7.0 Key Building Types: Animals and Animal Products

7.I CATTLE HOUSING

7.I.I NATIONAL OVERVIEW (Figure 27)

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 downslope. 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).

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

- 27 Cattle housing: national examples
- 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)



27E

- D A range of looseboxes, easily distinguishable by its rows of doors providing access to individual cubicles for fattening. (North Northumberland Coastal Plain)
- E The interior of a covered yard, on a home farm of 1875. (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 looseboxes.

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 27D)

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 bestknown 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 NORTH EAST (Figure 28)

Cattle have long been a mainstay of the Region's agricultural economy, and this Region holds some of the country's earliest surviving buildings featuring cattle housing. These include the remains of fortified bastle houses where the cattle could be accommodated at ground-floor level and the family housed above (see 5.3.1).

The summer grazing grounds, by the early 16th century called shielings, were characterised by groups of stone, timber or turf huts, of rectangular or circular form (Coggins 1992, p.81). They typically developed into permanently occupied farms or even hamlets, as transhumance was abandoned in favour of permanent

farmsteads. This practice survived longest — into the 17th century — in the North Pennines and Cheviots, where the instability of the Borders area had also inhibited the expansion of settlement (Winchester 1987, pp.3, 7; Adams & Carne 1995, p.92). Shielings are readily distinguishable from the archaeological remains of farmsteads (although later use has obscured the origins of the latter) which are marked by enclosures for holding livestock and stack stands for winter fodder (Hillelson 1984; Ramm, McDowell & Mercer 1970, p.7). No other buildings would have been necessary and the great majority are now ruinous.

As we have seen, cow houses were rarely built as separate structures but were nearly always part of a larger building, either at one or both ends of a single storey barn, within a partially lofted barn, below a lofted extension or in the ground floor of a bank barn (see 6.1.2). Cattle housing typically formed part of linear farmsteads in the uplands, including those rebuilt in the 19th century. Field work in the south of the Region notably on the Bearpark Estate, Durham, where farmstead buildings date from its leasing off by the Dean and Chapter of the Cathedral after 1655 – indicates that many more examples of multi-functional partitioned buildings, with triangular vents and upper cruck trusses, remain to be discovered (Edwards 1985). Recent investigation and dating by dendrochronology on the Bearpark estate has revealed a 17th-century cruckroofed cow house and a unique (for the North East) example of a late medieval longhouse with a very long low end (information from Martin Roberts).

There is very little additional evidence for cattle housing until the late 18th century. In addition to the traditional cow house, enclosed and accessed by one or more doors, from this period cattle were kept in open yards with long, low, open-fronted shelters that often adjoined the barn, the source of their fodder and straw for litter. Sometimes these shelters had a hayloft or a granary over. The most regionally distinctive example of a specialist building erected to house fatstock is the hemmel, typically an open-fronted shed with an arched entrance providing access to a small yard. It is found throughout the Region, on both large and small farms.

Fatstock became increasingly important during the second half of the 19th century, and the buildings found on many Northumbrian farmsteads in particular reflect this development as well as the need to more closely manage and accommodate smaller groups of cattle. Existing open-fronted shelters could be altered to provide a greater degree of shelter, and new ranges were often built outside the core of existing buildings, the latter being a characteristic feature of farmstead development in this Region. These new wide-span ranges could often incorporate root houses for fodder storage,

28 Cattle housing in the North East Region

A The undercroft of a bastle house, which provided secure housing for cattle. Bastle houses, as with longhouses, represent one of the earliest forms of surviving cattle accommodation. (Cheviot Fringe)

B & C Hemmels are a regional characteristic form of cattle housing found

B & C Hemmels are a regional characteristic form of cattle housing found on farms of all sizes. They can range from one or two sheds, typically with large arched openings, to whole ranges on one or more sides of a yard. Most date from the first half of the 19th century.

(B Border Moors and Forests; C Northumberland Sandstone Hills)

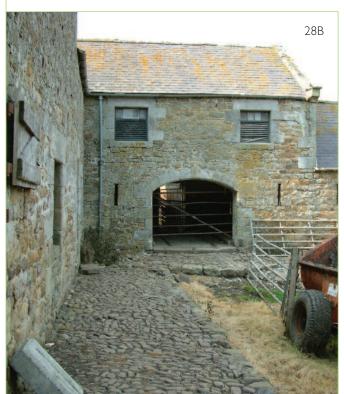
D Cattle were often housed in two-storey cow houses that formed part of a combination range that could include stabling, hay storage or a threshing barn (North Pennines).

E Many farmsteads include a small number of looseboxes, individual sheds where a sick or pregnant cow could be isolated from other stock. On some large farms greater numbers of looseboxes are found suggesting an intensive system of rearing (as being advocated by some mid-19th-century agricultural commentators) was employed. (North Northumberland Coastal Plain)

F On large, lowland farms open-fronted sheds around a yard or arranged to create an E-plan (or larger) were typical. The final stage of development of cattle housing was the covering over of the yard areas. In some cases from the later 19th century covered yards formed part of the original plan but on many farms, such as this example from the Cheviot Fringe, the covering was a late 19th- or early 20th-century addition to the earlier shelter shed ranges.

A, B & F \odot Jen Deadman; C & E \odot English Heritage / Michael Williams; D \odot Jeremy Lake













29 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

connected to feeding passages running the length of each building. On most farmsteads cattle were kept in yards for most of the time but a small number of looseboxes were usually provided within the farmstead where calving or sick beasts could be accommodated; fattening boxes were also used (Barnwell & Giles 1997, pp.86–90).

The final development of many yard systems was the roofing-over of the yard to create a covered yard. Although some farmsteads were provided with covered yards in the late 19th century, most found in Northumberland are 20th-century developments (Barnwell & Giles 1997, p.88).

Within the large planned farmsteads of the Northumberland lowlands small byres for milk cows for domestic use were usually provided within the farmstead. These byres could be sited near the house or the cattle yard (Barnwell & Giles 1997, p.92).

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 (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

30 Stables in the North East Region
Stables are found on many Lowland and Transitional Area farmsteads
but they do not have any regionally-specific characteristic other than
the use of local building materials. Large Lowland and Transitional farms
could incorporate a smithy, identifiable by its chimney (D, for example).











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 NORTH EAST

Dairies in this Region are almost exclusively found in the service area of the farmhouse. There are no known examples of detached dairy buildings.

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 29). Cast-iron stable fittings often replaced wooden ones. More elaborate stalls and mangers were usually 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 while in later examples the stalls are along the side walls, allowing more scope for lengthening the building and thus housing more horses.

- 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. Carthorse stables are far less likely to retain floor surfaces, internal stalls and fitments (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 NORTH EAST (Figure 30)

In upland areas stables are small in scale and form part of combination ranges. Detached examples of two-storey stables are not common and, where found, are located in lower dales and lowland landscapes. The largest stable buildings – some of the largest in the country in fact – are found in the lowland and transitional arable areas of Northumberland. By the 19th century they usually took the form of single-storey, well-ventilated ranges, with the horses stalled along the length of the building. On some farms horse yards were attached with open-fronted shelters

suggesting that (as in Lincolnshire and Norfolk) the horses were kept outside, at least during the summer, with the stables used for grooming and feeding (Barnwell & Giles 1997, pp.85–6).

7.4 PIG HOUSING

7.4.1 NATIONAL OVERVIEW (Figure 31)

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-19thcentury examples are of great rarity.

Characteristic features of pigsties are:

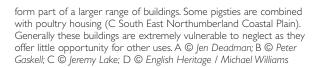
- Single-storey structures, with a gable entry to a first-floor hen house where lofts occur.
- Low entrances.
- Individual yards in some regions.
- Their construction in rows of three or more small and unlit boxes, often with a chute through the front wall into the feeding trough down which the swill 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 NORTH EAST

Generally across the Region pigs were only kept for domestic consumption and so, although many farmsteads had pigsties, most were on a modest scale. Where larger examples were to be found on some of the large Northumbrian farmsteads, it is possible that the sties were associated with the nearby cottages of the farm labourers rather than representing commercial pig-keeping (Barnwell & Giles 1997, p.93).

31 Pigsties: national examples
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; C Tyne Gap and Hadrian's
Wall) and they may have hatches and chutes for feeding, whilst some











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 hoggs 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 NORTH EAST

Compared to some other parts of the country where sheep farming was predominant, such as the downlands

of southern England, this Region contains a large number of buildings for sheep. Upland farms typically made use of existing buildings for shearing sheep, and the patterns of surrounding walls indicate that they were built for the sorting and handling of sheep (Barnwell & Giles 1997, p.73–6). In common with other northern upland landscapes, communal sheepfolds and folds next to streams for washing can be found in upland grazing areas, and small openings (sheep creeps) built in field boundaries. Some sheep washes were also built, in the form of troughs.

The remains of medieval sheep houses can also be visible as earthworks. Sheep were traditionally kept close to the farm over winter in upland areas, and on pastures in more sheltered spots. Along the Pennines field barns are characteristic. Some of these buildings, as in the North West and Yorkshire, were intended for the sheltering of sheep, evidenced by the low floor height at ground floor below the hayloft.

In the lowland parts of the Region sheep were rarely provided with buildings, but where they survive they comprise rare and significant examples. On the few occasions when sheep were brought to the farmstead, tasks such as shearing could be performed in buildings such as cart sheds. Sheds for fattening were recommended by some commentators in the mid-19th century, and there are some farmsteads where large yards with low shelters were provided, possibly for use during winter or lambing. The presence of such buildings for sheep exemplifies the willingness of many Northumbrian farmers to embrace advanced methods of farming (Barnwell & Giles 1997, pp.75–7).

7.6 DOVES AND POULTRY

7.6.1 NATIONAL OVERVIEW (Figures 32 & 33)

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

Dovecotes are usually square or circular towers with pyramidal or conical roofs, but a number of varying forms have been found, including tun-bellied dovecotes (where the walls bulge outward slightly before tapering upward) and beehive dovecotes with corbelled stone roofs. There are also lectern dovecotes, which are square or rectangular with a mono-pitch roof, and a small number of octagonal dovecotes 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 dovecotes 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. Dovecote 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 fitments are of great rarity, notably potencies and nest boxes (especially the removable wooden types).

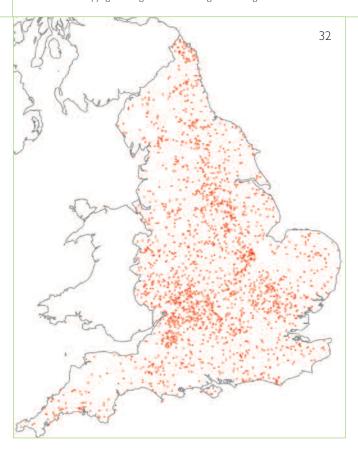
Studies have shown that the distribution of dovecotes may in part be affected by the robustness of the building material. For example, a study of Gloucestershire dovecotes suggests that the brick or timber-framed dovecotes typical of the Vale of Gloucester have fared less well than the stone-built examples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

- 32 Distribution of listed dovecotes in England This distribution includes both free-standing dovecotes and dovecotes that are incorporated into other buildings. Although dovecotes are found in all Regions, their concentration within Roberts and Wrathmell's Central Province from Gloucestershire to Northumberland and extending into north Oxfordshire is notable. Within this area manorial control was strongest and the higher numbers of dovecotes may reflect this. © Crown copyright. All rights reserved. English Heritage 100019088. 2005
- 33 Buildings for birds in England A 'beehive' dovecote with a roof constructed of large slabs of stone. This form of dovecote is only found in North East England and in the South West peninsula. (Tees Lowlands)
- B Medieval circular dovecote. Note the low doorway. (Dorset Downs and Cranborne Chase)

A 110861 Taken as part of the Images of England project © Mr Alan Bradley; B © Bob Edwards (continued over)

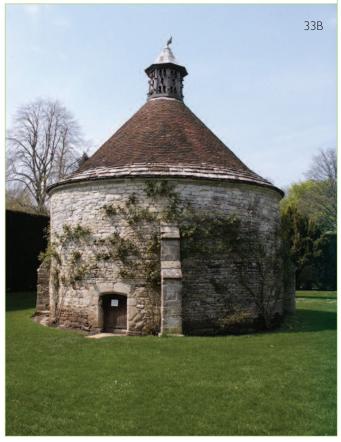




as a pig house: it was thought the chickens would keep the pigs warm and the pigs would frighten foxes away. The combination of a hen house located above a pig house was described as a poultiggery in some areas (for example in North Shropshire and Northumberland). These could be associated with a boiler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

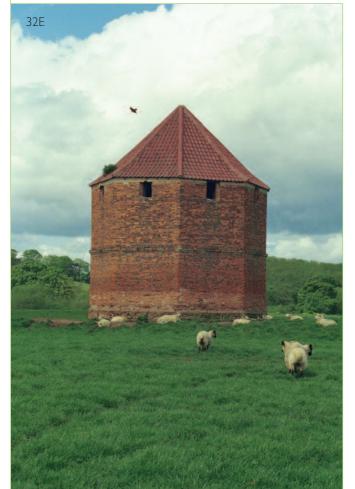
7.6.2 DOVES AND POULTRY IN THE NORTH EAST

In Northumbria dovecots, locally called 'duckets', are concentrated in a semi-circular band around the Cheviots. The earliest (medieval to 17th century) examples are free-standing buildings, some of which are of a 'beehive' shape with a circular plan and corbelled stone roof that is common in Scotland. There is also a group of this type in lower Teesdale. The early square dovecots may have a mono-pitch roof, which is also a feature of Scottish dovecotes and is otherwise rarely found in England. Many of these isolated examples on the coastal plain may be on the sites of abandoned manorial centres. The majority, however, are integrated into other buildings such as stables, barns or hen houses and date from the late 18th and 19th centuries (Kempe 1992, pp.73–6). A similar range of dovecotes, except for the mono-pitch roof variety, can be seen in Durham.









- 33 Accommodation for birds in England (continued) C $\,$ A square stone-built dovecote with stepped gables probably dating from
- the 16th century. (Vale of Pickering)

 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)
- Octagonal brick dovecote dating from the 18th century. (Tees Lowlands) 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; D 149817 Taken as part of the Images of England project © Mr Chris Tresise; E 350468 Taken as part of the Images of England project © Mr Alan Bradley; F & G © Jen Deadman; H © Bob Edwards







In Northumberland a small number of farms have largescale 19th-century buildings for poultry implying commercial egg production, possibly supplying the market at Berwick, which had been an important export centre for eggs from the Region. On a smaller, domestic scale, fowl houses can be found above pigsties and occasionally associated with pigeon lofts (Barnwell & Giles 1997, pp.92–3).

8.0 Key Building Types: Other Farmstead Buildings

8.1 OUTFARMS AND FIELD BARNS

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 BARNS IN THE NORTH EAST (Figure 34)

In those lowland and transitional areas characterised by larger farms, outfarms mostly dating from the mid-19th century are found, ranging from yards bounded by one or two ranges of shelter sheds to larger complexes incorporating barns.

As well as the main byre and barn on the farmstead, upland farms also included isolated free-standing field barns. The buildings provided storage for hay in a loft, reducing the need to cart it back to the main farmstead, and the cattle could be housed below, allowing for manure to be moved easily onto the surrounding fields in the spring. Another factor in the building of field barns was the more severe winter weather, which meant that cattle had to be housed for at least twice as long as in the South West. Field barns are not a highly distinctive feature of the North East, however, as in the North West or Yorkshire.

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

34 Outfarms and field barns in the North East Region Outfarms, with buildings providing a threshing barn and stock housing, often with a fold yard (A) and field barns consisting of a cow house



and hay loft (B) are found across much of the lowland and transitional areas of the Region. (A & B Tees Lowlands) © Jen Deadman





34C A large symmetrical building group in the park at Alnwick. The classical group of buildings are arranged in a U-plan around a yard open to the south. (Northumberland Sandstone Hills)

© English Heritage / Michael Williams

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 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 NORTH EAST

In the Northumberland lowlands, where villages may be centred on a single large 19th-century planned farmstead that included the cottages of the farm labourers, the farmstead often incorporated other buildings to serve the needs of the community. For example, smithies were often placed near the stables or cart shed where repairs to the increasing number of new iron implements could be made (Barnwell & Giles 1997, pp.91–2).

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.
- Bastle house A fortified house, usually of high status, in which the family lived at first floor level and accessed by a ladder that could be withdrawn in times of trouble, with their cattle housed on the ground floor. Thick stone walls, small window openings and added steps up to first floor are characteristic features. Bastle houses reflect the turbulent history of the borders area of the north of England, especially between the mid-16th and early 17th centuries.
- **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 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. Leantos 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.
- **Shielings** Summer grazing grounds characterised by groups of stone, timber or turf huts.
- **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, Michelmore 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

10.2 NATIONAL BIBLIOGRAPHY

Airs, M. (1983) 'Hovels or Helms; some further evidence from the 17th century', *Vernacular Architecture*: **14**: pp.50–51 Aitkens, P. & Wade-Martins, S. (1999) 'The farmsteads of Suffolk', *Journal of the Historic Farm Buildings Group* **13**: pp.1–17

Alcock, N.W. (1981) Cruck Construction, CBA Research Report 42: Council for British Archaeology, York

Alcock, N.W. (2003) Documenting the History of Houses, British Records Association, London

Alcock, N.W., M.W. Barley, P.W. Dixon, & R.A. Meeson (1996) Recording Timber-framed Buildings: an illustrated Glossary, CBA, York

Allen, R.C. (1991) 'The two Agricultural Revolutions, 1459–1850', in Campbell, B. & M. Overton, Land, Labour & Livestock, Manchester University Press, Manchester

Andrews, G.H. (1852) Agricultural Engineering 1: Buildings, John Weale, London

Barley, M.W. (1961) The English Farmhouse and Cottage, Routledge, London

Barnwell, P.S. (1992) 'The National Farm Survey, 1941–1943', Journal of the Historic Farm Buildings Group 7: pp.12–19

Barnwell, P.S. & Giles, C. (1997) English Farmsteads 1750–1914, RCHME, Swindon

Bateman, J. (1883) The Great Landowners of Great Britain & Ireland, Harrison, London

Beacham, P. [Ed] (1990) Devon Building. An introduction to local traditions, Devon Books, Exeter

Beckett, J.V. (1990) The Agricultural Revolution, Basil Blackwell, Oxford

Belhaven, Lord (1699) The Country-men's Rudiment, or An Advice to the Farmers of East Lothian on how to Labour and Improve their Ground, Heirs of A. Anderson, Edinburgh

Benoy, W.G. (1956) Farm Buildings. Conversions and Improvements, Ministry of Agriculture, London

Bettey, J.H. (1993) Know the Landscape: Estates and the English Countryside, B.T. Batsford, London

Beresford, M. & J. Hurst (1971) Deserted Medieval Villages, Lutterworth, Cambridge

Brigden, R. (1986) Victorian Farms, Crowood, London

Brigden, R. (1992) 'Bucking the Trend: New Farms Between the Wars', *Journal of the Historic Farm Buildings Group* **6**: pp.35–48

Browick, T. (1862) 'On the management of a Home Farm', Journal of the Royal Agricultural Society of England (JRASE) 23: pp.247–269

Brown, J. (1987) Agriculture in England, A Survey of Farming 1870–1947, Manchester University Press, Manchester Brunskill, R.W. (1982) Traditional Farm Buildings of Britain, Gollancz, London

Caffyn, L. (1983) 'A Study of Farm Buildings in Selected Parishes of East Sussex', Sussex Archaeological Collections 121: pp.149–71

Caird, J. (1852) English Agriculture in 1850–51, Longmans, London

Caird, J. (1878) The Landed Interest and the Supply of Food, Cassell & Co, London

Chambers, J.D. & G.E. Mingay (1966) The Agricultural Revolution, B.T.Batsford, London

Clark, J., J. Darlington & G. Fairclough (2004) *Using Historic Landscape Characterisation*, English Heritage and Lancashire County Council

Clarke, D.W. (1972) 'Pennine Aisled Barns', Vernacular Architecture 4: pp.25-7

Clarke, D.W. (1974) 'Aisled timber barns in the Pennines', Brigantian 3: pp.18–20

Clay, C. (1985) 'Landlords and Estate Management in England', in Thirsk, J. [Ed] Agrarian History of England and Wales 7, Cambridge University Press, Cambridge: pp.119–251

Cobbett, W. [Cole Ed.] (1930) Rural Rides, Peter Davies, London

Collins, E.J.T, A.K. Giles & J.G. Malleson (1989) Ernest Edward Cook and his country estates, University of Reading, Reading

Collins, E.J.T. (2000) The Agrarian History of England and Wales, Volume VII, 1850–1914, Cambridge University Press, Cambridge

Colvin, H. (1978, 1995, 3rd ed) *Biographical Dictionary of British Architects, 1600–1840*, Yale University Press, Newhaven and London

Colvin, H. & J. Newman [Eds.] (1981) Of Buildings: Roger North's Writings on Architecture, Oxford University Press, Oxford

Copland, S. (1866) Agriculture, Ancient and Modern, James Virtue, London

Curwen, J.C. (1809) General Hints on Agricultural Subjects, J. Johnson, London

Darley, G. (1981) The National Trust Book of the Farm, Weidenfeld & Nicholson, London

Dean, G.A. (1844) On the Construction of Farm Buildings, Charles Henry Knight, Worthing

Dean, G.A. (1850) 'On the Cost of Farm Buildings', JRASE 11: pp.558-73

Dean, G.A. (1851) The Land Steward, Atchley & Co., London

Dean, G.A. (1867) Selected Designs for Country Residences, Entrance Lodges, Farm Offices, Cottages, etc, Charles Henry Knight, Worthing

Dean, P. (1999) Sir John Soane and the Country Estate, Ashgate, Aldershot

Denton, J.B. (1864) The Farm Homesteads of England. A collection of plans of English homesteads existing in different parts of the country, Chapman & Hall, London

Denton, J.B. (1879) 'Report of the judges of the farm plans sent in for competition at the London International Exhibition, 1879', JRASE 2nd ser. 15: pp.774–81

Dyer, C. (1984) 'Evidence for Helms in Gloucestershire', Vernacular Architecture 15: pp.42-5

Dyer, C. (1986) 'English peasant building in the later Middle Ages', Medieval Archaeology 30: pp.19-43

Dyer, C. (1995) 'Sheepcotes: Evidence for Medieval Sheepfarming', Medieval Archaeology 39: pp.136-64

Dyer, C. (1997) 'History and Vernacular Architecture', Vernacular Architecture 28: pp. 1–8

Edwards, B. (2005) Farmsteads and Landscape Character in Hampshire – Pilot Project, unpublished report for English Heritage Forum Heritage Services

English Heritage (1998) Conservation-led Regeneration: the Work of English Heritage, English Heritage, London English Heritage (2000) Thatch and Thatching, a Guidance Note, English Heritage, London

Fox, C. (1952) The Personality of Britain, National Museum of Wales, Cardiff

Fletcher, T.W. (1960–61) 'The Great Depression of English Agriculture, 1873–1896', *Economic History Review* 2nd ser. 13: pp.417–32

Gardiner, M. (2000) 'Vernacular Buildings and the Development of the Later Medieval Domestic Plan in England', *Medieval Archaeology* **44**: pp.159–79

Giles, C. & S. Wade Martins [Eds] (1994) Recording Farm Buildings, Historic Farm Buildings Group, Norwich

Gray, P. (1998) Farmsteads and Farm Buildings in Surrey, Surrey County Council

Grey, J. (1843) 'On Farm Buildings', Journal of the Royal Agricultural Society of England 4: pp.12-13

Hallam, H.E. (1988) The Agrarian History of England and Wales, Volume II, 1042–1350, Cambridge University Press, Cambridge

Hall, A.D. (1913) A Pilgrimage of British Farming, John Murray, London

Hall, L. (1983) The Rural Houses of North Avon and South Gloucestershire, City of Bristol Museum and Art Gallery, Bristol

Hall, R de Z. (1972) A Bibliography of Vernacular Architecture, David and Charles, Newton Abbot

Hansell, P. & J. Hansell (2001) Dovecotes. Shire Publications, Princes Risborough

Harris, R. (1978) Discovering Timber-Framed Buildings, Shire Publications, Aylesbury

Harvey, N. (1984) A History of Farm Buildings in England and Wales, 2nd ed, David and Charles, Newton Abbot

Harvey, N. (1985) Historic Farm Building Study, Sources of Information, ADAS, MAFF

Hobbs, S. (ed) (2000) Wiltshire Glebe Terriers, 1588-1827, Wiltshire Record Society 56

Hooke, D. [Ed] (1985) The Medieval Village, Oxford University Committee for Archaeology, Oxford

Howkins, A. (1994) 'Peasants, servants and labourers: the marginal workforce in English agriculture', *Agricultural History Review* **42**: pp.49–62

Hudson, J. (1850) 'On the construction of farm buildings', JRASE 11: pp.280-82

Hunt, G. (1874) 'On concrete as a building material for Farm Buildings and Cottages', JRASE 2nd ser. 10: pp.211-32

Hunt, R. (1797) 'Essay on the design of farms, farm buildings, etc', Communications to the Board of Agriculture, Board of Agriculture, London

Hutton, K. (1976) 'The distribution of wheel houses in the British Isles', Agricultural History Review 24: pp.30–35

Jones, E.L. (1968) The Development of English Agriculture 1815–1873, Macmillan, London

Kennedy, A.T. (1988) 'The influence of wind on the orientation of threshing barns', *Vernacular Architecture* **19**: pp.19–23

Kent, N. (1775) Hints to Gentlemen of Landed Property, J. Dodsely, London

Kerridge, E. (1967) The Agricultural Revolution, George Allen & Unwin, London

Lake, J. (1989) Historic Farm Buildings, Blandford Press, London

Lake, J. & P. Gaskell (2002) 'Historic Farm Buildings: Audit and Evaluation'. *Conservation Bulletin* **42** (March 2002): pp.28–9

Lake, J. & B. Edwards (2006) 'Farmsteads and Landscapes: Towards an Integrated View', Landscapes, 7: pp. 1–36

Laurence, E. (1727) The Duty of a Steward to his Lord, John Shuckburgh, London

Lawrence, J. (1801) The Modern Land Steward, Symonds, London

Lawson, W. (1874) Ten years of Gentleman Farming at Blennerhasset, Longmans, London

Loch, J. An Account of the Improvements on the Estates of the Marquess of Stafford, Longmans, London

Loudon, J.C. (1831) Encyclopedia of Agriculture, 2nd ed, Longman Press, London

Lucas, R. (1997) 'When Did Norfolk Cross 'The Brick Threshold'?', Vernacular Architecture 28: pp.68-80

McCann, J. (1991) 'Enquiry into the Design and Use of Dovecotes', *Transactions of the Ancient Monuments Society* **35**: pp.88–162

McCann, J. (1996) 'The Influence of Rodents on the Design and Construction of Farm Buildings in Britain to the mid-19th Century', Journal of the Historic Farm Buildings Group 10: pp.1–28

McCann, J. (2004) Clay and Cob Buildings, Princes Risborough, Shire Publications

MacDonald, S. (1975) 'The progress of the early threshing machine', Agricultural History Review 24: pp.63-77

MacDonald, S. (1981) 'Model Farms' in Mingay, G.E. [Ed] *The Victorian Countryside* 1, Routledge & Kegan Paul, London: pp.214–26

Mercer, E. 'The unfulfilled wider implications of vernacular architecture studies', Vernacular Architecture 28: pp.9–12

Miller, E. (1991) The Agrarian History of England and Wales, Volume III 1350–1500, Cambridge University Press, Cambridge

Mingay, G.E. (1989) The Agrarian History of England and Wales, Volume VI 1750–1850, Cambridge University Press, Cambridge

Michelmore, D.J.H. (1979) A Current Bibliography of Vernacular Architecture, Vernacular Architecture Group

Moir, J. (1997) 'Vernacular Architecture: Open Air Museums and the Ecological Framework', *Vernacular Architecture* **28**: pp.20–24

Moir, J. & J. Letts (1999) *Thatch Thatching in England 1790–1940*, English Heritage Research Transactions **5**, James and James, London

Morton, J.C. (1842) On the Nature and Property of Soils, 4th ed., J. Ridgeway, London

Morton, J.C. (1855) Cyclopedia of Agriculture, Blackie & Sons, Glasgow

Morton, J.C. (1863) The Prince Consort's Farms, Longmans, London

Morton, J.C. (1868) 'Town Milk' in JRASE 2nd ser. 5: pp.69–98

Moscrop, W.J. (1865) 'Covered cattle yards' in JRASE 2nd ser. 1: pp.88–99

Moscrop, W.J. (1872) 'On the housing of fattening cattle', *Transactions of the Highland and Agricultural Society of Scotland* 4th ser. **4**: pp.156–165

Moscrop, W.J. (1890) 'Covered Cattle Yards' in JRASE 3rd ser. 1: pp.473-90

Needham, S. (1984) 'Helms, hovels and belfreys: more evidence from probate inventories', *Vernacular Architecture* **15**: pp.45–6

Ojala, E.M. (1952) Agriculture and Economic Progress, Oxford University Press, Oxford

Orwin, C.S. & E.H. Wretham (1971) History of British Agriculture, 1846–1914, David and Charles, Newton Abbot

Overton, M. (1996) Agricultural Revolution in England 1500-1850, Cambridge University Press, Cambridge

OAU (1995) Dovecotes, Monuments Protection Programme Step 1 Report, Oxford Archaeological Unit for English Heritage

Pattison, I.R., D.S. Pattison & N.W. Alcock (1992) A Bibliography of Vernacular Architecture, Vol III, 1977–1989, Vernacular Architecture Group

Pattison, I.R., D.S. Pattison & N.W. Alcock. (1999) A Bibliography of Vernacular Architecture, Vol III, 1990–1994, Vernacular Architecture Group

Perren, R. (1970) 'Landlords and Agricultural Transformation, 1870–1900', Agricultural History Review 18: pp.36–51

Perren, R. (1973) 'The Landlord and Agricultural Transformation 1870–1900' in Perry, P.J., [Ed.] *British Agriculture* 1875–1914, Methuen, London: pp.109–28

Perry, P.J. (1974) British Farming in the Great Depression, 1870–1914: An historical geography, David and Charles, Newton Abbot

Perry, P.J. (1981) 'High Farming in Victorian Britain', Agricultural History 55: pp.156–65

Peters, J.E.C. (1969) The Development of Farm Buildings in West Lowland Staffordshire up to 1880, Manchester University Press, Manchester

Peters, J.E.C. (1981) Discovering Farm Buildings, Shire Publications, Aylesbury

Platt, C. (1969) The Monastic Grange in Medieval England: a reassessment, Macmillan, London

Rackham, O. (1972) 'Grundle House: on the quantities of timber in certain East Anglian buildings in relation to local supplies', *Vernacular Architecture* **3**: pp.3–8

Rigold, S. (1973) 'The distribution of aisled timber barns', Vernacular Architecture 2: pp.20–22

Rippon, S., with Clark, J. (2004) *Historic Landscape Analysis: Deciphering the Countryside*, Council for British Archaeology, York.

Roberts, B.K. (1977) Rural Settlement in Britain, Hutchinson University Press, London.

Roberts, B.K. The Making of the English Village, Batsford, London

Roberts, B.K. (1996) Landscapes of Settlement. Prehistory to the Present, Routledge, London.

Roberts, B.K. & S. Wrathmell (2000) An Atlas of Rural Settlement in England, English Heritage, London

Roberts, B.K. & S. Wrathmell (2002) Region and Place A study of English rural settlement, English Heritage, London

Robinson, J.M. (1983) Georgian Model Farms, Oxford University Press, Oxford

Robinson, J.M. (1988) The English Country Estate, National Trust/Century, London

Ryan, C. (1988) 'An Introduction to the Recording of Farm Buildings', *Journal of the Historic Farm Buildings Group* **2**: pp.56–9

Scott, J. (1885) Text Book of Farm Engineering: Part 4, Buildings, Crosby Lockwood & Co., London

Shaw, J. (1990) 'Pastures in the Sky: Scottish Tower Silos 1918–1939', *Journal of the Historic Farm Buildings Group* **4**: pp.73–91

Sheldon, J.P. (1879) Dairy Farming, Cassell, London

Sheldon, J.P. (1908) British Dairying, 3rd ed, Crosby Lockwood, London

Smith, J.T. (1965) 'Timber Framed Building in England – its development and regional differences', *Archaeological Journal* 122: pp.133–58

Smith, P. (1975) Houses of the Welsh Countryside. London, HMSO

Smith, P. (1980) 'The Architectural Personality of the British Isles' Archaeologia Cambrensis: pp. 1–36

Spooner, W.C. & J. Elliott (1850) 'On the Construction of Farm Buildings', JRASE 9: pp.270-82

Stamp, L.D. [Ed.] (1937–44) The Land of Britain, Royal Geographical Society, London

Stephens, H. (1844) Book of the Farm, 4th ed, W. Blackwood, London

Sturgess, T. (1850) 'Farm Buildings', JRASE 11: pp.288–99

Taylor, C.C. (1983) Village and Farmstead: A History of Rural Settlement in England, George Philip, London

Tancred, T. (1850) 'On the Construction of Farm Buildings', JRASE 11: pp.192-214

Thirsk, J. [Ed.] (1967) The Agrarian History of England and Wales, Volume IV, 1500–1640, Cambridge University Press, Cambridge

Thirsk, J. [Ed.] (1984) The Agrarian History of England and Wales, Volume V.i, 1640–1750 (Regional Farming Systems), Cambridge University Press, Cambridge

Thirsk, J. [Ed.] (1985) The Agrarian History of England and Wales, Volume V.ii, 1640–1750 (Agrarian Change), Cambridge University Press, Cambridge

Thirsk, J. [Ed.] (2000) The English Rural Landscape, Oxford University Press, Oxford

Thirsk, J. (1987) England's Agricultural Regions and Agricultural History, 1500–1750, Macmillan, London

Thompson, F.M.L. (1959) 'Agriculture since 1870', Victoria History of the Counties of England: A History of Wiltshire **4**, University of London, London

Thompson, F.M.L. (1963) English Landed Society in the 19th Century, Routledge & Kegan Paul, London

Turner, M. (1980) English Parliamentary Enclosure, Dawson, Folkestone

Walton, J.R. (1973) A Study in the Diffusion of Agricultural Machinery in the 19th Century, Oxford School of Geography Research Paper No. 5

Wade Martins, S. (1980) A Great Estate at Work, Cambridge University Press, Cambridge

Wade Martins, S. (1991) Historic Farm Buildings, B.T.Batsford, London

Wade Martins, S. (1995) Farms and Fields, B.T.Batsford, London

Wade Martins, S. (2002) The English Model Farm, Windgather Press, Macclesfield

Wade Martins, S. & T. Williamson (1999) 'The Roots of Change', Agricultural History Review Monograph, British Agricultural History Society, Exeter

Waistell, C. (1827) Designs for Agricultural Buildings, Longmans, London

Warren, J.W. [Ed] (1990) Wealden Buildings, Wealden Buildings Study Group Coach Publications, Horsham

Whetham, E. (1978) The Agrarian History of England and Wales, Volume VIII, 1914–1939, Cambridge University Press, Cambridge

Wiliam, E. (1986) The Historical Farm Buildings of Wales, John Donald, Edinburgh

Wiliam, E. (1987) 'The use of barns', Journal of the Historic Farm Buildings Group 1: pp.16-24

Young, A. (1764) 'Common farmers vindicated from the charges of being universally ignorant', Museum Rusticanum 3

Young, A. (1770) A Farmer's Guide to the Hiring and Stocking of Farms, W. Strachan, London

Young, A. (1771) A Farmer's Tour through the North of England, 4 vols, W. Strachan, London

Young, A. (1784) 'A Minute of the Husbandry at Holkham by Thomas William Coke', Annals of Agriculture 11: p.382

Young, A. (1793) General View of the Agriculture of Yorkshire, Board of Agriculture, London

Young, A. (1804) General View of the Agriculture of Norfolk, Board of Agriculture, London

Young, A. (1808) General View of the Agriculture of Sussex, Board of Agriculture, London

Young, A. (1809) General View of the Agriculture of Oxfordshire, Board of Agriculture, London

Young, A. (1813) General View of the Agriculture of Suffolk, Board of Agriculture, London

10.3 REGIONAL BIBLIOGRAPHY

Adams, M. & P. Carne (1995) 'Survey of a Farmstead at Low Cleughs Burn, Corsenside, Northumberland', in *Durham Archaeological Journal* 11: pp.85–95

Aston, M., D. Austin & C. Dyer (Eds) (1989) The Rural Settlements of Medieval England, Oxford University Press, Oxford

Atkinson, F. (1977) Life and Tradition in Northumberland and Durham, Smith Settle, Otley

Bailey, J. & G. Culley (1797) A General View of the Agriculture of Northumberland, Board of Agriculture, London

Bailey, J. (1810) A General View of the Agriculture of Durham, Board of Agriculture, London

Barnwell, P.S. (2000) 'Rural Industrial Revolutions: The Evidence of Agricultural Buildings in Northumberland and Cheshire', *Northern History* **37**: pp. I 57–78.

Bolter, V., M. Gould & R. Young (1993) 'Southwitton Farmstead, Northumberland', *Northumbrian Building Studies* 1: pp. 1–6

Bolter, V., M. Gould, R. Gould, D. Ridley & L. Charlton (1994) 'Southwitton Farmstead, Northumberland', *Northumbrian Building Studies* (Traditional Architecture Group, University of Newcastle upon Tyne), 1: pp.29–38

Bolter, V. & E. Gould (2002) 'Ladythorne Cottage, Cheswick, Northumberland', *Northumbrian Building Studies* (Traditional Architecture Group, University of Newcastle upon Tyne), **4**: pp. 15–28

Brassley, P. (1984) 'Northumberland and Durham', in Thirsk (Ed) The Agrarian History of England and Wales

Brunskill, R.W. (1975) 'The Vernacular Architecture of the Northern Pennines', Northern History 2: pp.107-42

Butlin, R.A. (1964) 'Northumberland Field Systems', Agricultural History Review 12: pp.99–120

Carlton, R. & A. Rushworth (2004) 'Low Cleughs. A bastle in its landscape.' in Frodsham, P. (Ed) (2004)

Chapman, V. (1970) 'The Inclosures and Village of Bolam', *Transactions of the Architectural and Archaeological Society of Durham and Northumberland*, new series **2**: pp.83–101

Chapman, V. (1978) 'Cruck Framed Buildings in the Vale of Tees' in *Transactions of the Architectural and Archaeological Society of Durham and Northumberland*, new series **4**: pp.35–42

Chapman, V. (1982) 'Heather-Thatched Buildings in the Northern Pennines', *Transactions of the Architectural and Archaeological Society of Durham and Northumberland*, new series **6**: pp.9–12

Chapman, V. (1983) 'Rural Durham' in Durham C.C.', Local History Publications 11

Chapman, V. (1991) 'Farmsteads in County Durham', Journal of the Historic Farm Buildings Group 5: pp.64-7

Clack, P. & Ivy, I. (Eds) (1985) Making Sense of Buildings, Council for British Archaeology Group 3, Durham

Clack, P.A.G. (1980) 'Post Medieval Farms in Shadforth', *Transactions of the Architectural and Archaeological Society of Durham and Northumberland*, new series **5**: pp.97–105

Clack, P.A.G. (1982) 'The Browney Valley', Transactions of the Architectural and Archaeological Society of Durham and Northumberland, new series **6**: pp.13–17

- Coggins, D. (1992) 'Shielings and Farmsteads: early rectangular buildings in Upper Teesdale', *Durham Archaeological Journal* 8: pp.77–83
- Collier, C. & Stewart, L.A. (1987) Wooler and Glendale; a brief History of Glendale 11, Glendale Local History Society
- DAC (Durham Archaeology Committee) (c1985) The Archaeology of the Durham Dales, unpublished report, Durham University
- Dixon, P.J. (1984) The Deserted medieval Villages of North Northumbria 2, unpublished Ph.D. thesis, University of Wales Dixon, P. (1979) 'Towerhouses, Pelehouses and Border Society', Archaeological Journal 136: pp.240–52
- Dixon, P. (1972) 'Shielings and bastles: a reconsideration of some of the problems', *Archaeologia Aeliana* 4th series, **50**: pp.249–58
- Emery, N. (1986) 'Fell Close Farm and the use of 'Black Thack', *Durham Archaeological Journal* 2: pp.91–6 Edwards, L. J. (1985) 'Surviving pre-19th century farm buildings on the Bearpark Estate, Durham' in Clack & Ivy (1985) pp.95–106
- Emery, N. (1994) 'Materials and methods: Some Aspects of Building in County Durham 1600–1930', *Durham Archaeological Journal* 10: pp.113–20
- Emery, N., Warner, J. & Pearson, A. (1990) 'Causeway House, Northumberland', *Archaeologia Aeliana* 5th series, **19**: pp.131–41
- Fairless, K.J.N. (1980) 'Grange Farm A Cross Passage House', *Transactions of the Architectural and Archaeological Society of Durham and Northumberland*, new series **5**: pp.81–9
- Frodsham, P. (Ed.) (2004) Archaeology in Northumberland National Park, Council for British Archaeology Research Report 136, York
- Hillelson, D. (1984) 'Barney Byre: A Farmstead in Upper Teesdale', *Durham Archaeological Journal* 1: pp.51–61 Hodgson, J.C. (1915) 'The Northern Journeys of Bishop Richard Pococke 1760', *North Country Diaries*, Surtees Society 11th ed. **74**: p.220
- Hughes, M. (1967) 'Some Northumbrian Farmsteads', Bulletin of the Industrial Archaeology Group for the North East 2: pp.??
- Jarrett, M.G. (1987) 'The Deserted village of West Whelpington: 3rd Report, Part 1', *Archaeologia Aeliana* 5th series 15: pp.199–308
- Jarrett, M.G. and Wrathmell, S. (1977) 'Sixteenth and seventeenth-century farmsteads: West Whelpington, Northumberland', *Agricultural History Review*, **25**: pp.108–19
- Kempe, D. 1992 'Some Northumbrian Dovecotes', Journal of the Historic Farm Buildings Group 6: pp.73-6
- Lax, A. (1999) 'Border Troubles and Border Farmers: A Study of Bastle Houses in the Upper Tarset Valley, Northumberland', Northern Archaeology 17–18: pp. 165–72
- Linsley, S. (1985) 'The fixed barn threshing machine and its influence on farmstead layout in Northumberland' in Clack and Ivy (1985): pp.117–35
- McCord, N. (1995) 'Some Aspects of Change in the Nineteenth Century North-East', *Northern History*: pp.241–66 McWilliam, C. (1978) *The Buildings of Scotland: Lothian*, Penguin Books, London
- MacDonald, S. (1978) 'The early threshing machine in Northumberland' in *Tools and Tillage* 3, National Museum of Denmark, Copenhagen: pp.168–84
- Newton, R. (1972) The Northumberland Landscape, Hodder and Stoughton, London NEVAG (North East Vernacular Architecture Group) (1997) Building Studies I
- Pevsner, N., Grundy, J., McCombie, G., Ryder P. & Welfare H. (2nd Ed, 1992) The Buildings of England: Northumberland, Penguin Books, London
- Ramm, H.G., McDowell, R.W., & Mercer, E. (1970) Shielings and Bastles, HMSO., London
- Roberts, M (1980) 'Cruck-Framed Roofs in the City of Durham Preliminary Notes on Identified Examples', Transactions of the Architectural and Archaeological Society of Durham and Northumberland, new series **5**: pp.91–6

Roberts, M., Laxton, R., Howard R. & Litton, C. (1999) 'The Buildings of the Religious Estates in Medieval Durham; a Tree-Ring Dating Project', *Durham Archaeological Journal* 14–15: pp.141–60

Ryder, P.F. (1990) Howtel Tower, Kilham, Northumbria, unpublished MS

Ryder, P.F. (1992) 'Bastles and bastle-like Buildings in Allendale, Northumbria', *Archaeological Journal* 149: pp.351–79 Ryder, P.F. (1996) 'Bastle Houses in the Northern Pennines', VAG Booklet Spring Conference, A Northern Heritage

Trust Publication

Ryder, P.F. (2004) 'Towers and Bastles in Northumberland National Park', in Frodsham (Ed.): pp.262-71

Scott, A.R.N. (1985) 'Farmhouses in Durham City' in Clack and Ivy (1985): pp.107-15

Tuck, J. A. (1991) 'The Northern Borders' in Miller (ed) The Agrarian History of England and Wales

V.A.G. (1998) Northumberland, Spring 1998 (conference booklet)

Whittaker, T. (2001) 'The Bank Barns of Cumbria – an overview', *Journal of the Historic Farm Buildings Group* **15**: pp.4–64

Winchester, A. (2003) The Harvest of the Hills. Rural Life in Northern England and the Scottish Borders, 1400–1700, Edinburgh University Press, Edinburgh

Wrathmell, S. (1977) 'Sixteenth and seventeenth century farmsteads: West Whelpington, Northumberland', Agricultural History Review 25: pp.108–19

Wrathmell, S. (1989a) 'Peasant houses, farmsteads and villages in north-east England' in Aston, Austin & Dyer (Eds) The Rural Settlements of Medieval England, Oxford University Press, Oxford

Wrathmell, S. (1989b) Domestic Settlement 2: Medieval Peasant Farmsteads, York University Archaeological Publications 8

II.0 Joint Character Area Descriptions: URLs for PDF Documents

- North Northumberland Coastal Plain www.countryside.gov.uk/lmages/JCA01_tcm2-21114.pdf
- 2 Northumberland Sandstone Hills www.countryside.gov.uk/lmages/JCA02_tcm2-21115.pdf
- 3 Cheviot Fringe www.countryside.gov.uk/Images/JCA03_tcm2-21116.pdf
- 4 Cheviots www.countryside.gov.uk/Images/JCA04_tcm2-21117.pdf
- 5 Border Moors and Forests www.countryside.gov.uk/Images/JCA5_tcm2-21066.pdf
- 6 Solway Basin www.countryside.gov.uk/Images/JCA6_tcm2-21068.pdf
- 7 West Cumbria Costal Plain www.countryside.gov.uk/lmages/JCA7_tcm2-21069.pdf
- 8 Cumbria High Fells www.countryside.gov.uk/lmages/JCA8_tcm2-21070.pdf
- 9 Eden Valley www.countryside.gov.uk/Images/JCA9_tcm2-21071.pdf
- 10 North Pennines www.countryside.gov.uk/lmages/JCA10_tcm2-21072.pdf
- II Tyne Gap and Hadrian's Wall www.countryside.gov.uk/lmages/JCAII_tcm2-21073.pdf
- 12 Mid Northumberland www.countryside.gov.uk/lmages/JCA12_tcm2-21120.pdf
- 13 South East Northumberland Coastal Plain www.countryside.gov.uk/lmages/JCA13_tcm2-21121.pdf
- 14 Tyne and Wear Lowlands www.countryside.gov.uk/Images/JCA14_tcm2-21122.pdf
- 15 Durham Magnesian Limestone Plateau www.countryside.gov.uk/lmages/JCA15_tcm2-21123.pdf
- 16 Durham Coalfield www.countryside.gov.uk/Images/JCA16_tcm2-21124.pdf
- 17 Orton Fells www.countryside.gov.uk/lmages/JCA17_tcm2-21074.pdf
- 18 Howgill Fells www.countryside.gov.uk/Images/JCA18_tcm2-21075.pdf
- 19 South Cumbria Low Fells www.countryside.gov.uk/Images/JCA19_tcm2-21077.pdf
- 20 Morecambe Bay Limestones www.countryside.gov.uk/lmages/JCA20_tcm2-21078.pdf
- 21 Yorkshire Dales www.countryside.gov.uk/lmages/JCA21_tcm2-21079.pdf
- 22 Pennine Dales Fringe www.countryside.gov.uk/lmages/JCA22_tcm2-21125.pdf
- 23 Tees Lowlands www.countryside.gov.uk/lmages/|CA23_tcm2-21126.pdf
- 24 Vale of Mowbray www.countryside.gov.uk/Images/JCA24_tcm2-21128.pdf
- 25 North Yorkshire Moors and Cleveland Hills www.countryside.gov.uk/lmages/JCA25_tcm2-21129.pdf
- 26 Vale of Pickering www.countryside.gov.uk/Images/JCA26_tcm2-21131.pdf
- 27 Yorkshire Wolds www.countryside.gov.uk/Images/JCA27_tcm2-21132.pdf
- 28 Vale of York www.countryside.gov.uk/Images/JCA28_tcm2-21133.pdf
- 29 Howardian Hills www.countryside.gov.uk/lmages/JCA29_tcm2-21134.pdf
- 30 Southern Magnesian Limestone www.countryside.gov.uk/Images/JCA30_tcm2-21135.pdf
- 31 Morecambe Bay and Lune Estuary www.countryside.gov.uk/Images/JCA31_tcm2-21080.pdf
- 32 Lancashire and Amounderness Plain www.countryside.gov.uk/Images/|CA32_tcm2-21082.pdf
- 33 Bowland Fringe and Pendle Hill www.countryside.gov.uk/lmages/JCA33_tcm2-21083.pdf
- 34 Bowland Fells www.countryside.gov.uk/lmages/JCA34_tcm2-21084.pdf
- 35 Lancashire Valleys www.countryside.gov.uk/Images/JCA35_tcm2-21085.pdf
- **36 Southern Pennines** www.countryside.gov.uk/lmages/JCA36_tcm2-21086.pdf
- 37 Yorkshire Southern Pennine Fringe www.countryside.gov.uk/lmages/JCA37_tcm2-21136.pdf
- 38 Nottinghamshire Derbyshire and Yorkshire Coalfield www.countryside.gov.uk/lmages/JCA38_tcm2-21137.pdf
- 39 Humberhead Levels www.countryside.gov.uk/Images/JCA39_tcm2-21138.pdf
- 40 Holdemess www.countryside.gov.uk/Images/JCA40_tcm2-21139.pdf
- 41 Humber Estuary www.countryside.gov.uk/lmages/JCA41_tcm2-21140.pdf
- 42 Lincolnshire Coast and Marshes www.countryside.gov.uk/lmages/JCA42_tcm2-21141.pdf
- 43 Lincolnshire Wolds www.countryside.gov.uk/lmages/JCA43_tcm2-21142.pdf
- 44 Central Lincolnshire Vale www.countryside.gov.uk/lmages/JCA44_tcm2-21143.pdf
- 45 Northern Lincolnshire Edge With Coversands www.countryside.gov.uk/lmages/JCA45+47_tcm2-21144.pdf
- 46 The Fens www.countryside.gov.uk/Images/JCA46_tcm2-21145.pdf
- 47 Southern Lincolnshire Edge www.countryside.gov.uk/lmages/JCA45+47_tcm2-21144.pdf
- 48 Trent and Belvoir Vales www.countryside.gov.uk/Images/JCA48_tcm2-21146.pdf
- **49** Sherwood www.countryside.gov.uk/Images/JCA49_tcm2-21147.pdf
- 50 Derby Peak Fringe www.countryside.gov.uk/Images/JCA50_tcm2-21148.pdf
- 51 Dark Peak www.countryside.gov.uk/Images/JCA51_tcm2-21087.pdf

- 52 White Peak www.countryside.gov.uk/Images/JCA52_tcm2-21149.pdf
- 53 South West Peak www.countryside.gov.uk/Images/JCA53_tcm2-21088.pdf
- 54 Manchester Pennine Fringe www.countryside.gov.uk/lmages/JCA54_tcm2-21089.pdf
- 55 Manchester Conurbation www.countryside.gov.uk/lmages/JCA55_tcm2-21090.pdf
- 56 Lancashire Coal Measures www.countryside.gov.uk/Images/JCA56_tcm2-21091.pdf
- 57 Sefton Coast www.countryside.gov.uk/lmages/JCA57_tcm2-21095.pdf
- 58 Merseyside Conurbation www.countryside.gov.uk/lmages/JCA58_tcm2-21096.pdf
- 59 Wirral www.countryside.gov.uk/Images/JCA59_tcm2-21097.pdf
- 60 Mersey Valley www.countryside.gov.uk/Images/JCA60_tcm2-21098.pdf
- 61 Shropshire Cheshire and Staffordshire Plain www.countryside.gov.uk/lmages/JCA61+62_tcm2-21100.pdf
- 62 Cheshire Sandstone Ridge 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
- **Potteries and Churnet Valley** www.countryside.gov.uk/lmages/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
- **Mid Severn Sandstone Plateau** www.countryside.gov.uk/lmages/JCA066%20-%20Mid%20Severn%20Sandstone%20Plateau_tcm2-21177.pdf
- **Cannock Chase and Cank Wood** 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/lmages/|CA68_tcm2-21150.pdf
- **69 Trent Valley Washlands** www.countryside.gov.uk/Images/JCA69_tcm2-21151.pdf
- 70 Melbourne Parklands www.countryside.gov.uk/lmages/JCA70_tcm2-21152.pdf
- 71 Leicestershire and South Derbyshire Coalfield www.countryside.gov.uk/lmages/JCA71_tcm2-21153.pdf
- 72 Mease/Sence Lowlands www.countryside.gov.uk/Images/JCA72_tcm2-21154.pdf
- 73 Charnwood www.countryside.gov.uk/Images/JCA73_tcm2-21155.pdf
- 74 Leicestershire and Nottinghamshire Wolds www.countryside.gov.uk/lmages/JCA74_tcm2-21156.pdf
- 75 Kesteven Uplands 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
- 77 North Norfolk Coast 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
- 79 North East Norfolk and Flegg www.countryside.gov.uk/lmages/JCA079%20-%20North%20East%20Norfolk%20and%20Flegg_tcm2-21182.pdf
- 80 The Broads www.countryside.gov.uk/Images/|CA080%20-%20The%20Broads_tcm2-21183.pdf
- **Greater Thames Estuary** 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
- 83 South Norfolk and High Suffolk Claylands www.countryside.gov.uk/Images/JCA083%20-%20South%20Norfolk%20and%20High%20Suffolk%20Claylands_tcm2-21186.pdf
- **Mid Norfolk** www.countryside.gov.uk/lmages/JCA078+084%20-%20Central%20North%20Norfolk%20+%20Mid%20Norfolk_tcm2-21181.pdf
- 85 Breckland www.countryside.gov.uk/lmages/JCA085_tcm2-21187.pdf
- **South Suffolk and North Essex Clayland** www.countryside.gov.uk/lmages/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
- 88 Bedfordshire and Cambridgeshire Claylands www.countryside.gov.uk/lmages/JCA88_tcm2-21158.pdf
- **89** Northamptonshire Vales www.countryside.gov.uk/Images/JCA89+94_tcm2-21159.pdf
- 90 Bedfordshire Greensand Ridge www.countryside.gov.uk/lmages/JCA090_tcm2-21190.pdf
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- 92 Rockingham Forest www.countryside.gov.uk/Images/JCA92_tcm2-21161.pdf
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- 94 Leicestershire Vales www.countryside.gov.uk/lmages/JCA89+94_tcm2-21159.pdf
- 95 Northamptonshire Uplands www.countryside.gov.uk/lmages/JCA95_tcm2-21163.pdf

- 96 Dunsmore and Feldon www.countryside.gov.uk/lmages/JCA96_tcm2-21164.pdf
- 97 Arden www.countryside.gov.uk/Images/JCA097%20-%20%20Arden_tcm2-21191.pdf
- 98 Clun and North West Herefordshire Hills www.countryside.gov.uk/lmages/JCA098%20-%20Clun%20and%20North%20West%20Herefordshire%20Hills_tcm2-21192.pdf
- **99 Black Mountains and Golden Valley** www.countryside.gov.uk/lmages/JCA099%20-%20Black%20Mountains%20and%20Golden%20Valley_tcm2-21193.pdf
- **100 Herefordshire Lowlands** www.countryside.gov.uk/Images/JCA100%20-%20Herefordshire%20Lowlands_tcm2-21194.pdf
- **101 Herefordshire Plateau** www.countryside.gov.uk/lmages/JCA101+102%20-%20Herefordshire%20Plateau%20+%20Teme%20Valley_tcm2-21195.pdf
- **Teme Valley** www.countryside.gov.uk/lmages/JCA101+102%20-%20Herefordshire%20Plateau%20+%20Teme%20Valley_tcm2-21195.pdf
- 103 Malvern Hills www.countryside.gov.uk/Images/JCA103%20-%20Malvern%20Hills_tcm2-21196.pdf
- 104 South Herefordshire & Over Severn www.countryside.gov.uk/Images/JCA104%20-%20South%20Herefordshire%20and%20Over%20Severn_tcm2-21197.pdf
- **Forest of Dean and Lower Wye** www.countryside.gov.uk/lmages/JCA105%20-%20Forest%20of%20Dean%20and%20Lower%20Wye_tcm2-21198.pdf
- **Severn and Avon Vales** 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
- **108 Upper Thames Clay Vales** 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
- 110 The Chilterns www.countryside.gov.uk/Images/JCA110%20-%20Chilterns_tcm2-21203.pdf
- III Northern Thames Basin www.countryside.gov.uk/Images/JCAIII_tcm2-21204.pdf
- 112 Inner London www.countryside.gov.uk/Images/JCA112_tcm2-21516.pdf
- 113 North Kent Plain www.countryside.gov.uk/lmages/JCA113_tcm2-21533.pdf
- 114 Thames Basin Lowlands www.countryside.gov.uk/Images/JCA114_tcm2-21554.pdf
- 115 Thames Valley www.countryside.gov.uk/Images/JCA115_tcm2-21205.pdf
- 116 Berkshire and Marlborough Downs www.countryside.gov.uk/lmages/JCA116%20-%20Berkshire%20and%20Marlborough%20Downs_tcm2-21206.pdf
- 117 Avon Vales www.countryside.gov.uk/lmages/ICA117%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
- 119 North Downs www.countryside.gov.uk/lmages/JCA119_tcm2-21553.pdf
- 120 Wealden Greensand www.countryside.gov.uk/lmages/JCA120_tcm2-21552.pdf
- 121 Low Weald www.countryside.gov.uk/Images/JCA121_tcm2-21571.pdf
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- 124 Pevensey Levels www.countryside.gov.uk/lmages/JCA124_tcm2-21631.pdf
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- 126 South Coast Plain www.countryside.gov.uk/Images/JCA126_tcm2-21630.pdf
- 127 Isle of Wight www.countryside.gov.uk/Images/JCA127_tcm2-21660.pdf
- 128 South Hampshire Lowlands www.countryside.gov.uk/Images/JCA128_tcm2-21661.pdf
- 129 Thames Basin Heaths www.countryside.gov.uk/lmages/JCA129_tcm2-21662.pdf
- 130 Hampshire Downs 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
- **Salisbury Plain and West Wiltshire Downs** 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/lmages/JCA133%20-%20Blackmoor%20Vale%20and%20Vale%20of%20Wardour_tcm2-21212.pdf
- **134 Dorset Downs and Cranborne Chase** www.countryside.gov.uk/lmages/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
- 136 South Purbeck 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

- 138 Weymouth Lowlands www.countryside.gov.uk/Images/JCA137+138%20-%20Isle%20of%20Portland%20%20+%20Weymouth%20Lowlands_tcm2-21216.pdf
- **Marshwood and Powerstock Vales** www.countryside.gov.uk/lmages/JCA139%20-%20Marshwood%20and%20Powerstock%20Vales_tcm2-21217.pdf
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- 141 Mendip Hills www.countryside.gov.uk/Images/JCA141%20-%20Mendip%20Hills_tcm2-21219.pdf
- **142 Somerset Levels and Moors** www.countryside.gov.uk/lmages/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
- 144 Quantock Hills www.countryside.gov.uk/lmages/JCA144%20-%20Quantock%20Hills_tcm2-21221.pdf
- **145 Exmoor** www.countryside.gov.uk/Images/JCA145%20-%20Exmoor_tcm2-21222.pdf
- **146 Vale of Taunton and Quantock Fringe** www.countryside.gov.uk/lmages/JCA146%20-%20Vale%20of%20Taunton%20and%20Quantock%20Fringes_tcm2-21223.pdf
- 147 Blackdowns 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
- 149 The Culm 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
- 151 South Devon www.countryside.gov.uk/Images/JCA151%20-%20South%20Devon_tcm2-21228.pdf
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- 154 Hensbarrow www.countryside.gov.uk/Images/JCA154%20-%20Hensbarrow_tcm2-21231.pdf
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