



Traditional Farm Buildings

Their Adaptation and Re-use





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Introduction



This guide is about the treatment of traditional farm buildings which are no longer needed for agriculture but are about to be, or already have been, adapted to serve a different use.

It is a 'best practice' guide describing how important these buildings are and how their character and interest can be successfully conserved. By the same token, it lets owners and developers know what the design and planning issues are, and how best to tackle them to achieve an acceptable scheme.


It covers works to their settings as well as the buildings themselves, not just those proposed as part of an initial conversion scheme, but also later ones when further works are being considered.


The guidance will have most relevance to proposals for the initial conversion of a building that has retained most of its interest and character. When proposals relate to an already converted building, however, its relevance will need to be judged against two things in particular. How well the initial

conversion retained the character of the building and its setting, and how well the new proposals maintain the standards and qualities originally achieved.

If the building's character was mostly lost, the only relevant guidance might be that relating to the building's relationship with the setting. On the other hand, it will always be relevant to proposals that offer opportunities to regain lost character, such as when 'inappropriate' worn-out elements, like roof claddings or windows and doors, need replacement.

...how important these buildings are and how their character and interest can be successfully conserved.

 *Inset: The main subject of this guide: well-kept (not ruinous) farm buildings with their character and interest well-preserved..... if and when proposals are made for their conversion.*

 *Main: Also the subject of this guide: farm buildings that have already been converted but still retain much of their interest and character.*





What they are and why they're Special


Farm buildings are the working buildings of a farm. Not the 'domestic' farmhouse, but the 'industrial' buildings constructed to accommodate the many processes and practices involved in the production and storage of food.


The essential features of most traditional farm buildings include:

- **The original fabric** of the walls, floors and roof structure, and any original window frames, doors and shutters. There may be fittings of interest too, both inside and out.
- **An uncluttered exterior** characterised by extensive blank walls and roofs with unbroken lines and few openings
- **An unpartitioned interior** (upper floors in particular) characterised by impressive proportions, long sight lines and the structural elements exposed.
- **An agricultural setting** characterised by hard-surfaced yards and open field surroundings. A characteristic of many two-storey farm buildings, is they are set into rising ground so that the upper storey also has 'ground level' access (the so-called 'bank barns').

As an integral part of an ancient landscape,

farms and all the buildings on them help chart the district's settlement pattern and its agricultural development and structure through the ages. Their standing buildings evidence the days of scythe and sickle harvesting and flail threshing, as well as the more recent stages of mechanisation and the rationalisation of farming practices. They evidence too the way the district was settled, with some farmstead sites known to have been continuously occupied since before Saxon times.

 *Main: Recorded first in the 1300's, the site of this farmstead is typical in evidencing long and continuous settlement.*

 *Inset: Less common are the 'model farmsteads' built anew. This one is dated 1853.*

... help chart the district's settlement pattern and its agricultural development...

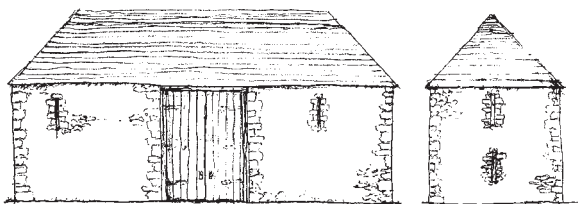


The types of buildings on a farm, and their size, relate mainly to its acreage and the kind of farming carried on. In the area, as in most of the rest of Devon, this was always a mixture of arable and pastoral, right up to the end of the 19th century. As a result, most farmers were involved in a whole range of activities, including growing corn (and other crops), raising beef cattle, dairying, cider making and rearing pigs and sheep, and for all but the last they needed a range of different buildings to accommodate them.

While the threshing (or corn) barn is perhaps the most common, not all farm buildings are actually 'barns', either by name or nature. There are several other types, and as each has a different function, they have different forms and appearances too. Individual examples will probably be unique, but their features will be typical of their type, making them distinguishable as well as distinctive.

The following diagrams and descriptions explain what the characterising features are of the main types of traditional farm building:

Threshing Barn



For the processing and storage of cereals. Characterised by a set of large double doors on one side opposite a smaller door on the other, most often in a near central position. With a threshing floor between them, the spaces on either side supplied separate storage for harvested and processed cereals.

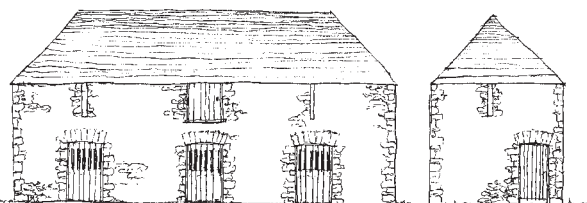
Porches sometimes flank the large doors, with the thickness of their projecting sides tapered to improve the draught.

Round House



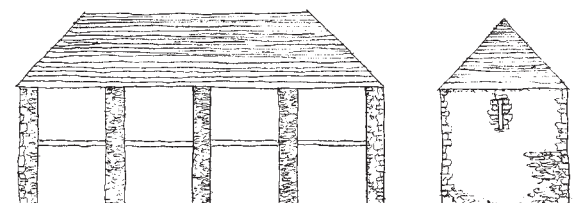
These extensions are sometimes an additional characteristic of Threshing Barns, built to shelter a 'horse engine' that drove a Threshing Machine. Some are open-sided and others enclosed, while their plans may be semi-circular, polygonal or a simple rectangle.

Shippon



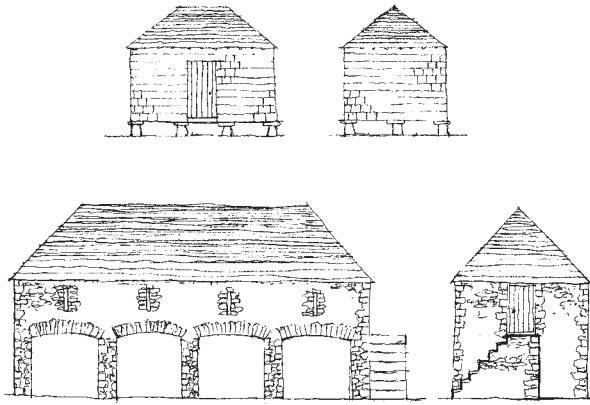
To house oxen and cattle with fodder storage above. Characterised by regularly spaced doors on the yard side, with a pitching door (or window) at first floor.

Linhay



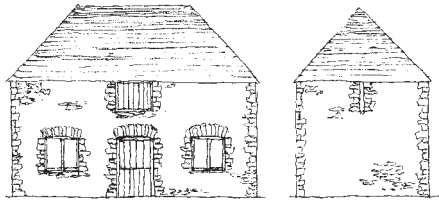
To store hay (at first floor) and provide shelter for either cattle (cattle linhay) or farm machinery (cart linhay). Characterised by an open front with the first floor and roof supported by regularly spaced posts or pillars. Sometimes the pillars are full-height from ground to eaves.

Granary



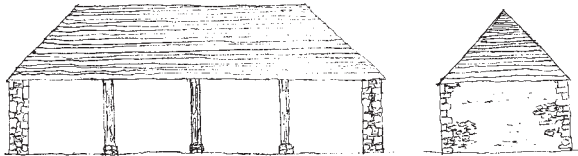
To store grain before it has been milled. Smaller ones were usually built on staddle stones (mushroom-shaped stumps) to help keep the grain dry and free from vermin. Exceptional for rural areas, they are usually of timber-frame construction, and just as exceptional for farm buildings, they are often slate-hung too. Larger ones are similar to linhays but with the upper floor front enclosed. Ground floors were normally used as cart sheds, while access to the first floor was usually via stone steps on an outside wall.

