick stable and implement shed range. (South Suffolk and North Essex Claylands)
- All © English Heritage / Michael Williams



28A



28B



28C

- A manger and hayrack, the latter often accessed from a drop from the hayloft above. Other types of fodder, such as crushed oats and bean straw, became more general after the mid-19th century.
- Floors, cobbled and from the mid-19th century of engineering brick, sloping to a drainage channel.
- A ladder to the loft.
- The harness was usually kept in a separate room and chaff boxes were built in to the structure for storing feed. Small cubby-holes for keeping grooming brushes, medicines or lanterns were often built into the walls.

Stable exteriors are characterised by being:

- Usually two-storey, with pitching openings and ventilation to the first-floor loft and an external staircase. The upper floor sometimes provided accommodation for farm labourers or stable lads. Despite textbook advice on the tainting of the hay, the practice of housing horses below haylofts persisted, partly because of the perceived need to protect horses from chills and draughts. Single-storey stables, commonly with cast-iron ridge vents, were built from the later 19th century.
- Well lit, with windows ideally opening to the east to catch the early morning light. The door was wider and higher than that in the cow house.

As stables were usually well-lit buildings they tend to be less vulnerable to changes that affect their character externally. Carhorse stables are far less likely to retain

floor surfaces, internal stalls and fittings (such as saddle hooks) than riding-horse stables. Many stables, particularly those located within ranges that included cow houses, were converted into dairies when modern electrically powered milking and cooling machinery was introduced from the 1950s.

### 7.3.2 STABLES IN THE EAST OF ENGLAND

(Figure 28)

The East of England Region – as in the South East – is notable for the high number of early survivals of stable buildings. Work in Suffolk has demonstrated that before 1650, the only two buildings found on a typical farm were the barn and the stable and this is likely to be true of the rest of the Region (Theobald 2000, pp.161–2). Half of the surviving pre-1800 stables in Norfolk abut or form part of barns, and in Suffolk many barns incorporated stabling in an end bay (Wade Martins 1991, p.175; Aitkens & Wade Martins 2002). Some free-standing stables of the 16th and 17th centuries survive, some of which are timber framed and jettied (Brunskill 1987, p.170) although more are to be found dating from after 1700. These distinctive buildings are usually two-storey with a hayloft above, which could be approached by either an internal or external staircase. Free-standing stable buildings were the norm after 1800.

Small single-storey detached stables dating from the 16th century are rare. On a few manor sites in Suffolk much longer examples do survive, containing several units of

29A



29B



### 29 Pigsties

Pigsties have few regionally distinct features other than their building materials (A North Yorkshire Moors and Cleveland Hills). Most have a small yard attached to the shelter (B Arden) and they may have hatches and chutes for feeding, whilst some form part of a larger range of buildings. Some pigsties are combined with poultry housing (C South East Northumberland Coastal Plain). Generally these buildings are extremely vulnerable from neglect as they offer little opportunity for other uses.

A © Jen Deadman; B © Peter Gaskell;  
C © English Heritage / Michael Williams

29C



stabling and with more than a hint of composite use. On many farms there was certainly an increased provision for stabling during the 17th century. For example, at Badley Hall Farm, Suffolk, there were two 16th-century barns, one of which was much larger than the other. The smaller barn was converted some time after about 1650 into stabling; whereas only one of the five bays had previously been stabling, now a loft was carried across the whole building and barn doors were reduced to a more suitable size.

In earlier agricultural stables, either the building was a single storey with no loft accommodation at all, or else there was a second storey framed carefully into the design. Because the eaves line was at least at shoulder height it was easy to walk around in the loft and a number of examples have windows. In the 18th century a new category became popular in which the eaves line was only about one metre above the loft floor. There were no tie beams across the interior of the building because they would have been in the way; instead the side walls were tied by the floor beams of the loft. By about 1770, heavy solid knees fixed by bolts were used to support these beams. Increasingly in the 19th century, stables were built without lofts.

The internal arrangement of stables evolved. Before about 1700, it was normal practice to fix a manger with a hayrack above to partition walls across the building,

The external gable wall may have been the site for harness racks in this arrangement, and the entrance door for each unit of stabling would be close to the end of one long wall with possibly a second doorway opposite in the rear wall. It appears that the principal of drops immediately above the hayrack was introduced, whereby hay or chaff stored in the loft could be dropped directly into the rack. The earliest examples of a stable with a central doorway and mangers fixed to the two gable walls of the same space appear in the 18th century. An alternative development was the provision of stalls along the rear wall of the building instead of on the cross walls. A feature peculiar to Norfolk was the lack of stalling in stables, and the practice of turning horses out into a horse yard at night was particularly a Norfolk and Suffolk practice, although it later spread to other areas where it was known as the 'midland system' (Wade Martins 1991, pp.179–80).

## 7.4 PIG HOUSING

### 7.4.1 NATIONAL OVERVIEW (Figure 29)

One or two pigs were kept on most farms, although the pigs often ran with other livestock in the fields, or roamed about the yard, rather than having their own dedicated housing. Pigs were most commonly kept in dairying areas or market-gardening areas, such as the Fens, where whey or potatoes were available for feed. The only requirements for special accommodation were



for farrowing, final fattening and accommodation of the boar. On most farms only a few pigs were kept for domestic use and here they were normally fed on kitchen scraps or whey (a by-product of dairying) and so sties were often placed near the kitchen or dairy. Sometimes they were also integrated into the planning of the farmyard, commonly on larger farms where commercial fattening was practised. Any pre-19th-century examples are of great rarity.

Characteristic features of pigsties are:

- Single-storey structures, with a gable entry to a first-floor hen house where lofts occur.
- Low entrances.
- Individual yards in some regions.
- Their construction in rows of three or more small and unlit boxes, often with a chute through the front wall into the feeding trough down which the swill could be thrown.
- A small chimneystack, marking the position of a boiler house for boiling swill for pig feed. These are most commonly found where pigs were kept on a commercial scale.

Imported feed sustained the growth of the pig industry in the inter-war period, more specialist producers taking the Danish or Scandinavian system as a model for the industrial housing of pigs. The American battery system of housing poultry was used for pigs from the late 1920s.

#### 7.4.2 PIG HOUSING IN THE EAST OF ENGLAND

Pigs were not kept on a commercial scale, except in dairying areas (primarily the claylands) or market-gardening areas such as the Fens where whey or potatoes were available for feed. Here ranges of pigsties with a steaming house beside them were built in the 1840s (Wade Martins 1991, p.189). On most farms only a few pigs were kept for domestic use and here they were normally fed on kitchen scraps and so sties were often placed near the kitchen door or beside the dairy. There was frequently a chute through the front wall into the feeding trough to allow swill to be thrown in. The need for warmth meant that they were small buildings, large enough for two pigs and too low for a man to stand up, with a low entrance and an outrun.

### 7.5 SHEEP HOUSING

#### 7.5.1 NATIONAL OVERVIEW

The great importance of sheep farming to many areas of the country is not reflected in surviving farm buildings. In medieval times it was common practice to provide sheep houses, or berceries, even in the south of England. Apart from possible medieval timber-framed sheepcotes in Hampshire (Lewis et al 1988, p.113–15) there is only earthwork evidence for these buildings, but documentary

sources show that in Gloucestershire at least they ranged from between eight and eighteen bays (Dyer 1995, p.149). Barns, when empty, were sometimes used for shearing and sorting the wool.

In Cumbria and elsewhere in northern England a building similar in appearance to a field barn was provided for the hogs or yearling sheep to give them protection over their first winter. Low floor-to-ceiling heights and upper-floor haylofts are characteristic features of these buildings. The low ceiling to the ground floor below a hayloft is the characteristic feature of hogg houses. Sheep housing in other areas is associated with outfarms, such as on the southern downlands.

Before the adoption of enclosures of rough grazing in upland areas sheep were kept on both the low-lying commons and high moors to which nearly all farmers had access. The only times of year when all the sheep would be gathered together was for shearing and salving and dipping. Salving involved the boiling of Stockholm tar and tallow to make a mixture that was smeared all over the coat to protect against lice and scab as well as keep the fleece waterproof through the harsh winter. The practice of salving was carried out until the introduction of compulsory dipping as protection from scab in the early 20th century and very few of the sheds used for salving survive. As well as salving, sheep were also washed or dipped. Sheep washing was often carried out in ponds or streams where the watercourse might be artificially deepened or walled or, more unusually, sheep were dipped in specially constructed tanks. Enclosures funnelled towards the water's edge have been found. In areas where watermeadows were a feature of the landscape sheep dips are sometimes found built in to the system of leats and sluices.

#### 7.5.2 SHEEP HOUSING IN THE EAST OF ENGLAND

There are no known examples of sheep housing in the Region, although there are references to sheepcotes (for example in Suffolk: information from Steve Podd, FWAG).

