

BUILDING DESIGN GUIDE

SECOND EDITION

PEAK NATIONAL PARK

Introduction

The Peak District National Park is an area of exceptional natural beauty. Its landscape and buildings are in harmony with each other. They have a definable, individual character that should be preserved and enhanced.

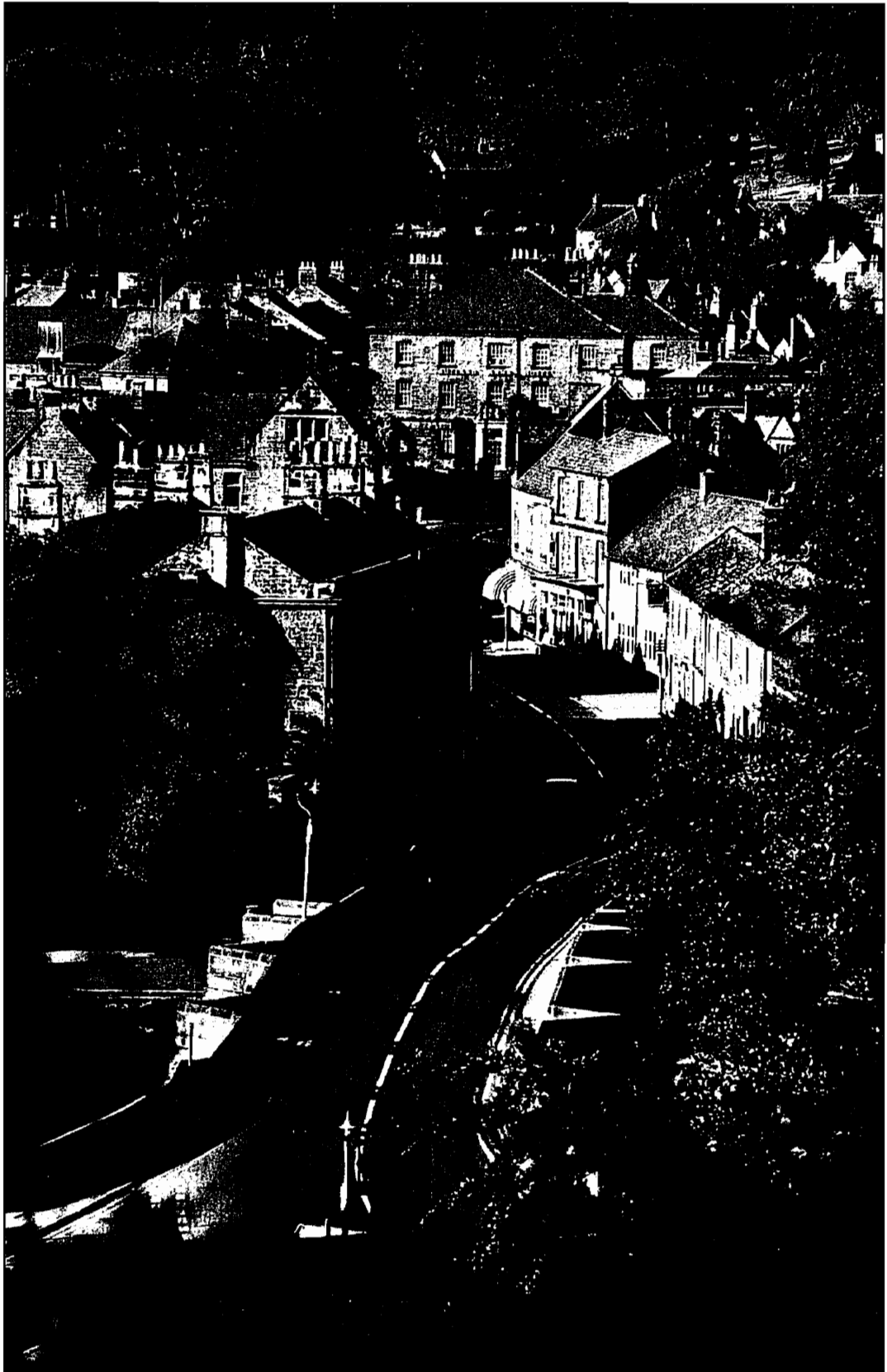
This guide aims to promote a good standard of design for new buildings in the Park. The key to this is an awareness of the local building tradition and the guide therefore examines this tradition and asks why our buildings have evolved as they have. But new buildings should not **copy** traditional forms because this would devalue our building heritage. They need instead to be in **harmony** with the existing if the character of the area is not to be disrupted. Ways of achieving this are developed in the guide.

It deals mainly with housing but is relevant to other building types. Farm buildings are the subject of a separate guide, and shop fronts and other commercial buildings will also be covered by guides.

The guide is not a set of rigid rules. It must also by its nature be very general. Any guidance must be qualified by what happens locally—many villages or areas of the Park have their own unique style of building.

The intention is not to stifle creative design. Good modern design is needed in the Park, but it must be a development of the local tradition. This is only possible if the designer has a thorough knowledge of that tradition and a conscious effort is made to reinterpret its disciplines in 20th century terms.

Professor John Tarn,
Chairman, Planning Control Committee



1: Buildings in their setting

The Tradition

Where to build and what kind of building? Traditionally, the answers to these questions depended on many factors such as the availability of land and materials, the owner's wealth and aspirations and fashion. But in the rugged upland terrain of the Peak District, the **landscape and climate** have probably been the strongest influences of all. Sheltered sites have long been favoured; neither too high to catch the full force of the harsh winter climate nor too low to suffer the flooding or marshy conditions in the valley bottoms.

Further shelter for those inside has come from a tradition of substantially constructed stone houses with pitched roofs often angled to avoid the worst of the prevailing wind and rain. Carefully placed trees, walls and outbuildings may also have contributed. Fashions from lowland Britain have been slow to catch on and even then elements have been dropped or modified to fit in with the overriding need for solid, economical buildings. The lie of the land is such that there is little flat ground. Building methods have evolved to cope with sloping sites, often to good advantage. The difficult topography has also meant poor communications until recent times. This ensured the predominance of local resources of materials and labour.

Not surprisingly therefore, the Peak District has a strong tradition of consistently simple and robust buildings put up by local people, using mostly local materials to suit local conditions. The result is buildings which fit into their setting.



Traditional house in the landscape.

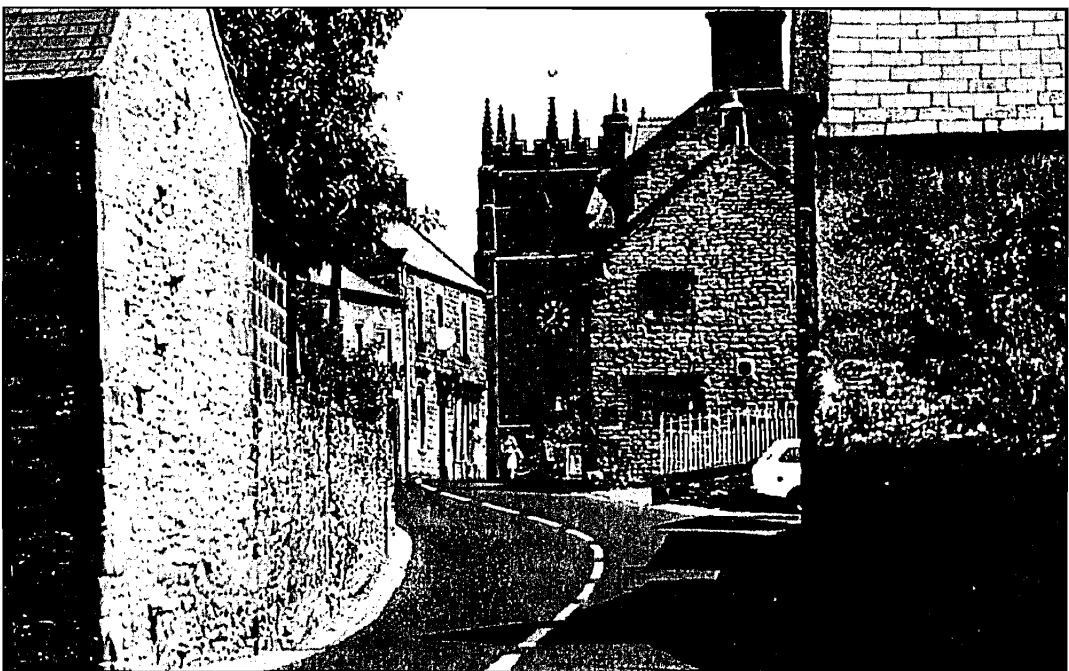
Birchover.

Most Peak District houses are found within villages. The pattern of development will depend on the balance between the influences already mentioned. In Winster or Youlgreave, both mainly mining and quarrying villages on sloping ground, the houses often have little land and are tightly packed. Contrast this with Monyash where the flatter sites and agricultural economy have resulted in a much more open arrangement.



Open village with buildings well-spread allowing views of Monyash surrounding countryside: a feeling of spaciousness.

Tissington



Compact village with buildings tightly grouped to give an urban feel: a strong sense of enclosure.

Youlgreave

Problems with present-day building

Planning policies in the National Park require most new houses to be built within villages. Each village is different. The designer needs to have some feel for the particular character of the village within which he is proposing to build. A three-storey house hard against the road may be right for the principal roads of Bakewell or Winster but would be out of place in the less 'urban' setting of Edale or Warslow. Conversely, a low two-storey cottage with front garden would look obviously out of place in the formality of some of our towns and villages. More inappropriate still is the peculiarly 20th century taste for suburbia, that is low density housing of a repetitive kind dominated by relatively wide streets. This is not only often poor design in itself but quite out of character with the building traditions of the Peak.



Village street: note how buildings, often 3-storey, relate well to the width of the road giving a feeling of enclosure.

Winster



Suburban layout: buildings too widely spaced and inadequate to provide enclosure. Road dominates. No relationship to the rest of the village.

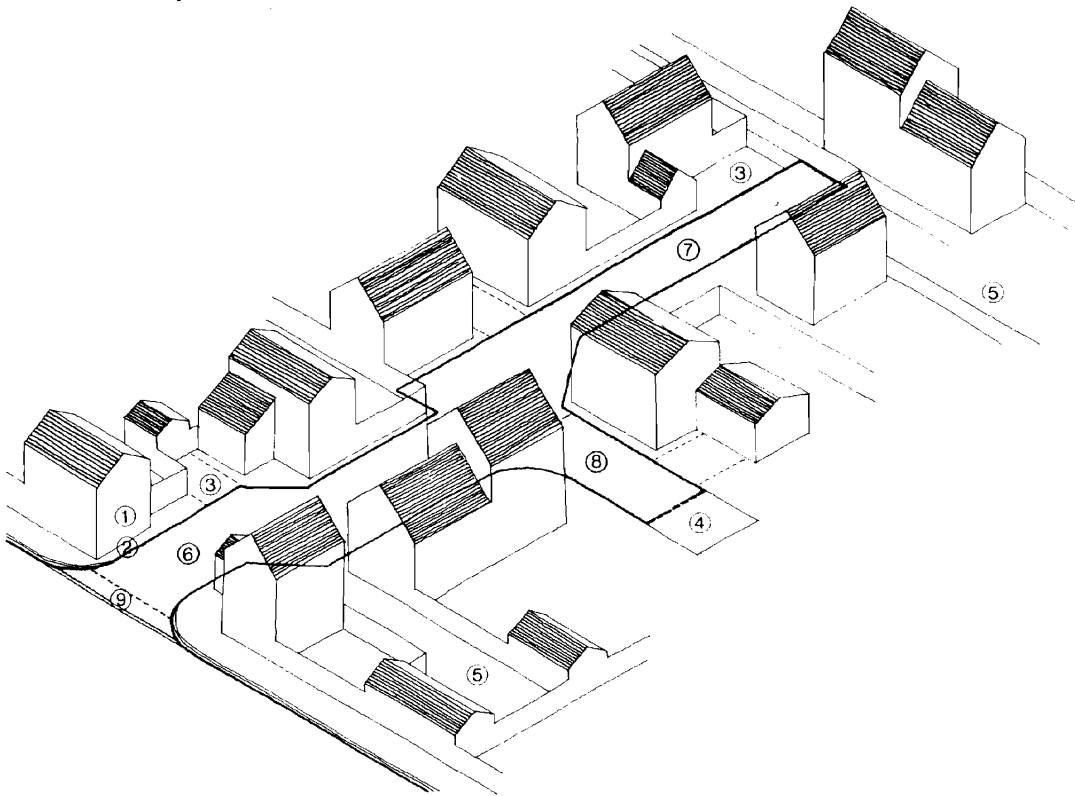
Winster

Designing for today

New influences mean that new buildings should not and indeed cannot be a copy of what has gone before. Modern needs for car access and parking, safety, outdoor space, privacy and health all dictate the need for change. The skill is to reinterpret the older traditions to produce modern housing still in the 'grain' of the village while catering for modern needs.

The drawing shows one way of accommodating a small group of houses, based on modern need and requirements. The houses are served by a shared accessway leading from an access road in line with suggestions in Design Bulletin 32: Residential Roads and Footpaths HMSO 1977. Exact dimensions and requirements vary from county to county and designers will need to contact the relevant highway authority for this information.

Characteristics of minor residential roads.