Stables



To house horses, usually with a 'hayloft' on the first floor and a pitching door at front. Characterised externally by regular, often near-symmetrical, arrangements of windows and doors. Interiors were divided into stalls, often with a 'loose box' (larger stall) for a foaling mare or sick horse. Outside steps to the first floor are quite common, particularly on larger holdings where farm hands were likely to occupy at least part of the 'accommodation'.

Cart Shed




Cart Shed - to shelter carts and other farm machinery. An open fronted, single-storey structure with the roof supported on regularly spaced posts or pillars.

Most farms in the area had a threshing barn and typically a shippon and linhay nearby, although often the threshing barn was actually incorporated on the first floor of a 'bank barn' with accommodation for cattle beneath. In addition, any of the following were likely to complete the farmstead range: a stable block, a cider pound, cart-sheds, a granary, pig sties, fowl pens and sometimes even a dovecote - if the farmstead was that of the Lord of the Manor (whose doves or pigeons had the freedom to fatten themselves on his 'subjects' corn as well as his own!) In addition, beyond the farmstead and serving distant fields, there might also be a field barn or animal shelter.

The variety of building types in any farmstead range is an essential aspect of their interest and character. Although often used differently today than originally intended, and have been modified as a result, most farm buildings still retain the distinguishing features of their type and much of their authentic character. The least altered are special indeed, while the modifications made to many can be of interest in themselves.




 *The linhay (right above) and the shippon with barn over (right) have different characteristics that are typical of their types and clearly tell them apart.*



As historic structures, traditional farm buildings illustrate well the use and development of local building materials and methods. Indeed, they comprise some of the most locally distinctive and characterful buildings in the landscape, more often than not built of stone and cob extracted from the sites they occupy. In addition, as products of their particular age, they record the resources and resourcefulness of their builders and users.



 *Sized to suit its purpose, the tithe barn (right above) speaks volumes of the 'taxes-in-kind' it was built to store. Examples are few, as are small animal shelters like this one (right) surrounded by fields in complete isolation.*





A Disciplined Approach to Design

Both in themselves and in their setting, and whether listed or not, traditional farm buildings make a tremendous contribution towards the interest and character of settlements and countryside.

In principle this makes their conservation most desirable, but whatever their type and wherever they are located, their authenticity as traditional farm buildings will only be properly conserved if:

- Their original fabric requires little in the way of rebuilding, and
- The changes needed to secure their future are few and can be done in a way that maintains their essential characteristics – inside, outside or in their settings.

Acceptable schemes are only likely to be achieved through the adoption of a flexible and imaginative approach to their design; not one that relies on conventional solutions to creating an acceptable place in which to live or work, but one that's inspired as well as disciplined by a building's existing characteristics. Every change being proposed, whatever its size or purpose, needs to be examined in terms of the necessity for it, the impact it will have, and whether alternatives exist (including alternatives to the way the building is being occupied or serviced, as these can sometimes obviate the need for a change altogether). Assessing the impact of changes, and knowing what alternatives there are, requires skill and knowledge, and those qualified and experienced in conserving the character of historic buildings, as well as architectural design, will be best able to provide the professional guidance needed. This is because the design approach most suited to the conversion of traditional farm buildings is not one that simply aims to suit a building

... the design approach most suited ... is one that seeks to suit the new use to the building...



Below: An unconventional new use provided the key to the successful conversion of this, still characterful, listed farm building. It has served mainly as a venue for music recitals since being converted about 8 years ago in what was a very conservation-friendly manner.



to its new use. Rather its one that seeks to suit the new use to the building, maybe in an out-of-the-ordinary way, and not always in a way the user might prefer.

If a large part of a building's fabric has to be replaced to make it suitable for re-use (through works of demolition and rebuilding) it is likely that the scheme being proposed will not be considered a conversion of an existing building but the construction of a new one on its site. In this case, different or additional planning policies will be relevant to determining the application being made. Proposals for conversion should therefore be supported and substantiated by a structural report which makes clear what the building's repair and rebuilding requirements are. This is important because when a conversion scheme is approved only the demolitions identified in the application are covered. Other demolitions thought to be required as work progresses will need to be formally agreed beforehand, and this could involve the making of a new application. In this case a scheme will need to be reassessed as a new-build one if all the demolitions put together amount to a large part of the building's fabric being replaced.

An essential first step to gaining a full understanding of a building's interest and character is the production of accurate, annotated drawings (including floor plans, elevations and cross sections) which show exactly what its existing features and details are (both inside and outside, and in its setting, including relationships with other buildings and features like walls, hedge banks, leats and ponds). Accompanied by photographs, these will supply a vital reference for influencing the design and enabling its assessment. The councils' will expect such survey information to form part of an application, while a descriptive and illustrated record of the building will normally be required as a condition of a planning approval, to be submitted prior to the commencement of any works.




Design in General

All traditional farm buildings have characteristics that are typical of, and identify, their type, but as each was built to suit the personal needs of its user and the nature of its site, no two are exactly the same.

The characteristics of individual examples are therefore unique, and it is these that need to be respected whenever proposals are being made – not the characteristics of different farm building types or even the same type of farm building in a different location.

- Traditional farm buildings tend to have a robust, uncluttered appearance that plainly and simply reflects their workaday use. This is true of their surroundings too, where the movement of large animals or vehicles was frequent. Architectural embellishments and decorative touches are therefore largely absent, so features of this kind (especially

if domestic in scale or association, like porches and canopies or lanterns and hanging baskets) tend to look out of place and should be avoided. The same is true of external TV aerials and satellite dishes, which may need to be located inconspicuously in a detached location.


 *Main and inset: While their form and shape are actually quite similar, the design and detail of these two buildings (and their settings) have characteristics that clearly set them apart. When converting farm buildings the aim and challenge is to make sure their 'non-domestic' character isn't eroded by introducing characteristics of the 'domestic' kind.*


- The insertion of additional door or window openings will begin to change the character and appearance of most traditional farm buildings, so their introduction should as far as possible be avoided (especially on significant elevations or prominent roof slopes). It

... make sure their 'non-domestic' character isn't eroded by introducing characteristics of the 'domestic' kind.



makes absolute sense, therefore, to arrange interiors so that every advantage is taken of the openings that do exist (in providing daylight, ventilation and access).


 *Right: Open-plan interiors offer the flexibility needed to take full advantage of opportunities like this, to insert large areas of glazing.*

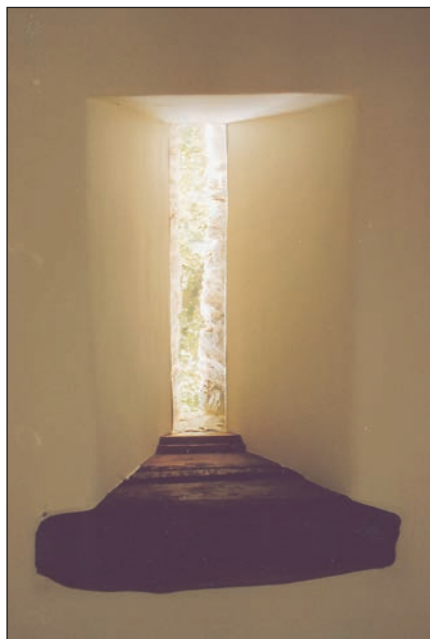
 *Below: In larger rooms and open-plan interiors, glazed ventilation slits can play a vital role in supplementing the main sources of daylight.*



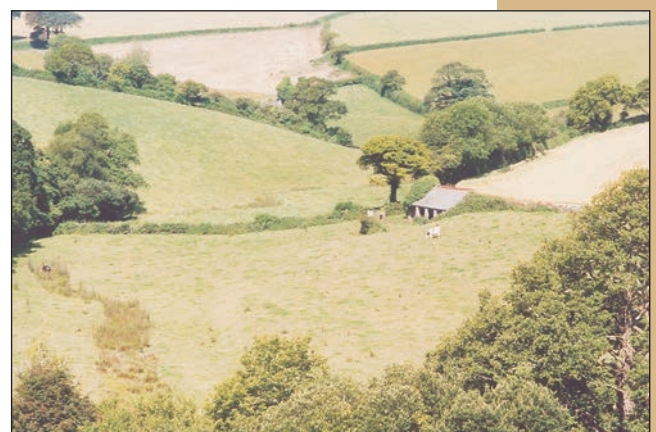
will need to avoid harming not only a building's own characteristics, but also the cohesive qualities of the whole and the individual qualities of its neighbours.

- A vital aspect of the character of individual farm buildings sited in fields away from the farmstead is their isolation. Often viewed only from a distance, their relationship with the rural setting is both immediate and intimate, and unless accompanied by a fold yard with enclosing walls or banks, there will be little opportunity to visually assimilate an alternative use without compromising this essential characteristic – especially if a long metalled drive has to be constructed to provide access. For this reason there is normally a presumption against the conversion of isolated or remote farm buildings, especially where they are prominent in the rural scene

 *Below: Isolated farm buildings (like the animal shelter shown left), along with individual farmstead groups, characterise the countryside and are an essential aspect of its visual appeal. This is seriously harmed, however, when conversions to non-agricultural uses are conspicuous, as they tend to intrude upon the traditional, **agricultural** scene.*



- The ageing processes that affect natural materials create exceptionally characterful patinas and idiosyncrasies which enhance the appearance of most traditional farm buildings. Over-zealous renewals will destroy them, so works to the fabric should, as far as possible, be limited to essential repairs.
- Although made up of several buildings with characteristics of their own, farmstead groups are nearly always visually cohesive, with each building relating to the others in a variety of ways (to do with their siting and arrangement, their materials and methods of construction, the features they have, and how they are designed). These 'neighbourly' characteristics are as important as their individual ones, so the aim should be not to compromise either. This means, of course, there will be less scope for making changes to individual buildings in farmstead groups. To be acceptable, any proposed change






Design in Detail - Roofs


Roofs are nearly always a dominant feature of farm buildings, while their timber structures often provide the only real clues about a building's age and development.

As a feature of roof slopes... dormers are not characteristic...

The pitches of roof slopes, the forms they take and the materials used to clad them are important too, each contributing greatly towards the distinctive characteristics of the part of the district they're in.

- Aim to retain at least the principle timbers of historic roof structures by making good and giving them the support they need to survive. Interiors can be enhanced by their exposure, while the undulating lines they create outside, which are true to the building's age, will continue to give visual delight if not straightened during the process of repair.

 *Main: Held together by wooden pegs, these roof trusses are undoubtedly pre-Victorian and probably date from the 1700's.*

 *Inset: Here photographed more than 20 years ago, these thatched roofs have since been renewed and survive today to give a rare glimpse of what was formerly a much more familiar rural scene.*


- If an historic roof structure is wholly beyond repair (or has already been replaced in an inappropriate manner), aim to reinstate its existing (or its original) form and configuration, taking care to establish the correct ridge height, angles of pitch and the forms of the ends (most commonly gabled or with full or partial hips).
- Although numerous in the past, thatched roofs on farm buildings are now few and far between, but where the material does survive it should certainly be preserved (Indeed, the majority are listed to help ensure this happens). Whenever practical it should also be



reinstated on roofs that were previously thatched. Where thatch has been replaced by corrugated sheet this may be an acceptable alternative.


- Aim to retain natural slate roof claddings that are in a reasonably sound condition. Modern techniques are available to deal inconspicuously with slates that are slipping (but are otherwise sound), while missing slates can often be matched by suppliers of salvaged building materials.
- If the natural slate cladding of a roof has to be stripped for renewal, aim to salvage any sound slates. If the supply is sufficient, re-use them on the more prominent slopes and use matching new or second-hand natural slates on the others. These should be grey-blue in colour, not dark. Aim also to salvage any clay ridge tiles, particularly those which are locally distinctive such as 'thumb-pinched' crests (see photograph below) . Whatever their number, always re-use them, and make up any losses with matching second-hand tiles or new ones with a similar colour and profile.




 Above: Careful re-use of its ridge tiles has meant this roof has retained most of its historic interest and character even though the slates themselves required renewal. The appearance and hand-made qualities of the tiles are a positive asset.

- Aim to continue or repeat the pattern of existing slatework when carrying out patch repairs or complete renewals. Traditional, 'graduated' patterns are especially characterful and attractive, comprising random width slates laid in diminishing courses (largest at the

eaves and smallest at the ridge). Another traditional pattern to repeat involves the use of much larger slates at the eaves and along the verges as a precaution against wind damage.

 Right: Before the arrival of the railways, when mass-produced slates became available in abundance, all roofs were skilfully laid in this 'graduated' way.

 Right: As well as making the roof wind and weather tight, the larger slates at the eaves and verges create a very distinctive pattern.

- Aim to repeat the existing treatment of the eaves and the verges of gable ends. Do not introduce overhangs beyond the wall's face or add fascia- or barge-boards where these are absent (other than perhaps the narrowest of fascias at the eaves, applied directly to the wall, if this is essential for fixing new guttering - see next item). The use of slates to protect any exposed parts of the roof structure at the verges is a common practice that should be retained or repeated in new work. The fixing of standard (unnecessarily deep) fascias to the wall face or the addition of projecting 'box eaves' should always be avoided as these are not characteristic of farm buildings, are visually intrusive, and tend to introduce an inappropriate 'domestic' appearance.





Left: The eaves (and verges) of older roofs hardly project beyond the wall face.

Right: The skilfully executed slatework to this gable verge replicates the original detail in every way.



Middle Left: 'Boxed' eaves and verges like these are typical of modern houses but totally alien to traditional farm buildings and should therefore be avoided.



■ Guttering is largely absent from traditional farm building roofs, so usually it has to be added whenever new uses are introduced. Aim to use cast iron with a half-round section, as this will be in tune with the historic nature of the buildings as well as their robust and straightforward character. Extruded aluminium is a more expensive alternative which when painted has a similar appearance to cast-iron. Plastic, on the other hand, is a poor, less sustainable, substitute whose appearance is generally out of keeping with natural walling and roofing materials. Avoid its use if at all possible, especially on principle elevations, but if used elsewhere it should always be


grey or black (not 'domestic looking' white). Whenever practical, aim to attach guttering directly to either the wall face using 'rise-and-fall' brackets or to the wall plate or rafter ends if these are exposed.

Bottom Left: The perfect way to add rainwater goods: made of cast iron, with the guttering fixed to the wall with brackets, they reinforce the building's historic character.




- Aim to construct hips in the traditional (and the most attractive) way using mitred slates laid on lead soakers (best practice). Hips finished with a narrow fillet of mortar running the length of the mitred joints are common but less attractive and prone to cracking. Tiles came into use in Victorian times but they tend to produce a clumsy, heavy appearance. While it would be correct to reinstate them where they exist on a Victorian roof, their absence from earlier roofs is a characteristic that should be respected. Lead rolls with exposed aprons running the length of hips (and ridges) aren't characteristic of 'humble' farm building roofs, however, and should normally be avoided.
- Corrugated iron sheeting has been used on roofs since the middle of the 19th century, so it can be an original cladding as well as a replacement for original slate or thatch. The fact is, many old buildings would have perished long ago had the 'affordable' sheeting not been available to cover their 27 failing roofs. Its use is therefore not uncommon, and for historical, practical and even aesthetic reasons there may be cases where its use today is both acceptable and desirable. Aim always to repeat the same, small-scale, wavy profile of traditional corrugated


sheeting, and choose a colour that is suited to the setting. Avoid the rectangular profiled sheeting that is commonly used for (and therefore associated with) the construction of new factories on industrial estates.

 *Above Right: In use for more than a century, corrugated sheeting is now very much part of the traditional farming scene. It tends to reinforce the 'non-domestic' character of the buildings it protects and, as these former stables show, it is neither unattractive nor out-of-keeping.*




 *Right: The conversion of this farm building to a workshop involved the reinstatement of its corrugated sheet roof. Most importantly, in order to maintain its traditional appearance, the wavy profile of the replacement sheeting was scaled to match the old.*



 *Below: The authentic character of this old roof has been preserved to perfection. The 'mitred hip' casts rainwater off down the graduated slatework for it to be collected in cast iron guttering fixed with brackets.*



be an acceptable alternative, but only if its size is small and its location inconspicuous. If not, the only solution might be to use fuels or forms of heating that do not require flues through the roof.


 *Below: The chimney stacks in this larger-than-average farmstead group do more than just define the domestic and non-domestic ranges. They also explain that the oldest part of the farmhouse occupies a wing at the rear, while off this wing, in a small scullery extension, a copper for heating water was tucked into one corner.*

■ Chimneystacks are often the most obvious features that signal the whereabouts of the farmhouse in a farmstead group. Their presence clearly labels the building 'domestic', which is entirely as it should be. Without them, the working buildings gather an equally appropriate 'non-domestic' label. The absence of chimney stacks from the roofs of farm buildings is therefore an essential aspect of their character (and that of the farmstead group) so their introduction is almost always inappropriate. A matt-finished flue with a simple, utilitarian appearance may




- The interior roof space of farm buildings was invariably left open to form part of the storage area on the upper floor. Separate day lighting at this high level was rarely needed or sought, but if ever it was, the traditional and most economic solution was to replace a few slates with glass. By the 19th century small rooflights were used as an alternative, but the introduction of 'expensive' dormers, to gain extra headroom as well, was never favoured.


As a feature of roof slopes, therefore, dormers are not characteristic, while their tendency to create a domestic appearance is wholly inappropriate. The addition of rooflights can also be visually intrusive, but where absolutely essential they may prove suitable as part of an otherwise acceptable scheme. The aim should be to restrict them to the least prominent roof slope(s); to keep their size and number to a minimum; to use only those with vertical proportions; and to avoid doing damage to important roof structures. In addition, the new windows should have a top- or side-hung method of opening and be fitted so that they are nearly flush with the roof surface. Where these limitations on the siting and number of rooflights cannot be met, it may be that the alternative use of patent glazing will provide an acceptable, if less traditional, solution to conserving a building's essential characteristics.

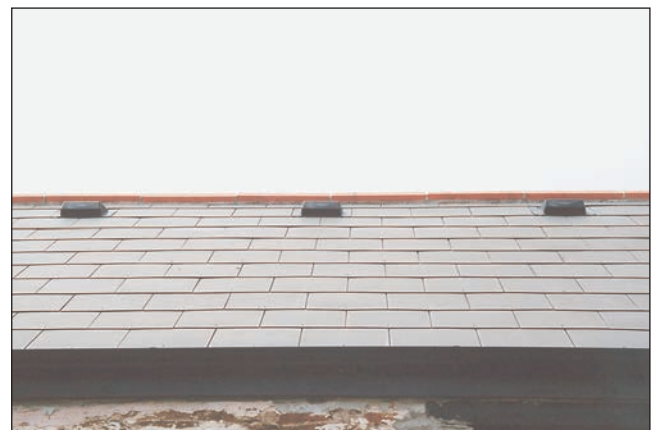
 *Below: Although even less discernible now than they originally were (after a hundred years of weathering) the two glass 'slates' on this roof still manage to let in an appreciable amount of daylight.*



 *Above: Far less damaging than 'windows in the wall face', these rooflights met the criteria mentioned in the text and were placed in a regular pattern to reflect established practice.*

- The ventilation of voids in felted roofs has long involved the introduction of conspicuous, modern looking fittings and roof forms that are alien in an historic setting and disrupt the homogenous appearance that characterises slate roofs. With the introduction of 'ventilators' that are incorporated into the felt lining, however, this adverse impact can now be avoided, as they operate 'invisibly' beneath the slatework.

 *Below: Vents like these along the length of a roof will have a very damaging impact on its appearance and character. They should always be avoided in favour of the most discreet types.*



Walls

The walls of nearly all traditional farm buildings are built of local stone, and / or cob.



Rendered surfaces, even over cob, are uncommon, and so too 'expensive' slate cladding which was generally reserved for cottages and houses.....and the timber-framed granaries just mentioned. As the need arose, horizontal timber boarding or vertical corrugated sheeting was usually employed to close off sections of open fronted buildings to accommodate changes to a farm's operations.


The complex geology of the area, and the wide range of building stones it supplies, is nowhere better recorded than in the walls of traditional farm buildings. Whether sedimentary, metamorphic or igneous, all types


of stone are in evidence, making an immense contribution towards the local distinctiveness of every part of the district. In the main it is rubble stone, brought straight from its source in roughly hewn pieces.

The plentiful supply of stone meant brick was never favoured as a walling material, and not until the 19th century was its ease of use and regular form utilised to the full in constructing door and window openings.

The mortar was invariably lime-based... slightly recessed in the joint and **'finished off'** with a brush.




 *Main: Walls like these, constructed of cob above stone, are typical of many parts of the area.*

 *Inset: Small granary buildings placed neatly on staddle stones are rare in the area, and so too any type of farm building clad in slate.*






 *Stonework patterns are many and varied. Typically, they tend to be either rounded (above left) or thin-bedded (above right), but whatever the pattern, new work should always respect what is locally distinctive.*

- The colours and the shapes of the stones that walls are built of are foremost in creating their distinctive qualities. As well as visual interest they can be a source of historical interest too, by giving clues to the age and development of a building and indeed the farmstead group as a whole. Colours are obviously many and varied, while shapes can range from the thinnest of slithers to the almost round. Aim to replicate the existing patterns of colour and shape whenever stonework is being repaired, renewed or reinstated where lost.
- If the dismantling of any part of an existing wall is essential, aim to record its appearance if its going to be rebuilt, and to do the work carefully by hand so that all the stone pieces are salvaged and made ready for re-use without damage.
- When additional stone is needed to complete the rebuilding of an existing wall, aim to use salvaged stone from the site that is compatible with the patterns of colour and shape that are distinctive to the building. (Salvaged stone from elsewhere may not be). Do not, however, demolish valuable walls or buildings nearby in order to supply it. If new stone has to be used, this should have the same compatibility too.

- When completely new exterior walls are to be constructed (such as for an extension), again aim to use salvaged stone or new stone which, in this case, is compatible with the patterns of colour and shape that are distinctive to the locality. Where a wall is to have only a facing skin of stone, aim to build it thick enough to allow the largest stones of the local pattern to be incorporated. Except when constructing segmental arches over door and window openings, (see page 23), the stones should always be laid on their natural, quarry, bed to minimise erosion and avoid any resemblance to vertical crazy paving. Aim also to avoid exposing machine-sawn faces as these will look out of place in an otherwise historic setting.

 *Below: This 'crazy paving' approach to wall construction should always be avoided. More similar technically to bathroom tiling, and with an appearance more suited to garden patios, there is no precedence for its adoption in the historic setting of traditional farm buildings.*



- The mortar joints of traditional stonework are nearly always thin so as to maximise the durability of the wall and minimise the amount of mortar needed to construct it. The mortar itself was invariably lime-based, with the final pointing slightly recessed in the joint and 'finished off' with a brush. For practical as well as aesthetic reasons, therefore, aim to lay and point stonework so that the thickness and finish of the mortar joints follows this traditional practice, using a lime-based mortar whose mix and colour matches the original.
- Cob is a strong, durable and energy efficient walling material that is an important feature of farm buildings in many parts of the district. As the composition and colour of cob varies from area to area, its exposed surfaces are a particularly attractive and characterful source of local distinctiveness. It is always important, therefore, to retain sections of cob walling, however small these may be. The tops of walls should always be protected from the weather during building operations, while advice on repairs should always be sought from an experienced contractor.
- Small nesting holes for pigeons (to supplement the farmer's diet) are a special feature of many farm buildings, usually located in a regular pattern high on an east-facing wall. These should always be retained for their visual and historic interest, as should other 'minor' features like external stone steps and mounting blocks alongside stone walls.



Above: The nesting holes in this 17th century farm building are somewhat unusual in that the central few on the bottom row have slate slabs running along their bases. That the slabs are above the doorway, and project out from the wall by a small and seemingly measured amount, suggests they weren't provided for the pigeons' benefit, but to spare whoever used the door from being 'spotted'.



Right: Although conversion made these characterful steps redundant they were nevertheless retained as a feature of interest and a reminder of how the building was formerly used.



Right: Not unique, but certainly rare, these stone steps giving access to a granary have a dog kennel built-in..... across the yard from the farmhouse door.




Openings for Windows and Doors


Apart from the open fronts of linnhays and cart sheds, most farm buildings have very few openings in their walls, with some walls – including those of linnhays and cart sheds - having none at all.

This 'lack of openings' is a fundamental aspect of their character, while the size and proportions of the openings they do have, as well as their number and arrangement, all contribute towards the characteristics of both individual walls and the buildings they serve. In every case, therefore, the most fundamental of aims should be to retain existing openings in their original form (and re-open original ones that have since been blocked), and not create new ones unless an acceptable scheme could not otherwise be achieved.

- The creation of new openings will begin to alter the authentic character of a building. If essential, their number should be kept to an absolute minimum, while their size, proportions and siting should be compatible with existing patterns and the characteristics specific to the building's type. Ingenious designs and locations for new openings that do not conform to established practices are likely to erode a building's genuine authenticity and


should therefore be avoided (such as triangular-shaped openings for new windows in gabled ends).

 *Inset: Courtyard facing buildings tend to be single aspect with their sides and rear walls often characterised by a total absence of openings. New openings in these walls will harm the building's essential character, so while new rooflights may sometimes be acceptable, a basically single aspect solution to conversion will need to be sought.*

 *Main: The key design feature which enabled this single aspect conversion to succeed was the use of the ground floor (with its several existing openings) for bedroom accommodation and the first floor for living.*





- Ventilation slits are a common (and very important) characteristic of many farm buildings and should neither be blocked nor enlarged. While not windows, they do allow some light into the interior, so aim to maximise this potential by fitting fixed glazing units in minimal frames.

 *Below: The historic interest of this particular ventilation slit is much enhanced by the fact it appears to preserve part of a medieval stone window at its head. The piece of carved masonry was probably salvaged from the nearby farmhouse when it was rebuilt in the 18th century and its 'old fashioned' windows replaced with up-to-date sliding sashes.*



- The way the lintels, sills and reveals (at the top, bottom and sides) of openings are constructed is a source of historic interest as well as visual character. When repairing them, or repeating an existing pattern, be sure to record their construction details beforehand, from outer face to inner, and including the location of the door or window frame in the thickness of the wall.

 *Top Right: Across the openings of windows and single doors, timber lintels usually have a narrow, plank-like appearance.*

 *Bottom Right: Stone lintels usually take the form of shallow 'segmental' arches, whatever size of opening they span.*

- Lintels of timber are still quite common. Those spanning the widest openings have a 'beam-like' profile and appearance, while those across smaller openings tend to have a more 'plank-like' form and are often made up of more than one piece to give support through the thickness of the wall. Their exposed sections, inside and out, therefore appear quite narrow. Although it may be practical to reinstate the 'hidden' parts of a deep lintel using concrete beams, these should never be exposed, while the practice of 'encasing' them in timber boarding is never convincing and should always be avoided.




- Lintels of stone sometimes comprise large single slabs (especially of slate or granite) laid horizontally across the opening, but more often they are made up of small pieces combined vertically to form a shallow curving ('segmental') arch. The pieces used are usually similar in size and rectangular in form, creating a compact, regular pattern with both the underside and front faces relatively smooth.

- Bricks (on-edge) largely replaced stone and timber for the construction and renewal of lintels in the latter part of the 19th century. The more discerning builder would shape (rub) the bricks so that, although in a curving (segmental) arch, the joints would be straight. (I.e. the bricks were




tapered, not the joints). The use of brick sometimes extended to the reveals too, with the bricks laid in pairs or threes to create the pattern and appearance of stone quoins (large corner stones). Whether of brick or stone, however, an arch supported on flat, iron straps is the poorest of substitutes for a properly constructed, authentic, self-supporting segmental arch.

 *Top Right: The brick of this arched lintel extends to the reveals too, except for the inclusion of two large stones which have brackets set firmly in them (probably to accept the hinges of an original frameless door that has since been replaced).*

- Sills are normally dressed stone pieces or slabs with their ends only slightly recessed (if at all) into the stonework on either side, and their drip edges extending forward of the wall face by a similarly small amount. Standard timber sills intended for the house-building market are incongruous and give an opening an inappropriate domestic appearance. Some sills, like the chutes serving root stores, slope to the inside and are particularly interesting features that now have a considerable rarity value.



 *Above: Sills are invariably of stone, with drip edges that project little beyond the face of the wall.*


Door and Window Types




Normally made with a robustness to suit the heavy-duty use of the buildings they are in, the doors and windows of traditional farm buildings, together with their frames if they exist, tend to have a chunky, industrial appearance.

They also tend not to be made to standard dimensions, so it is likely that all new and replacement door and window joinery will have to be purpose made. Units manufactured for the mass housing and d-i-y markets will inevitably possess a 'less-than-robust' domestic appearance that looks incongruous - even if, by chance, one of them fits an opening perfectly.

- New or replacement doors and windows should always be made of timber and recessed in their openings in the traditional manner (this not only improves weather protection but also reinforces the 'sturdy' appearance that most farm buildings have). The timber should be painted or stained using colours that relate positively to the robust character of the building, the rural character of its setting, and the natural colours of its stonework. Bright 'garish' colours should obviously be avoided, but white (because of its domestic associations) and red-browns (because they create the look of alien, tropical hardwoods like mahogany) are equally inappropriate.


 *Inset: The preservation of this massive pair of doors (one of a series on this elevation) was important to the successful conversion of this listed building. Imaginative use of the spaces inside meant they could each serve as front entrances to domestic accommodation.*

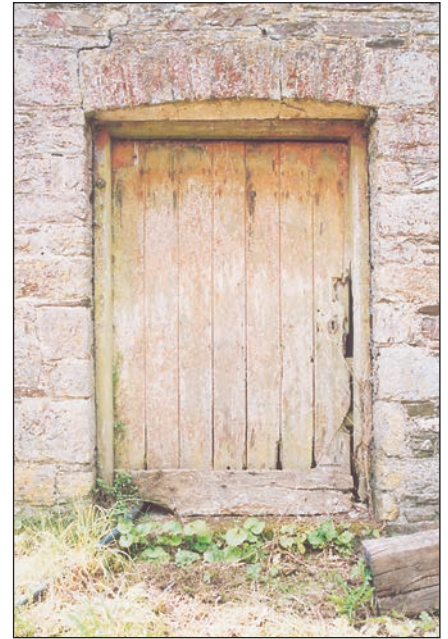
 *Main: Retained to perform an aesthetic rather than practical function, these old doors (which look more like gates) preserve part of the building's authentic character in a manner that doesn't look contrived.*


... Aim to repair and re-hang them if at all practical...



- Original doors can display a great deal of ingenuity in the way they are made to suit their purpose, and add interest as well as character to a building. The massive entrance doors to threshing barns often have smaller ones incorporated in them, while shippon doors were often partly slatted for ventilation. Aim to repair and re-hang them if at all practical, either to perform their original purpose; to act as shutters to an inserted window, or simply hung in a permanently open position against the wall.


 *Right: Perhaps the most common doors of all are those constructed of solid, vertical planks. Straightforward lines and unfussy detailing are their essential characteristics.*




 *Left: This traditional door pattern, and patterns similar to it, are common throughout the district, designed to allow ventilation when closed. With the open slats glazed, the design is well suited to adaptation for use in new or replacement work.*

Unless an existing pattern suggests otherwise, new doors designed with solid, full height, vertical planking are likely to prove the most acceptable. The widths of the planks should be greater than those normally used for domestic doors, and if daylighting is essential, this should be obtained through a small glazed section in the top half of the door that is aligned with the planking.





 *Left: Essential to the character of this 'up-market' stable block, these doors were successfully preserved to function more like shutters. When open they reveal a glazed screen incorporating a 'secondary' door that maintains the integrity of the opening in a most attractive and innovative manner.*

 *Above: When daylighting is absolutely essential, the 'solid' nature of the door should always remain dominant, while any glazing inserted should be located and proportioned to marry with the planks. (Here there are 6, but when planks are odd in number, a single, central glass panel will suit best).*

- Windows are generally plain and straightforward in their design and quite different to those found in a farmhouse or cottage. They contribute both interest and character, so aim to retain them or adapt them to a suitable form that can be matched in new work as well. Vertical iron or timber bars are an essential feature of many window openings and should be incorporated in the final design.




 Above: Traditional windows in farm buildings tend to have chunky, robust-looking frames. They mostly lack glazing, sometimes have internal shutters, and often have vertical iron bars inserted to improve security.

 Right: Where a farm building continues in non-domestic use (as here) it is often practical to renew windows exactly in their original form and so preserve their character entirely.




- Unless an existing pattern suggests otherwise, the most acceptable design for new windows is likely to be the side-hung casement fitted flush in its (chunky) frame. Normally in pairs, with a mullion between, each side should have an identical appearance even if one is fixed and the other opening (in other words, fixed [non-opening] lights should not be glazed directly to the frame, but to an sub-frame which is dimensionally the same as the opening casement). The addition of glazing bars to create multi-paned windows tends to introduce an incongruous domestic appearance, so this practice should be avoided.

 Right: These flush-fitting casements set in a chunky, mullioned frame (one with an upright post dividing the window into two) have a simple and unfussy design that suits them to the character of most farm buildings.



- Only by treating existing door openings as single entities will their integrity (as door openings) be properly maintained. The division of a door opening into distinctly separate elements that do not follow the pattern of the original door is therefore undesirable. Replacing a wider-than-average door with the combination of a standard door and a glazed (or solid) panel beside it should therefore be avoided. As well as harming the authentic appearance of the doorway, this treatment introduces a domestic character and an uncharacteristic, 'lop-sided' appearance. A door of the same width as the one being replaced should always be used. Replacing a single door with the combination of a small window and an infill panel of masonry

beneath it should also be avoided. If a window is to be inserted in place of a door it should be full-height, although a smaller window, with vertical planking beneath, can be acceptable if these are set within a full height frame.


 *Right: The partial glazing of this former door opening preserves its integrity (as a 'full height' door opening) by being set entirely within a full height frame.*


- The double-doors of larger openings divide them visually into two, so their treatment should aim to reflect this pattern by appearing as two separate, and usually identical, halves. Replacement double doors should therefore have the same heights and widths as the originals and close the opening completely (as for single door openings, the combination of narrower doors and separate side panels should normally be avoided). Replacement windows in double-door openings should again be full height, and be 'even' in number so that the opening 'divides' at the centre - where the original doors would have met when closed.



- Some openings, like those to the front of lincays and cart or cattle shelters, were never intended to be closed by windows or doors, so they lack the frames that normally go with their insertion. Indeed, frames were sometimes dispensed with in openings that were actually hung with doors on hinges fixed directly into the stonework. That these openings were never fitted with frames is, of course, part of their character. Their treatment, therefore, should aim to respect this characteristic through designs that avoid the need for framing or else minimise the visual impact of any that must be introduced.



 *Left: To preserve the integrity of this double-door opening, the appearance of the 'real' solid door on the left was repeated on the fixed panel to its right.*

 *Right: To preserve the character of this unframed opening (between the supporting pillars of an open-sided roundhouse) the glazing was secured directly into the masonry.*





Extensions and Additions



While the roundhouse is a characteristic feature of many threshing barns, extensions to other kinds of traditional farm building are far less common.

Strictly speaking, many of those that do exist aren't extensions at all, but additional buildings constructed against the wall of another. Usually lean-to in form, they don't have access through the wall but simply rely on it for support in a 'cost saving' manner. Minor buildings like pigsties or open fronted shelters were sometimes added in this way, but whether 'separate additions' (like these) or 'integral extensions' (like the roundhouse), the buildings are just as important as their parent in evidencing how a farmstead has developed over the years. Their retention is therefore essential to telling the 'complete story'.


 *Main: This roundhouse extension is typical of its type, being attached to the rear wall of the threshing barn, well clear of the 'threshing doors'.*

 *Inset: Although uncommon in themselves, where other small additions have been constructed they normally have a 'lean-to' roof and are usually located at one end.*


The porch and canopy extensions that shelter so many farmhouse doors are only rarely found on the working buildings close by – with one exception, and that is the threshing barn. Its massive, cart entrance doors were often set within a shallow porch or beneath a substantial canopy. Invariably, however, these purposeful devices were an integral part of the original design and were not added later.

The general absence of extensions and additions to traditional farm buildings is an aspect of their historic interest and authentic character.



 *Right: Significantly as well as typically, this 17th century bank barn was designed and built with just one canopy - to shelter the threshing door and the threshing floor inside. Canopies above other openings are rare, even above pitching doors like the high level one in this building's gable (at right).*




 *Left: The only other structures likely to be found projecting forward of the four walls of farm buildings are staircases, built mainly to serve granary stores or other specialised uses (like stable-hand accommodation above a stables). Unusually, this one seems to have been added after the building's construction, as the signs are it is blocking an earlier door. This doesn't mean, however, that it should be removed.*


- The general absence of extensions and additions to traditional farm buildings is an aspect of their historic interest and authentic character. Conversion schemes that involve the construction of new extensions or additions (or the demolition of existing ones) are more likely to harm the integrity of a farm building and are therefore less likely to be acceptable.
- Whether or not a threshing barn has a roundhouse attached is a significant aspect of its historic interest and authentic character (as well as that of the farmstead it occupies). The absence of one does not mean, therefore, that an extension built to look like one would be acceptable.
- In the exceptional circumstances of a new addition being acceptable, designs which mimic particular farm building types may not be appropriate as these can confuse

the understanding of a farmstead's historical development. Contemporary designs which relate in a more general sense to the simple lines and robust nature of the original, as well as its scale, form and materials of construction, can provide a more relevant solution by responding in an innovative way to both the setting and the requirements of the new use. Even if well designed, however, an extension which dominates the parent building; is located on a visually prominent or important elevation, or is positioned in a way that compromises the significance of an important feature (like threshing doors) is less likely to be acceptable.

- Individual garages may be a common feature of residential suburbs, but they look out of place in the setting of traditional farm buildings or farmsteads. Whenever practical, therefore, garaging should be provided in suitable existing buildings, such as lincsheds or cart sheds which are more likely to have openings of sufficient size. The construction of new garaging may be acceptable if it can be achieved without having an adverse impact upon the character and historic interest of the existing buildings and their setting. This may mean that a site well away or hidden from the existing buildings needs to be considered, but it will certainly mean that their materials and form will need to be compatible with those of the existing buildings and that their scale and design are characteristic of farmstead buildings of a similar type (for example, cart sheds). In many cases, however, the only way to accommodate the car will be in discreetly located parking areas.

 *Right: Open fronted shelters lend themselves well to car storage. Used in a 'car port' manner, without the addition of doors or partitions, their character and appearance need hardly be changed at all.*



 *Right: Conversion schemes often involve the removal of unsightly makeshift structures or the relocation of modern agricultural buildings. The latter was the case here, and because the site vacated was both levelled and hidden in the landscape, it proved a most suitable location for new garaging (the 2 blocks on the left).*






The Setting


Just as farm buildings are the 'working' buildings of a farm, the spaces around them, or at least those they face, are its 'working' spaces whose functions also relate to the kind of farming carried on.

Whether accommodating the movement of large animals or the manoeuvring of heavily laden and awkwardly drawn carts or trailers, the spaces are usually open and uncluttered. But whether to confine stock or safeguard machinery or produce, they tend otherwise to be enclosed, often in a courtyard form, by buildings, gates and walls. These are the essential characteristics of most farmstead settings, while features in them, like dung pits near shippons or rick yards next to threshing barns, contribute positively towards their historic interest.

Another characteristic that's significant is the way the landscape around a farm building or farmstead group often flows unimpeded right up to its 'outside' walls. The relationship is 'immediate', while the blank walls of many courtyard groups help create an irresistible, fortress-like appearance. Above all, the open setting of the vast majority of farm buildings characterises a long history of single ownership.

... aim to retain the spatial characteristics of a setting as well as any features of interest it possesses.

 *Inset: The cobbled depression preserved as a focal feature of this very large courtyard was once a dung pit serving the shippon ranges along two of its sides.*


 *Main: A scene typical of farmstead groups arranged around a courtyard. The farming landscape flows right to their rear walls, which characteristically have few if any openings.*


- The settings of traditional farm buildings are an integral part of their interest and character. It is the buildings in their setting, not simply the buildings themselves, that is significant in conservation terms. In every case, therefore, the aim should be to retain the spatial characteristics of a setting



as well as any features of interest it possesses. Some farmyards (and spaces nearby) may have been permanently sub-divided in the past to create small fold yards or pens. While it will usually be desirable to retain these for their historic interest, the creation of more sub-divisions should as far as possible be avoided, especially where the space concerned is open to public view. (This includes the avoidance of lines of large stones intended to define separate ownerships or vehicular routes, as these create a particularly incongruous appearance).




 Above: The wind-shaped tree behind this isolated field barn suggests the high stone wall at right was built to shelter its yard from the weather. With a view to retaining its value as a visual barrier too, the wall's repair went hand-in-hand with the introduction of a new business use.

 Below: Integrated with existing stone walls and built of locally salvaged materials, these new stone walls serve to disguise a refuse collection point near the entrance to a courtyard group of converted farm buildings.




■ Boundary structures like hedge banks, walls and traditional fences and gates, which enclose spaces around a farmstead (including the approach lanes and any ancillary yards or paddocks) possess historical interest and are usually characterful features in themselves. They nearly always have aesthetic value too, creating visual links between buildings (and therefore 'holding' them together as an harmonious group) or helping to create spaces that are visually self-contained (and often hidden from general view). Aim to respect and utilise these values from the outset, as the conservation of boundary structures is fundamental to achieving an acceptable scheme. Those that exist should be retained and, where necessary, repaired in a like-for-like manner. New structures may be acceptable (such as to mask a refuse point), but they will need to reinforce existing characteristics and be constructed in a way that is compatible with local materials and methods. Walls of standard concrete blocks will nearly always be inappropriate, as will plastic chain-link fences and fences made of lapped or ornamental timber panels. As far as new hedge-banks are concerned, these should always be planted with indigenous and locally occurring hedgerow species, not ornamental ones and never leylandii. This will also benefit biodiversity, especially if the hedges are not cut annually but allowed to flower and set fruit.


 Below Right: Perhaps no more obviously than in picturesque locations like this one, existing walls, banks, hedgerows and gates make a tremendous contribution towards the interest and character of farm building groups. Their removal would certainly cause harm, while the introduction of alien forms and features of a domestic or ornamental kind would have a very erosive impact.






 *Left: Although necessarily enlarged, the character of this access through an existing stone wall was preserved through the careful reconstruction of its distinctive gate pier.*




 *Above: Conceding to public safety and convenience, natural stone paths (on the approaches to a number of retail and workshop units) were necessarily laid across this well preserved cobbled courtyard. While easily recognised, the paths nevertheless harmonise perfectly with the cobbles on account of the matching materials used, the irregularities of their pattern, the undulations of their levels and the absence of any fanciful or formal features (like edgings).*

- The two materials most commonly used to hard-surface historic farmyards are stone sets and cobbles. Both are small in scale, and areas paved with them have a generally uniform and homogenous appearance that reflects their straightforward and practical purpose. Rarely, if ever, are they laid to ornamental patterns, and while cobbles might have the date of their laying inscribed, usually it is only the lines of shallow drainage channels that introduce variation. Aim to retain these traditional hard surfaces and, if it is practical, salvage and restore those that have been subsequently hidden. Aim also to continue their use whenever hard surfaces are to be reinstated, particularly where this will complete an original section.




 *Above: The re-use of cobbles, salvaged from inside buildings as well as outside, is always desirable. Here a pathway has been laid across a courtyard to align purposefully with the 'public' route through the building opposite. What is particularly noteworthy about the path, however, is that it has been laid entirely with salvaged cobbles and without different edgings that would have created a too formal or too fussy appearance.*



 *Left: When sufficiently sound, cobbled surfaces should be retained in situ, as these were, to preserve the genuine character of an historic setting. They will preserve local identity too since, as with building stones and clays for cob, cobble stones are distinctive to a locality, being gathered from nearby fields or quarries.*

- New hard surfaces should respect the characteristics of the old in terms of their scale, colour and pattern. Natural stone setts and cobbles should always be preferred, but certain concrete setts with ‘tumbled’ arrises (ie those with their sharp angles softened) will normally be acceptable if they are also laid to a straightforward, ‘non-ornamental’ pattern. Other than for surfacing access lanes, tarmac should be avoided in farmyard locations (as its use was never favoured), as should the use of coloured or ‘surface-moulded’ concrete slabs which introduce an incongruous domestic appearance.





 Above: While clearly modern, this particular type of concrete sett (with its tumbled arrises and variations in colour and size) has attributes that generally suit it to ‘less-than-formal’ historic settings. By comparison, brick or block pavers that have bevelled or sharply defined arrises; are regularly sized or shaped, and do not have subtle variations in their colour, tend to appear too formal and ‘manicured.’

- For very large yards it may be appropriate to consider using setts or cobbles in combination with ‘mass’ materials like gravel or stone chippings. The latter usually look best if compacted, while their type, colour and texture should relate to the natural materials around, including the stone of the buildings. Low growing

ground cover planting (including grass) might also be suitable, but only if it is managed to produce an un-manicured appearance. Simplicity is the key to a successful scheme, so such combinations of finishes should always be arranged in a ‘non-fussy’ manner that relates primarily to the original usage of the buildings and yard. They might therefore ‘define’ the points of access to buildings and the routes to them across or around the yard. Loose gravel or chippings for paths, however, cannot be recommended as it transfers to other surfaces or areas with ease and requires separate edgings that will probably look incongruous and introduce a fussy detail. Original features like dung pits or drainage channelling should always be incorporated into the landscaping scheme.

- Suburban style flower or shrub beds are unsuited to farmyard settings. Only the farmhouse was ever likely to have an ornamental garden; usually at the front, and always separated from the ‘working’ spaces by walls and gates. The introduction of these beds into the yards and areas next to farm buildings is almost bound to have an adverse impact on their open, ‘working’ character, particularly so when their planting contrives to enclose and divide areas into smaller units. Low growing herbs, on the other hand, have a certain affinity with such settings, and use of ideally native species that flower and provide nectar for pollinating insects would be beneficial to biodiversity, while areas of grass which are maintained under a relaxed regime also tend to be complementary – unlike perfectly manicured lawns which will certainly be at odds. The ‘outer’ surroundings of farm buildings, beyond the ‘working’ yards, should be regarded as part of the wider landscape and be treated and managed in a way that is compatible with its character e.g. as an area of meadow, orchard or copse. This approach to their treatment will be especially relevant, of course, where the surroundings of the buildings are open to public view.

 *Right: However tempting it may have been to adorn the balcony, steps and alcoves with potted plants, and to line the path with an ornamental flower bed, the absence of such garden features has made an immense contribution towards preserving this building's authentic character.*

 *Right Below: Garden beds in farmyard settings will appear especially incongruous if not treated in a very simple and restrained manner. This has been achieved here by limiting the planting zone to a narrow strip against the building's wall and planting only low growing herbs and the occasional shrub or climber.*

- Structures and features that are normally associated with residential sites and areas, like garden sheds, summer houses, gazebos and greenhouses (particularly the mass-produced types) are unlikely to suit the 'non-domestic' character of farm buildings and their settings. Unless shielded from view by existing walls or buildings, or otherwise located in an inconspicuous position, their introduction is unlikely to be acceptable even if well designed.




Wildlife


Traditional farm buildings are home to a host of native animals, many of them rare, and each in their own way taking advantage of the accommodating spaces and structures on offer.



From solitary bees in 'soft mortar' burrows, to barn owls in roomy roof voids, the range is wide and mostly on the wing. The survival of them all is important, but it is the well-being of roosting bats (any of the 16 species found in England) and nesting birds (especially barn owls, and particularly swallows, swifts and house martins) that need to be most carefully addressed. Principally this means doing two things: making absolutely sure their lives are not disturbed during their nesting or breeding seasons, and making arrangements to ensure their 'occupation' of the building is sustained and not threatened by any works or actions.

It is necessary to resolve how this will be achieved before an application is determined because it might involve works that need to be considered in the context of the overall scheme. In addition, it will be in an applicant's personal interests to deal with these matters 'in advance' as disturbance is no less a criminal act as killing, injuring or capturing a bat or bird, taking a nest or egg, interfering with a nest or roost, or obstructing a flight path to them.

 *Main: Natural ponds are one of the more obvious wildlife habitats that suit the surroundings of farm buildings, and are particularly valuable if associated with areas of rough grassland, water meadow or native woodland*

 *Inset: Being birds of prey, barn owls were not unwelcome visitors to the farmstead. Indeed, they were sometimes encouraged to take up residence through the provision of 'owl holes' in suitable gable ends.*

... ensure their 'occupation' of the building is sustained and not threatened by any works or actions.



Establishing whether any protected species are present is an essential first step, so have an ecological survey carried out by a specialist consultant at the earliest opportunity. If protected species are found during a structural survey, then this would need to be investigated before continuing with it.

- Many traditional farm buildings are located in settings that are potentially ideal for supporting a wealth of wildlife, so even if the ecological survey confirms an absence of protected species, it is always desirable to consider whether provisions could be made to encourage native species that have become increasingly rare. Not just birds and bats, but butterflies and moths, frogs and newts, dragonflies and bees, and small mammals like hedgehogs, field mice and voles. And whether required by the wildlife legislation or not, include details of the provisions with your application to ensure they're suitable for their purpose and receive consent if it is needed.
- Different species of birds have different nesting behaviour. For example, swifts, house sparrows, starlings and jackdaws nest in cavities within exterior walls or in roofs, house martins build visible nests under the eaves of buildings, and swallows nest on ledges or beams inside 'open' structures. Barn owls require larger areas, such as an undisturbed corner in the upper part of a building or roof, or an inbuilt nest box. Suitable nest sites for some bird species could be built into renovated or replacement exterior walls of buildings, or boundary walls. Nesting periods vary too – barn owls can start nesting very early in the year and may still have unfledged chicks in August, swifts nest from April/May to August and house martins can still have unfledged chicks in nests into September. Some species will rear more than one brood in a season, eg, house martins.
- Similarly, different species of bats have different roosting behaviour. For example, within a barn pipistrelle bats may roost in crevices within walls, under barge boards, or roof tiles, while horseshoe bats may value the flying space within slate roofed barns in the summer and their dark, undisturbed and warm conditions, or associated cold, damp parts of barns (e.g. cellars) in the winter for hibernation. Retention/creation of roosting spaces for these species can vary between retention/creation of simple crevices to more significant loft/cellar spaces. Barns have potential to support bat roosting year round, including night roosts, maternity and hibernation roosts.
- Retention/management or creation of suitable foraging habitat in the nearby setting of the farm buildings is important for some species (eg, barn owls need access to rough grassland with populations of small mammals such as voles, house martins need ready access to muddy areas to build their nests). Bats need access to their roost and breeding sites to be unlit and some species require continuous lines of unlit (<0.5 lux) vegetation such as hedgerows or lines of trees along which to navigate to feeding areas. Other species, eg, swifts, simply need a suitable small, high cavity as they will fly many miles to forage on tiny flying insects.
- As well as ensuring that existing wildlife use is retained or given suitable replacement habitat within a proposal for conversion or other works affecting traditional farm buildings, enhancements should also be included to ensure the proposal achieves a net gain for biodiversity (in accordance with Local Plan policy and the NPPF). This can be as straightforward as leaving gaps/cavities/crevices in suitable locations in the wall tops or roof, or formal inbuilt provisions for birds and bats. A specialist ecological consultant will be able to advise and these enhancements should be incorporated into the design at an early stage as integral provisions are more effective than add on/retrofitted boxes.

Checklist of Application Requirements

(always refer to the local authority validation checklist)

Structural Survey

This is required to substantiate the repair requirements of a building and should specify their extent and nature. It is especially important that the report identify all parts of the building's fabric that require renewal (through removal/demolition and replacement/reconstruction). When a conversion scheme is approved only the repairs and renewals identified in the application are covered. Any additional works of this kind, but particularly demolitions and reconstructions, will need to be formally agreed beforehand, and this could involve the submission of a new application.

To ensure clarity, certain repairs (like those to roof trusses) may need to be illustrated by drawings, while the parts of the fabric proposed for renewal should always be identified in this way.

Ecological Survey

This is required to substantiate the existence (or otherwise) of any protected wildlife species and their habitats. It should describe the measures to be taken to minimise and mitigate the impact of the conversion scheme, both during the construction works and following completion, and include proposed biodiversity enhancements for bats and birds. (Certain works may involve acts that are prohibited by the Wildlife legislation (e.g. the disturbance or destruction of a bat roost). In such circumstances it will be for the applicant to seek a licence to carry them out from Natural England.

Design and Access Statements and a Heritage Statement where applicable

Plans and Drawings

While advice on the plans and drawings to be submitted with applications is included in the guidance note issued with the application forms, the following requirements are specific to applications involving the conversion of traditional farm buildings.

On **Site Survey** plans, show and describe features that form part of the building's setting, including adjacent buildings and structures, ground surface treatments and levels, landform features (like quarries) and other features like walls, hedge-banks, trees, leats and ponds. Where there are significant changes in level across or near the site, these should be shown in cross section.

On **Building Survey** drawings, aim to identify and describe the building's features and characteristics, including the materials used in its construction and the design and appearance of its component parts. Special features, inside and out, should be recorded on measured drawings, while section drawings should be used to illustrate the major construction details of the roof, walls and floors, including typical window/door openings and the treatment of the roof at the eaves and verges.

The plans and drawings of the **Proposals** should, of course, show how the setting of the buildings, as well as the buildings themselves, are to be used and treated.