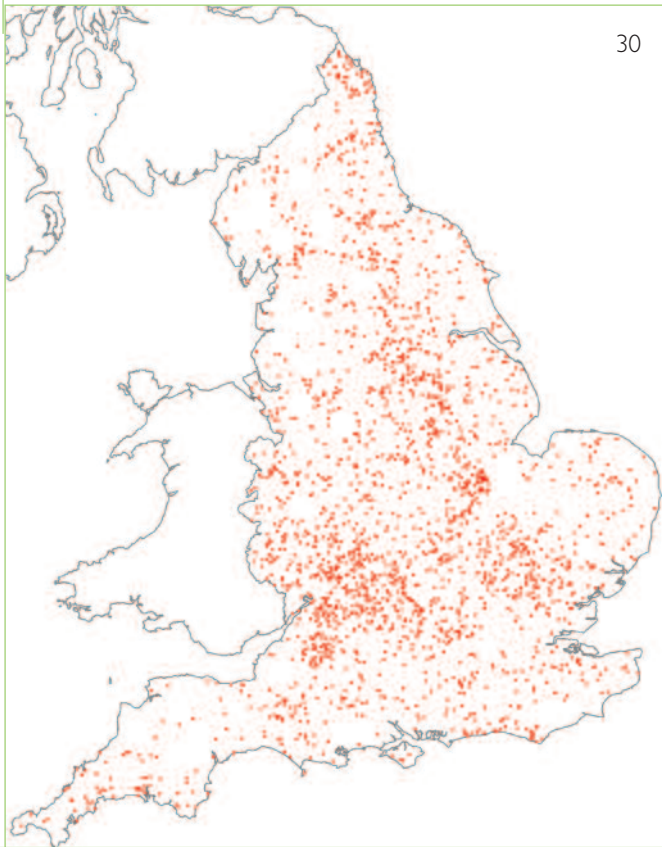
As elsewhere in the country, the farmyard and the barn (when empty in spring and summer) would have been utilised for handling and clipping.

### 7.6 DOVES AND POULTRY

#### 7.6.1 NATIONAL OVERVIEW (Figures 30 & 31)

The construction of a dovecote indicated the status of the owner, as in the medieval period the keeping of doves or pigeons was usually restricted as a manorial right. The birds provided fresh meat and eggs as a supplement to the already varied diets of wealthier people, while the manure was also valued (see McCann 1991). As a consequence, dovecotes were often the

30 Distribution of listed dove-cotes in England. This distribution includes both free-standing dove-cotes and dove-cotes that are incorporated into other buildings. Although dove-cotes are found in all Regions, their concentration within Roberts and Wrathmell's Central Province from Gloucestershire to Northumberland is notable. Within this area manorial control was strongest and the higher numbers of dove-cotes may reflect this  
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30

31 Dove-cotes and buildings for poultry in England  
 A The corbelled stone roof of this beehive dove-cote is a distinctive method of construction that is only found in the south-west and north-east parts of England. (Cornish Killas)  
 B Medieval circular dove-cote. Note the low doorway. (Dorset Downs and Cranborne Chase)  
 A © Eric Berry; B © Bob Edwards



31A



31B

object of considerable display and decoration, and commonly associated with gentrified or manorial farms.

Dove-cotes are usually square or circular towers with pyramidal or conical roofs, but a number of varying forms have been found, including tun-bellied dove-cotes (where the walls bulge outward slightly before tapering upward) and beehive dove-cotes with corbelled stone roofs. There are also lectern dove-cotes, which are square or rectangular with a mono-pitch roof, and a small number of octagonal dove-cotes that are usually of 18th- or 19th-century date. Externally, perching or sunning ledges formed either in stone, brick or timber have been found. Later dove-cotes often incorporated other functions such as granaries or stables. As the keeping of pigeons became more widespread, nesting boxes were incorporated into other farmyard buildings, for example the gable ends of barns.

Internally the walls were lined with nest boxes. In the earliest examples the nest boxes were sometimes formed in the thickness of the wall but usually they were in stone, brick or wood. Dove-cote doorways were low to discourage the birds from flying out and often a potence, a central pivoted post with arms supporting a revolving ladder, provided access to the nest boxes for

collection of the squabs and eggs. Surviving internal fittings are of great rarity, notably potences and nest boxes (especially the removable wooden types).

Studies have shown that the distribution of dove-cotes may in part be affected by the robustness of the building material. For example, a study of Gloucestershire dove-cotes suggests that the brick or timber-framed dove-cotes typical of the Vale of Gloucester have fared less well than the stone-built examples of the Cotswolds. At the time of the Gloucestershire survey the author

31C



31 Dovecotes and buildings for poultry in England (continued)

C Square stone dovecote with pitched roof. (Vale of Pickering) In the north of England a few 'lectern' dovecotes with mono-pitch roofs, more typical of Scotland, are found.

D Seventeenth-century timber-framed dovecote. Internally the nest boxes of this building are made from stone rubble, but wooden nest boxes and, in the East of England Region, clay bats forming the nest boxes are also found. (Herefordshire Lowlands)

E Octagonal brick dovecote dating from the 18th century. (Herefordshire Lowlands)

F Nest boxes incorporated into the gable end of a bastle house in Northumbria. The construction of nest boxes into the walls of other buildings, especially barns, was commonplace during the 18th and 19th centuries (Cheviot Fringe)

G Hen house built over a pigsty. Probably late 19th century. (Vale of York)

H Goose pen built against a farmyard boundary wall. (Herefordshire Plateau)

C © English Heritage NMR BB7/ 01134; D 149817 Taken as part of the Images of England project © Mr Chris Tresise; E & H © Bob Edwards; F & G © Jen Deadman

31D



31F



31G



31E



31H



noted that the surviving dovecotes of the Vale were in noticeably poorer condition (Ariss 1992, p.14).

During the 17th and early 18th centuries the restrictions on keeping doves were lifted and small-scale accommodation for doves can be found built into other farm buildings. However, as cereal prices rose and improved methods of farming were adopted the popularity of pigeons declined. Investigation of a farmstead should include a search for small groups of nest boxes, which may be tucked away at the top of a gable or over a gateway.

Poultry keeping was usually the preserve of the farmer's wife and so the hen house was usually close to the farmhouse. This location was also chosen because poultry were often fed on kitchen scraps and looked after from the farmhouse. 'Accommodation for poultry is a modest, though necessary adjunct to all farm homesteads. The busy farmer himself pays little attention as a rule to the feathered tribe, but a thrifty wife knows too well the profit attached to them,' (Clarke 1899, p.172). Geese could be housed in free-standing pens or alcoves in farmyard walls. Hens usually ran freely about a farmyard, but were encouraged to nest safely away from predators and so that the eggs could be collected. Hen houses usually included a small pop hole for the hens as well as a full-sized door for human access for feeding and egg-collection. The walls were lined with nest boxes. As is still the case, hen houses were usually relatively short-lived buildings and there are few survivals that can be described as historic. Where historic examples do survive they usually form part of another building, such

as a pig house: it was thought the chickens would keep the pigs warm and the pigs would frighten foxes away. The combination of a hen house located above a pig house was described as a poultingery in some areas (for example in North Shropshire and Northumberland). These could be associated with a boiler house with a chimney for feed preparation.

## 7.6.2 DOVES AND POULTRY IN THE EAST OF ENGLAND

### 7.6.2.1 Doves in the East of England

Dovecotes are found in all Regions of the country but their distribution is not even. Within the East of England Region the greatest concentration of listed dovecotes is in the south-west, in Hertfordshire, Bedfordshire and the south-western parts of Cambridgeshire and Essex. The dovecotes of the Region include medieval examples but most are of 18th or 19th century date, often included as a decorative feature in a planned range, and usually form part of another building such as a stable or granary. Due to the lack of good building stone across much of the Region, many of the free-standing dovecotes were built in flint or timber frame, which was commonly covered in plaster. Clay lump was used to a lesser extent and now few survive. The majority of free-standing dovecotes in Hertfordshire are brick-built structures.

### 7.6.2.2 Poultry

Historic buildings for poultry are rare. Those that survive are likely to be associated with a pigsty (often known as a 'poultingery').

# 8.0 Key Building Types: Other Farmstead Buildings

## 8.1 OUTFARMS AND FIELD BARNES

### 8.1.1 NATIONAL OVERVIEW

Field barns and outfarms, sometimes with a cottage beside them, can be prominent landscape features. Outfarms were usually created on larger farms or in areas where the farmsteads remained in the villages after enclosure, resulting in some fields being distant from the main farmstead. These complexes usually took the form of a yard that was often fully or partly enclosed by buildings. The outfarm saved on labour in that the harvested crop from the surrounding fields did not have to be carried back to the farmstead, and its straw turned into manure which, in turn, did not have to be carted back out to the distant fields.

Field barns were built in areas where farmsteads and fields were sited at a long distance from each other or where fields were interspersed with the land of other farms. Isolated field barns, cow houses and sheep houses are documented from the medieval period in upland areas (Le Patourel in Miller 1991, p.865). In some cases, such as the Craven Dales of Yorkshire or in the South Hams of Devon, they could be multi-functional buildings for cattle, corn and hay. The small and numerous field barns of the North Yorkshire Dales were built for a specialist dairy industry. In arable areas they were often simply threshing barns, which after 1770 were a typical part of outfarm groups.

Field barns and outfarms have always been vulnerable to dereliction once redundant. The widespread introduction of artificial fertilisers, bale silage production and the centralisation of farming activities are key factors in the

abandonment and dereliction of field barns and outfarms.

### 8.1.2 OUTFARMS AND FIELD BARNES IN THE EAST OF ENGLAND (Figure 32)

Outfarms, with cattle yards and sheds to the south and placed out in the fields at some distance from the main steading, were an important feature of some large farms on improved estates. They occur on the lighter soils of the Region: North West Norfolk, Breckland and the Suffolk Coast and Heath. In the claylands of Suffolk, neathouses were also frequently built at a distance from the main buildings, and for the same reasons have also been subject to demolition. Survivals are therefore also rare, and early examples are likely to be of great interest.

## 8.2 MINOR AND MISCELLANEOUS BUILDINGS

### 8.2.1 NATIONAL OVERVIEW

A range of other, smaller, buildings have also been found in a farmstead. Every farmyard would have had a water supply, either a pond, a nearby stream or a well, which could be enclosed in a well house. Fast-flowing water would also be used (see 6.0) to process grain into flour and wool into textiles, although evidence for mills or loom shops is very rare on surviving farms. Fuel for heating, in the form of timber or turf, would also be kept close to the house; specialist houses for peat, such as in Eskdale (Cumbria) are very rare. Some farmyards had recesses in the walls called bee boles to house a straw skep beehive. Occasionally a farm had its own slaughterhouse but many of these buildings do not have any characteristic external features, although internal

#### 32 Outfarms in the East of England Region

Outfarms and field barns were an important feature on some large improved estates in the Region from the 18th century although there do not appear to be any surviving examples in Essex. Later outfarms tend to consist only of cattle yards, reflecting the decline of the barn in

the 19th century. (A South Norfolk and High Suffolk Claylands; B North West Norfolk)

A 279714 Taken as part of the Images of England project © Mr John Crabb; B © English Heritage / Michael Williams



features often included a higher ceiling and possibly a wheel to raise carcasses. Detached structures or rooms with chimneystacks served a diversity of functions: boil houses for animal (usually pig) feed; smithies (most frequently found on large farms, and located close to cart sheds); or washhouses. Farm dogs were often accommodated beneath the flights of steps that led up to lofts. Kennels for hunting dogs are found in hunting areas and are typically low, single-storey buildings similar to pigsties, with attached individual yards enclosed by metal railings.

### **8.2.2 MINOR AND MISCELLANEOUS BUILDINGS IN THE EAST OF ENGLAND**

The backhouse was important in Suffolk, being the kitchen / dairy / brewing area; after about 1600 they were mostly added as lean-tos along the back of the farmhouse, but earlier on, there could be a separate building, adjacent to the farmhouse, mostly at right angles to it. These are often referred to in contemporary 15th- and 16th-century documents as an 'inset' house. A good number of these survive but most have probably been converted to residential use.

## 9.0 Glossary

- Aisled barn** A barn in which increased width was obtained through the use of aisles – narrow extensions along one or more sides or ends of the barn. A series of posts stand in the place where the walls of an unaisled building would run. The roof is carried on beyond the line of the aisle posts so the height of the walls is reduced and the visual mass of the roof increased.
- Allotment** An area of land allotted to a farmer, often at the time of enclosure. The word changes meaning in the later 19th century to mean 'land allotted to villagers for growing their own fruit and vegetables'.
- Arable** Land cultivated for the growth of crops.
- Bank barn** A combination barn of usually two storeys. Through constructing the barn against a bank, both floors can be entered from ground level. Typically bank barns have a threshing barn, sometimes with a granary and hayloft, and over housing for cattle. The ground floor may be open-fronted or enclosed. Bank barns are characteristic of the Lakeland area of the North West Region and parts of Devon, Somerset and Cornwall in the South West Region. They could be placed across the slope or along the slope, the latter having the lower floor often accessed from doors close to or in one gable end.
- Barn** A building for the storage and processing of grain crops, and for housing straw. See also Combination barn.
- Berceries (sheep houses)** Medieval name for sheep houses – shelters provided for sheep usually in areas of grazing away from the farmstead.
- Byre** (see **shippon** and **hovel**) Dialect term for cow house, commonly used in Yorkshire and the North East.
- Cart shed** A building for housing carts and farm implements. Cart sheds are usually open-fronted buildings sited close to a road or track into the farmstead. One bay of a cart shed may be portioned off and provided with doors to create a secure storage area for smaller implements. In many areas cart sheds are combined with first-floor granaries.
- Catch meadow system** Similar to watermeadows. A system of drains cut along a hillside and made to overflow on to the pasture below in winter, encouraging the early growth of grass. Also known as field gutter systems.
- Chaff box/chaff house** Storage for the chaff, or outer husks of crops, a typical by-product of threshing. Chaff was used as fodder for horses.
- Cider house** A building for the milling and pressing of cider, found in the South West and the West Midlands. It usually forms part of a combination range, and is marked by a wide doorway.
- Cob** A term used for earth-walled buildings in the south and west of England. Cob buildings are heavily concentrated in Devon and Dorset and are also found in Wiltshire.
- Combed wheat reed** A method of thatching in which all the straw is laid in the same direction with butts down. The stems of the straw are not bruised or crushed as with longstraw. The finished roof resembles reed thatch rather than longstraw.
- Combination barn** A barn that also housed cattle or horses, and sometimes other functions such as cart sheds and granaries. Combination barns can be two-storey or single-storey buildings. They include bank barns.
- Convertible husbandry** A system whereby some fields were brought into arable cultivation for a short period – usually until the soil was exhausted – and then returned to pasture for a number of years. This system was commonly found in upland areas of the country.
- Coping** Usually flat stones but sometimes bricks laid on the top of a wall to prevent water getting into the core of the wall: for example, on the top of a gable wall of a building where the roofing material abuts the gable wall rather than covers it.
- Covered yard** A cattle yard that is fully covered by a roof – the aims of which were to protect the nutrients in the manure collecting in the yard from being washed away by the rain and to provide an environment where cattle would fatten more quickly.
- Cow house** An enclosed building for cattle in which the animals are normally tethered in stalls.
- Cruck, Raised cruck, Jointed cruck** A pair of curved timbers, usually halved from the same tree trunk, that form an A-frame extending from the ground to the apex of the roof. A raised cruck has the feet of the crucks raised off the ground, usually embedded in a masonry wall. Jointed crucks are individual cruck blades formed by two timbers joined together.
- Dairy** A building, or more often a room within the farmhouse, where milk was processed to make cheese and butter.
- Daub** A mixture of clay and straw applied to wattle infill of timber-framing to make a wall.
- Demesne farm** A manorial farm managed directly as opposed to land within the manor farmed by tenants.
- Dipping** The washing of sheep by immersing them in water.
- Dispersed settlement** Settlement consisting of scattered, isolated farmsteads and small hamlets. Dispersed settlement is the predominant settlement form over much of western parts of England, and an area extending from East Anglia to the South East.
- Dovecote** A building, or part of a building, providing nest boxes for pigeons or doves.

- Downland** The higher land of the chalk areas of the country. These areas typically had a poor, thin soil and were the preserve of sheep which grazed on the extensive, unenclosed areas. This form of management suppressed the growth of scrub and allowed a rich flora to establish.
- Dutch barn** Now used to describe an iron-framed, open-fronted building for the shelter of hay or corn. They typically date from the late 19th to the mid-20th centuries.
- Enclosure Enclosed land.** Enclosure of land may have occurred at an early date – possibly medieval and in a few rare cases in the prehistoric period. In other areas open fields or common land was enclosed either by agreement or, in the 18th and 19th centuries, by act of parliament.
- Fallow land** Land left uncultivated, allowing it to rest. In a 3-field open field system one field was left fallow by rotation each year.
- Farmstead** The homestead of a farm where the farmhouse and some or all of the farm buildings are located.
- Fatstock** Farm animals reared for meat.
- Field Barn** A building set within the fields away from the main farmstead, typically in areas where farmsteads and fields were sited at a long distance from each other. Field barns are often combination buildings providing storage for hay or straw and shelter for animals.
- Flail** An implement comprising two linked wooden sticks used to beat grain from the ear (see Thrashing).
- Granary** A building for storing grain before it has been milled. Granaries are usually at first-floor level to prevent rodents and damp damaging the grain. They could be free-standing structures or be an enclosed upper floor above a cart shed or stable.
- Grange** A farmstead belonging to and run by a monastic house.
- Grazier** A person who farms grazing animals, typically for meat or wool.
- Half-hipped roof** A roof in which the gable wall rises above the height of the eaves but does not extend to the apex. The upper part of the gable has a short sloping roof with rafters lying axially (in the same line of the orientation of the building). In a fully hipped roof, axial rafters are of the same length as the rafters of the main roof slopes.
- Hay barn** A structure to shelter but ensure the adequate ventilation of hay. They are typically open-sided structures with roofs supported on high brick, stone, timber or iron piers.
- Hay loft** Storage for hay above cart shed or stables.
- Hayrack** A rack made of wood and from the later 19th century often made in iron, in which hay could be placed to be eaten by cattle, horses or sheep.
- Hemmels** Small open-fronted cattle shelters with their own yards, mostly found in the North East.
- Hipped roof** A roof with slopes at the gable ends of equal or similar length to the side slopes. The gable walls do not rise up to the apex but are of similar height to the side walls. The top ends of the rafters that do not extend to the ridge are carried on a hip rafter.
- Hit-and-miss timber boarding** (also called **Yorkshire boarding**) Usually vertical boarding forming a wall to animal housing which has gaps between the boards to provide ventilation for the animals.
- Holding** A farm.
- Hovel** A dialect term for cow house, formerly common in parts of the Midlands and central southern England.
- Hurdle work** Hurdles, usually made from hazel or another pliable wood woven to form fence panels, were arranged to form temporary enclosure for animals, especially sheep.
- Husbandry** Farming, the management of the production of crops and animals.
- Infield-outfield system** A type of agriculture practised in pastoral (usually upland) areas, where the fields closest to the farmstead or settlement were the most intensively cropped and animals were only permitted to graze after the hay or corn crop was cut. Beyond was rough grazing for sheep and cattle, which was occasionally ploughed for corn.
- Kneeler** A stone, often shaped, which supports the stone coping to the gable end.
- Laithe house** A linear range of one construction comprising a farmhouse with attached barn and usually a stable. There is no internal link between the house and the agricultural element of the range. Laithe houses are usually associated with small part-time farmers who were often involved in the textile industries of the Pennines.
- Lean-to** A building, usually a later addition, which is constructed against the side of a larger building. Lean-tos typically have a mono-pitch roof.
- Lias** A form of limestone, typically split into thin pieces.
- Linear farmstead** A farmstead where the farmhouse and agricultural buildings are ranged in a line, usually attached to each other.
- Linhay** Two-storeyed building with open-fronted cattle shelter with an open-fronted hay loft or tallet above characteristic of Devon and south Somerset. The tallet may be constructed as a conventional floor or simply created from poles. Historically the term linhay was used to refer to a wider range of buildings including field barns.
- Loosebox** An individual cubicle for housing fatstock, found in the form of lean-tos attached to barns or other buildings, or as continuous ranges with an optional central or rear feeding passage.
- Longhouse** A building that housed humans and cattle under one roof and in which there was direct access from the accommodation into the byre. The byre was always built down-slope from the accommodation.



Originally animals and humans used the same entrance but as living standards changed the animals were often provided with separate access.

**Longstraw** Term used to describe a thatching method where the ears and butts of the straw are mixed.

The stems of the straw are bruised and crushed and the result is a generally looser coat than combed wheat reed or water reed. The appearance of the roof is quite different from combed wheat reed and water reed, with a much thicker covering of straw.

**Manger** An open trough in a stable or cowshed from which horses or cattle could eat.

**Mass-walled building** Buildings where the walls are constructed of solid materials such as stone, earth or brick as opposed to timber-framed walling.

**Meadow** A field maintained for providing grass for grazing and for making hay.

**Midstrey** Term used in southern England and East Anglia for the projecting porch to a threshing barn.

**Nucleated settlement** Settlement pattern consisting mainly of villages with relatively few isolated farmsteads or hamlets.

**Oast house** A building in which hops are dried.

**Oolite** An easily worked form of limestone from the Jurassic period.

**Open-field system** A system in which farmland was held in common with the strips of individual farmers intermixed across several fields. Open-field systems rarely had hedges between strips or fields. Over time the strips were usually consolidated and eventually enclosed. Enclosure of open fields results in characteristic field patterns where the boundaries form an elongated reversed 'S'.

**Outfarm** A barn with animal accommodation either within the barn or separately, located away from the main farmstead, which avoided transporting straw and manure to and from distant fields.

**Outshot** See Lean-to.

**Pantiles** Clay roofing tiles with a wavy profile. Originated in Holland and became popular along the north-east coast. Also made in Somerset.

**Pastoral farming** Farming system based predominantly on the rearing or fattening of stock. Pastoral areas are usually predominantly grassland but in some areas arable cultivation was also important, providing fodder crops for the animals as well as corn crops for domestic use.

**Pasture/pasturage** Grazing land.

**Piecemeal enclosure** The enclosure of areas of land field by field, possibly through assarting, as opposed to the wholesale enclosure of large tracts of land and the creation of large field systems.

**Pigsty** A small building for housing pigs. Typically built as individual boxes, individually or in rows and with external feeding chutes. They were often built with their own individual yards.

**Pilaster** An ornamental rectangular column projecting from a wall.

**Portal-framed shed** Mass-produced iron-framed shed usually clad in metal sheeting.

**Poultiggery** A building combining a pigsty at ground level with a poultry house in a loft above.

**Processing room** A room in a farmstead where fodder for animals would be prepared, usually with the aid of machinery such as chaff cutters, cake breakers and root crushers.

**Quoin** The stones or brickwork set at the corner of a building. Where poor-quality building stone was used it was difficult to form corners to a building so the quoins would be made out of bricks or a better quality stone that could be worked square.

**Rickyard** A yard, usually sited close to the barn, in which the harvested corn crops could be stored in ricks to await threshing. The ricks would be built on raised platforms to protect the grain from rodents and thatched to protect from rain.

**Ridge and furrow** Long, parallel ridges of soil separated by linear depressions, caused by repeated ploughing using a heavy plough.

**Ring-fenced** A term to describe a farm in which all the fields are held in a compact block as opposed to being intermixed with the fields of other farmers.

**Root and fodder stores** Room often located close to or incorporated within the cattle housing.

**Salving** The rubbing of a tar-based mix into sheep, in order to guard against ticks, etc.

**Shelter sheds** Open-fronted structures for cattle facing on to cattle yards.

**Shippon** A dialect term for cow house, commonly used in the North West and the South West peninsula.

**Silage clamp** An airtight container for the storage of freshly cut grass.

**Stable** A building for housing horses or working oxen.

**Staddle barn** Threshing barn, usually timber framed and raised on staddle stones. Staddle barns date from the later 18th and early 19th centuries and may be an attempt to counter the greater predation of the brown rat.

**Staddle stone** Staddle stones usually comprise two stones: an upright column that is capped by a circular stone of larger diameter, typically with a rounded top, together forming a mushroom shape. Staddle stones prevented rodents climbing up into granaries, ricks and staddle barns.

**Stall** A standing for a cow or horse within a byre or stable. Stalls are usually divided by wooden or stone partitions to prevent animals biting and kicking each other.

**Thrashing (or Threshing)** The removal of grain from the ears of corn crops. Threshing by hand involved hitting the ears with a flail.

**Threshing barn** See barn.

**Tillage** The tending of land to prepare it for a crop.

**Tithe** A payment of a tenth of crops and produce paid to the Rector of the church for his maintenance. Payment in kind was generally changed to a cash payment in the mid-19th century although this occurred earlier in some parishes.

**Topography** The features of the landscape; its hills, rivers, roads, woods and settlement.

**Vaccary** A stock farm for cattle. Most vaccaries are of 12th- or 13th-century origin, and were built for ecclesiastical or lay lords. They are concentrated in the Pennines.

**Watermeadow** A valley-floor meadow that was subject to controlled flooding using a system of drains and sluices to encourage early grass growth, providing spring food for sheep. The flooding brought nutrients on to the land, improving hay crops. Watermeadows

were first developed in the West Midlands but became a characteristic feature of the chalk river valleys of Wessex.

**Wattle** An interwoven panel usually made from hazel used to infill timber framing. Wattle could be covered in daub or left uncovered if more ventilation was required.

**Wheel house** A structure which housed a horse-engine for powering threshing machinery, and typically found projecting from barns. Also known as a gin gang in northern England.

**Winnowing** The separation of grain from the chaff, usually achieved by throwing the grain into the air and using the wind to blow the lighter chaff away from the grain.

**Yorkshire boarding** See Hit-and-miss boarding.

# 10.0 Sources

## 10.1 GENERAL SOURCES

The great barns of the medieval period were the first farm buildings to attract the attention of artists and antiquarians, from the 18th century. In the early 20th century this interest broadened out to studies of other iconic building types, such as Arthur Cooke's *A Book of Dovecotes* (1920), and their inclusion in the famous regional landscape studies published by Batsford (*The Face of Britain*). A milestone in the serious academic study of the subject was the publication of a regional study by J.E.C. Peters (1969), which was followed a year later by Nigel Harvey's inspirational general history of the subject (1970, 2nd edition 1984). Peters has usefully summarised his work in a booklet (1981, 2nd edition 2003) and studies examining farm buildings in their broader national and regional contexts have been taken forward by Brunskill (1982, revised 1987), Darley (1981), Lake (1989) and Wade Martins (1991). Individual studies

have been published in the journal of *The Historic Farm Buildings Group*, founded in 1985. A major project by the Royal Commission for Historical Monuments in England, which targeted sample areas for recording, was published in 1997 (Barnwell & Giles 1997). There are a small number of county-wide studies, for example in Kent (Wade in Giles & Wade Martins 1994, pp.26–27) and Surrey (Gray 1998).

Despite an increasing level of interest in historic farm buildings, some of the smaller, less impressive building types have not been subject to the level of study and research that buildings such as barns have received. Therefore there is a limited understanding of the regional variations that may be encountered. As a consequence, the National Overview texts provided in this document for farmstead and building types are sometimes longer than their regional summaries.

There are a number of sources that provide a good overview of agricultural history and the development of farm buildings including:

The Board of Agriculture *General View of the County of...*, published from 1795 to 1814 describe the state of agriculture in individual counties at the time. They often include a map of agricultural regions and a section of farm buildings. They are inevitably biased towards the large, publicity-conscious and 'improving' farmers and estates.

County *Directories* from the second half of the 19th century often include essays on different aspects of the county, such as agriculture.

The British Association for the Advancement of Science published regional studies to coincide with the venues of their annual meetings in the 1950s and '60s. Many contain useful chapters on geology and agriculture.

The various volumes of *The Agrarian History of England and Wales* (Collins, Hallam, Thirsk, Miller, Mingay, Whetham) include essays by leading scholars.

James Caird (1852) *English Agriculture in 1851–2* is a collection of county essays written for *The Times*.

Haggard R. (1902) *Rural England* describes English agriculture county by county.

Hall, A.D. (1913) *A Pilgrimage of British Farming* describes farming in various counties in 1913.

The *Journal of the Royal Agricultural Society* has prize and regional essays on farming and farm buildings, especially useful for the mid- and late 19th century.

The *Victoria County Histories* are of variable use. The more recent volumes contain chapters on agricultural history and buildings.

The *Vernacular Architecture Group* has produced, besides its journal, a comprehensive national and regional bibliography (see Hall, Michelmores and Pattison for reference).

Barnwell, P.S. & Giles, C. (1997) *English Farmsteads 1750–1914* contains a short general introduction, a general concluding chapter and regional studies from west Berkshire, south Lincolnshire, north Northumberland, east Cornwall and central Cheshire.

Brunskill, R.W. (1982) *Traditional Farm Buildings of Britain* gives a very useful farming and building overview.

Darley, G. (1981) *The National Trust Book of the Farm* contains a general introduction followed by regional studies.

The revised Pevsner's *Buildings of England*, published county by county, often have useful introductions on landscape regions and building types.

Many county archaeological and historical journals include relevant articles. National journals of particular interest include those of the following societies:

British Agricultural History Society  
Historic Farm Buildings Group  
Local Historian

Society for Medieval Archaeology  
Society for Post-Medieval Archaeology  
Rural History  
Society of Architectural Historians  
Society for Landscape Studies  
Vernacular Architecture Group

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# 11.0 Joint Character Area Descriptions: URLs for PDF Documents

- 1 **North Northumberland Coastal Plain** [www.countryside.gov.uk/Images/JCA01\\_tcm2-21114.pdf](http://www.countryside.gov.uk/Images/JCA01_tcm2-21114.pdf)
- 2 **Northumberland Sandstone Hills** [www.countryside.gov.uk/Images/JCA02\\_tcm2-21115.pdf](http://www.countryside.gov.uk/Images/JCA02_tcm2-21115.pdf)
- 3 **Cheviot Fringe** [www.countryside.gov.uk/Images/JCA03\\_tcm2-21116.pdf](http://www.countryside.gov.uk/Images/JCA03_tcm2-21116.pdf)
- 4 **Cheviots** [www.countryside.gov.uk/Images/JCA04\\_tcm2-21117.pdf](http://www.countryside.gov.uk/Images/JCA04_tcm2-21117.pdf)
- 5 **Border Moors and Forests** [www.countryside.gov.uk/Images/JCA5\\_tcm2-21066.pdf](http://www.countryside.gov.uk/Images/JCA5_tcm2-21066.pdf)
- 6 **Solway Basin** [www.countryside.gov.uk/Images/JCA6\\_tcm2-21068.pdf](http://www.countryside.gov.uk/Images/JCA6_tcm2-21068.pdf)
- 7 **West Cumbria Coastal Plain** [www.countryside.gov.uk/Images/JCA7\\_tcm2-21069.pdf](http://www.countryside.gov.uk/Images/JCA7_tcm2-21069.pdf)
- 8 **Cumbria High Fells** [www.countryside.gov.uk/Images/JCA8\\_tcm2-21070.pdf](http://www.countryside.gov.uk/Images/JCA8_tcm2-21070.pdf)
- 9 **Eden Valley** [www.countryside.gov.uk/Images/JCA9\\_tcm2-21071.pdf](http://www.countryside.gov.uk/Images/JCA9_tcm2-21071.pdf)
- 10 **North Pennines** [www.countryside.gov.uk/Images/JCA10\\_tcm2-21072.pdf](http://www.countryside.gov.uk/Images/JCA10_tcm2-21072.pdf)
- 11 **Tyne Gap and Hadrian's Wall** [www.countryside.gov.uk/Images/JCA11\\_tcm2-21073.pdf](http://www.countryside.gov.uk/Images/JCA11_tcm2-21073.pdf)
- 12 **Mid Northumberland** [www.countryside.gov.uk/Images/JCA12\\_tcm2-21120.pdf](http://www.countryside.gov.uk/Images/JCA12_tcm2-21120.pdf)
- 13 **South East Northumberland Coastal Plain** [www.countryside.gov.uk/Images/JCA13\\_tcm2-21121.pdf](http://www.countryside.gov.uk/Images/JCA13_tcm2-21121.pdf)
- 14 **Tyne and Wear Lowlands** [www.countryside.gov.uk/Images/JCA14\\_tcm2-21122.pdf](http://www.countryside.gov.uk/Images/JCA14_tcm2-21122.pdf)
- 15 **Durham Magnesian Limestone Plateau** [www.countryside.gov.uk/Images/JCA15\\_tcm2-21123.pdf](http://www.countryside.gov.uk/Images/JCA15_tcm2-21123.pdf)
- 16 **Durham Coalfield** [www.countryside.gov.uk/Images/JCA16\\_tcm2-21124.pdf](http://www.countryside.gov.uk/Images/JCA16_tcm2-21124.pdf)
- 17 **Orton Fells** [www.countryside.gov.uk/Images/JCA17\\_tcm2-21074.pdf](http://www.countryside.gov.uk/Images/JCA17_tcm2-21074.pdf)
- 18 **Howgill Fells** [www.countryside.gov.uk/Images/JCA18\\_tcm2-21075.pdf](http://www.countryside.gov.uk/Images/JCA18_tcm2-21075.pdf)
- 19 **South Cumbria Low Fells** [www.countryside.gov.uk/Images/JCA19\\_tcm2-21077.pdf](http://www.countryside.gov.uk/Images/JCA19_tcm2-21077.pdf)
- 20 **Morecambe Bay Limestones** [www.countryside.gov.uk/Images/JCA20\\_tcm2-21078.pdf](http://www.countryside.gov.uk/Images/JCA20_tcm2-21078.pdf)
- 21 **Yorkshire Dales** [www.countryside.gov.uk/Images/JCA21\\_tcm2-21079.pdf](http://www.countryside.gov.uk/Images/JCA21_tcm2-21079.pdf)
- 22 **Pennine Dales Fringe** [www.countryside.gov.uk/Images/JCA22\\_tcm2-21125.pdf](http://www.countryside.gov.uk/Images/JCA22_tcm2-21125.pdf)
- 23 **Tees Lowlands** [www.countryside.gov.uk/Images/JCA23\\_tcm2-21126.pdf](http://www.countryside.gov.uk/Images/JCA23_tcm2-21126.pdf)
- 24 **Vale of Mowbray** [www.countryside.gov.uk/Images/JCA24\\_tcm2-21128.pdf](http://www.countryside.gov.uk/Images/JCA24_tcm2-21128.pdf)
- 25 **North Yorkshire Moors and Cleveland Hills** [www.countryside.gov.uk/Images/JCA25\\_tcm2-21129.pdf](http://www.countryside.gov.uk/Images/JCA25_tcm2-21129.pdf)
- 26 **Vale of Pickering** [www.countryside.gov.uk/Images/JCA26\\_tcm2-21131.pdf](http://www.countryside.gov.uk/Images/JCA26_tcm2-21131.pdf)
- 27 **Yorkshire Wolds** [www.countryside.gov.uk/Images/JCA27\\_tcm2-21132.pdf](http://www.countryside.gov.uk/Images/JCA27_tcm2-21132.pdf)
- 28 **Vale of York** [www.countryside.gov.uk/Images/JCA28\\_tcm2-21133.pdf](http://www.countryside.gov.uk/Images/JCA28_tcm2-21133.pdf)
- 29 **Howardian Hills** [www.countryside.gov.uk/Images/JCA29\\_tcm2-21134.pdf](http://www.countryside.gov.uk/Images/JCA29_tcm2-21134.pdf)
- 30 **Southern Magnesian Limestone** [www.countryside.gov.uk/Images/JCA30\\_tcm2-21135.pdf](http://www.countryside.gov.uk/Images/JCA30_tcm2-21135.pdf)
- 31 **Morecambe Bay and Lune Estuary** [www.countryside.gov.uk/Images/JCA31\\_tcm2-21080.pdf](http://www.countryside.gov.uk/Images/JCA31_tcm2-21080.pdf)
- 32 **Lancashire and Amounderness Plain** [www.countryside.gov.uk/Images/JCA32\\_tcm2-21082.pdf](http://www.countryside.gov.uk/Images/JCA32_tcm2-21082.pdf)
- 33 **Bowland Fringe and Pendle Hill** [www.countryside.gov.uk/Images/JCA33\\_tcm2-21083.pdf](http://www.countryside.gov.uk/Images/JCA33_tcm2-21083.pdf)
- 34 **Bowland Fells** [www.countryside.gov.uk/Images/JCA34\\_tcm2-21084.pdf](http://www.countryside.gov.uk/Images/JCA34_tcm2-21084.pdf)
- 35 **Lancashire Valleys** [www.countryside.gov.uk/Images/JCA35\\_tcm2-21085.pdf](http://www.countryside.gov.uk/Images/JCA35_tcm2-21085.pdf)
- 36 **Southern Pennines** [www.countryside.gov.uk/Images/JCA36\\_tcm2-21086.pdf](http://www.countryside.gov.uk/Images/JCA36_tcm2-21086.pdf)
- 37 **Yorkshire Southern Pennine Fringe** [www.countryside.gov.uk/Images/JCA37\\_tcm2-21136.pdf](http://www.countryside.gov.uk/Images/JCA37_tcm2-21136.pdf)
- 38 **Nottinghamshire Derbyshire and Yorkshire Coalfield** [www.countryside.gov.uk/Images/JCA38\\_tcm2-21137.pdf](http://www.countryside.gov.uk/Images/JCA38_tcm2-21137.pdf)
- 39 **Humberhead Levels** [www.countryside.gov.uk/Images/JCA39\\_tcm2-21138.pdf](http://www.countryside.gov.uk/Images/JCA39_tcm2-21138.pdf)
- 40 **Holdemess** [www.countryside.gov.uk/Images/JCA40\\_tcm2-21139.pdf](http://www.countryside.gov.uk/Images/JCA40_tcm2-21139.pdf)
- 41 **Humber Estuary** [www.countryside.gov.uk/Images/JCA41\\_tcm2-21140.pdf](http://www.countryside.gov.uk/Images/JCA41_tcm2-21140.pdf)
- 42 **Lincolnshire Coast and Marshes** [www.countryside.gov.uk/Images/JCA42\\_tcm2-21141.pdf](http://www.countryside.gov.uk/Images/JCA42_tcm2-21141.pdf)
- 43 **Lincolnshire Wolds** [www.countryside.gov.uk/Images/JCA43\\_tcm2-21142.pdf](http://www.countryside.gov.uk/Images/JCA43_tcm2-21142.pdf)
- 44 **Central Lincolnshire Vale** [www.countryside.gov.uk/Images/JCA44\\_tcm2-21143.pdf](http://www.countryside.gov.uk/Images/JCA44_tcm2-21143.pdf)
- 45 **Northern Lincolnshire Edge With Coversands** [www.countryside.gov.uk/Images/JCA45+47\\_tcm2-21144.pdf](http://www.countryside.gov.uk/Images/JCA45+47_tcm2-21144.pdf)
- 46 **The Fens** [www.countryside.gov.uk/Images/JCA46\\_tcm2-21145.pdf](http://www.countryside.gov.uk/Images/JCA46_tcm2-21145.pdf)
- 47 **Southern Lincolnshire Edge** [www.countryside.gov.uk/Images/JCA45+47\\_tcm2-21144.pdf](http://www.countryside.gov.uk/Images/JCA45+47_tcm2-21144.pdf)
- 48 **Trent and Belvoir Vales** [www.countryside.gov.uk/Images/JCA48\\_tcm2-21146.pdf](http://www.countryside.gov.uk/Images/JCA48_tcm2-21146.pdf)
- 49 **Sherwood** [www.countryside.gov.uk/Images/JCA49\\_tcm2-21147.pdf](http://www.countryside.gov.uk/Images/JCA49_tcm2-21147.pdf)
- 50 **Derby Peak Fringe** [www.countryside.gov.uk/Images/JCA50\\_tcm2-21148.pdf](http://www.countryside.gov.uk/Images/JCA50_tcm2-21148.pdf)
- 51 **Dark Peak** [www.countryside.gov.uk/Images/JCA51\\_tcm2-21087.pdf](http://www.countryside.gov.uk/Images/JCA51_tcm2-21087.pdf)

- 52 **White Peak** [www.countryside.gov.uk/Images/JCA52\\_tcm2-21149.pdf](http://www.countryside.gov.uk/Images/JCA52_tcm2-21149.pdf)
- 53 **South West Peak** [www.countryside.gov.uk/Images/JCA53\\_tcm2-21088.pdf](http://www.countryside.gov.uk/Images/JCA53_tcm2-21088.pdf)
- 54 **Manchester Pennine Fringe** [www.countryside.gov.uk/Images/JCA54\\_tcm2-21089.pdf](http://www.countryside.gov.uk/Images/JCA54_tcm2-21089.pdf)
- 55 **Manchester Conurbation** [www.countryside.gov.uk/Images/JCA55\\_tcm2-21090.pdf](http://www.countryside.gov.uk/Images/JCA55_tcm2-21090.pdf)
- 56 **Lancashire Coal Measures** [www.countryside.gov.uk/Images/JCA56\\_tcm2-21091.pdf](http://www.countryside.gov.uk/Images/JCA56_tcm2-21091.pdf)
- 57 **Sefton Coast** [www.countryside.gov.uk/Images/JCA57\\_tcm2-21095.pdf](http://www.countryside.gov.uk/Images/JCA57_tcm2-21095.pdf)
- 58 **Merseyside Conurbation** [www.countryside.gov.uk/Images/JCA58\\_tcm2-21096.pdf](http://www.countryside.gov.uk/Images/JCA58_tcm2-21096.pdf)
- 59 **Wirral** [www.countryside.gov.uk/Images/JCA59\\_tcm2-21097.pdf](http://www.countryside.gov.uk/Images/JCA59_tcm2-21097.pdf)
- 60 **Mersey Valley** [www.countryside.gov.uk/Images/JCA60\\_tcm2-21098.pdf](http://www.countryside.gov.uk/Images/JCA60_tcm2-21098.pdf)
- 61 **Shropshire Cheshire and Staffordshire Plain** [www.countryside.gov.uk/Images/JCA61+62\\_tcm2-21100.pdf](http://www.countryside.gov.uk/Images/JCA61+62_tcm2-21100.pdf)
- 62 **Cheshire Sandstone Ridge** [www.countryside.gov.uk/Images/JCA61+62\\_tcm2-21100.pdf](http://www.countryside.gov.uk/Images/JCA61+62_tcm2-21100.pdf)
- 63 **Oswestry Uplands** [www.countryside.gov.uk/Images/JCA063%20-%20Oswestry%20Uplands\\_tcm2-21174.pdf](http://www.countryside.gov.uk/Images/JCA063%20-%20Oswestry%20Uplands_tcm2-21174.pdf)
- 64 **Potteries and Churnet Valley** [www.countryside.gov.uk/Images/JCA064%20-%20Potteries%20and%20Churnet%20Valley\\_tcm2-21175.pdf](http://www.countryside.gov.uk/Images/JCA064%20-%20Potteries%20and%20Churnet%20Valley_tcm2-21175.pdf)
- 65 **Shropshire Hills** [www.countryside.gov.uk/Images/JCA064%20-%20Potteries%20and%20Churnet%20Valley\\_tcm2-21175.pdf](http://www.countryside.gov.uk/Images/JCA064%20-%20Potteries%20and%20Churnet%20Valley_tcm2-21175.pdf)
- 66 **Mid Severn Sandstone Plateau** [www.countryside.gov.uk/Images/JCA066%20-%20Mid%20Severn%20Sandstone%20Plateau\\_tcm2-21177.pdf](http://www.countryside.gov.uk/Images/JCA066%20-%20Mid%20Severn%20Sandstone%20Plateau_tcm2-21177.pdf)
- 67 **Cannock Chase and Cank Wood** [www.countryside.gov.uk/Images/JCA067%20-%20Cannock%20Chase%20and%20Cank%20Wood\\_tcm2-21178.pdf](http://www.countryside.gov.uk/Images/JCA067%20-%20Cannock%20Chase%20and%20Cank%20Wood_tcm2-21178.pdf)
- 68 **Needwood and South Derbyshire Claylands** [www.countryside.gov.uk/Images/JCA68\\_tcm2-21150.pdf](http://www.countryside.gov.uk/Images/JCA68_tcm2-21150.pdf)
- 69 **Trent Valley Washlands** [www.countryside.gov.uk/Images/JCA69\\_tcm2-21151.pdf](http://www.countryside.gov.uk/Images/JCA69_tcm2-21151.pdf)
- 70 **Melbourne Parklands** [www.countryside.gov.uk/Images/JCA70\\_tcm2-21152.pdf](http://www.countryside.gov.uk/Images/JCA70_tcm2-21152.pdf)
- 71 **Leicestershire and South Derbyshire Coalfield** [www.countryside.gov.uk/Images/JCA71\\_tcm2-21153.pdf](http://www.countryside.gov.uk/Images/JCA71_tcm2-21153.pdf)
- 72 **Mease/Sence Lowlands** [www.countryside.gov.uk/Images/JCA72\\_tcm2-21154.pdf](http://www.countryside.gov.uk/Images/JCA72_tcm2-21154.pdf)
- 73 **Charnwood** [www.countryside.gov.uk/Images/JCA73\\_tcm2-21155.pdf](http://www.countryside.gov.uk/Images/JCA73_tcm2-21155.pdf)
- 74 **Leicestershire and Nottinghamshire Wolds** [www.countryside.gov.uk/Images/JCA74\\_tcm2-21156.pdf](http://www.countryside.gov.uk/Images/JCA74_tcm2-21156.pdf)
- 75 **Kesteven Uplands** [www.countryside.gov.uk/Images/JCA75\\_tcm2-21157.pdf](http://www.countryside.gov.uk/Images/JCA75_tcm2-21157.pdf)
- 76 **North West Norfolk** [www.countryside.gov.uk/Images/JCA076%20-%20North%20West%20Norfolk\\_tcm2-21179.pdf](http://www.countryside.gov.uk/Images/JCA076%20-%20North%20West%20Norfolk_tcm2-21179.pdf)
- 77 **North Norfolk Coast** [www.countryside.gov.uk/Images/JCA077%20-%20North%20Norfolk%20Coast\\_tcm2-21180.pdf](http://www.countryside.gov.uk/Images/JCA077%20-%20North%20Norfolk%20Coast_tcm2-21180.pdf)
- 78 **Central North Norfolk** [www.countryside.gov.uk/Images/JCA078+084%20-%20Central%20North%20Norfolk%20+%20Mid%20Norfolk\\_tcm2-21181.pdf](http://www.countryside.gov.uk/Images/JCA078+084%20-%20Central%20North%20Norfolk%20+%20Mid%20Norfolk_tcm2-21181.pdf)
- 79 **North East Norfolk and Flegg** [www.countryside.gov.uk/Images/JCA079%20-%20North%20East%20Norfolk%20and%20Flegg\\_tcm2-21182.pdf](http://www.countryside.gov.uk/Images/JCA079%20-%20North%20East%20Norfolk%20and%20Flegg_tcm2-21182.pdf)
- 80 **The Broads** [www.countryside.gov.uk/Images/JCA080%20-%20The%20Broads\\_tcm2-21183.pdf](http://www.countryside.gov.uk/Images/JCA080%20-%20The%20Broads_tcm2-21183.pdf)
- 81 **Greater Thames Estuary** [www.countryside.gov.uk/Images/JCA081%20-%20Greater%20Thames%20Estuary\\_tcm2-21184.pdf](http://www.countryside.gov.uk/Images/JCA081%20-%20Greater%20Thames%20Estuary_tcm2-21184.pdf)
- 82 **Suffolk Coast and Heaths** [www.countryside.gov.uk/Images/JCA082%20-%20Suffolk%20Coasts%20and%20Heaths\\_tcm2-21185.pdf](http://www.countryside.gov.uk/Images/JCA082%20-%20Suffolk%20Coasts%20and%20Heaths_tcm2-21185.pdf)
- 83 **South Norfolk and High Suffolk Claylands** [www.countryside.gov.uk/Images/JCA083%20-%20South%20Norfolk%20and%20High%20Suffolk%20Claylands\\_tcm2-21186.pdf](http://www.countryside.gov.uk/Images/JCA083%20-%20South%20Norfolk%20and%20High%20Suffolk%20Claylands_tcm2-21186.pdf)
- 84 **Mid Norfolk** [www.countryside.gov.uk/Images/JCA078+084%20-%20Central%20North%20Norfolk%20+%20Mid%20Norfolk\\_tcm2-21181.pdf](http://www.countryside.gov.uk/Images/JCA078+084%20-%20Central%20North%20Norfolk%20+%20Mid%20Norfolk_tcm2-21181.pdf)
- 85 **Breckland** [www.countryside.gov.uk/Images/JCA085\\_tcm2-21187.pdf](http://www.countryside.gov.uk/Images/JCA085_tcm2-21187.pdf)
- 86 **South Suffolk and North Essex Clayland** [www.countryside.gov.uk/Images/JCA086%20-%20South%20Suffolk%20and%20North%20Essex%20Clayland\\_tcm2-21188.pdf](http://www.countryside.gov.uk/Images/JCA086%20-%20South%20Suffolk%20and%20North%20Essex%20Clayland_tcm2-21188.pdf)
- 87 **East Anglia Chalk** [www.countryside.gov.uk/Images/JCA087%20-%20East%20Anglian%20Chalk\\_tcm2-21189.pdf](http://www.countryside.gov.uk/Images/JCA087%20-%20East%20Anglian%20Chalk_tcm2-21189.pdf)
- 88 **Bedfordshire and Cambridgeshire Claylands** [www.countryside.gov.uk/Images/JCA88\\_tcm2-21158.pdf](http://www.countryside.gov.uk/Images/JCA88_tcm2-21158.pdf)
- 89 **Northamptonshire Vales** [www.countryside.gov.uk/Images/JCA89+94\\_tcm2-21159.pdf](http://www.countryside.gov.uk/Images/JCA89+94_tcm2-21159.pdf)
- 90 **Bedfordshire Greensand Ridge** [www.countryside.gov.uk/Images/JCA090\\_tcm2-21190.pdf](http://www.countryside.gov.uk/Images/JCA090_tcm2-21190.pdf)
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- 93 **High Leicestershire** [www.countryside.gov.uk/Images/JCA93\\_tcm2-21162.pdf](http://www.countryside.gov.uk/Images/JCA93_tcm2-21162.pdf)
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- 97 **Arden** [www.countryside.gov.uk/Images/JCA097%20-%20%20Arden\\_tcm2-21191.pdf](http://www.countryside.gov.uk/Images/JCA097%20-%20%20Arden_tcm2-21191.pdf)
- 98 **Clun and North West Herefordshire Hills** [www.countryside.gov.uk/Images/JCA098%20-%20Clun%20and%20North%20West%20Herefordshire%20Hills\\_tcm2-21192.pdf](http://www.countryside.gov.uk/Images/JCA098%20-%20Clun%20and%20North%20West%20Herefordshire%20Hills_tcm2-21192.pdf)
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- 100 **Herefordshire Lowlands** [www.countryside.gov.uk/Images/JCA100%20-%20Herefordshire%20Lowlands\\_tcm2-21194.pdf](http://www.countryside.gov.uk/Images/JCA100%20-%20Herefordshire%20Lowlands_tcm2-21194.pdf)
- 101 **Herefordshire Plateau** [www.countryside.gov.uk/Images/JCA101+102%20-%20Herefordshire%20Plateau%20+%20Teme%20Valley\\_tcm2-21195.pdf](http://www.countryside.gov.uk/Images/JCA101+102%20-%20Herefordshire%20Plateau%20+%20Teme%20Valley_tcm2-21195.pdf)
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- 104 **South Herefordshire & Over Severn** [www.countryside.gov.uk/Images/JCA104%20-%20South%20Herefordshire%20and%20Over%20Severn\\_tcm2-21197.pdf](http://www.countryside.gov.uk/Images/JCA104%20-%20South%20Herefordshire%20and%20Over%20Severn_tcm2-21197.pdf)
- 105 **Forest of Dean and Lower Wye** [www.countryside.gov.uk/Images/JCA105%20-%20Forest%20of%20Dean%20and%20Lower%20Wye\\_tcm2-21198.pdf](http://www.countryside.gov.uk/Images/JCA105%20-%20Forest%20of%20Dean%20and%20Lower%20Wye_tcm2-21198.pdf)
- 106 **Severn and Avon Vales** [www.countryside.gov.uk/Images/JCA106%20-%20Severn%20and%20Avon%20Vales\\_tcm2-21199.pdf](http://www.countryside.gov.uk/Images/JCA106%20-%20Severn%20and%20Avon%20Vales_tcm2-21199.pdf)
- 107 **Cotswolds** [www.countryside.gov.uk/Images/JCA107%20-%20Cotswolds\\_tcm2-21200.pdf](http://www.countryside.gov.uk/Images/JCA107%20-%20Cotswolds_tcm2-21200.pdf)
- 108 **Upper Thames Clay Vales** [www.countryside.gov.uk/Images/JCA108%20-%20Upper%20Thames%20Clay%20Vales\\_tcm2-21201.pdf](http://www.countryside.gov.uk/Images/JCA108%20-%20Upper%20Thames%20Clay%20Vales_tcm2-21201.pdf)
- 109 **Midvale Ridge** [www.countryside.gov.uk/Images/JCA109%20-%20Midvale%20Ridge\\_tcm2-21202.pdf](http://www.countryside.gov.uk/Images/JCA109%20-%20Midvale%20Ridge_tcm2-21202.pdf)
- 110 **The Chilterns** [www.countryside.gov.uk/Images/JCA110%20-%20Chilterns\\_tcm2-21203.pdf](http://www.countryside.gov.uk/Images/JCA110%20-%20Chilterns_tcm2-21203.pdf)
- 111 **Northern Thames Basin** [www.countryside.gov.uk/Images/JCA111\\_tcm2-21204.pdf](http://www.countryside.gov.uk/Images/JCA111_tcm2-21204.pdf)
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- 115 **Thames Valley** [www.countryside.gov.uk/Images/JCA115\\_tcm2-21205.pdf](http://www.countryside.gov.uk/Images/JCA115_tcm2-21205.pdf)
- 116 **Berkshire and Marlborough Downs** [www.countryside.gov.uk/Images/JCA116%20-%20Berkshire%20and%20Marlborough%20Downs\\_tcm2-21206.pdf](http://www.countryside.gov.uk/Images/JCA116%20-%20Berkshire%20and%20Marlborough%20Downs_tcm2-21206.pdf)
- 117 **Avon Vales** [www.countryside.gov.uk/Images/JCA117%20-%20Avon%20Vales\\_tcm2-21207.pdf](http://www.countryside.gov.uk/Images/JCA117%20-%20Avon%20Vales_tcm2-21207.pdf)
- 118 **Bristol, Avon Valleys and Ridges** [www.countryside.gov.uk/Images/JCA118%20-%20Bristol,%20Avon%20Valleys%20and%20Ridges\\_tcm2-21208.pdf](http://www.countryside.gov.uk/Images/JCA118%20-%20Bristol,%20Avon%20Valleys%20and%20Ridges_tcm2-21208.pdf)
- 119 **North Downs** [www.countryside.gov.uk/Images/JCA119\\_tcm2-21553.pdf](http://www.countryside.gov.uk/Images/JCA119_tcm2-21553.pdf)
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- 121 **Low Weald** [www.countryside.gov.uk/Images/JCA121\\_tcm2-21571.pdf](http://www.countryside.gov.uk/Images/JCA121_tcm2-21571.pdf)
- 122 **High Weald** [www.countryside.gov.uk/Images/JCA122\\_tcm2-21572.pdf](http://www.countryside.gov.uk/Images/JCA122_tcm2-21572.pdf)
- 123 **Romney Marshes** [www.countryside.gov.uk/Images/JCA123\\_tcm2-21573.pdf](http://www.countryside.gov.uk/Images/JCA123_tcm2-21573.pdf)
- 124 **Pevensey Levels** [www.countryside.gov.uk/Images/JCA124\\_tcm2-21631.pdf](http://www.countryside.gov.uk/Images/JCA124_tcm2-21631.pdf)
- 125 **South Downs** [www.countryside.gov.uk/Images/JCA125\\_tcm2-21629.pdf](http://www.countryside.gov.uk/Images/JCA125_tcm2-21629.pdf)
- 126 **South Coast Plain** [www.countryside.gov.uk/Images/JCA126\\_tcm2-21630.pdf](http://www.countryside.gov.uk/Images/JCA126_tcm2-21630.pdf)
- 127 **Isle of Wight** [www.countryside.gov.uk/Images/JCA127\\_tcm2-21660.pdf](http://www.countryside.gov.uk/Images/JCA127_tcm2-21660.pdf)
- 128 **South Hampshire Lowlands** [www.countryside.gov.uk/Images/JCA128\\_tcm2-21661.pdf](http://www.countryside.gov.uk/Images/JCA128_tcm2-21661.pdf)
- 129 **Thames Basin Heaths** [www.countryside.gov.uk/Images/JCA129\\_tcm2-21662.pdf](http://www.countryside.gov.uk/Images/JCA129_tcm2-21662.pdf)
- 130 **Hampshire Downs** [www.countryside.gov.uk/Images/JCA130%20-%20Hampshire%20Downs\\_tcm2-21209.pdf](http://www.countryside.gov.uk/Images/JCA130%20-%20Hampshire%20Downs_tcm2-21209.pdf)
- 131 **New Forest** [www.countryside.gov.uk/Images/JCA131%20-%20New%20Forest\\_tcm2-21210.pdf](http://www.countryside.gov.uk/Images/JCA131%20-%20New%20Forest_tcm2-21210.pdf)
- 132 **Salisbury Plain and West Wiltshire Downs** [www.countryside.gov.uk/Images/JCA132%20-%20Salisbury%20Plain%20and%20West%20Wiltshire%20Downs\\_tcm2-21211.pdf](http://www.countryside.gov.uk/Images/JCA132%20-%20Salisbury%20Plain%20and%20West%20Wiltshire%20Downs_tcm2-21211.pdf)
- 133 **Blackmoor Vale and Vale of Wardour** [www.countryside.gov.uk/Images/JCA133%20-%20Blackmoor%20Vale%20and%20Vale%20of%20Wardour\\_tcm2-21212.pdf](http://www.countryside.gov.uk/Images/JCA133%20-%20Blackmoor%20Vale%20and%20Vale%20of%20Wardour_tcm2-21212.pdf)
- 134 **Dorset Downs and Cranborne Chase** [www.countryside.gov.uk/Images/JCA134%20-%20Dorset%20Downs%20and%20Cranborne%20Chase\\_tcm2-21213.pdf](http://www.countryside.gov.uk/Images/JCA134%20-%20Dorset%20Downs%20and%20Cranborne%20Chase_tcm2-21213.pdf)
- 135 **Dorset Heaths** [www.countryside.gov.uk/Images/JCA135%20-%20Dorset%20Heaths\\_tcm2-21214.pdf](http://www.countryside.gov.uk/Images/JCA135%20-%20Dorset%20Heaths_tcm2-21214.pdf)
- 136 **South Purbeck** [www.countryside.gov.uk/Images/JCA136%20-%20South%20Purbeck\\_tcm2-21215.pdf](http://www.countryside.gov.uk/Images/JCA136%20-%20South%20Purbeck_tcm2-21215.pdf)
- 137 **Isle of Portland** [www.countryside.gov.uk/Images/JCA137+138%20-%20Isle%20of%20Portland%20%20+%20Weymouth%20Lowlands\\_tcm2-21216.pdf](http://www.countryside.gov.uk/Images/JCA137+138%20-%20Isle%20of%20Portland%20%20+%20Weymouth%20Lowlands_tcm2-21216.pdf)

- 138 **Weymouth Lowlands** [www.countryside.gov.uk/Images/JCA137+138%20-%20Isle%20of%20Portland%20%20+%20Weymouth%20Lowlands\\_tcm2-21216.pdf](http://www.countryside.gov.uk/Images/JCA137+138%20-%20Isle%20of%20Portland%20%20+%20Weymouth%20Lowlands_tcm2-21216.pdf)
- 139 **Marshwood and Powerstock Vales** [www.countryside.gov.uk/Images/JCA139%20-%20Marshwood%20and%20Powerstock%20Vales\\_tcm2-21217.pdf](http://www.countryside.gov.uk/Images/JCA139%20-%20Marshwood%20and%20Powerstock%20Vales_tcm2-21217.pdf)
- 140 **Yeovil Scarplands** [www.countryside.gov.uk/Images/JCA140%20-%20Yeovil%20Scarplands\\_tcm2-21218.pdf](http://www.countryside.gov.uk/Images/JCA140%20-%20Yeovil%20Scarplands_tcm2-21218.pdf)
- 141 **Mendip Hills** [www.countryside.gov.uk/Images/JCA141%20-%20Mendip%20Hills\\_tcm2-21219.pdf](http://www.countryside.gov.uk/Images/JCA141%20-%20Mendip%20Hills_tcm2-21219.pdf)
- 142 **Somerset Levels and Moors** [www.countryside.gov.uk/Images/JCA142+143%20-%20Somerset%20Levels%20and%20Moors%20+%20Mid%20Somerset%20Hills\\_tcm2-21220.pdf](http://www.countryside.gov.uk/Images/JCA142+143%20-%20Somerset%20Levels%20and%20Moors%20+%20Mid%20Somerset%20Hills_tcm2-21220.pdf)
- 143 **Mid Somerset Hills** [www.countryside.gov.uk/Images/JCA142+143%20-%20Somerset%20Levels%20and%20Moors%20+%20Mid%20Somerset%20Hills\\_tcm2-21220.pdf](http://www.countryside.gov.uk/Images/JCA142+143%20-%20Somerset%20Levels%20and%20Moors%20+%20Mid%20Somerset%20Hills_tcm2-21220.pdf)
- 144 **Quantock Hills** [www.countryside.gov.uk/Images/JCA144%20-%20Quantock%20Hills\\_tcm2-21221.pdf](http://www.countryside.gov.uk/Images/JCA144%20-%20Quantock%20Hills_tcm2-21221.pdf)
- 145 **Exmoor** [www.countryside.gov.uk/Images/JCA145%20-%20Exmoor\\_tcm2-21222.pdf](http://www.countryside.gov.uk/Images/JCA145%20-%20Exmoor_tcm2-21222.pdf)
- 146 **Vale of Taunton and Quantock Fringe** [www.countryside.gov.uk/Images/JCA146%20-%20Vale%20of%20Taunton%20and%20Quantock%20Fringes\\_tcm2-21223.pdf](http://www.countryside.gov.uk/Images/JCA146%20-%20Vale%20of%20Taunton%20and%20Quantock%20Fringes_tcm2-21223.pdf)
- 147 **Blackdowns** [www.countryside.gov.uk/Images/JCA147%20-%20Blackdowns\\_tcm2-21224.pdf](http://www.countryside.gov.uk/Images/JCA147%20-%20Blackdowns_tcm2-21224.pdf)
- 148 **Devon Redlands** [www.countryside.gov.uk/Images/JCA148%20-%20Devon%20Redlands\\_tcm2-21225.pdf](http://www.countryside.gov.uk/Images/JCA148%20-%20Devon%20Redlands_tcm2-21225.pdf)
- 149 **The Culm** [www.countryside.gov.uk/Images/JCA149%20-%20The%20Culm\\_tcm2-21226.pdf](http://www.countryside.gov.uk/Images/JCA149%20-%20The%20Culm_tcm2-21226.pdf)
- 150 **Dartmoor** [www.countryside.gov.uk/Images/JCA150%20-%20Dartmoor\\_tcm2-21227.pdf](http://www.countryside.gov.uk/Images/JCA150%20-%20Dartmoor_tcm2-21227.pdf)
- 151 **South Devon** [www.countryside.gov.uk/Images/JCA151%20-%20South%20Devon\\_tcm2-21228.pdf](http://www.countryside.gov.uk/Images/JCA151%20-%20South%20Devon_tcm2-21228.pdf)
- 152 **Cornish Killas** [www.countryside.gov.uk/Images/JCA152%20-%20Cornish%20Killas\\_tcm2-21229.pdf](http://www.countryside.gov.uk/Images/JCA152%20-%20Cornish%20Killas_tcm2-21229.pdf)
- 153 **Bodmin Moor** [www.countryside.gov.uk/Images/JCA153%20-%20Bodmin%20Moor\\_tcm2-21230.pdf](http://www.countryside.gov.uk/Images/JCA153%20-%20Bodmin%20Moor_tcm2-21230.pdf)
- 154 **Hensbarrow** [www.countryside.gov.uk/Images/JCA154%20-%20Hensbarrow\\_tcm2-21231.pdf](http://www.countryside.gov.uk/Images/JCA154%20-%20Hensbarrow_tcm2-21231.pdf)
- 155 **Carnmenellis** [www.countryside.gov.uk/Images/JCA155%20-%20Carnmenellis\\_tcm2-21232.pdf](http://www.countryside.gov.uk/Images/JCA155%20-%20Carnmenellis_tcm2-21232.pdf)
- 156 **West Penwith** [www.countryside.gov.uk/Images/JCA156%20-%20West%20Penwith\\_tcm2-21233.pdf](http://www.countryside.gov.uk/Images/JCA156%20-%20West%20Penwith_tcm2-21233.pdf)
- 157 **The Lizard** [www.countryside.gov.uk/Images/JCA157%20-%20The%20Lizard\\_tcm2-21234.pdf](http://www.countryside.gov.uk/Images/JCA157%20-%20The%20Lizard_tcm2-21234.pdf)
- 158 **Scilly Isles** [www.countryside.gov.uk/Images/JCA158%20-%20Isles%20of%20Scilly\\_tcm2-21235.pdf](http://www.countryside.gov.uk/Images/JCA158%20-%20Isles%20of%20Scilly_tcm2-21235.pdf)
- 159 **Lundy** [www.countryside.gov.uk/Images/JCA159%20-%20Lundy\\_tcm2-21236.pdf](http://www.countryside.gov.uk/Images/JCA159%20-%20Lundy_tcm2-21236.pdf)