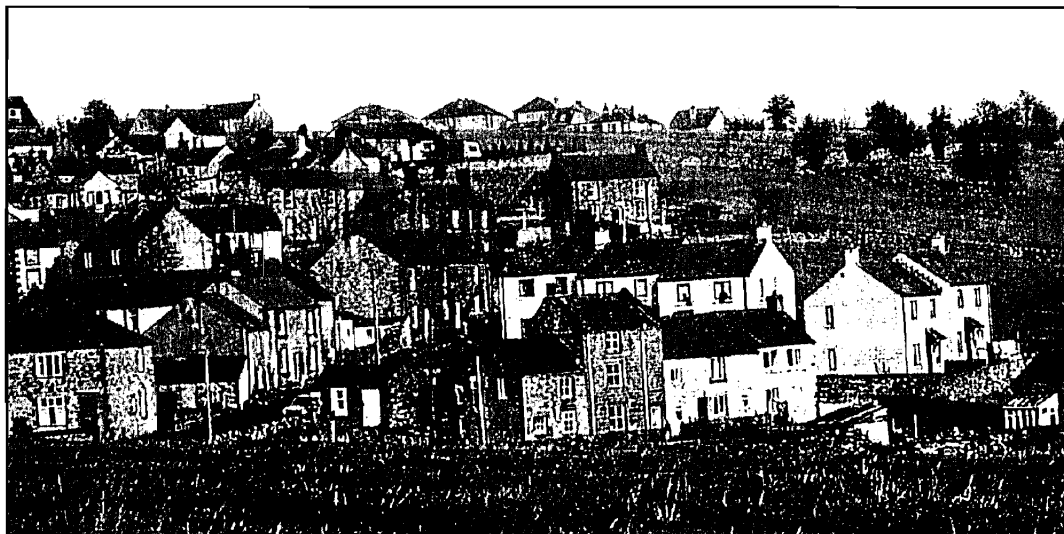
1. Narrow entrance may be formed by buildings.
2. Maintenance margin.
3. Private parking spaces outside the adopted area.
4. Visitor parking—Joint pedestrian/vehicle surface which accepts service vehicles.
5. Communal parking/garaging
6. Access Road—joint pedestrian/vehicle surface which excludes service vehicles.
7. Access Way.
8. Turning head.
9. Ramp/rumble strip at entrance.

It must be stressed that the above is only one example of how a small group of houses might be added to an existing village. It is neither the only way nor is it appropriate to all cases. For example, in those villages with a loose structure such as Monyash or Alstonefield, it may be more satisfactory for any new group of houses to reflect this open characteristic.

Infilling within a village with one or two houses should similarly reflect the form of that village. Where most houses are hard against the main street for example, a gap site would normally be most successfully infilled with a house also hard against the road. Care is needed however in a more 'open' village to ensure that not every gap is filled as the whole character of the village would thereby be changed.



Longnor



Two successful examples of new housing fitting in with the old.

Youlgreave

2: Individual House Design

Introduction

Good Design Pays:

House design is a job for the trained designer, preferably an architect. Well designed buildings represent better value for money than badly designed ones. The cost of employing an architect to prepare a design can be more than offset by savings in building and maintenance costs.

Many factors must be considered and a whole range of functional and statutory requirements need to be satisfied. The nature of the site, the accommodation requirements and the budget available will all influence the design. Such factors are project specific and will differ in every case. Of greater relevance to this guide are the design factors common to all projects in this area—the local tradition.

The basic considerations of what shape a building should take and how its elevations are arranged will be discussed in terms of traditional practice. It is important that the traditional approach is clearly understood if a new design is to be in sympathy with the old.



Traditional housing

Hartington.

Footnote: Building Regulations

Although the external appearance of buildings falls under the control of the local planning authority, a good many design decisions affecting layout and some aspects of the external appearance are covered by the building regulations administered by district councils. Please note that approval under the building regulations does not constitute planning permission and vice versa.

The references to the regulations which follow are intended solely to illustrate where an aspect of design involves their consideration, and should not be regarded as official interpretations of the regulations. The district councils' building control officers should be consulted on these aspects. (See Appendix I for addresses).

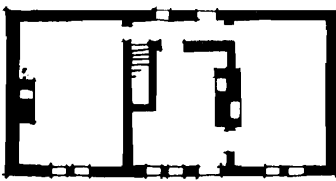


New house reflecting the particular local style of this Victorian settlement.

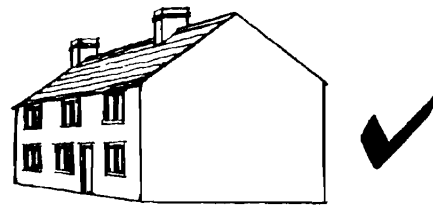
Cressbrook

Plan

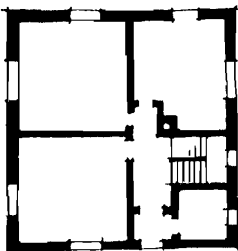
Almost exclusively until Victorian times, the traditional form tended to be single-banked (i.e. one room deep) and single aspect. Example (a). The usual plan-form nowadays is more than one room deep and faces in all directions. Example (b). This form often fails to relate to the site, the climate or the existing buildings in the vicinity. Overlooking can be a problem.



(a) One room deep. Rooms were interconnected or there was a passage along the rear wall.



Note the narrow gable often about 6m wide usually with few or no openings.



(b) Two rooms deep.



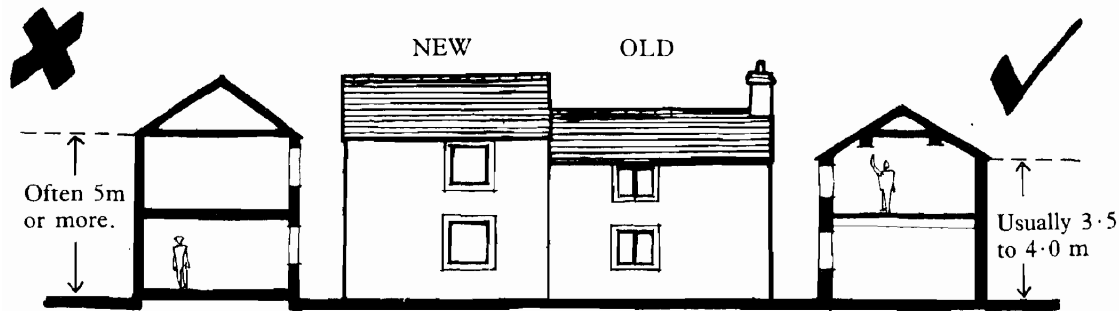
Square plan form gives over-wide gable. Effect worsened by having too many openings.

Applicants should consider the use of a single-banked plan-form as a means of satisfying the various criteria explained in this and other chapters. Daytime rooms (kitchen/dining/living), arranged en suite usually function satisfactorily whilst bathroom and W.C. could well form an outshot extension at the rear.

Further accommodation can be satisfied by building out at the back in the form of a gabled extension—a layout that also provides extra privacy.

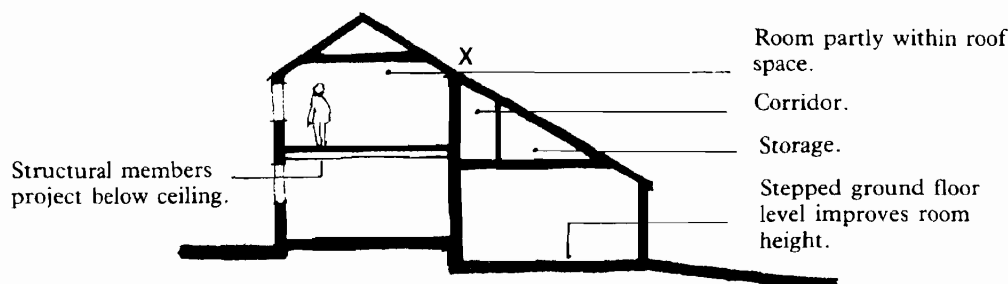
Section

Traditionally houses had very low internal room heights, often no more than 2.1 m. This gave the low eaves height so characteristic of cottages. More recently, the requirement of the building regulations for a minimum floor to ceiling height of 2.3 m in habitable rooms has often led to buildings being given higher eaves. If insensitively handled the effect can be overpowering when seen alongside a traditional building. It certainly results in a less satisfactory relationship to the human form as shown below.



The comparison of traditional and present day shows how unsatisfactory the relationship is when new abuts the old.

Since 1985, this minimum ceiling height requirement has been removed, giving greater flexibility to designers. Nevertheless it is possible to provide accommodation with higher ceilings compatible with older property, but more careful design is required.



Ways of keeping the height of the building down whilst providing conventional room heights. Note that such an extension should not be so large as to overpower the original. A break at 'X' would help to ensure this.

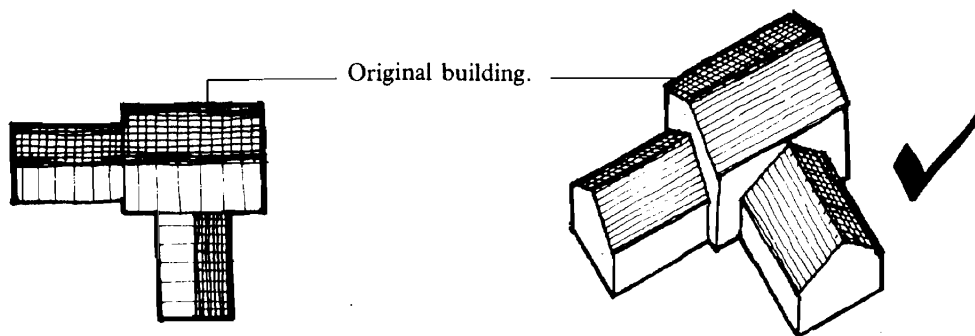
Bungalows

Traditionally houses were usually two storey, although by modern standards they often more closely resemble 1½ storey. Bungalows are an alien form to the National Park and there is a presumption against their use. In exceptional circumstances where a single storey dwelling is appropriate it is preferable to articulate the building into two or more wings, sheltering an outdoor space, rather than use a more suburban square or rectangular plan form.

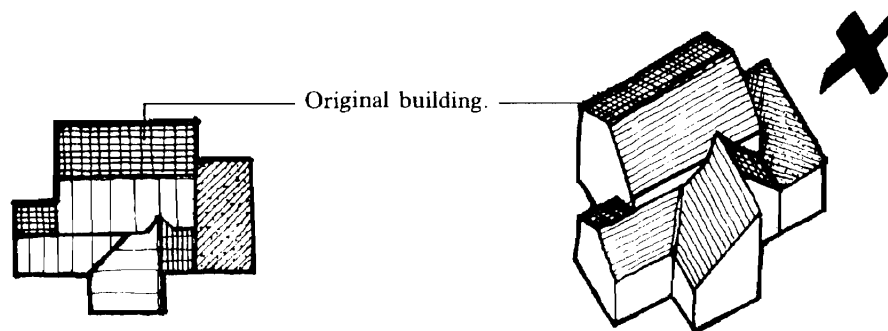
Massing

The massing i.e. overall shape and size, was traditionally as simple as possible. The roof would be pitched (between 30° and 40° depending on the material used) with a central ridge and gabled ends.

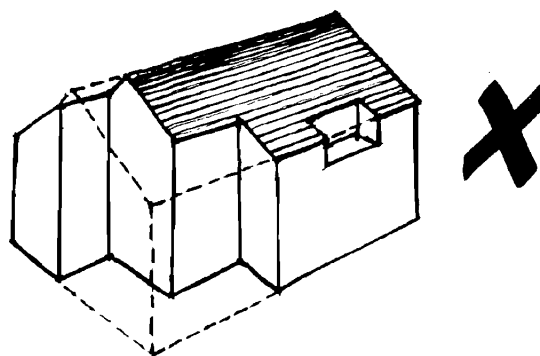
Note the simplicity of form resulting from a resolved (harmoniously balanced) plan and simple roof shape.



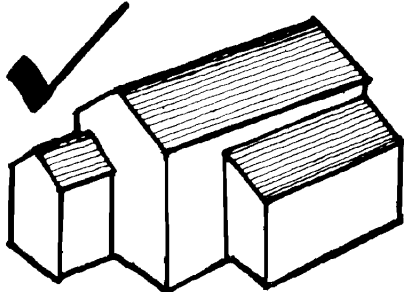
Contrast this with the complicated massing resulting from an unresolved plan form. The problem is emphasised by projecting eaves and bargeboards.



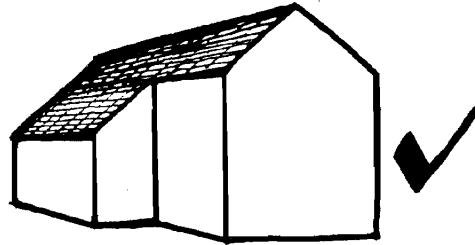
The difficulty and cost of forming weatherproof hips and valleys were largely responsible for the simple forms of vernacular buildings. It is always better to have simple, well balanced forms. The example below has not. The eye can detect an indeterminate roof shape. The roof appears to have chunks nibbled out. (The basic roof shape is shown dashed).



The examples below show how irregular plans can be roofed in a satisfactory determinate way. It is obvious at a glance which is the dominant roof and which the secondary.



Main roof undisturbed.



Main roof extended to side.

The following are some of many which may be satisfactory, depending on the particular site, materials, etc.



*Equal pitch.
Equal eaves
height.*



*Equal pitch.
Unequal eaves
height.*



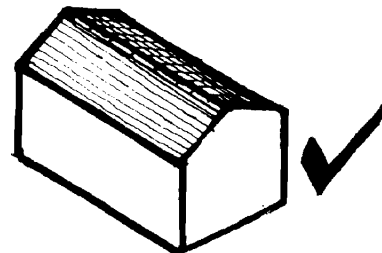
*Lean-to roof at shallower
pitch and stepped.*



*Double ridge roof with
valley gutter.*



Secondary roof at right angle to main.



*Note that the roof should
span the shorter side.*

The following are unsatisfactory; the list is by no means exhaustive:



Unequal pitch.



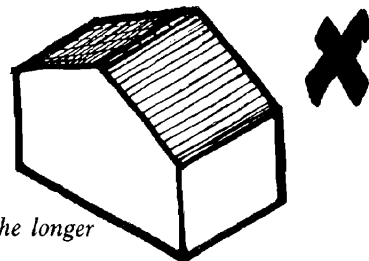
Pitch too steep.



Pitch too shallow. Span too wide.



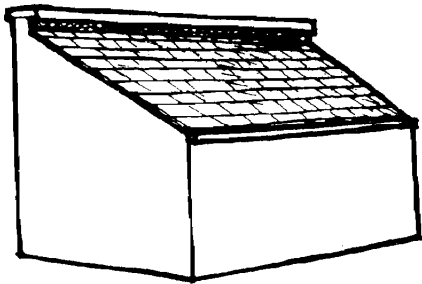
*Lean-to roof too shallow.
Poor junction with main
roof.*



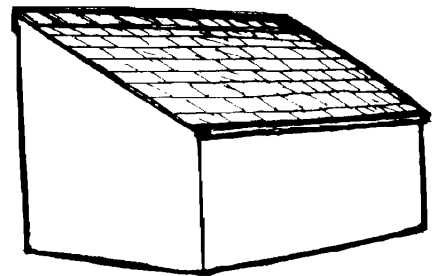
*Wrong axis: roof spans the longer
side.*

Mono-pitch roof

The mono-pitch roof is found on lean-to structures and on small outbuildings. In the latter case it usually has a parapet coping at the ridge. The form is best restricted to single storey only.



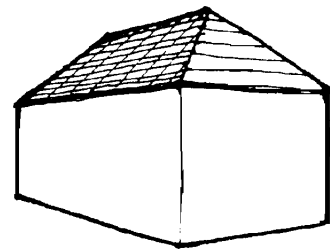
Rear wall extended upwards to form parapet coping.



Alternative version without parapet but with mono-ridge tile.

Hipped roof

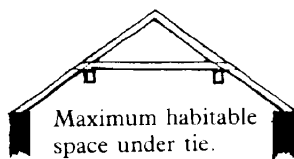
The hipped roof is not part of the main building tradition of the Peak and will be acceptable only in certain circumstances, e.g. where hipped roofs already exist in the locality. Gable roofs are preferable, and give an appearance of strength.



Roof Construction Note

Modern roofs tend to be of trussed rafter design, largely because they are cheaper to make and build. They are factory made from small-section timbers joined with metal connectors, and have to be closely spaced in the roof structure (450 to 600 mm centres) thus preventing the roof space from being used in any way.

If a more usable roof space is preferred or if part of the roof space lies within the room, then a traditional form of roof such as the collared-rafter or purlin-and-rafter should be employed.



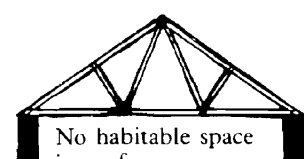
Maximum habitable space under tie.

Purlin and rafter.



Habitable space between collars and under ties.

Collared rafter.



No habitable space in roof.

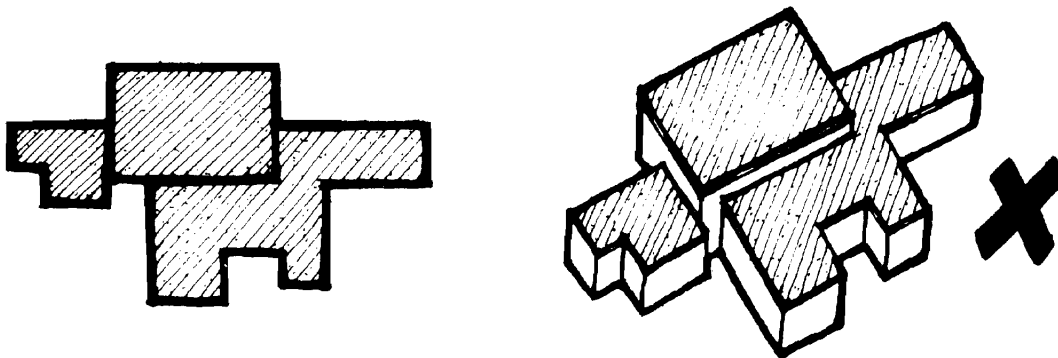
Trussed rafter.

Types of roof construction.

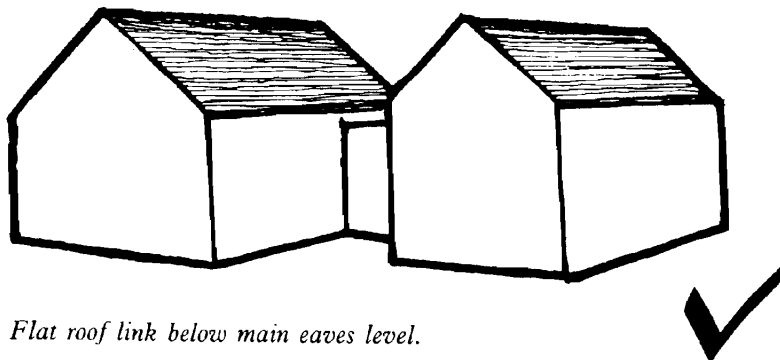
Flat Roofs

Flat roofs do not form part of the local building tradition. They are visually unsatisfactory for the following reasons:

- The silhouette of a flat roof is abrupt: the roof itself is not visible from below and so the building appears unfinished, unless very carefully designed and built. An additional problem is that, although it may not be seen from the street, a flat roof will quite often be looked down upon from the surrounding landscape.
- Flat roofs are often used as the easy way of covering an unresolved plan. The result is a complicated clutter of wall planes lacking in simplicity.



A flat roof may be acceptable for an outbuilding or extension (e.g. garage) if it is concealed behind a continuous parapet wall on all visible sides. Alternatively, the roof of an underground garage, say, could be earthed over (see later section on garages).



Flat roof link below main eaves level.

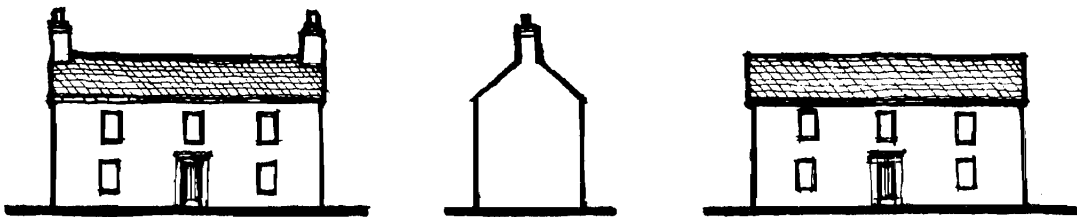
It may also be acceptable for partial roofing of a building, provided that it is subsidiary to the main pitched roof and occurs in a position where the construction of a pitched roof would be difficult and obtrusive.

Chimneys

The chimney is an important feature of traditional houses (and villages). It forms a strong vertical contrast to the horizontal roof shape.

Chimneys were usually placed at the ridge of the roof, frequently at each end. Each stack usually contained two or more flues and so it had a rectangular plan form, with the longer side at right angles to the ridge.

A chimney-less house looks incomplete, unless the design compensates for this by introducing other vertical features.

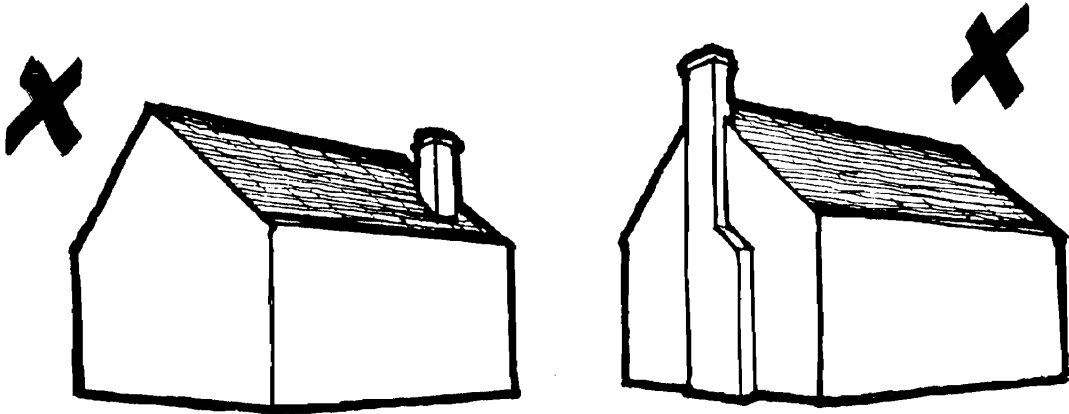


With chimneys . . .

. . . and without

Where chimneys are proposed for a new house, they should follow the traditional form.

Chimneys off the ridge have an unresolved appearance. They are not ‘fixed’ visually to anything below.



Chimney off the ridge.

External stack.

The chimney stack should be integral with the wall and not project outside it.

But beware of making the stack too thin and visually weak. In general the stack ought to be deeper—when viewed from the front—than it is wide.

See 5: “Details” for notes about construction.

Elevation



Mid C18th farmhouse.

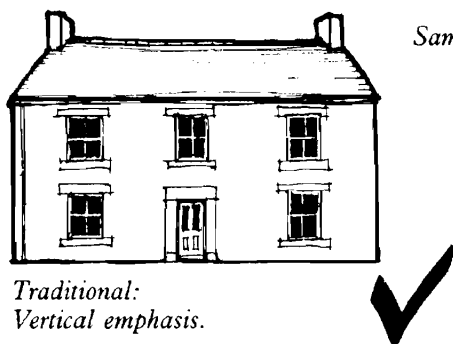
Elton.

The three main characteristics of traditional elevations are:

- a balance of proportions between the overall shape of the walls and the openings they contain,
- a high solid-to-void relationship, i.e. the wall dominates,
- a simple, arrangement of openings.

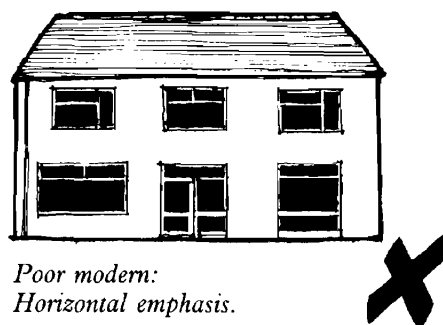
Proportions

Generally, the overall shape of traditional buildings was horizontal and ground-hugging. This was frequently balanced visually by the vertical proportions of windows, doors and chimneys.



*Traditional:
Vertical emphasis.*

Same width.



*Poor modern:
Horizontal emphasis.*

Compare this with a 'picture window' elevation with transoms under the horizontal top-hung vents. The only vertical emphasis is provided by the rainwater pipe. The horizontal emphasis of the whole composition is far too dominant and brash. An ugly squatness results.

The problem is even worse in a single storey building. Here the basic shape is too horizontal to be balanced by the vertical proportions of the openings.

Solid to void relationship

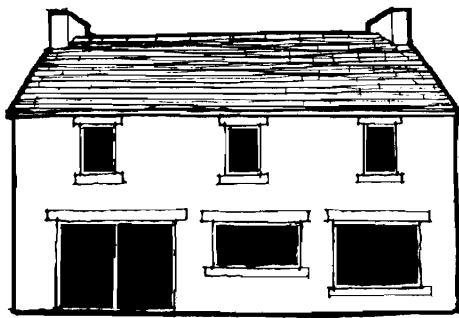
Traditional construction techniques effectively limited the width of door and window openings. As well as producing vertically-proportioned openings, this meant that window sizes were kept relatively small. For similar structural reasons, openings tended to be well clear of corners or verges. As a result, openings were surrounded by large areas of masonry and the wall was the dominant feature.

Modern techniques mean that much larger openings are now possible. The wall itself can even be dispensed with the load taken on an independent structural frame.

The solid to void relationship can be completely reversed. The result can look structurally weak and lacking the strong appearance of traditional buildings.

If large openings are needed they should be carefully balanced by a complementary area of masonry alongside. Getting the solid to void relationship right is crucial, as the effect on the elevations is more far-reaching than the type of windows chosen.

A common design failing is to 'overwindow' an elevation beyond what is needed to adequately light, ventilate and provide a view out from the rooms. It also creates its own problems in terms of heating bills and loss of privacy.



Overlarge window visually weakens the structure.



Visually stronger when two narrower openings replace one wide one.

A door or door-sized window opening can be used to gain extra light or view without resorting to a horizontal picture window. In general however **French windows** or **patio doors** should be kept to a minimum overall width; two narrower units are preferable to one extra wide unit.

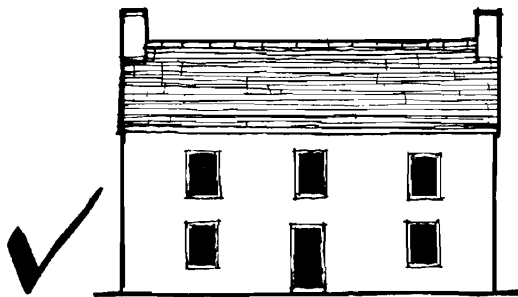
Large **arched openings** are not generally appropriate as a feature on the elevations of a house. They tend to be associated with non-residential buildings and therefore can look out of place alongside domestic features. However if carefully sited, they could be appropriate as openings for passageways or for garages.

The disposition of openings

Care needs to be taken in the arrangement of doors and windows on an elevation.

Traditionally elevations tended to have a simple, restful appearance, produced by one or all of the following disciplines:

- using a similar size and proportion of opening throughout;
- limiting the number of openings;
- arranging them harmoniously;
- keeping them away from corners.



Symmetrical arrangement of similar or identical openings.



Informal arrangement of openings, where windows are from the same 'family'.



Window too near corner.

Awkwardly shaped window/door combination

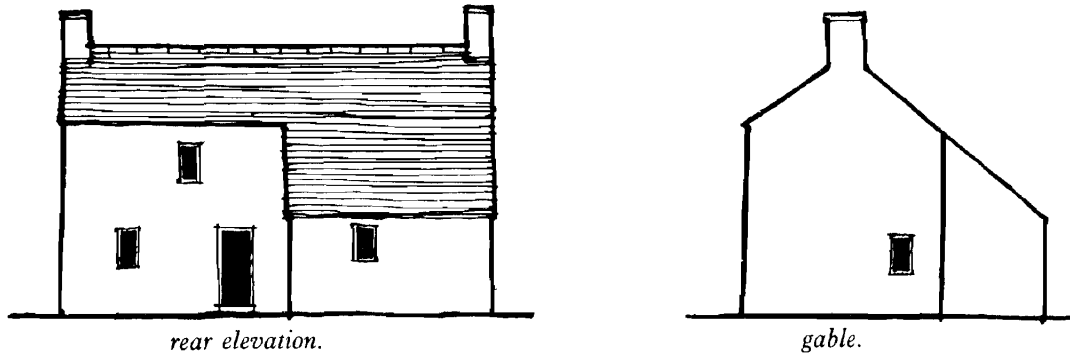
Unbalanced elevation of disparate elements.

External doors are of different shapes, sizes and designs but they have two features in common which are important to the appearance of a building:

- Height related to human being (the door is thus a useful visual 'scale').
- Foot of door relates closely to the outside ground level (or steps etc.) and indicates where the internal floor level is.

Side and rear elevations are traditionally less formal than the front and often have fewer openings. As the front of the house was generally orientated towards the best aspect, the south or south-west, this often meant a north-facing rear elevation. It therefore made sense to limit the number and size of openings on such exposed elevations.

The rear elevation was also used to accommodate extensions to the house—usually in the form of lean-to outshots.



Gables were traditionally left blank or near blank. Doors are rarely found in gables, and where windows do occur, they tend to be small and narrow, thereby reinforcing rather than disrupting the vertical proportion of the gable.

Summary of main considerations

The basic principles of designing in sympathy with the local tradition can be summarised as:

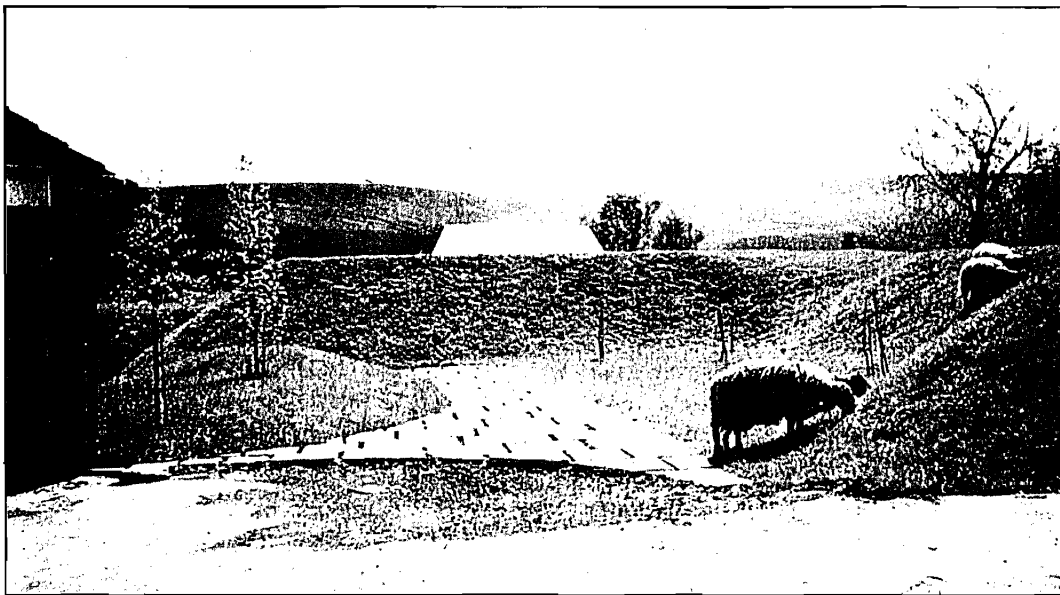
1. keep to a simple plan and roof shape.
2. keep to a narrow gable width.
3. keep the eaves as low as possible.
4. try to maintain the traditional solid-to-void relationship.
5. keep the types and number of openings to a minimum and arrange them with care.
6. keep the number of openings on gables to the minimum wherever possible.

Where neighbouring buildings create a strong localised character (e.g. a cluster of Victorian villas) then it may be necessary to depart from some of these principles.



New house within village.

Middleton by Youlgreave.



Holme.



A different approach! House in (or rather under!) the countryside. Single storey underground house with turf-covered structure.

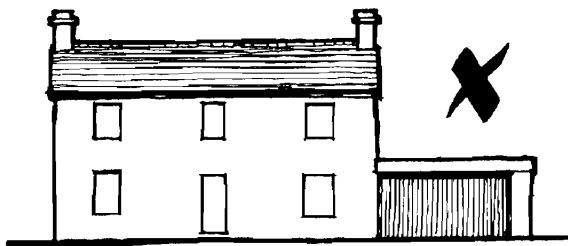
Above: View from driveway.

Left: View from south.

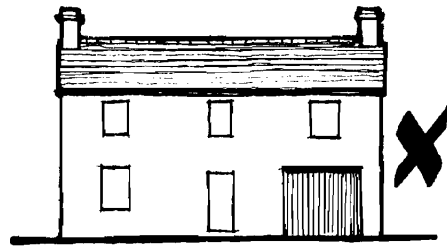
Other considerations

Garages

Where garages are needed, they should be designed and built in sympathy with the building they serve. Materials and roof pitches should generally match those of the house. In general prefabricated garages are not appropriate in the Park.



Prominent flat roof extension.

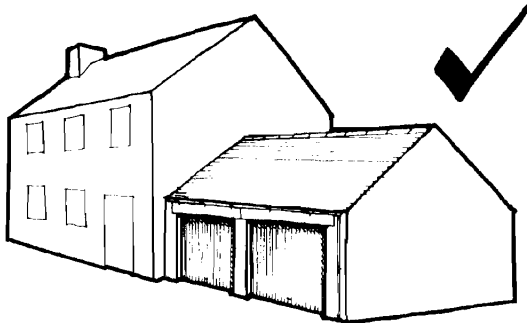


Integral garage disrupts symmetry.

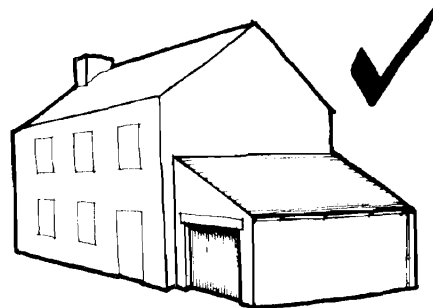
Where a house has an integral or attached garage, then the garage door will be the largest element in the front elevation. Careful design is necessary if it is not to look incongruous.

Alternative approaches to garage design:

- attached to the building.

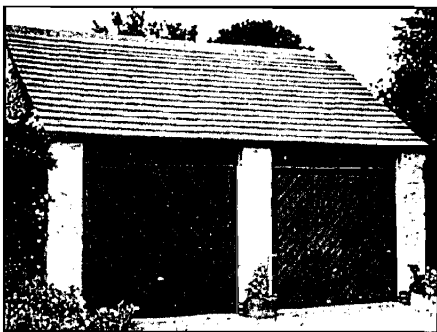


Gable form: suitable for double garage.



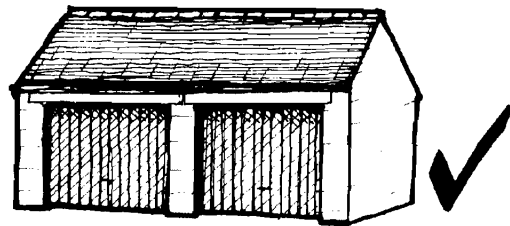
Simple lean-to form suitable for single garage.

- as a **separate outbuilding**—often the best approach particularly where more than one garage is involved.



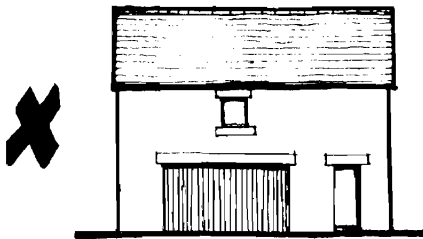
Double garage.

Parwich.

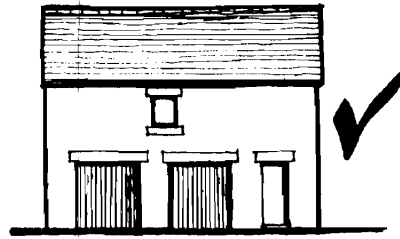


Simple pitched roof.

Wherever possible, a double garage should have two single width openings with a central visible pier and visible lintels.

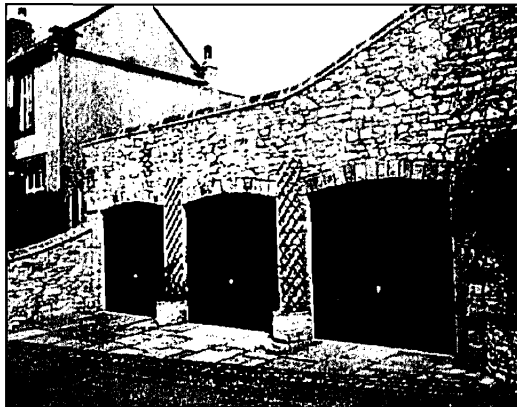


Double door: weak appearance.



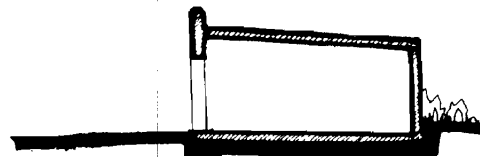
Two single doors: stronger appearance.

- a non-building—where the form of the garage is deliberately played down and ‘lost’ behind walls and planting. This is one of the very few approaches where a flat-roofed solution is appropriate.

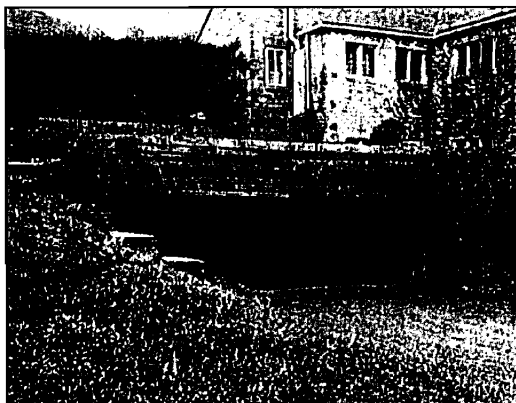


Behind a high wall.

Over Haddon.

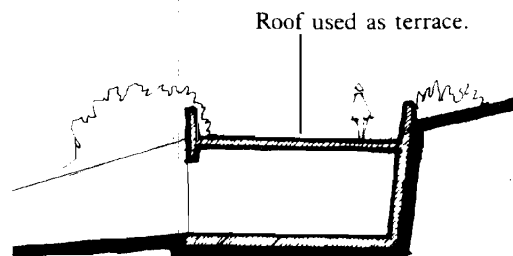


Section.



Sunk into the ground.

Ford.



Roof used as terrace.

Section.

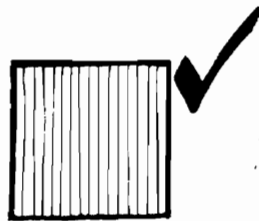
Garage doors

The 'up-and-over' metal type is the most popular because of its ease of opening and its low cost. It is worth noting, however, that while the door might occupy as much as one-fifth of the elevation of a house, the door's cost amounts to a tiny fraction of the total building cost. It is advisable therefore, to choose a door with care and resist, where necessary, the cheapest-priced solution.

Side hung timber doors generally give a better effect, because they are in smaller units—a pair of doors instead of one metal panel—and are further divided into boards.

A garage door is especially dominant if painted white or a bright colour. Timber doors should be stained or painted a dark neutral colour. Metal doors should be painted similarly.

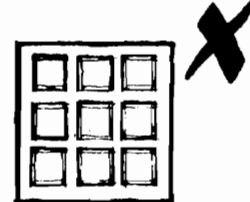
The vertical-ribbed type is preferred to the horizontal-ribbed type, especially on double width doors.



Vertically-ribbed.



Horizontally-ribbed: looks wider.

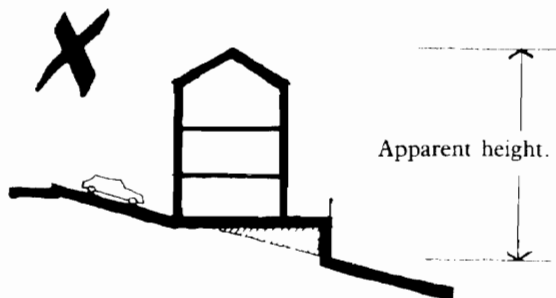


Mock Georgian: too fussy.

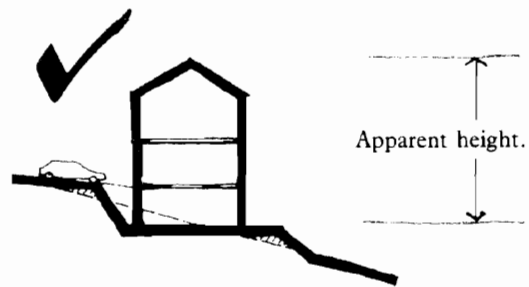
Designing for sloping sites

Because of the terrain, many houses in the Peak are built on sloping sites. Designing for such sites is more challenging than for flat ground but the opportunities are greater. The slope can often be used to good effect; ground floor access for example is possible at different levels.

It is essential that the slope of the site is not treated as a disadvantage, to be overcome at almost any cost. A rigid, preconceived flat ground solution should not be imposed on the site. The result would almost certainly be to demand excessive ground works (to cut and infill) or extensive underbuilding.



Section showing house perched on site. Note difficult car access and extensive underbuilding.



House designed to suit the levels; better car access and less under-building.

New houses on existing street frontage

Much of the character of Peak District villages comes from their sense of enclosure. Many buildings lie close to the road, often directly at the back of the footpath. There may be problems in siting new infill buildings in this way, not least because of the usual requirements for car parking and visibility splays.

Nevertheless the garage or part of the house can be set forward on site to provide screening/enclosure. The following examples contrast an uncharacteristic open frontage with ways in which this enclosure can be achieved. They are not 'approved' designs, but indicate how the articulation of simple building shapes can produce a local 'vernacular' quality.



Uncharacteristic open frontage.



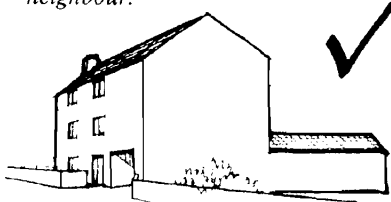
Narrow-frontage terraced housing with single storey accommodation wing and integral garage.



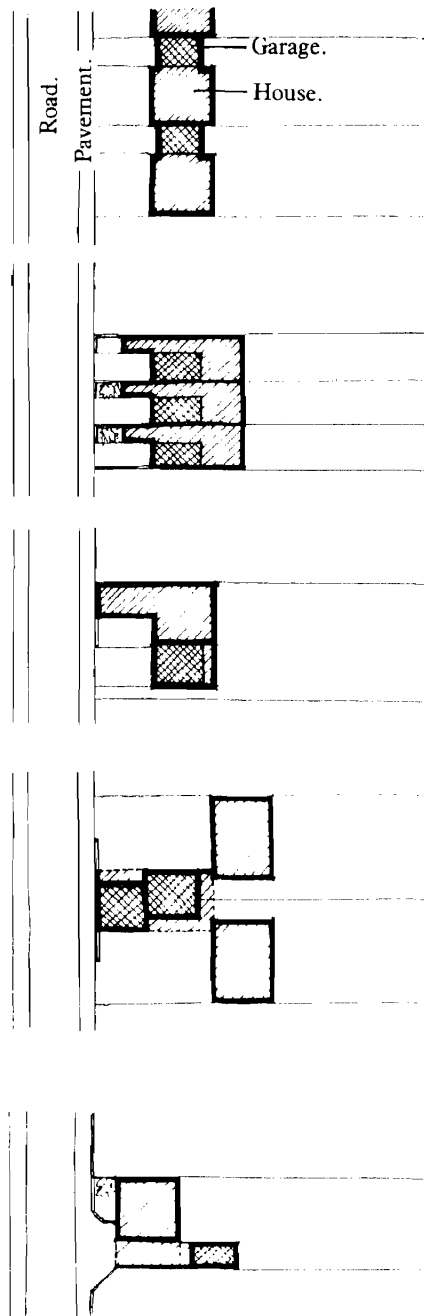
Wider frontage detached house with integral double garage. Note accommodation wing can be brought almost to back of footway.



House set well back. Side entry double garage and turning area. Staggered garage plan with neighbour.



Three storey house close to road. Opening gives access to covered car standing and rear garage. Note garage wing could give privacy to rear garden.



Car parking

It is usually considered desirable to provide for vehicle parking on each house site but this will depend entirely on the location, type of house and anticipated vehicle requirements. It is possible to provide communal parking or garaging near to a group of houses.

The highway authority may require vision splays where a private drive joins a classified road. Advice should be sought from the relevant highway authority on current standards (see address in appendix).

Caravan or Boat Parking

A caravan or boat parked in a prominent position can spoil the appearance of a house and might reduce the daylight or ventilation into a room, as well as blocking the view out. It is therefore good sense, at a design stage, to allow for a screened parking area at the side or rear—preferably with solid gates to the front. Hardstanding can be provided in an unobtrusive manner (see Chapter 7) so that the area can also be used as a garden.

3: Alterations and Extensions

Introduction

The improvement or renovation of an existing property is generally preferable, both on cost and visual grounds, to redeveloping the site afresh with a building of the same size. The old building will often have features and a character which could not be provided in a new structure.

Improvement involving alteration and/or extension may require detailed planning permission and/or building regulations approval, depending on the extent and nature of the proposed work. (For further advice on this see 'Notes for Planning Applicants' available from the National Park Office).

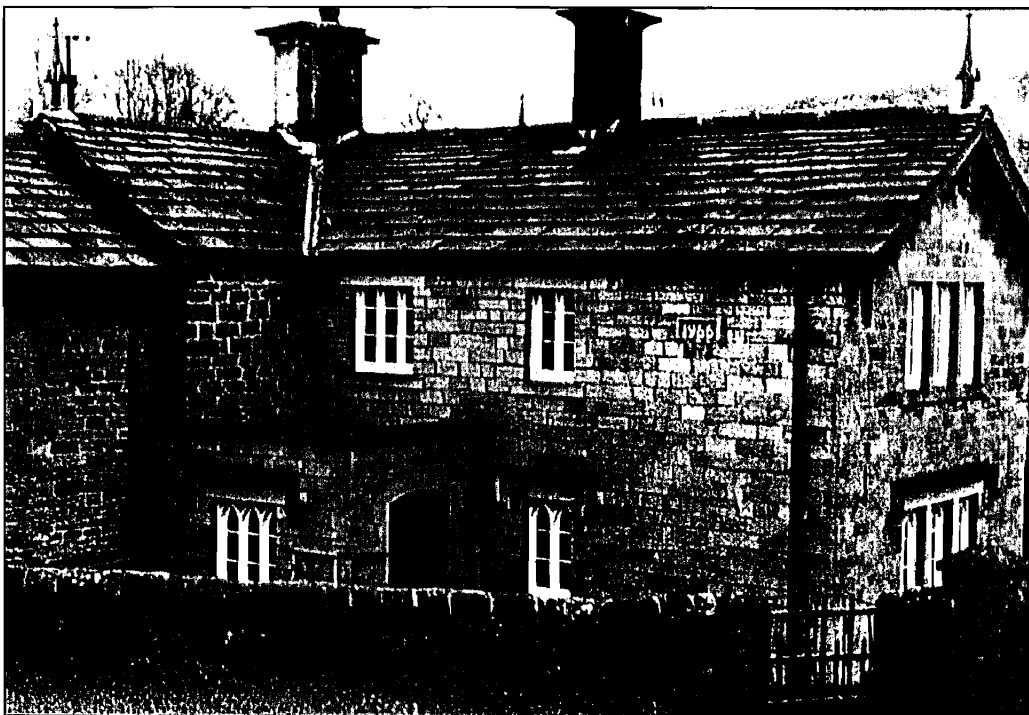
Improvements must be undertaken with care. Insensitive design can easily spoil an existing building. The phrase "ripe for modernisation" is too often a death-knell. What was a good example of the local tradition may thereby be changed out of all recognition to a house from a suburb anywhere.



The key to a more sensitive approach is to take careful note of what is there already before preparing the design—to work **with** and not **against** the building's character. The aim should be to revitalise the building without altering it fundamentally. Accurate survey drawings and photographs will help in the design process and it is useful to submit these drawings with the planning application.

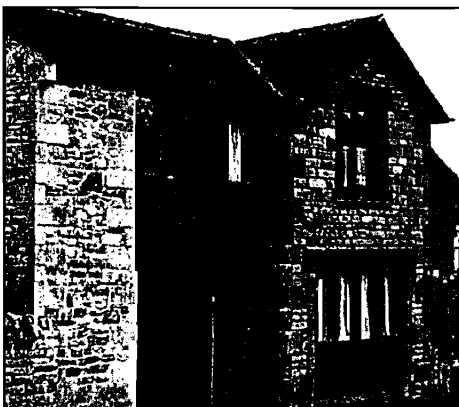
Alterations to **Listed Buildings** (that is, buildings of special architectural or historic interest) require particular care and, as such, do not come within the scope of this guide. Specialist advice is available from the National Park Office.

It is worth noting however that when a building is listed, the district councils administering the building regulations have the power to relax certain requirements such as those concerning ventilation and stair design. The Board will support applications for relaxations where they are considered essential on design grounds.



Successful addition of rear window and porch to a listed building.

Edensor.



Two storey extension to side with garage below

Ashford.



Two storey extension infilling between existing buildings.

Parwich.

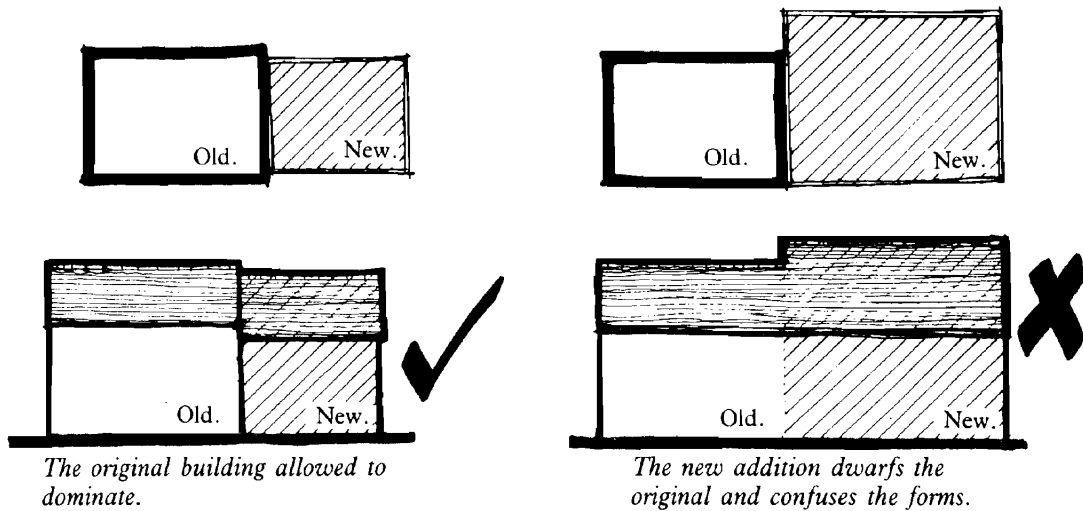
Design recommendations

Extensions

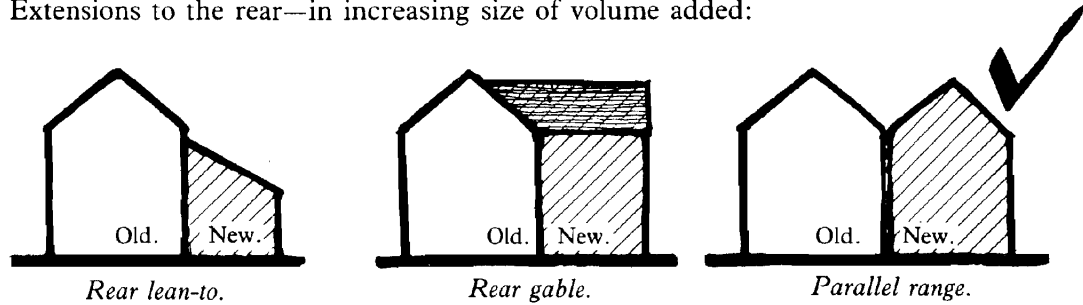
The size and design of an extension should be subsidiary to the existing building.

Extensions to the side:

It is preferable to leave the existing structure intact, and to extend under a separate roof (articulated as suggested in the chapter on Individual House Design). The ridge height of the extension should ideally be lower than the original roof, certainly not higher. In this way, the original building will be allowed to dominate.



Extensions to the rear—in increasing size of volume added:



Küchen extension to side gable.

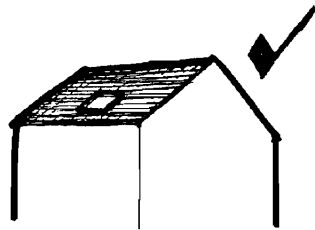
Foolow.



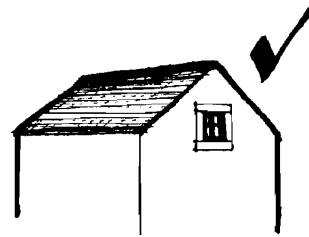
Roof Space

Whilst it may be necessary to replace broken slates and rotten timbers, it is not desirable to raise the roof height as this would alter the building's appearance. It would also cost more because of the new roof structure and the extra walling required.

Attic conversion is a sensible way of adding extra accommodation and exploiting the existing building to the full. Imaginative design can produce an interesting space. Note that the building regulations covering roof construction and fire escapes may restrict the options. The overlooking of neighbouring property should be avoided.

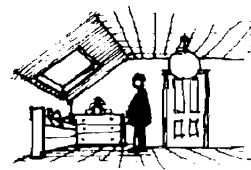


Roof window.



Gable window.

Providing natural light to the roof space may spoil the external appearance of the building. In most cases the best solution is to add a window in the gable and/or use a rooflight, preferably on the rear roof slope. Either method is usually cheaper than forming a dormer window.



Note window positioned low on roof slope to provide view out.

(See 5: "Details" for more information on rooflights and dormers).

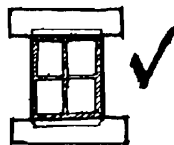
Existing Openings

Making use of existing openings in external walls will preserve the appearance and keep down costs. It is sometimes possible to adapt an opening by lowering the window sill to form a taller window or a doorway. It is usually not acceptable however to widen an opening. If extra light is needed then the best solution is often to add a complete new window smaller than or similar in size, to the original.

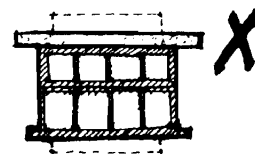
Where new openings are added, the detailing of both the door or window, and the masonry surround should be copies of what is already there.



Existing opening.



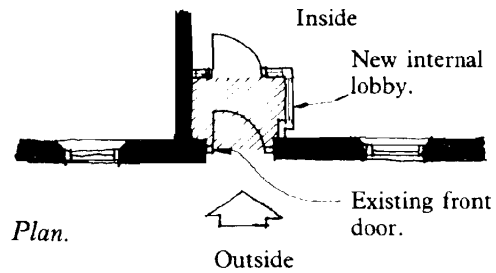
Opening retained; new thinner frame.



Lintel and sill removed, opening widened.

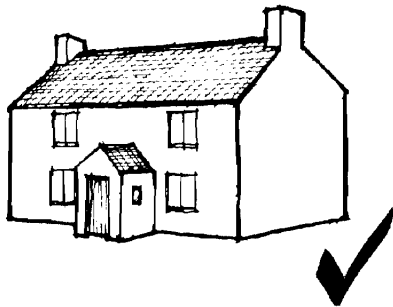
Porches

Adding a storm-porch to a house is a costly exercise and the result can look obtrusive. Is it really necessary? It might be possible to form a lobby inside the house. This is often neater, and is certainly a cheaper method, but it does of course take up internal space.



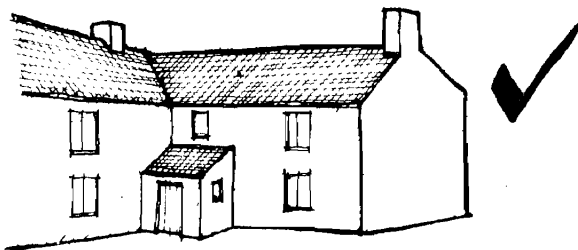
Where an external porch is necessary it should be kept to the minimum possible size. If additional space is required for freezers etc. this is better provided as part of a more substantial extension, perhaps more easily sited at the rear of the property.

Storm porches were built on some exposed farm houses, but rarely on dwellings in villages or towns. Of the traditional examples, the gable roof type was the commonest.

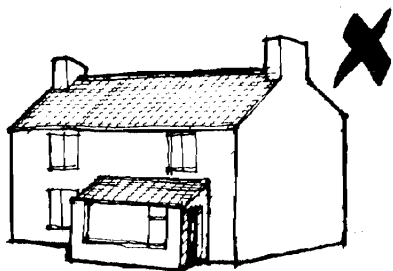


Gable Porch—the front door is the focus of the elevation.

The lean-to alternative is less satisfactory, particularly on a more formal elevation, but may be suitable in certain cases, e.g. with an L-shaped plan.



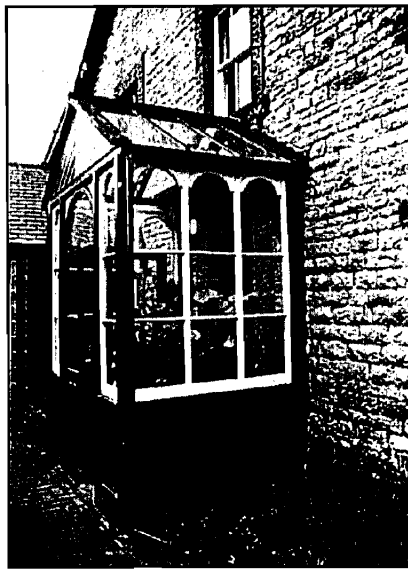
Lean-to porch—the front door is less prominent than with the gable-roof type.



Over-large porch—it interferes with the features of the elevation and has too big a window area.



Avoid a 'modern' prefab box. This might be a neat design by itself but its shape, materials and colour will clash with the existing buildings. Simple versions of the traditional forms are suitable.



Youlgreave.

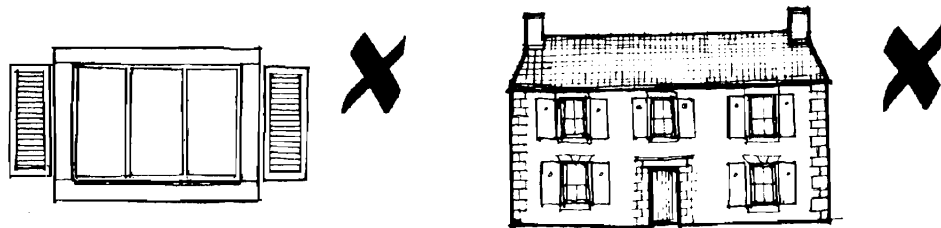


Youlgreave.

Shutters

Mock shutters, which have no functional use, are inappropriate.

They are alien to the honest character of traditional building, and debase its strength. The use of shutters for purely decorative purposes upsets the existing elevational pattern and is unsatisfactory.



In both examples, the shutters clearly do not fit the windows.

Improvements to non-traditional houses

The post-war building boom of the 1950s and 60s resulted in some houses being built in the Park which were neither of traditional or good modern design. Suburbia flourished.

Although fortunately such developments are not widespread, a lot can be gained by fitting these buildings more sympathetically into their surroundings. If alterations and extensions are being considered then this is a chance to improve their appearance.

Examples of what can be done:

- Add a new extension to mask an overwide gable or to give scale and interest to a front elevation.
- While re-roofing, convert a hipped roof to a plain gabled roof thereby also improving the usable loft area.
- Replace uncharacteristic windows and doors with simpler patterns (see 5: “Details”).
- Reduce the impact of barge and fascia boards and extensive glazing by painting them a dark neutral colour or a shade that matches the walls.



Youlgreave.

New side wing give this non-traditional house a less 'boxy' appearance.



Extensive alteration to existing windows plus a new extension considerably improve the appearance of this property.

Thorpe.



Neighbouring houses showing that dark-painted woodwork can reduce the impact of large openings.



Hathersage.

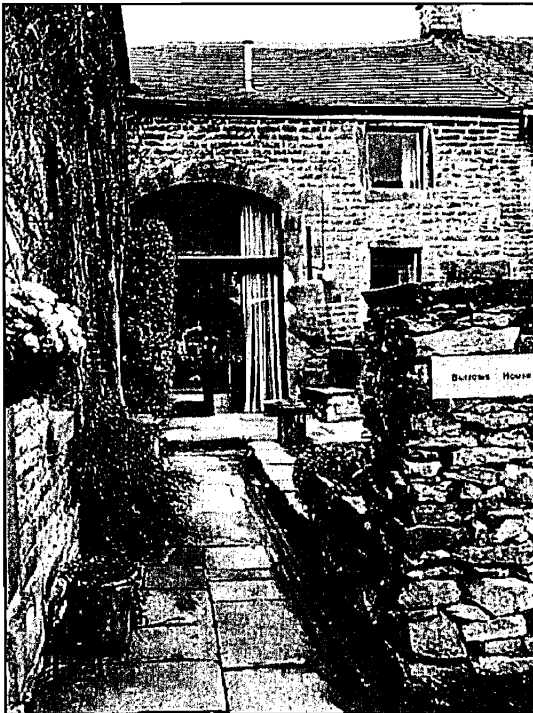
4: Conversions

Introduction

There is a growing interest in the conversion of redundant buildings. Barns in particular have fallen into disuse as a result of changes in farming practice. Mills, churches, chapels and schools are also threatened when their original use comes to an end. Without maintenance such buildings quickly fall into disrepair.

It is in such cases when no other means of preservation is practical, that sympathetic conversion will often be encouraged. The building in question must however be of sufficient historic or architectural merit to warrant its conversion to a new use. Conversion from one use to another normally requires planning permission and building regulations approval. The acceptability on planning grounds depends on the location, size and character of the building and its means of access.

Although the main demand is for conversion to residential use, this is not always suitable or desirable. In general terms there is a presumption against the conversion of redundant buildings in the countryside to residential use. The Board's Policy Note 'The Conversion of Redundant Buildings' gives the full planning background.



*Conversion of coach house to dwelling.
Castleton.*

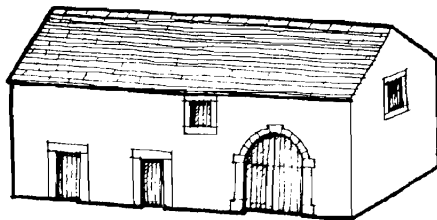


*Conversion of joiner's shop to dwelling.
Tideswell.*

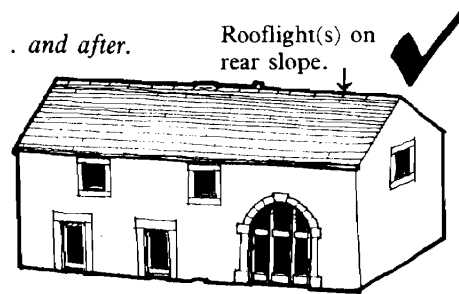
Design principles

The guiding principle behind the design of any conversion is that the character of the original building should be retained. This means in the majority of cases that the building should still look like a barn or a mill after its conversion to a new use.

Before conversion . . .



. . . and after.



Roof raised. ✗



A barn converted to residential use should, after conversion, look like A—a converted barn, and not like B—a new house.



Sensitive barn conversion.

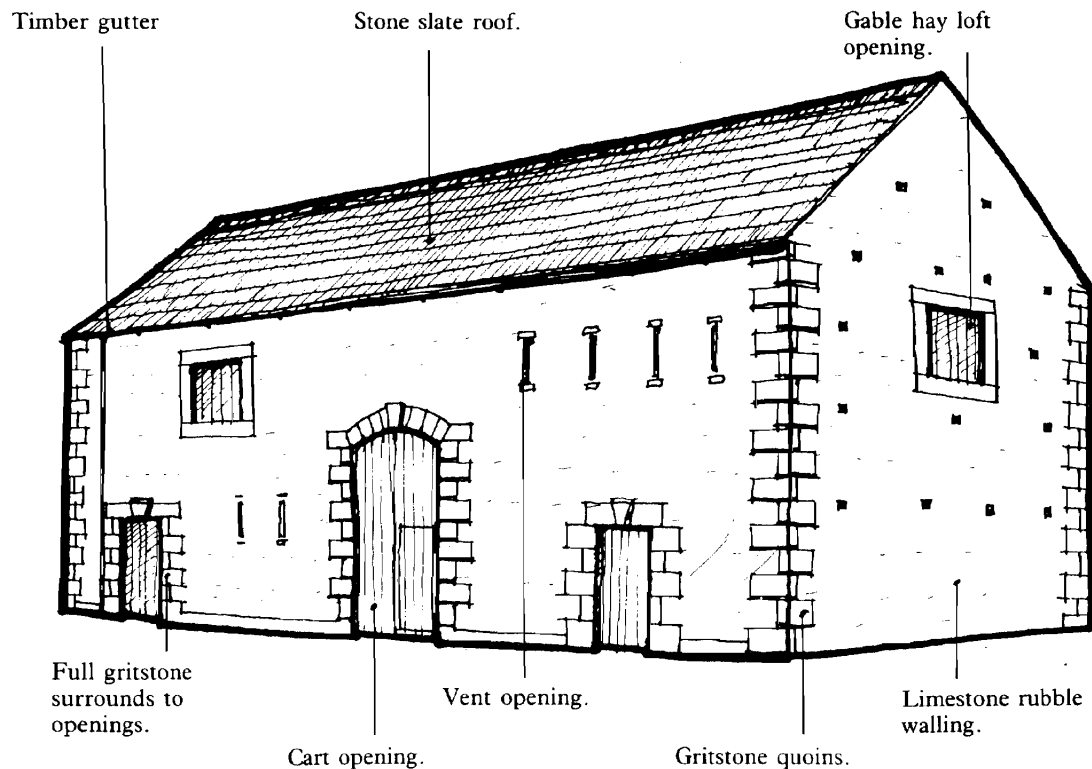
Shotton

Central to this philosophy is a respect for the building's scale, proportions and detailing. Special features should be retained and alterations made within the disciplines the building imposes. It is very much a matter of working with 'the grain' of the building rather than against it. This applies to internal features as much as to the building's outward appearance.

What this means in practice is illustrated below with reference specifically to barns but the same principles would apply to other building types.

Barn conversions

The Tradition



Main characteristics:

- simple shape
- limited number of openings—solid dominates over void
- 'strong' gables and corners
- absence of over-elaboration—details kept simple at eaves, verge and openings

Using the existing shell of the building

The scale and basic shape of the building should not be compromised by the conversion. It is best to work within the **existing shell** of the building and avoid extending upwards or outwards. Where room heights are low it is better, and cheaper, to use part of the roofspace for the first floor rooms rather than increase the height of the walls.

Buildings, such as churches, with large internal spaces are often best left unsubdivided for public uses such as museums, halls, restaurants etc. With such large scale uses however, the impact of such things as fire escapes will need to be considered, as will the problems of traffic generation and car parking.

The **form** of the building must be kept simple. Where extensions are unavoidable, for instance to house a car, they should be as unobtrusive as possible. Quite often barns were extended by means of a lean-to at the rear or the side. This is sometimes a good pattern to follow. Small projections such as porches tend to confuse the simple basic form. They are too domestic in appearance.

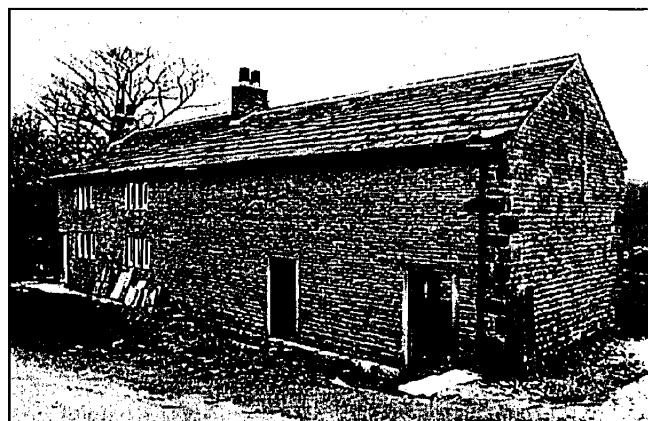


Stoke.

A lean-to extension but in glass and timber rather than stone. Because the form and detailing has been kept simple, the effect is successful and in character.

Retaining the character

Ensure the character of the barn stays unchanged after conversion. Even where the barn or shippon is attached to an existing house it is usually desirable to maintain the two distinct characters of barn and house. Do not let the house simply extend its appearance into the outbuilding.



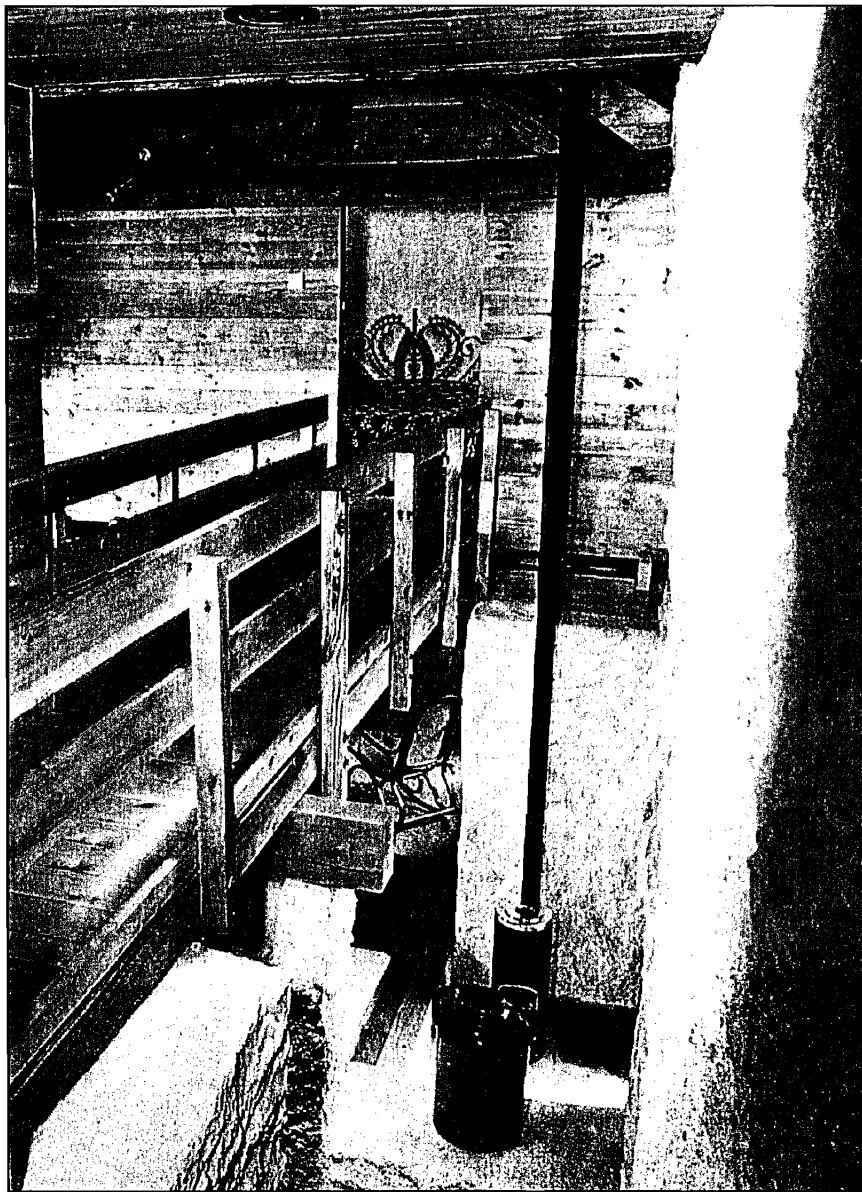
House extended into barn but the separate character of the barn is maintained.

Kettleshulme.

The setting of a converted barn is particularly important. A well converted barn can easily be spoiled if its setting is radically altered through insensitive landscaping.

Internal considerations

In order to get the best value from a conversion, it may be necessary to abandon preconceived ideas about how a house should be planned (for example uniform room heights, level ceilings, bedrooms on upper floor, living room on ground floor). Often, the existing roof construction may prevent longitudinal access at the upper floor level and make subdivision of the space into small rooms difficult. The answer is to plan the accommodation to avoid this problem. An example would be to put the largest room, the lounge, at the upper level and the smaller rooms at the lower level. Where there are fine old trusses or cruck-frames, it is sensible to expose them as features in a double-height space.



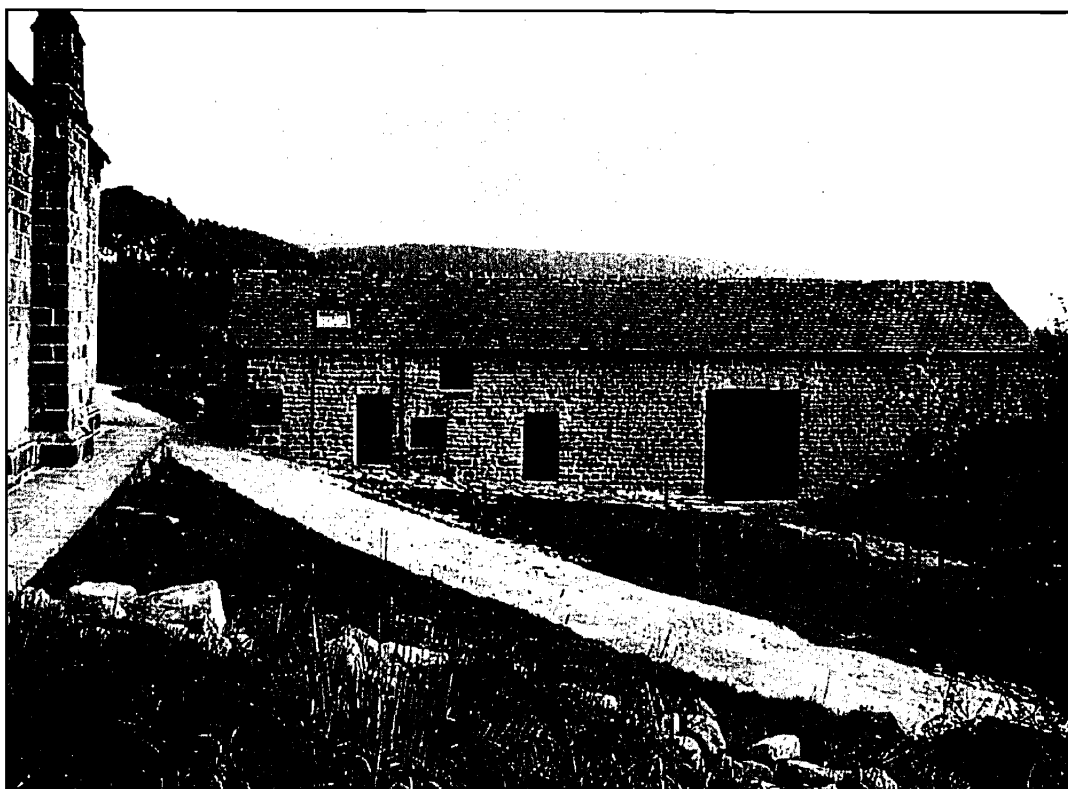
*Imaginative interior of barn converted to dwelling.
Note the double height dining room with gallery
over and the the exposed roof structure.*

Castleon.

New openings

Every effort should be made to use existing openings to the full, if necessary adapting the plan to suit. Large cart openings should be retained where these are original. They can be used to form attractive glazed screens lighting several rooms or a double height hall.

Barns, particularly the shippon type, tend to have more doors than windows on the ground floor. This arrangement should be retained by using door openings as full height windows or as French windows.



Barn converted to provide hostel accommodation.

Nether Padley.

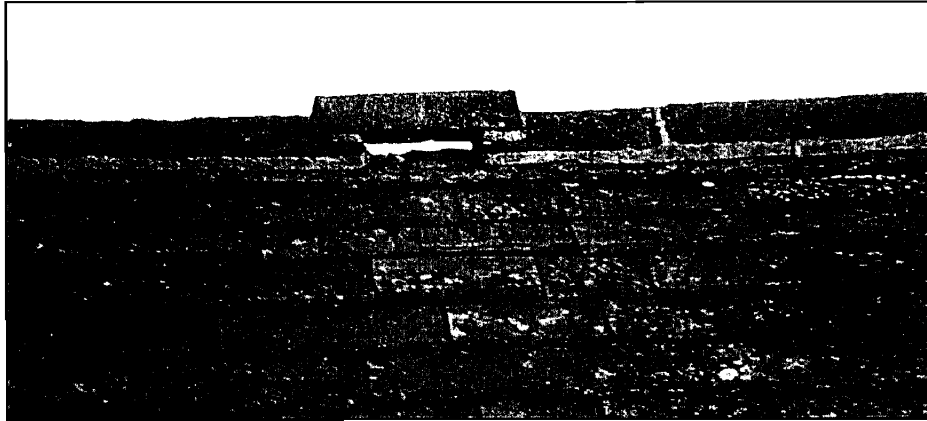
New openings, where needed, should be limited in number and size, and detailed to match existing openings. New windows should generally follow the proportions of the traditional hay loft openings and be left plain and unsubdivided. More elaborate window patterns, particularly mullioned windows, are too domestic in character for use on a barn.

The placing of new windows needs special care. The high **solid to void** ratio of wall to openings must be maintained. A regular pattern of windows—lining ground and first floor windows one above the other—should normally be avoided, as generally speaking this adds a domestic character to the elevation. Dormer windows are obviously not compatible with the character of a barn. Rooflights are less obtrusive but should be used only when there is no alternative.

Flue pipes

Chimney stacks should be avoided as they inevitably add a domestic quality and interrupt the clean lines of the roof. The use of a dark painted metal flue discharging below the ridge on the rear slope is less obtrusive and therefore preferable. Flues can be used with

both open fires and closed fronted room heaters. For gas boilers, a better solution is the ventilated ridge.



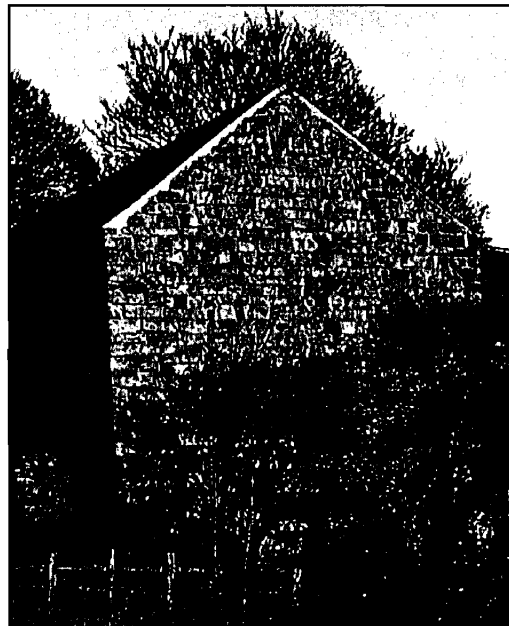
Ventilation ridge.

Existing features such as vent slots and external shutters are often worth retaining to emphasise the character of the building.

Materials and detailing

Materials should be kept as original and any alteration or extension made to match. New openings for instance, will require matching surrounds.

The detailing of timber window frames, gutters etc. should all be robust and simple. A fussy or flimsy appearance should be avoided as this will be at odds with the strong character of the barn. However, metal frames for windows are also suitable, particularly where the frame can be made almost invisible. In either case it is desirable to place the frames within a deep reveal (min. 150mm), to underplay the appearance of the frames and the glass. Using dark-coloured frames (or staining or painting the frames dark) also helps to minimise the impact of this and keeps the effect simple.



Barn wall showing vent slots.

5: Details

Introduction

The details of a building—its windows, doors, chimneys, etc.—have an importance far beyond their size. Such features add interest to the building. The eye is instinctively drawn towards them as the features of a face. By studying the details we can also gain the best clues to a building's age and history.

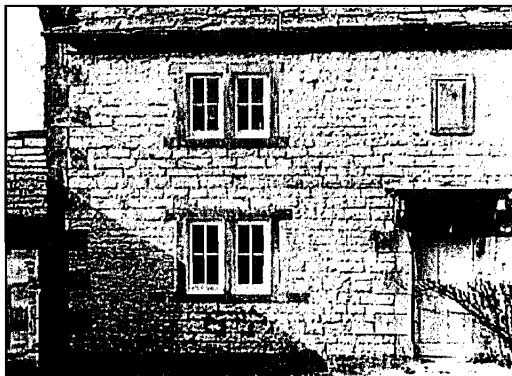
A local way of handling details has evolved out of the functional need to keep the buildings up and the weather out. The particular nature of the materials available has also had an effect. As a result, the buildings have a strong, identifiable character unique to the area.

If a new building is to blend successfully with the old, designers should be aware of the local ways of detailing. Details do matter; if they are not right, the total effect will be spoiled.

Chapter 2: "Individual House Design" looked at the general nature and arrangement of items such as doors, windows and chimneys within the overall design. This present chapter goes on to look more closely at the following aspects:

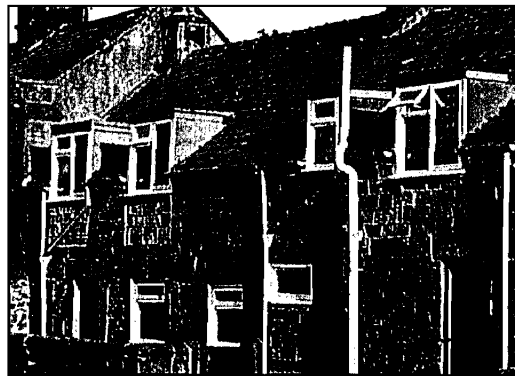
- windows
- rooflights
- dormer windows
- doors
- chimneys
- eaves and verges
- guttering, rainwater and soil vent pipes
- arches
- quoins
- meter boxes
- pointing

Elton.



Simple robust detailing to doors and windows gives delight to this elevation.

Elton.

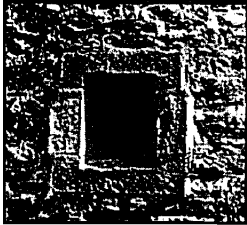


Appearance spoiled by ugly dormers, poor window design and prominent pipework.

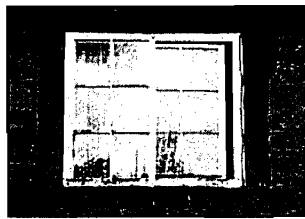
Windows

The tradition

There are many traditional window patterns within the National Park.



- simple early window, now glazed
- small paned casements
- leaded lights

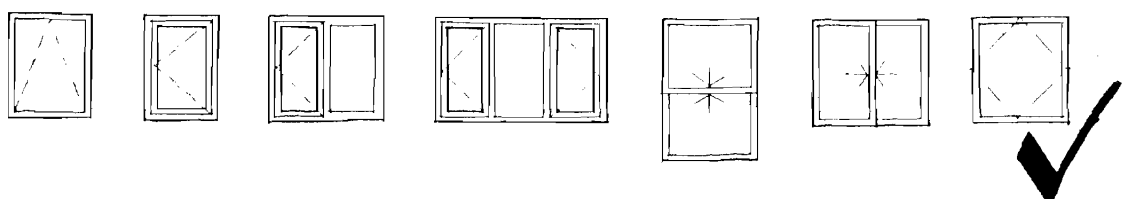


- vertical sliding sash—Georgian subdivision
- horizontal sliding sash—subdivided
- early 19th century Gothic metal frame
- 19th century sash—less subdivision

Windows are one of the most important features of an elevation. Changing the windows can effectively ruin the appearance of a house. They are the building's eyes and as such deserve close care and attention.

Basic shape and division

The enormous range of standard window types available today can be confusing and selection must be made with care. Many patterns have been designed largely to satisfy ventilation and other practical criteria. The proportions of opening to fixed lights are often unrelated in shape and size. Such windows can spoil an elevation, particularly when several sizes and patterns are used together. The patterns below are preferable, but need to be selected to suit the individual building. Note that they usually have vertical emphasis. Particular care is needed when using the square or nearly square pattern in otherwise traditional designs.



The following examples are not acceptable:—



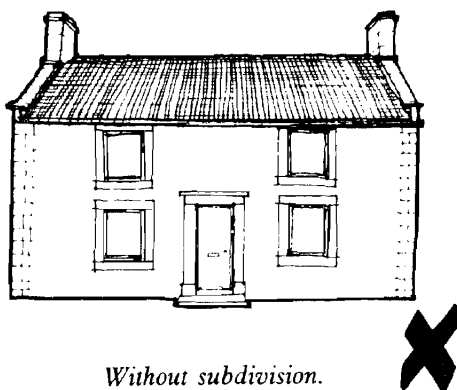
The problem with most of the unacceptable designs arises from the use of the small top-hung opening light which tends to be dwarfed by the other component lights. The top-hung light can be effectively replaced by a night vent built into the frame or into the glass area. A small night vent can provide as much fresh air as the usual top-hung light opened about 25mm, without the risk of a housebreaker getting in.



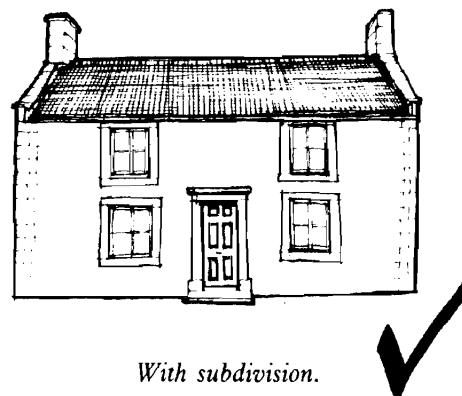
Standard softwood sections are often bulky and can give a very clumsy appearance to windows. This can be apparent in a design such as the fourth one of the preferred selection above where the opening light may have a significantly thicker frame than the fixed pane. Thinner sections should be specified. Steel, aluminium or plastic frames are alternatives and can have a very neat appearance when inset into heavy stone surrounds. Care is needed however with the choice of aluminium to ensure an appropriate surface finish (natural, bronzed or plastic-coated), and with plastic, that the frame width is not too great.

Subdivision

Some degree of subdivision of the window into separate panes is often needed to match existing windows or the style and character of the house.



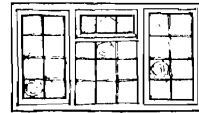
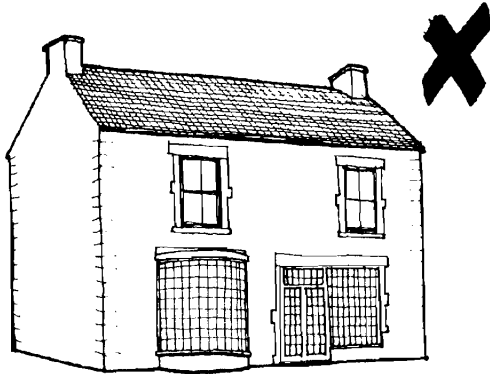
Without subdivision.



With subdivision.

A formal 18th century house will look wrong if given unsubdivided windows as these do not match the scale of the house. Some degree of subdivision is desirable. Subdividing needs to be done carefully. Each pane should have roughly the same proportion as the completed window—traditionally a vertical rectangle.

Where standard modern window patterns have had merely small panes added, the effect can look disastrous. These so called 'Georgian' windows bear no relationship to the real thing in terms of proportion or methods of opening: they are not acceptable.



Crude standard products.

Mock Georgian small-paned windows.

The glazing bars tend to be coarser than the genuine article—too thick and with no moulding to the section. The individual panes will commonly be square or, even worse, rectangular with a horizontal emphasis. These small-paned windows cost more to buy than the simpler equivalent, cost more to glaze and are more trouble to clean and to decorate.

Equally false is the practice of applying lead strips to a conventional window to give the appearance of leaded lights. This should be avoided.



The disastrous effect of changing to mock Georgian windows and doors.

Accurate reproductions of traditional windows can be purpose-made to match existing windows. This may be necessary in the case of alterations to listed buildings. Another alternative is to rebuild an old window by taking it apart and reusing the sound sections. Often glazing bars will be in good condition and a new outer frame may be all that is required.

Bow windows

The replacing of traditional windows with pseudo 'Georgian' bow windows should be avoided. These bows are sham and debase the strong character of old buildings.

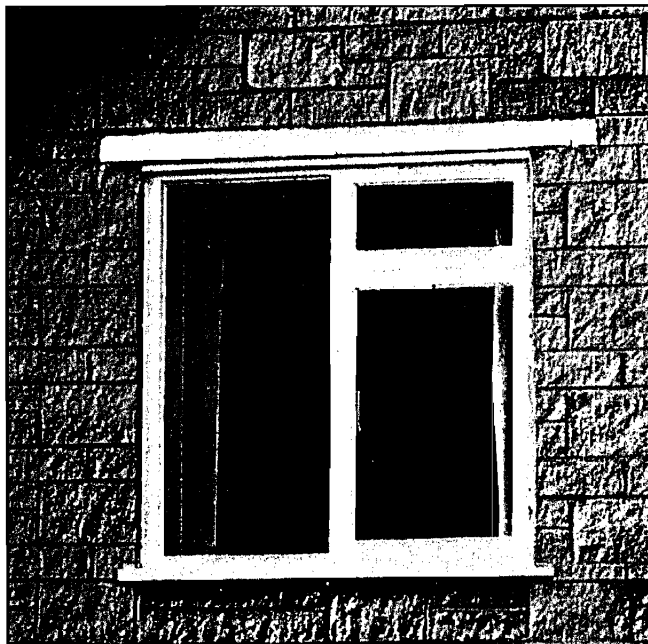
Double glazing

Standard double glazed window units tend to be designed for the suburban style of house and may look wrong in an old building. Frame widths are often too wide for the smaller openings. If a subdivided window is required, then standard units will often not offer the correct style of subdivision. Great care is needed in the choice of such windows. For existing windows, secondary double glazing will often be the best solution.

Detailing

Position within the wall thickness

A common tendency with new windows is to set the frame flush with the outside face of the wall and to use a projecting timber sill. This gives the elevation a very flat appearance. In contrast, the traditional approach was to inset the window frame, often as much as 150mm. The effect is to emphasise the solidity of the walls. Modern cavity wall construction makes such deep inseting difficult, but a modest inset of say 50mm is recommended to give a good appearance.

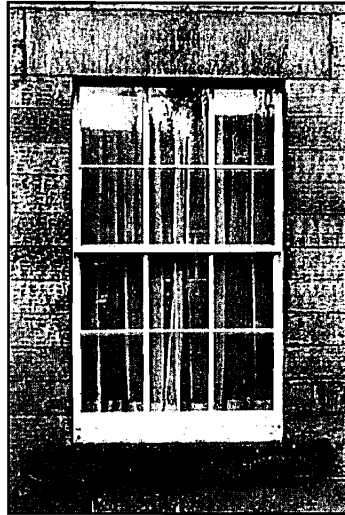


Crude softwood section window set on the face of the external wall.

Window surrounds

Traditional construction used timber or stone lintels or arches to span openings. The spans were limited and the method of support clearly visible from the outside. Wide windows, where required, were sub-divided by mullions.

As well as lintels, all but the humblest of window openings also had sills. Depending on the type of walling stone, side jambs were also present.

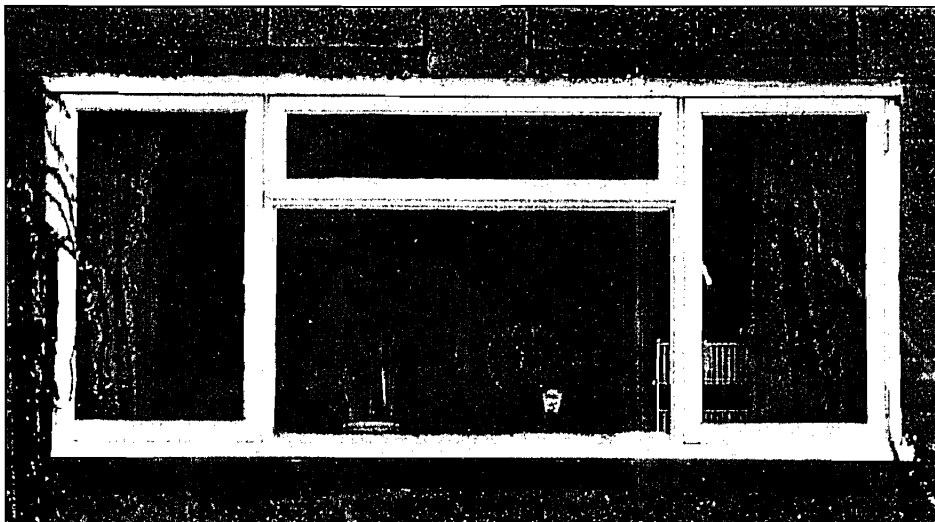


Lintel and sill only.



Full surrounds.

Modern construction however allows wide picture windows to be built cheaply and easily. