



Historic Farmsteads

Preliminary Character Statement: East Midlands Region



ENGLISH HERITAGE



The Countryside Agency
**Landscape
Access
Recreation**

Acknowledgements

The text of this document was prepared by Jeremy Lake and Bob Edwards with contributions to the area sections from Dave Went and to the regional and national sections from Susanna Wade Martins,, and with additional assistance by Peter Gaskell and Julie Ryan. It was designed by Steve Dent and edited by Nicki Marshall of BiscuitBox Ltd. The research project was commissioned by English Heritage and the Countryside Agency and managed by Peter Gaskell of the University of Gloucestershire. The assistance of the following people is gratefully acknowledged: Freya Edwards and Alison Smith and the many farmers and owners of buildings who gave their time to discuss their farm buildings and allowed access for photography.

This document is one of eight Preliminary Character Statements, which provide information on the characteristics of traditional farm buildings in each Region. They can be viewed and downloaded at www.helm.org.uk/ruraldevelopment and at www.ahds.ac.uk.

English Heritage is the Government's adviser on the historic environment. Central to the role of English Heritage is the advice it gives to local planning authorities, government departments and others on the conservation of historic buildings, sites and areas, archaeology on land and underwater, designed landscapes and the historic aspects of the landscape as a whole. English Heritage also has a duty to enhance people's understanding and enjoyment of their heritage and, as part of this, it manages an estate of over 400 historic properties open to the public.

The Countryside Agency is the statutory body working to conserve and enhance England's countryside. The aim of the Countryside Agency's Landscape, Access and Recreation division is to help everyone respect, protect and enjoy the countryside, protect natural landscapes, and encourage access to, enjoyment of and sustainable management and use of the countryside.

In accordance with the Natural Environment and Rural Communities Act 2006, English Nature, the Rural Development Service and the Countryside Agency's Landscape, Access and Recreation division are working towards integration as a single body: Natural England. It will work for people, places and nature with responsibility for enhancing biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas, promoting access, recreation and public well-being, and contributing to the way natural resources are managed so that they can be enjoyed now and for future generations.

The document should be cited as: **Historic Farmsteads. Preliminary Character Statement: East Midlands Region.**

Published in August 2006 by the University of Gloucestershire in association with English Heritage and the Countryside Agency.

Copyright 2006 Authors, University of Gloucestershire, English Heritage and the Countryside Agency

The text in this document may be reproduced free of charge in any format or medium without specific permission, subject to the material not being used in a derogatory way. The copyright holders must be acknowledged, and the title of the publication must be included in any published reference.

All photographs and illustrations are individually credited.

Countryside and Community Research Unit
Dunholme Villa
The Park
Cheltenham
Gloucestershire
GL50 2RF

Contents

SUMMARY	6	4.1.4.1 Survival and value	29
1.0 INTRODUCTION	10	4.1.5 1940 to the present	29
2.0 UNDERSTANDING CONTEXT AND CHARACTER	12	4.2 FARMING IN THE EAST MIDLANDS	30
2.1 LANDSCAPE CHARACTER AND CHARACTERISATION	12	4.2.1 Nottinghamshire, Derbyshire and Yorkshire Coalfield	31
2.2 THE CHARACTER OF THE EAST MIDLANDS REGION: AN INTRODUCTION	12	4.2.2 Lincolnshire Coast and Marshes	31
2.3 THE CHARACTER OF RURAL SETTLEMENT	15	4.2.3 Lincolnshire Wolds	31
2.3.1 National Framework	15	4.2.4 Central Lincolnshire Vale	32
2.3.2 Rural Settlement in the East Midlands	15	4.2.5 Northern Lincolnshire Edge with Coversands/ Southern Lincolnshire Edge	32
3.0 BUILDING MATERIALS	18	4.2.6 The Fens	32
3.1 NATIONAL OVERVIEW	18	4.2.7 Trent and Belvoir Vales	32
3.1.1 Walling	19	4.2.8 Sherwood	33
3.1.1.1 Temporary structures	19	4.2.9 Derbyshire Peak Fringe and Lower Derwent	33
3.1.1.2 Mass walling	19	4.2.10 Dark Peak	34
3.1.1.3 Timber frame	19	4.2.11 White Peak	35
3.1.1.4 Timber cladding	20	4.2.12 Needwood and South Derbyshire Claylands	36
3.1.1.5 Corrugated iron	20	4.2.13 Trent Valley Washlands	37
3.1.2 Roofing	20	4.2.14 Melbourne Parklands	37
3.1.2.1 Thatch	20	4.2.15 Leicestershire and South Derbyshire Coalfield	37
3.1.2.2 Plain clay tiles and stone slates	20	4.2.16 Mease/Sence Lowlands	37
3.1.2.3 Corrugated iron and other prefabricated modern materials	20	4.2.17 Charnwood	37
3.2 BUILDING MATERIALS IN THE EAST MIDLANDS	21	4.2.18 Leicestershire and Nottinghamshire Wolds	37
3.2.1 Walling	21	4.2.19 Kesteven Uplands	37
3.2.1.1 Stone	21	4.2.20 Northamptonshire Vales	37
3.2.1.2 Earth	21	4.2.21 Rockingham Forest	38
3.2.1.3 Timber	21	4.2.22 Northamptonshire Uplands	38
3.2.1.4 Brick	23	5.0 FARMSTEAD TYPES	39
3.2.2 Roofing	23	5.1 NATIONAL OVERVIEW	39
3.2.2.1 Thatch	23	5.1.1 Linear plans	41
3.2.2.2 Slate	23	5.1.2 Parallel plans and L-shaped plans	41
3.2.2.3 Tiles	24	5.1.3 Dispersed plans	41
4.0 AGRICULTURAL HISTORY AND FARM BUILDINGS	25	5.1.4 Loose courtyard plans	41
4.1 AN INTRODUCTION TO ENGLISH AGRICULTURAL HISTORY AND FARM BUILDINGS: THEIR DEVELOPMENT, SURVIVAL AND SIGNIFICANCE	25	5.1.5 Regular courtyard plans	42
4.1.1 Up to 1550	25	5.2 FACTORS INFLUENCING FARMSTEAD CHARACTER	42
4.1.1.1 Survival and value	25	5.2.1 Farm size	42
4.1.2 1550 to 1750	25	5.2.2 Estate policy	43
4.1.2.1 Survival and value	26	5.2.3 Local variation of farming systems	43
4.1.3 1750 to 1880	26	5.2.4 Internal workings of the farmyard	43
4.1.3.1 Survival and value	27	5.2.5 Development of farming systems	43
4.1.4 1880 to 1940	28	5.3 FARMSTEAD PLANS IN THE EAST MIDLANDS	44
		5.3.1 Linear plans	44
		5.3.2 L-Plans, parallel and dispersed plans	44
		5.3.3 Courtyard plans	44
		6.0 KEY BUILDING TYPES: CROP STORAGE AND PROCESSING	45
		6.1 BARNs	45
		6.1.1 National Overview	45

6.1.1.1	Plan form	45	7.2.1	National Overview	58
6.1.1.2	Size	46	7.2.2	Dairies in the East Midlands	59
6.1.1.3	Combination barns	47	7.3	STABLES	59
6.1.1.4	Evidence for mechanisation	47	7.3.1	National Overview	59
6.1.1.5	Evidence for re-use and adaptation	47	7.3.2	Stables in the East Midlands	60
6.1.2	Barns in the East Midlands	47	7.4	PIG HOUSING	60
6.1.2.1	Threshing barns	47	7.4.1	National Overview	60
6.1.2.2	Combination barns	49	7.4.2	Pig housing in the East Midlands	61
6.1.2.3	Mechanisation	49	7.5	SHEEP HOUSING	61
6.2	GRANARIES	49	7.5.1	National Overview	61
6.2.1	National Overview	49	7.5.2	Sheep housing in the East Midlands	62
6.2.2	Granaries in the East Midlands	51	7.6	DOVES AND POULTRY	62
6.3	CART SHEDS AND IMPLEMENT SHEDS	52	7.6.1	National Overview	62
6.3.1	National Overview	52	7.6.2	Doves and poultry in the East Midlands	63
6.3.2	Cart sheds in the East Midlands	53			
6.4	HAY BARNs AND OTHER CROP-RELATED BUILDINGS	53	8.0	KEY BUILDING TYPES: OTHER FARMSTEAD BUILDINGS	66
6.4.1	National Overview	53	8.1	OUTFARMS AND FIELD BARNs	66
6.4.2	Hay barns and other crop-related buildings in the East Midlands	53	8.1.1	National Overview	66
			8.1.2	Outfarms and field barns in the East Midlands	66
7.0	KEY BUILDING TYPES: ANIMALS AND ANIMAL PRODUCTS	55	8.2	MINOR AND MISCELLANEOUS BUILDINGS	67
7.1	CATTLE HOUSING	55	8.2.1	National Overview	67
7.1.1	National Overview	55			
7.1.1.1	Longhouses	55	9.0	GLOSSARY	68
7.1.1.2	Ox houses	55			
7.1.1.3	Combination barns	55	10.0	SOURCES	72
7.1.1.4	Open-fronted sheds	55	10.1	GENERAL SOURCES	72
7.1.1.5	Lean-tos (outshots)	56	10.2	NATIONAL BIBLIOGRAPHY	73
7.1.1.6	Free-standing cow houses	56	10.3	REGIONAL BIBLIOGRAPHY	77
7.1.1.7	Looseboxes for fatstock	57			
7.1.1.8	Covered yards	57	11.0	JOINT CHARACTER AREA DESCRIPTIONS: URLs FOR PDF DOCUMENTS	79
7.1.2	Cattle housing in the East Midlands	57			
7.2	DAIRIES	58			

Illustrations

Figure 1	Geology and Landscape Character in the East Midlands Region	13–14	Figure 15	Farmsteads in the landscape: Litton, Derbyshire	36
Figure 2	Rural settlement in the East Midlands Region	16	Figure 16	Farmstead plan types	40
Figure 3	Distribution of cruck-framed and aisled barns	18	Figure 17	Distribution of listed longhouses in England	42
Figure 4	Cruck and aisled barns	19	Figure 18	Isometric view of a large, regular courtyard farmstead in Northumberland	43
Figure 5	Distribution of listed earth-walled agricultural buildings in England	20	Figure 19	Power in barns: national examples	46
Figure 6	Distribution of listed timber-framed barns in England	21	Figure 20	Barns in the East Midlands Region	48
Figure 7	Distribution of listed thatched agricultural buildings in England	22	Figure 21	Isometric view of a Lincolnshire combination range with the barn serving as a fodder processing area	49
Figure 8	Examples of walling materials in the East Midlands Region	23	Figure 22	Isometric drawings of a free-standing granary on saddle stones and a granary at first floor level as part of a range of buildings	50
Figure 9	Examples of roofing materials in the East Midlands Region	26	Figure 23	Interior of a granary showing grain bins and a louvered window	51
Figure 10	Distribution of listed farmhouses in England pre-1550 and 1550–1750	28	Figure 24	Granaries and cart sheds in the East Midlands Region	52
Figure 11	Distribution of listed barns in England pre-1550 and 1550–1750	33	Figure 25	Hay barns: national examples	54
Figure 12	Farmsteads in the landscape: Spridlington, Lincolnshire	33	Figure 26	Cattle housing: national examples	56
Figure 13	Farmsteads in the landscape: Holbeach, Lincolnshire	34	Figure 27	Cattle housing in the East Midlands Region	58
Figure 14	Farmsteads in the landscape: South Leverton, Nottinghamshire	35	Figure 28	Interior of a stable	59
			Figure 29	Stables in the East Midlands Region	60
			Figure 30	Pigsties: national examples	61
			Figure 31	Distribution of listed dovecotes in England	63
			Figure 32	Buildings for birds in England	63–4
			Figure 33	Outfarms and field barns in the East Midlands Region	66

Summary: East Midlands Region

I LANDSCAPE AND AGRICULTURAL CONTEXT

NATIONAL FRAMEWORK

Patterns of land use were very varied, reflecting cultural factors as well as climatic conditions and the physical structure of the landscape. The distribution of farmsteads, their dates of foundation and their relationship to the farming landscape are intimately linked to **historical patterns of fields** and **settlement** in the landscape. Areas of nucleated settlement, concentrated in a central band running from Northumberland into Somerset and Dorset, are associated with villages whose communally farmed townfields were subject – at varying rates – to amalgamation and enclosure by tenants and landlords from the 14th century. This process was often associated with the creation of new holdings and farmsteads within the new enclosures. Areas of dispersed settlement, where farmsteads are either isolated or grouped in hamlets and surrounded by originally smaller townfields and more ancient patterns of enclosure, are most strongly characteristic of western and parts of eastern and south-eastern England. Between the two extremes are areas that contain both nucleated and dispersed settlement to varying degrees.

Agricultural development in England can be divided into the following major periods:

- *Up to 1750* Economic boom in the 12th and 13th centuries, which included the development of large farms on monastic and secular estates, was followed by contraction of settlement and the leasing out of estates after the famines and plagues of the 14th century. The period from the 15th century was characterised by a general increase in agricultural incomes and productivity and the emergence – particularly from 1660 – of increasingly market-based and specialised regional economies. Substantially complete farm buildings of this period are rare, and provide the first evidence for the development and strengthening of regional traditions and building types. Many surviving farmsteads in upland areas, with farm buildings attached to their farmhouse, survive from the later 17th and 18th centuries. It is otherwise very rare for farmsteads to have more than a house and barn dating from this period.
- *1750 – 1880* This is the most important period of farm building development, the production of farmyard manure by cattle playing a major role in increasing agricultural productivity. The increased output of this period was encouraged by rising grain

prices and the demands of an increasingly urban population, and was enabled by the expansion of the cultivated area (especially from the 1790s to 1815), the continued reorganisation and enlargement of holdings and the final phase of the enclosure of open fields – concentrated in the Midland counties. Substantial improvements in animal husbandry were made with the development of improved breeds and a greater awareness of the importance of the need for housing, particularly for cattle, which hastened fattening and meant that manure could be collected and stored better. The high-input/high-output systems of the 'High Farming' years of the 1840s to 1870s were based on the availability of imported artificial fertilisers, manures and feeds.

- *1880 – 1940* There was little fresh investment due to the long farming depression in this period, notable exceptions being some estates and continuing developments in dairying areas. Hygiene regulations in the inter-war period resulted in intense forms of housing for pigs and poultry, and the replacement of earlier forms of housing for dairy cattle by new forms of cow house with concrete floors and stalls, and metal roofs and fittings.
- *1940 to present* The 1937 Agriculture Act anticipated the need to increase self-sufficiency, and the Second World War witnessed a 60% rise in productivity. This was the result of the growth in livestock numbers, increasing scientific and government control and guidance, more specialised systems of management and the conversion to arable of permanent pasture. The Agriculture Act of 1947 heralded the intensification and increased specialisation of farming in the post-war period, accompanied by the development of government and industry research and guidance. The Government provided grants to cover the capital cost of new building under the Farm Improvement Scheme (introduced 1957). The introduction of wide-span multi-purpose sheds in concrete, steel and asbestos met increasing requirements for machinery and for the environmental control of livestock and on-farm production, particularly of milk.

REGIONAL PATTERNS

The Region covers a **wide diversity of settlement forms**. Settlement in the claylands and limestone uplands predominantly consists of nucleated villages with very few isolated farmsteads or hamlets. There are significant traces of ridge-and-furrow cultivation, and large numbers of deserted village sites, some of which have continued

as isolated farms. Although enclosure was underway by the 15th century in some parts, open-field farming lasted longer in this than any other Region, together with small, mixed farms clustered in the villages. Most dispersed farmsteads and settlement are associated with 18th- and 19th-century enclosure.

There is a greater density of dispersed farms and hamlets on the claylands of the Warwickshire / Leicestershire border, the fenland and in the north-western part of the Region, stretching into the Pennines, although villages are found along the boundary between the fen and the gradually rising land to the west, and in the area of north Derbyshire and part of Nottinghamshire affected by 19th-century industrialisation.

The principal **agricultural regions** comprise the clay vales and limestone uplands, the Wolds, the Pennines, the forests and the coastal marshes and fens.

In the clay vales and limestone uplands enclosure – mostly complete by the 1790s – mainly resulted in the conversion of arable to pasture for rearing and dairying, particularly near the towns. Cheese was one of the principal products and was sold in London and other manufacturing towns of the Midlands and the north. The expansion of the railway network facilitated further increases in dairying for liquid milk, particularly in Leicestershire and lowland Derbyshire, and the development of cheese factories. The area was also noted for rearing horses, particularly working beasts.

In the Lincolnshire Wolds enclosure for sheep pastures began in the 14th century and continued into the 17th century, resulting in the depopulation of some villages. The landscape was transformed by enclosure in the later 18th and 19th centuries, creating arable fields and isolated farmsteads and enabling the growth of substantial tenant farmers.

The Pennines area – including the Peak District – was sheep and cattle country, with farmers combining agriculture with industries such as quarrying, and lead- and coal-mining. Enclosure affected much of the valley-side and bottom landscapes between the 15th and 17th centuries, with the regular and large-scale enclosure of the upper fells in the late 18th to 19th century. The enclosure of the open moor and common of the more fertile limestone White Peak had begun by the 16th century, sometimes resulting in large regular fields more characteristic of parliamentary enclosure.

Different farming systems operated in the Region's extensive forest lands. On the clays of Charnwood dairying was predominant, whilst in Sherwood tree felling and enclosure transformed the area into an

arable landscape by the early 19th century. Extensive areas of heathland were also enclosed between the 1790s and 1815.

Around 1700 the coastal marshes and fens primarily provided grazing for sheep, often rented out to wealthier farmers on the Wolds, but market gardening was also important. Farms were small and fragmented unlike in the Cambridgeshire fens where large landowners dominated. The few major landowners instigated large-scale drainage schemes from the mid-17th century and continued during the 18th and early 19th centuries, transforming the area into some of the most fertile land in the British Isles.

2 BUILDING MATERIALS

NATIONAL FRAMEWORK

The use of locally available materials, combined with local vernacular traditions, makes a fundamental contribution to local and regional diversity.

Long-rooted traditions such as earth walling, thatch and timber frame, survived much longer on farm buildings than farmhouses. Buildings in stone and brick, roofed with tile or slate, increasingly replaced such buildings from the later 18th century.

Standardised forms of construction, including softwood roof trusses, developed across the country in the 19th century, often reflecting the greater availability of materials such as Welsh slate transported along the canals and, later, the railways. Corrugated iron was used from the late 19th century as a cheap means of replacing or covering roofs (particularly thatch) in poor condition.

REGIONAL PATTERNS

There is an extremely wide variety of building stones, mostly limestones and sandstones, which are fundamental to the character of large areas of this Region.

The Region has a major concentration of earth-walled buildings, concentrated in Leicestershire, Northamptonshire and south-east Nottinghamshire, in association with timber stud walling (a technique known as mud and stud) in parts of Lincolnshire. Few mud-walled buildings – which in contrast to Cumbrian or South West cob had quite thin walls and were only built to a single storey – have survived; many may survive behind later brick skins.

With clay being readily available across large parts of the Region, brick is a characteristic building material, particularly through south Derbyshire, Nottinghamshire and Leicestershire where brick is the dominant walling

material. Brick-built barns often have features such as tumbled brickwork at the gables and dentilled eaves.

The Region is not an area famed for its aisled or timber-framed buildings but framing does appear in Leicestershire, in the Derbyshire foothills and in nearby parts of the inner Trent valley.

Straw thatching occurs in the vales where corn crops were grown, but its use is generally uncommon compared with Regions further south. In the north-west gritstone is used for roofing slabs while slate roofs are common in the Peak District. The limestone is also used for stone slates (Cotswold; Collyweston; Swithland).

The availability of clays for brick-making also allowed the production of clay tiles and over large parts of the Region plain tiles or pantiles are characteristic, with pantiles being common in Nottinghamshire and the north-eastern part of the Region.

3 FARMSTEADS

NATIONAL FRAMEWORK – FARMSTEAD TYPES

The scale and form of farmstead plan types are subject to much variation and are closely related to farm size and status, terrain and land use. It was far more common for the houses on farms in northern and western England to be attached to the farm buildings. By contrast, even small farms in the South East and East Anglia were characterised by detached houses and separate buildings, often loosely arranged around the sides of a yard.

- *Linear plans*, where houses and farm buildings are attached, were ideally suited to small farms (usually stock rearing and dairying), especially in northern pastoral areas with little corn and longer winters where there was an obvious advantage in having cattle and their fodder (primarily hay) in one enclosed building. They now display a wide range in scale, from large steadings of independent Pennine yeoman-farmers to the smallholdings of miner-farmers.
- *Dispersed plans*, comprising clusters and unplanned groupings of separate buildings, were more widespread. They now range from those of hamlets, where the buildings of different owners were often intermixed, to large-scale individual steadings, some of which were of high status.
- *Loose courtyard plans* became most strongly associated with large and/or arable farms. The buildings are built around a yard with or without scatters of other farm buildings close by.
- *Regular courtyard plans*, where the various functions were carefully placed in relation to one another in order to minimise the waste of labour, and where the manure could be conserved, were built – at first on large estates – from the later 18th century.

REGIONAL PATTERNS – FARMSTEAD TYPES

A distinctive and important regional feature is the number of farms that after enclosure, although often representing the amalgamation of earlier holdings, remained based in the centre of villages rather than being moved out into newly enclosed fields. Many of these farms remain, as linear, dispersed, courtyard or L-plans with house and barn combinations.

Linear plans are widely distributed, and are concentrated in the clay vales to the north of the Region, in the limestone uplands and in the Pennine fringes and uplands. The Region has some examples of *laithe* houses, more commonly found further north in the Pennines.

The smaller dairy farms on the midland clays typically included a scattered group of buildings. Over much of the estate lands of the clay vales and the Lincolnshire Wolds courtyard plans are found.

NATIONAL FRAMEWORK – BUILDING TYPES

The functions of crop processing and storage and the accommodation of animals and birds determine the variety of building types, which could house one or a combination of functions. The principal types are listed below.

Barns are generally the largest farm buildings to be found on farms. They were either designed solely for storing and processing the corn crop, these being most common in areas of arable production, or as combination barns to incorporate many functions. Threshing machines, usually powered by horses accommodated in a projecting wheel house, were introduced from the later 18th century. Split-level mixing barns developed in many regions from the later 18th century as a result of the widespread introduction of machinery for processing corn and fodder. The introduction of the portable steam engine and threshing machine in the 1850s heralded the end of the traditional barn as a building for storage and processing.

Field barns were built in areas where farmsteads and fields were sited at a long distance from each other, and where holdings were intermixed. **Granaries** were either detached or built over stables and cart sheds. **Cart sheds** often faced away from the farmyard and were typically close to the stables and roadways, giving direct access to the fields. **Stables** were normally two-storey well-lit buildings with a hayloft above. **Cow houses** were typically built for dairy cattle. The folding of stock in strawed-down yards and feeding them with root crops became more general from the later 18th century, together with the subdivision of yards into smaller areas and the construction of **shelter sheds** and **looseboxes**. **Pigs** were undoubtedly kept on most farms and

particularly on dairying establishments, where there was a ready supply of whey on which to feed them.

Dovecotes were built to house pigeons, which provided variety to the diets of high-status households and a rich source of manure.

REGIONAL PATTERNS – BUILDING TYPES

There is a thin scatter of medieval monastic barns. Cruck-framed barns from the 15th to 17th century are clustered in the south Pennines. Also in the south Pennine area, extending into the adjacent areas, 17th- and 18th-century combination barns are found on larger linear steadings. There are also major concentrations of pre-1750 barns in the south of the Region. Most existing barns are of later 18th- and 19th-century date and small in scale, this being a strong characteristic of much of the Region. From the 1840s, open-air threshing by machine and small mixing rooms, for preparing fodder for cattle in adjacent cattle yards, were replacing the traditional threshing barn over much of the Region.

Pre-1840 cattle buildings are exceptionally rare in this Region: the earliest date from the 17th century and usually form part of combination barns. It is probable that, as in the East of England and West Midlands Regions, there were pre-18th-century cattle yards bordered by barns and stables. Enclosed, typically mud and stud, cow houses were found in grazing and dairying areas. Most were rebuilt in brick during the 19th century. Linear steadings in the Derbyshire Dales often incorporated a cow house. The addition of single-storey brick and pantile shelter sheds around divided 'crew yards', where groups of cattle could be managed individually, became increasingly common in the early to mid-19th century, particularly in the south and east of the Region.

Larger farms in much of the Region often have isolated outfarms, sometimes with a cottage beside them. In the pastoral areas of the Derbyshire Dales are small stone field barns providing haylofts over livestock accommodation.

1.0 Introduction

If the land is best suited for tillage, then the outhouses must be adapted to the purposes of keeping cattle for plowing; of holding and thrashing corn; and of preserving straw, &c. for winter food. In the counties where oxen plow, ox-houses must exceed the quantity of stabling: if where horses only are used, stables alone will be sufficient. If the land seems to promise fairest for pasturage, then cow houses, suckling-houses, sheepcots, dairies, and fattening houses must predominate; and if for grass, much barn-room seems unnecessary.

The Complete English Farmer, 1771, quoted in Wiliam 1986, p.67

Farm buildings are the leitmotif of the countryside. It seems appropriate to describe them with a musical term for they are thematic, and the resonance of their forms, colours and textures within the scenery is that of sound, overall and orchestrated. Here and there is the solo instrument, spectacular in its own right, but much more important is the orchestral effect.

Darley, Gillian (1981) *The National Trust Book of the Farm*, The National Trust, London, p.7

Historic farmsteads and their buildings make a fundamental contribution to the richly varied character of our countryside, and illustrate the long history of farming and settlement in the English landscape. England displays a huge diversity in geology, with a greater variety in small areas than anywhere else in Europe, which combined with varied farming practices has resulted in a great diversity of materials and types of farmstead.

It is clear, however, that we know far more about the nature and processes of change affecting land cover and field pattern than we do about agriculture's built environment and its contribution to countryside character and local distinctiveness. Furthermore, we know far less about the working than the domestic buildings of the farmstead. Recent research has made initial efforts to address this issue, and has made it clear how the domestic and working buildings of the farmstead are subject to very different processes of change (Gaskell & Owen, 2005).

English Heritage is now undertaking to develop this knowledge base in order to inform diverse future outcomes, such as the targeting of grant aid and the development of character-based policies for the sustainable reuse of farm buildings. This document is one of eight regional *preliminary character statements* that aim to promote better and more accessible understanding of the character of farm buildings. It is important, as a first step in this process, to present an information base for a broad diversity of users with an interest in researching,

understanding and managing historic farmsteads. It has therefore been written as a sourced synthesis of information, drawing together information that will enable the farmsteads of each Region to be better understood within the national context of farmstead and agricultural development, and their surrounding fields and settlements. As this is a preliminary statement, it and future work will benefit greatly from information and comments. These will be gratefully received at the following e-mail address:

jeremy.lake@english-heritage.org.uk

The objectives of this document are:

- To provide an information base and introduction to the subject.
- To place the development of the farmsteads and farm buildings of the East Midlands Region within their national context.
- To demonstrate, with examples, how the *present* stock of farmsteads and their buildings reflects the diversity of farming, settlement and landscape character in the East Midlands Region.
- To provide broad guidance on the value and survival by period and functional type.

An accompanying policy booklet has also been prepared, which makes the case for urgent action and considers

the importance of historic farm buildings, their value and their future. See *Living buildings in a living landscape: finding a future for traditional farm buildings*, at www.helm.org.uk/ruraldevelopment.

In each of the following sections, the national overview is presented immediately before the regional statement. For example, on the topic of barns, the national overview describes the development, variety and uses of barns nationally while the regional statement describes the variety that can be seen in the barns of the Region.

Section 2 provides an introduction to characterisation and briefly describes the landscape character of the Region, examining the pattern of rural settlement across the Region.

Section 3 describes the predominant building materials used for farm buildings nationally and in the Region.

Section 4 provides a brief introduction to the agricultural history of England with particular reference to the development of farmsteads and farm buildings divided into the major periods, supported by statements relating to the survival and significance of farm buildings from each period. This is followed by a summary of the

agricultural history of the Region.

Section 5 provides a national and regional background of types of farmsteads and farm buildings.

Sections 6, 7 and 8 provide a national and regional overview of key building types.

Section 9 provides a Glossary of terms both familiar and unfamiliar to the reader (e.g. dairy, linhay, enclosure).

Section 10 provides a list of national and regional sources for further reference.

It is also important at this stage to outline a distinction in terminology. 'Traditional' is a term often used to describe farm buildings pre-dating 1940, after which modern building materials (concrete, steel, asbestos sheet) and revolutions in farming technology and farmstead planning marked a sharp divide with previous practice. 'Historic' is more encompassing, as it includes farmsteads of all dates, irrespective of changes in form and material; it has been used in this document in order that the reader can view the history of farm buildings, and their change and adaptation over the centuries, within their broad historical context.

2.0 Understanding Context and Character

2.1 LANDSCAPE CHARACTER AND CHARACTERISATION

Landscape character is defined as a distinct and recognisable pattern of elements that occur consistently in a particular type of landscape. Particular combinations of geology (Figure 1A), landform, soils, vegetation, land use, field patterns and human settlement create character. Character makes each part of the landscape distinct, and gives each its particular sense of place. Landscape-scale techniques for understanding and guiding future change, now brigaded under the heading of characterisation, have developed since the 1990s. These have developed as multi-disciplinary and holistic tools for understanding the whole rural environment, its capacity to absorb change and its links to community values and needs.

During the 1990s the Countryside Commission worked with English Nature and English Heritage to identify Joint Character Areas (159 in total) for the whole of England, each of these resulting from a combination of factors such as land cover, geology, soils, topography, and settlement and enclosure patterns. These are now being used as the framework for the delivery of advice and the targeting of resources for many aspects of the rural environment, most recently to farmers under the Higher Level Stewardship Agri-Environment schemes, and local authorities have taken forward this methodology for Landscape Character Assessments on a finer scale. These are also being used as the spatial framework for reporting change in the countryside, in the Countryside Quality Counts project (see www.cqc.org.uk).

The East Midlands Region extends over the Joint Character Areas listed in Figure 1B. Whenever the text cross-refers to the Joint Character Areas, they will be listed by their number (i.e. JCA 152). The key characteristics and a detailed description and map for each Character Area are available from the Countryside Agency's website (www.countryside.gov.uk/lar/landscape). The web addresses for each JCA are detailed in Section 11.

Human impact has been central to the development and present character of landscape. Historic Landscape Characterisation (HLC), which is being developed by English Heritage with its county and local partners, is using GIS mapping techniques to deepen our understanding and perception of the long historical development of our landscapes. The practical applications of HLC now include development plans, a broad range of conservation and enhancement strategies, strategic land-use planning and similar initiatives, and research and

academic implications (Clark, Darlington & Fairclough, 2004; Rippon, 2005, 100–142).

Pilot work is now indicating that the density and time-depth of farmsteads, and the rates of survival of different types of steading and building, are closely related to patterns of historically conditioned landscape character and type (Lake & Edwards 2006). This work represents a shift in focus away from individual buildings to a more question-based and holistic approach, one that uses landscape to both reflect and inform the patterning of the built environment. Recording and understanding at a local scale can both test and refine these broad-based, contextualised statements and contribute towards a more integrated understanding of both buildings and landscapes.

For characterisation see: www.english-heritage.org.uk/characterisation

2.2 THE CHARACTER OF THE EAST MIDLANDS REGION: AN INTRODUCTION

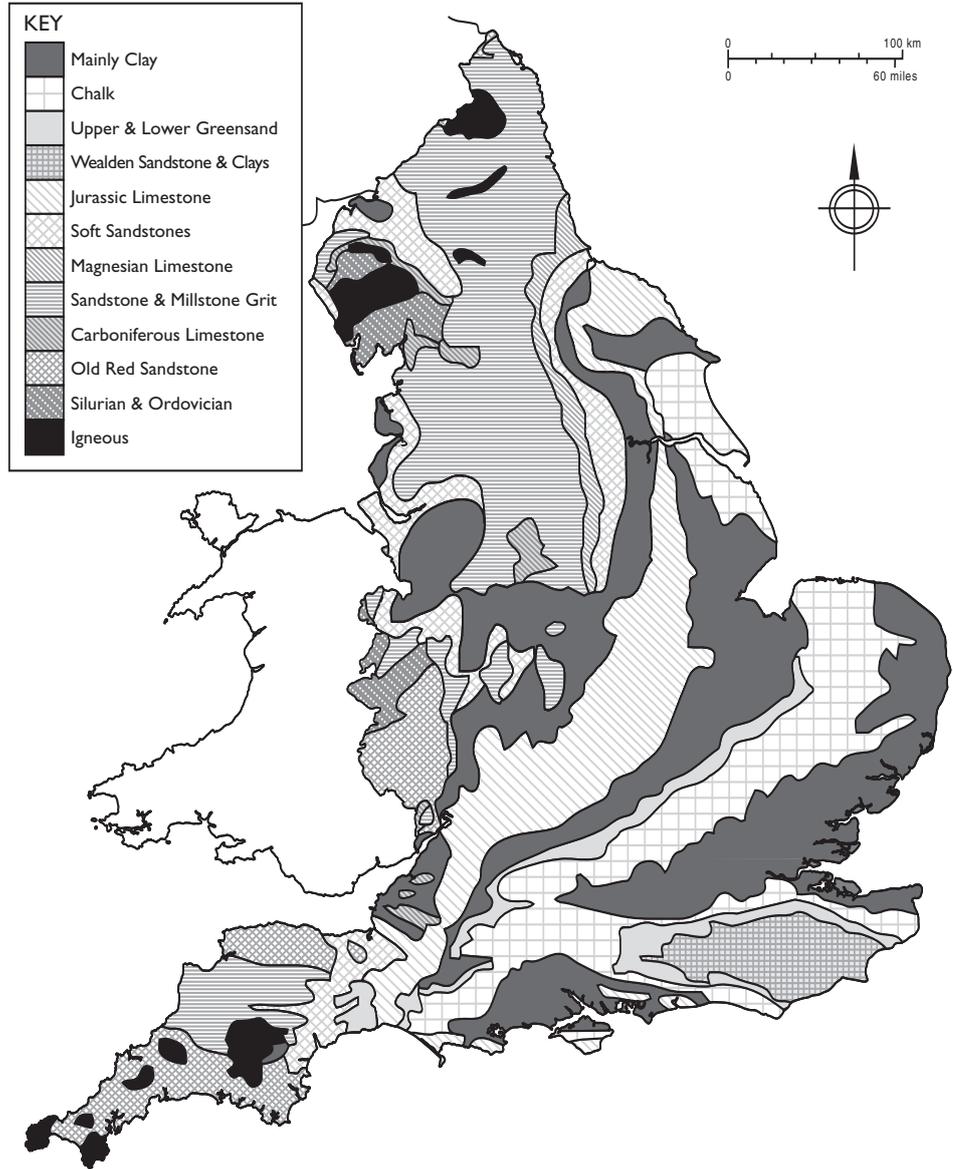
The East Midlands Region comprises the five counties of Leicestershire, Northamptonshire, Derbyshire, Nottinghamshire and Lincolnshire, which contain a huge variety of landscapes, from the upland moorland of the Peak District to the low-lying fens and coastline of Lincolnshire.

Geologically, the oldest rocks outcrop on the uplands, crags and moors of the Peak District of Derbyshire and Charnwood Forest in Leicestershire where conglomerates, limestones and grits are found. Chalk is found in the Lincolnshire Wolds, while a belt of Jurassic limestone – a continuation of the Cotswolds – extends across the south-eastern and eastern part of the Region. In Nottinghamshire New Red Sandstone and Magnesian Limestone are found. The far eastern part of the Region predominantly comprises later deposits, such as glacial clays, sands and gravels, and the peat and alluvium resulting from the flooding of the eastern coastal fens.

At the north-western edge of the Region are the upland areas of the Dark Peak and White Peak of the Peak District, which are sharply contrasting in terms of their landscape character and historical development. To the east of the Peak District lie the Derbyshire Peak Fringe and Lower Derwent, the Yorkshire Southern Pennine Fringe, and the Nottinghamshire, Derbyshire and Yorkshire Coalfield.

Over much of the central and southern part of the Region, the landscape has a gently rolling, undulating character of clay ridges dissected by river valleys. These

IA Geology map of England
 England displays a huge diversity in geology, with a greater variety in small areas than anywhere else in Europe. The East Midlands Region has a varied geology providing sandstone and limestones for both walling and roofing. The use of these building stones makes a major contribution to local distinctiveness in parts of the Region. Across the clay vales of the Midland plain there was a tradition of earth-walling but brick and tile made from the local clays are now the dominant building materials. Based upon 'Solid Geology' Source Defra/BGS, NERC: by permission of the British Geological Survey IPR/52-65C. ©NERC/Crown copyright. OS Licence No. 100042054



generally mixed farmland landscapes often have relatively little woodland although some, such as the Kesteven Uplands and the Needwood and South Derbyshire Claylands, have a more wooded character:

The forest areas of Charnwood and Sherwood lie on poor, sandy soils. Charnwood is a unique landscape of heathland based on volcanic rocks that has areas of upland rising out of the surrounding claylands. Settlement, in the form of small villages and farmsteads, tends to be concentrated on the fringe of the area, which is predominantly pasture within regular 19th-century fields with extensive woodland. Although the rolling landscape of Sherwood also consists of poor soils, arable farming is now the major land use with some surviving remnants of the heathland and forest character. Large parks, created when there was little demand for land in the forest, are important and characteristic features.

The Fens has a large-scale, flat, open landscape with extensive vistas to level horizons and huge skies. A

hierarchy of rivers, drains and ditches strongly influence the character of the area. The Lincolnshire Coast and Marshes has similarly a flat, predominantly open, medium-scale agricultural landscape rising gradually in the west to more undulating land at the foot of the Lincolnshire Wolds. The Wolds is a rolling chalk 'upland' arable landscape of elevated plateaux and deep, steep-sided dales and a pronounced scarp edge to north and west overlooking the Central Lincolnshire Vale, a broad low-lying arable vale. West of the Central Lincolnshire Vale the land rises to the North Lincolnshire Edge and Coversands, a large-scale arable escarpment broadly divided into north and south by the River Witham at Lincoln, with the prominent scarp slope of Lincoln 'Cliff' marking the western edge of the area.

Over 75% of the area as a whole is Grade 1–3 agricultural land, with the better land towards the east. In Lincolnshire 44% of land falls into Grades 1 and 2. Other than Derbyshire, where the upland areas have poor soils, Grade 3 land accounts for over half of the

JCA number	JCA name
30	Southern Magnesian Limestone
37	Yorkshire Southern Pennine Fringe
38	Nottinghamshire, Derbyshire and Yorkshire Coalfield
39	Humberhead Levels
42	Lincolnshire Coast and Marshes
43	Lincolnshire Wolds
44	Central Lincolnshire Vale
45	Northern Lincolnshire Edge with Coversands
46	The Fens
47	Southern Lincolnshire Edge
48	Trent and Belvoir Vales
49	Sherwood
50	Derbyshire Peak Fringe
51	Dark Peak
52	White Peak
53	South West Peak
68	Needwood and South Derbyshire Claylands
69	Trent Valley Washlands
70	Melbourne Parklands
71	Leicestershire and South Derbyshire Coalfield
72	Mease/Sence Lowlands
73	Charnwood
74	Leicestershire and Nottinghamshire Wolds
75	Kesteven Uplands
88	Bedfordshire and Cambridgeshire Claylands
89	Northamptonshire Vales
91	Yardley-Whittlewood Ridge
92	Rockingham Forest
93	High Leicestershire
94	Leicestershire Vales
95	Northamptonshire Uplands



1B This map shows the Character Areas relating to this Region. These are known as Countryside Character Areas or most commonly now as Joint Character Areas, this reflecting their development as multi-disciplinary means of mapping, defining and describing the character of distinct areas. Based upon Joint Character Areas. Source: Defra/English Nature/Countryside Agency. © Crown copyright OS Licence no. 100042054

farmland in all the other counties (MAFF Census Data 1997).

Compared with most other Regions of England and Wales, the East Midlands is least affected by the moderating influence of the sea, so rainfall is lower and there is a greater daily or monthly temperature range than elsewhere. Rainfall varies between 560mm in

south-east Leicestershire to 700mm on exposed high ground in Lincolnshire, Leicestershire and Northamptonshire, but the Peak District receives 1600mm. These figures compare with an average of 940mm for England and Wales, which highlights that most of the Region is drier, other than Derbyshire, than national averages (ERDP 2002).

2.3 THE CHARACTER OF RURAL SETTLEMENT

2.3.1 NATIONAL FRAMEWORK

Farmland has historically been divided into arable for growing corn and other crops, and meadow for hay and grass. In the past, farmers also had access to fallow land, land laid open after the harvest and areas of rougher common ground for grazing livestock. Patterns of settlement in the countryside varied from large, nucleated villages to dispersed settlement areas with scattered, isolated hamlets and farmsteads, both being closely related to the patterns of fields and their associated boundaries in the surrounding landscape. There were many variations between the two extremes of communal open fields with their scattered holdings, which typically developed around larger nucleated settlements, and the anciently enclosed fields of isolated farmsteads and hamlets.

Re-arranging previously communal fields or common pasture land into self-contained private land units enabled the rationalisation of formerly scattered holdings, allowing better management of livestock and rotation of crops. This process of enclosure – evident from the 14th century and even earlier – resulted in the immediate or gradual establishment of new isolated farmsteads out in the fields. It could be undertaken on a piecemeal basis, or in one single phase, the latter form of enclosure being typically more regular in its appearance. Enclosure by parliamentary act, some of which formalised earlier agreements, often resulted in new designed landscapes. Parliamentary enclosure was concentrated in the period 1750 to 1880.

English Heritage has commissioned work on mapping these patterns of settlement in the English countryside, now published as *An Atlas of Rural Settlement in England* (Roberts & Wrathmell 2000) and *Region and Place, A Study of English Rural Settlement* (Roberts & Wrathmell 2002). In summary, it has been demonstrated that a Central Province mostly characterised by nucleated settlement and, by the 14th century, communal fields which occupied the great majority of the land area, is flanked by a South-Eastern Province and both a Northern and Western Province where settlement is mostly dispersed (Figure 2).

In areas of *nucleated settlement* in the medieval period and later, the majority of farmsteads were sited in villages and the surrounding land dominated by communally managed open fields, where the holdings of individual farmers were inter-mixed and farmed in rotation as meadow or arable land. Many open field systems were created during the period from the 9th to the 12th centuries, replacing earlier dispersed patterns

of settlement with nucleated villages with communally managed fields, many of which were clearly planned by estates.

Farmsteads in areas of *dispersed settlement* are commonly isolated or clustered in hamlets. They are commonly medieval in origin (pre-14th century generally) and often surrounded by ancient and irregular patterns of field boundaries, including the reclamation of woodland or waste. Typically smaller and more numerous than the open fields of Midlands villages, these fields were either farmed from the outset as compact farming units or contained the scattered holdings or strips of individual farmers that were farmed on a communal basis. Areas of pasture and rough grazing were typically far greater in extent than in areas of nucleated settlement, and have again been subject to varying rates of enclosure from the 14th century.

Between the extremes of nucleation and dispersion are the areas that to some degree included both villages and scattered farmsteads and hamlets. In these areas, nucleated villages again originated from developments between the 9th and 12th centuries, but were often intermixed with isolated farmsteads that date from both the medieval period or earlier and from the later enclosure of open fields and common meadow and pasture.

In some areas, the remains of earlier, including pre-Roman, farmsteads are visible as crop-marks or earthworks close to existing farmsteads or villages (see Roberts 1976 and Taylor 1983 for a useful introduction). While research is demonstrating that existing parish and field boundaries possibly originate from very early, even pre-Roman, field and estate boundaries, it is exceptionally rare for present farmstead sites – as in Cornwall's West Penwith – to display such continuity.

2.3.2 RURAL SETTLEMENT IN THE EAST MIDLANDS

(Figure 2)

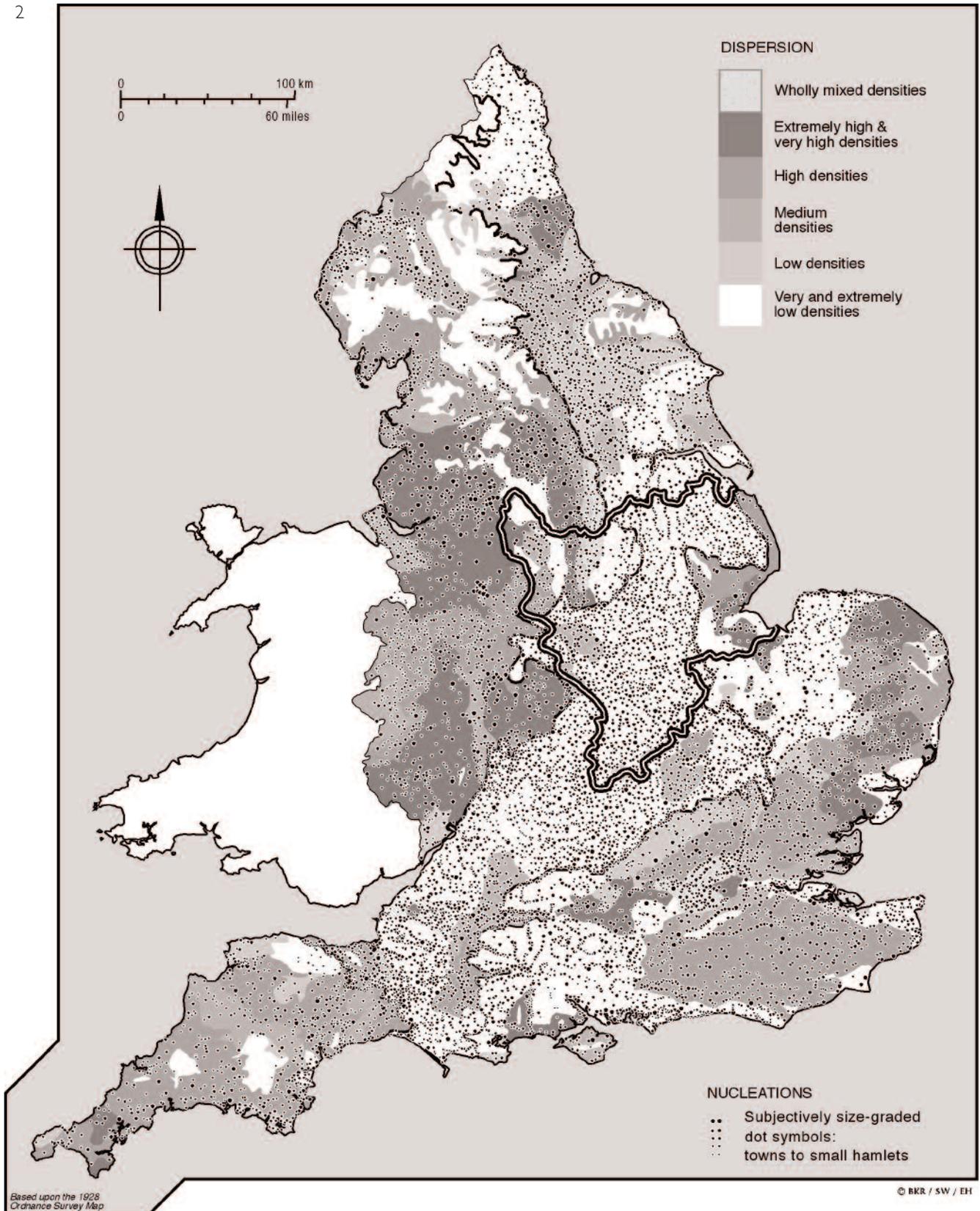
The East Midlands Region covers a wide diversity of settlement forms. The majority of the area lies within Roberts and Wrathmell's Central Province where settlement predominantly consists of nucleated villages with very few isolated farmsteads or hamlets. There are large numbers of deserted villages, some of which have continued as isolated farms. There are a few moated sites on the claylands of the Warwickshire / Leicestershire border and in the south of the Midland plain, but here again most isolated farms are the result of 18th- and 19th-century enclosure. There are fewer nucleations in the old forested areas (Roberts & Wrathmell 2000).

The north-western part of the Region, stretching into the Pennines, lies in the Northern and Western Province.

2 Rural settlement in England. Rural settlement can broadly be divided into two types: nucleated villages and dispersed farmsteads and hamlets. Figure 2 presents an analysis of the settlement pattern of England in the mid-19th century which identifies three 'provinces'. The Central Province, mostly characterised by nucleated settlement and once dominated by communal fields, stretches from Dorset, through Gloucestershire, the East Midlands, Yorkshire and along the north-east coast. This area is flanked by a South-Eastern Province covering the area from Dorset and Wiltshire to East Anglia, and a Northern & Western Province. In these Provinces settlement is mostly dispersed. The East Midlands Region straddles the Central Province, with the north-western Pennine part of the Region extending into the Northern and Western Province and the low-lying Lincolnshire fens and coastal marshes lying in the South Eastern Province.

Source: *An Atlas of Rural Settlement in England* (2000) ©English Heritage/Roberts, B.K. and Wrathmell, S.

2



Here there is a greater density of dispersed farmsteads and hamlets, although in the area of north Derbyshire and part of Nottinghamshire nucleated villages are predominant. However, it is considered that this settlement pattern is due to 19th-century industrialisation and the growth of many small hamlets into villages at that time.

The east coast and fenland part of the Region lies within the South-eastern Province where there is also a greater density of dispersed farms and hamlets, although villages are found along the boundary between the fen and the gradually rising land to the west. Settlement in the area fringing the Wash is a relatively late development as it is only the drainage of large areas that took place from the 17th century that reclaimed this landscape to allow agriculture and settlement.

3.0 Building Materials

3.1 NATIONAL OVERVIEW

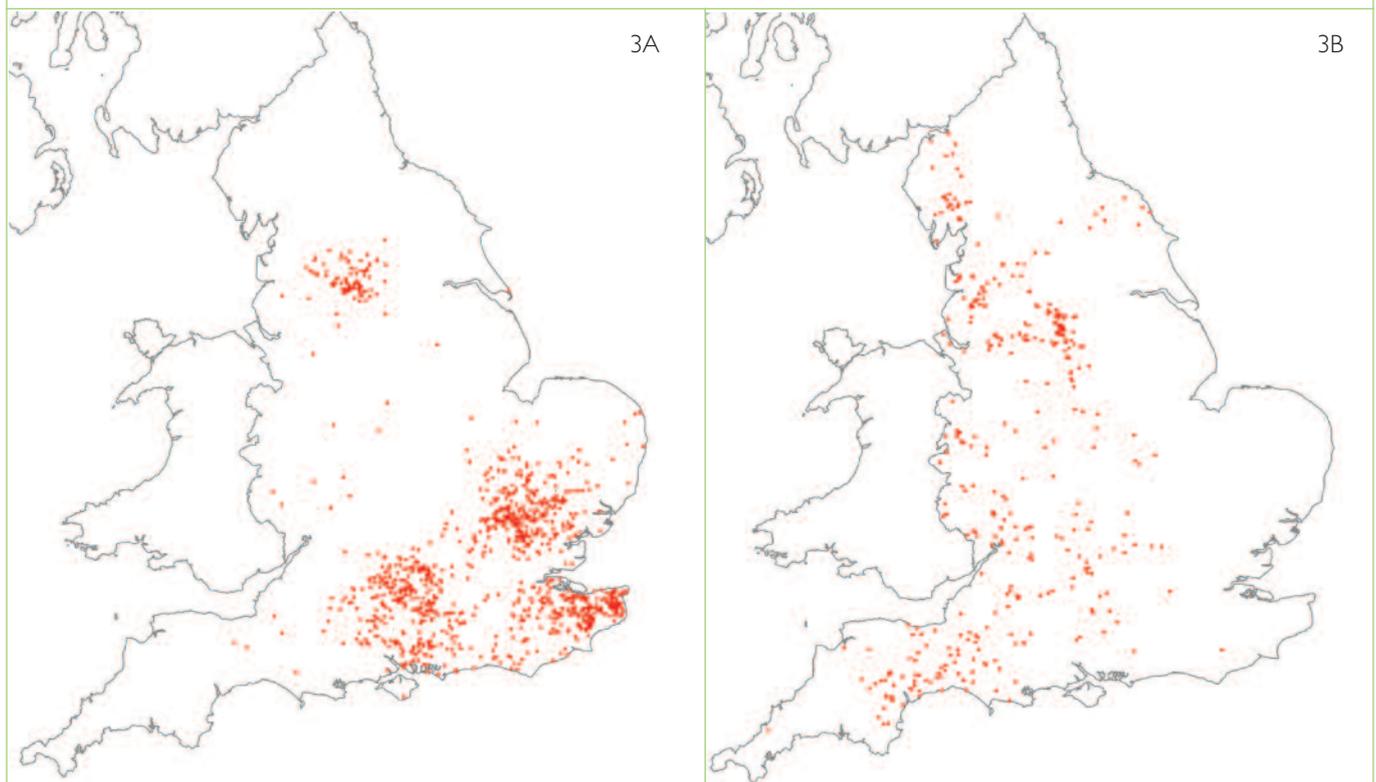
Farm buildings were frequently altered and re-roofed, and survivals can display evidence for successive phases of rebuilding, marked by straight joints in masonry or indications of mortise holes and joints in timberwork.

The present stock of farm buildings displays strong local and regional variation. This is the result of a range of factors, particularly England's huge diversity in geology, the status of the owner, availability of resources managed in the local landscape and the cost of manufactured materials (Rackham 1972; Moir 1997). Long-rooted traditions such as earth walling and thatch in Cornwall and timber frame in Norfolk, survived much longer on farm buildings than farmhouses, and were not overtaken by increasingly fashionable and robust forms of construction (such as stone in parts of Cornwall, brick in Norfolk) until the early to mid-19th century (Potts 1974; Lucas 1997). The coastal shipping trade had for many centuries allowed the transport of building materials, but the arrival firstly of canals and then railways allowed the easier transportation of building materials into inland

areas. Buildings in stone and brick, and roofed with tile or slate, increasingly replaced buildings in clay, timber and thatch from the later 18th century. Mass-walled buildings comprise the majority of listed agricultural buildings (67%), with timber framing accounting for just over one quarter of entries.

There are strong regional and local differences in roof construction and carpentry, as is still demonstrated by the distribution of aisled and cruck buildings (Figures 3 and 4). From the medieval period, the unit of reference in timber-framed and mass-walled buildings became the bay, the distance between principal roof trusses. These bays could also mark out different areas of storage within barns and other buildings (see 3.1.1.3). Iron bolts, straps and tension bars became increasingly common, often in combination with imported softwood, in the 19th century. Textbooks such as Waistell's *Designs for Agricultural Buildings* (1827) and Stephens's *Book of the Farm* (1844) helped to promote more standardised forms of construction. Metal roofs were used from the 1850s for covered yards and other buildings on expensive planned

3 The distribution of listed aisled (left) and cruck (right) barns in England. Aisled construction, used for domestic buildings from the 12th century at the highest level in society, was suited to the storage and constructional requirements of large barns. The weighting of the distribution is southern English, stretching into the south of the East of England Region, with outliers being generally of a high status and dating from before 1550; a notable concentration in northern England is in the Halifax–Huddersfield area, where the wealth derived from a combination of farming and the cloth industry in the 15th and 16th centuries led to the construction of a notable group of aisled houses and barns. Aisled construction continued to be employed in southern England into the 19th century. Crucks in domestic buildings have a date range from the mid-13th to the mid-17th centuries, examples in the north of England being generally later in date, whereas in agricultural buildings the earliest survivals are 15th century and the latest (in the southern Pennines) early 18th century. There is a wide variety of forms in cruck construction. © Crown copyright. All rights reserved. English Heritage 100019088. 2005



4A Aisled barn, Cressing Temple, Essex. One of the earliest barns in England and one of two barns surviving from an estate of the Knights Hospitaller erected with timber felled between 1259 and 1280. (South Suffolk and North Essex Claylands)

B Barn at Cross Farm, Burgh-by-Sands, Cumbria, showing the full crucks to the interior of a late 17th-century clay-walled barn. This is one of a group of such barns on the Solway Plain, dating from between the 14th and 17th centuries. (Solway Basin)

A © English Heritage / Michael Williams;
B © Jen Deadman

5 Listed earth-built agricultural buildings in England This map does not accurately reflect the former importance of earth building in the East Midlands. The clays of the Midlands Plain were widely used in mud-and-stud construction for both cottages and farm buildings but the great majority of these poorly built structures were replaced with brick buildings in the 19th century. It is possible that some mud-and-stud survives in small, unlisted farm buildings. In the south of the Region there was a tradition of earth-building similar to the 'cob' or 'mud' construction seen in adjacent Regions.

© Crown copyright. All rights reserved. English Heritage 100019088. 2005



farmsteads, but did not come into general use – mainly for covered yards – until the end of the 19th century. Pre-fabricated buildings in iron were manufactured and exported from the 1840s, the most well known on the farmstead being the Dutch barn (see 6.4.1), popular from the 1880s. Factory-made prefabricated buildings, built to standard widths applicable to a wide variety of uses, have since the 1950s been the standard building type used on farms. The principal materials are summarised below.

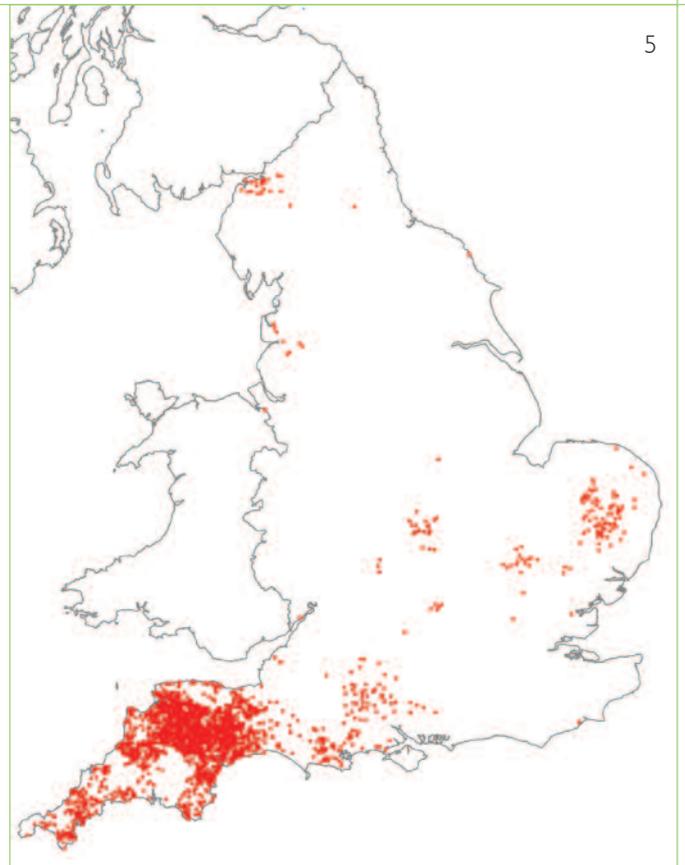
3.1.1 WALLING

3.1.1.1 Temporary structures

As could be expected, the most fragile structures are documented from excavation or archives (for example the Wiltshire vicarage stable 'enclosed with hurdle work' in Hobbs [ed] 2000, xvi and p.438) but have not survived. A long-standing building tradition, where posts were set directly in the ground with no definable bay structure, is documented from excavation and has survived in use for single-storey structures (including 18th-century cart sheds and 20th-century tractor sheds) to the present day (Lake 1989, p.43).

3.1.1.2 Mass walling

Mass-walled buildings now dominate the traditional farm building stock, almost exclusively so in the three northern regions. Stone and brick display a wide variety of treatment, their use reflecting not only the availability of materials but also the status of the farm and its owner. Large parts of England – particularly in the South East, South West, East of England, the East Midlands and the North West – display different traditions of walling in earth, dating from the 14th century (Figure 5). Concrete was used from the 1860s on some farms, for example for silage clamps, but did not achieve general use until after the 1950s.



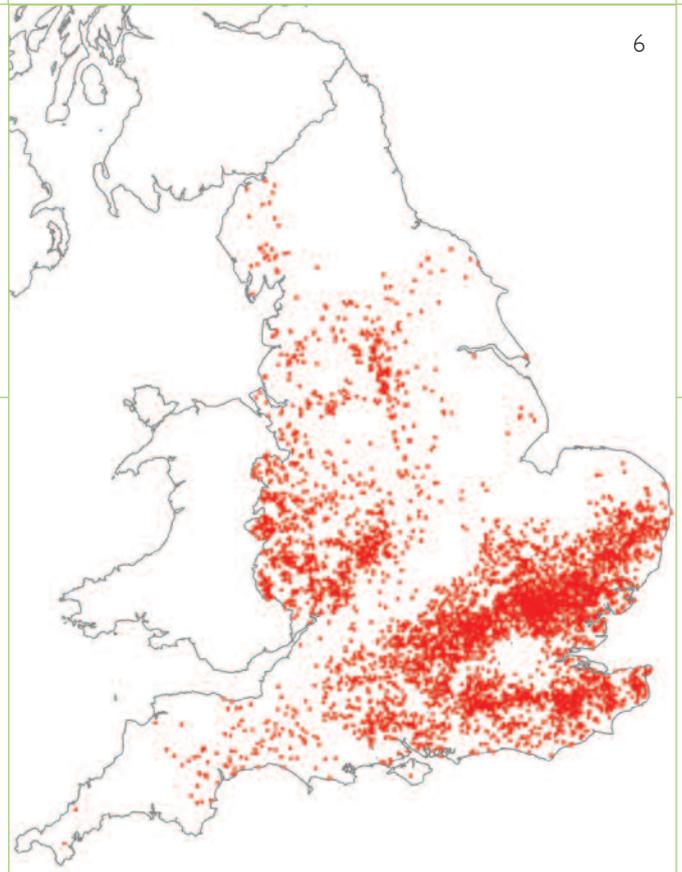
5

3.1.1.3 Timber frame

Timber-framed buildings are concentrated in the East of England, the South East and the West Midlands. The basic vocabulary of construction had been developed by the 13th century – notably the use of sophisticated jointing techniques, particularly at the junction of the main posts and roof trusses (the so-called bay divisions), and timber sills raised off the ground on dwarf walls. Climate and patterns of land use and ownership have affected the availability of timber and, together with cultural factors, have influenced the distribution, appearance of distinct traditions in timber framing and the framing of roof

6 Listed timber-framed barns in England. Although listing concentrates on the generally best-preserved sample of surviving buildings, this map broadly shows the extent of present survival. Note the separation – marked by the limestone belt running from Dorset to Yorkshire – of the major concentrations in south-east England and central southern England and western and northern England, where separate traditions of carpentry and framing developed. The map also reveals much about patterns of loss, and particularly rebuilding in stone and brick, over the centuries. There is a sharp boundary, for example, between the claylands of south Norfolk and Suffolk and the lighter soils of Breckland and north Norfolk, where brick had generally replaced timber frame by the 19th century. The absence of timber frame in the North East, where again it is documented, is notable. Such a map presents an obvious invitation to future analysis and research.
 © Crown copyright. All rights reserved. English Heritage 100019088. 2005

6



trusses for mass-walled buildings (Smith 1965; Stenning & Andrews 1988; and Figures 3 and 6). The infill between the timber frames would either be wattle and daub (a clay and straw mix), brick (often a later addition) or simply left as a wattle framework. Timber planks, either rebated or slotted like wattle, were also used but now only survive in very rare instances. External walling and render can also disguise evidence of earlier timber framing, including cruck and aisled construction.

3.1.1.4 Timber cladding

In parts of the country – particularly in the South East, East of England and the western part of the West Midlands – timber frames were often clad in horizontally fixed weatherboarding. Hand-sawn hardwood boarding is now rarely found, as machine-sawn softwood was increasingly used from the late 18th century.

Weatherboarding is either applied to a whole building (most commonly in regions in the South East and the southern part of east England) or to the upper portions of sidewalls (a common use in the West Midlands). Vertical boarding is mainly found in the South East. This had cover strips to prevent the ingress of rain; surviving examples date from the late 19th century. Hit-and-miss timber boarding, sometimes known as Yorkshire boarding, has been widely in use as cladding since the 1970s, since it provides good ventilation and meets modern animal welfare requirements.

3.1.1.5 Corrugated iron

See 3.1.2.3.

3.1.2 ROOFING

3.1.2.1 Thatch

Thatch was common in large parts of the country, and farmers used a wide range of locally available materials: heather, bracken, reeds, rushes, grass, turf, and straw from oats, barley, wheat and rye. Thatch, predominantly made of wheat straw or water reed, is now mainly confined to southern England and East Anglia (Figure 7). Heather and bracken was, until the 19th century, used in upland areas of moorland and heath, such as Dartmoor; the Pennines, the North York Moors and the Cheviots. Solid thatch, where the whole of the roof space was filled with materials such as heather or gorse with a straw or reed

topcoat, was formerly widespread but is now very rare (Moir & Letts 1999, pp.103–4).

3.1.2.2 Plain clay tiles and stone slates

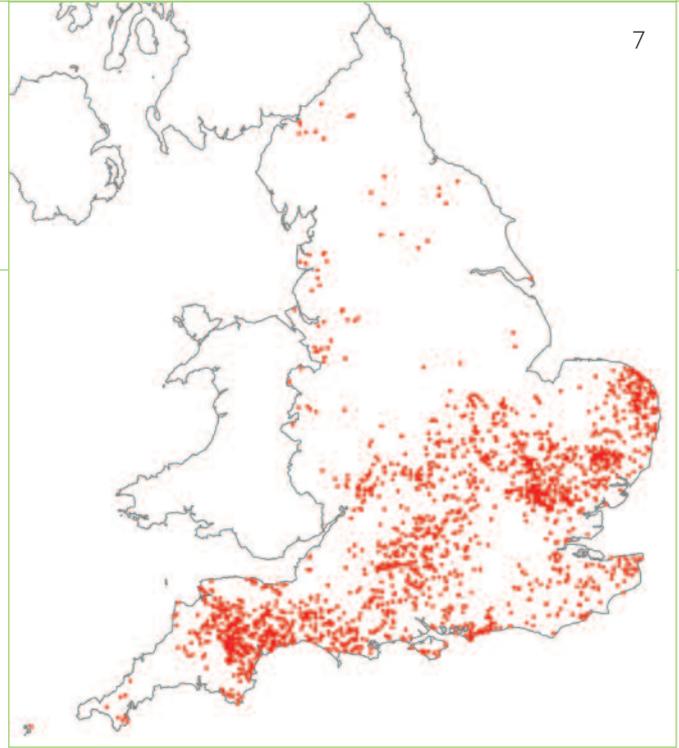
These materials were used at a high social level from the medieval period and are found in many parts of the country. Their use became increasingly widespread after the later 18th century, along with stone and brick walling, supplanting smaller farm buildings built of timber, earth and thatch in many parts of the country. The coastal trade and improved communications also enabled the widespread introduction of pantiles – instantly recognisable with their distinctive curved profile – into parts of the South West and across large areas of the eastern counties from north Essex to Northumberland, and of Welsh slate into many inland areas.

3.1.2.3 Corrugated iron and other prefabricated modern materials

Corrugated iron was used in England from the 1820s, initially for industrial buildings. Although several pioneering firms were producing portable corrugated-iron-clad buildings by the 1850s, it did not come into general use for new farm buildings (particularly on so-called Dutch Barns for protecting harvested hay and corn crops, see 6.4.1) until the farming depression of the 1880s made cheaper materials desirable. By the First World War, corrugated iron was in general use for the repair of roofs on farm buildings, particularly thatch. It was also used for the walling of model farmsteads built to a budget (Wade Martins 2002, p.175)

7 Listed thatched agricultural buildings in England. Particularly evident is the concentration of surviving thatch – the majority of which in agricultural buildings is listed – in southern England but extending into the south of the East Midlands Region, despite its widespread replacement by materials such as corrugated iron from the late 19th century. Rebuilding, and reproofing in slate and tile, has removed the evidence for its formerly extensive use (in straw, heather and bracken) from much of northern England. Such a map presents an obvious invitation to future analysis and research.
© Crown copyright. All rights reserved. English Heritage 100019088. 2005

7



and for smallholders' buildings in areas such as the New Forest. From the 1940s, asbestos cement cladding and a variety of insulating products found their way on to the farmstead. Hit-and-miss vertical boarding (also known as Yorkshire boarding) has been used as cladding since the 1970s.

3.2 BUILDING MATERIALS IN THE EAST MIDLANDS

3.2.1 WALLING (Figure 8)

3.2.1.1 Stone

Carboniferous sandstones appear in the Derbyshire White Peak, the Peak Fringe and Lower Derwent area and in nearby parts of the inner Trent valley. Millstone grit, in contrast, marks the character of the Dark Peak and large areas of the South West Peak. The belt of good-quality Jurassic limestone that extends through this Region from the Northamptonshire Uplands into Lincolnshire is fundamental to the character of large parts of this Region. Running northwards from Nottingham is a thin strip of Magnesian limestone that extends into North Yorkshire. A belt of brown marlstone derived from the Middle Lias extends from east Leicestershire, across the Northamptonshire Uplands and into North Oxfordshire in the South East Region. Locally known as ironstone, it is often found in the walling of older buildings. In Nottinghamshire New Red Sandstone, which is either 'white' (pale yellow or light grey) or 'red' (a pinkish brown) is used in building (Pevsner & Williamson 1979, p.46).

In the Lincolnshire Wolds a limited amount of the Lower Chalk is suitable for building, and flint is virtually non-existent although a small number of buildings were constructed using these materials (Pevsner & Harris 1989, p.24).

3.2.1.2 Earth

Earth-walled or 'mud' buildings are mainly found across Leicestershire, Northamptonshire and south-east Nottinghamshire using the ochre-coloured Liassic subsoils, although mud was also used in association with timber stud walling (a technique known as mud and stud) in parts of Lincolnshire. The mud walls were built on either a high plinth of stone or brick. Houses were normally rendered, but farm buildings and boundary walls were usually left unrendered. In contrast with the

cob buildings of the South West Region, for example, the earth buildings of this Region were of poor quality and were usually single storey. Cobbett described the hovels of a Leicestershire village with windows that were no more than bits of glass stuck into the mud walls (Pevsner & Williamson 1984, p.55). Typically these buildings were thatched although this was often replaced (McCann 2004, pp.31–2). Relatively few mud-walled buildings survive. It is probable that many were demolished and replaced by brick buildings or re-fronted in brick during the 19th century reorganisations associated with enclosure.

3.2.1.3 Timber

Much of the East Midlands Region, in particular the belt of limestone that extends from Northamptonshire into Lincolnshire, the Lincolnshire scarplands and the east Leicestershire clay vales, had been stripped of the great majority of its woodland by the 11th century (Roberts and Wrathmell 2000, p. 49; 2002, pp. 24-7). The concentrations of timber-framed buildings in this Region are correspondingly light, and concentrated in the historically well-wooded foothills of the Peak District and the western clay vales (the Derbyshire Peak Fringe, nearby parts of the Derwent and inner Trent valley, and the Mease/Sence Lowlands in particular). Cruck construction extends into this part of the East Midlands, particularly in the Charnwood area, and some crucks have survived in farm buildings.

The principle concentrations of aisled buildings lie to the south and east of the Region. Accordingly, aisled barns are relatively rare in the East Midlands. The few that are found in the Region are predominantly of pre-1550 date and were high-status buildings.

8 Examples of walling materials in the East Midlands Region

- A, B & D The Region offers a range of stones suitable for building that are an important element in creating a sense of local distinctiveness. (A Leicestershire and Nottinghamshire Wolds; B Kesteven Uplands; C Northamptonshire Uplands)
- C Across the southern and eastern parts of the Region cottages, farm buildings, including barns, and boundary walls were built in cob, locally called 'mud', using the Liassic sub-soils. (Northamptonshire Uplands)

- E The clays of the Midlands Plain were widely used for brick-making. Bricks generally replaced inferior timber-framed and earth-walled buildings during the 18th and 19th centuries. (Bedfordshire and Cambridgeshire Claylands)
 - F The gable end of a timber-framed barn with later brick infill, dated 1766. (Leicestershire Vales)
- A, B & E © English Heritage / Michael Williams; C © Alison Smith; D & F © Jeremy Lake

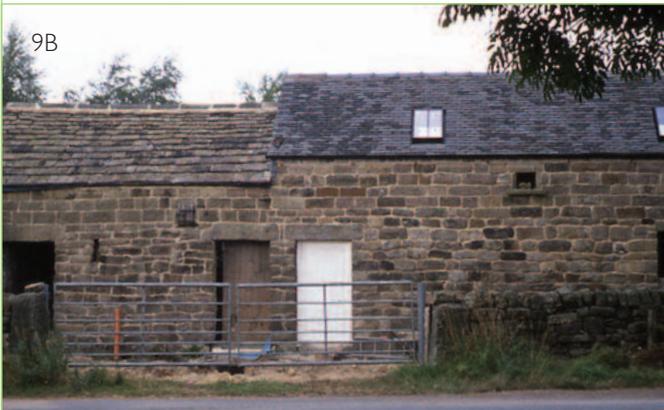




9 Examples of roofing materials in the East Midlands Region

- A Straw for thatch was available across many parts of the Region until the enclosure of the open fields of the vales and so it would have been the typical roofing material for most cottages and farm buildings. Thatch remains an important feature of the southern part of the Region, but is rare in the northern half of the Region. (Northamptonshire Vales)
- B Stone capable of being split into slates for roofing was available in the upland parts of the north-west of the Region and in the south-west. (Derbyshire Peak Fringe and Lower Derwent)
- C Clay tiles on brick-walled buildings became the ubiquitous roofing material of the Midland Plain during the late 18th and 19th centuries. (Needwood and South Derbyshire Claylands)
- D Pantiles. The use of pantiles is particularly characteristic of the eastern part of the Region, forming part of a wider distribution of pantiles that extends along the eastern side of England from East Anglia to Northumbria. (Central Lincolnshire Vale)
- E Welsh slate. The use of Welsh slate increased as the railways made transportation easier and cheaper. Slate allowed a lower roof pitch to be used, distinguishing many farm buildings of the period from earlier thatched or tiled buildings. (Derbyshire Peak Fringe and Lower Derwent)

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



3.2.1.4 Brick

With clay being readily available across large parts of the Region, brick is a characteristic building material, particularly through the clay vales of south Derbyshire, Nottinghamshire and Leicestershire where brick is the dominant walling material. From the 18th century brick largely replaced the mud and stud and lower-quality timber framing that had formerly been commonplace in these areas. Brick-built barns often have features such as tumbled brickwork at the gables and dentilled eaves.

3.2.2 ROOFING (Figure 9)

3.2.2.1 Thatch

Apart from the areas where stone slates were used, straw thatch was the dominant roofing material across the arable vales of much of the Region (Moir & Letts 1999, p.19). On a large proportion of buildings slate or flat tiles have replaced the thatch (Drury 1963, pp.102–106).

3.2.2.2 Slate

Gritstone is used for roofing slabs in the Dark Peak and South West Peak, while split limestone slate roofs are

also common in the White Peak. Limestone is used for stone slates, for example in Northamptonshire where slates came from Collyweston, and into Leicestershire where Swithland slates are encountered. At the end of the 18th century Swithland slates were the favourite roofing material, even for cottages, in parts of Leicestershire and adjoining parts of Derbyshire and Nottinghamshire (Pevsner & Williamson 1984, p.60). By the mid-19th century Welsh slates were widely used.

3.2.2.3 Tiles

The availability of clays for brick-making also allowed the production of clay tiles, and over large parts of the Region plain tiles or pantiles are characteristic, with pantiles being common in the north-eastern part of the Region in particular; this formed part of a distribution extending into Norfolk and up into north-eastern England and Scotland (Pevsner & Williamson 1979, p.49).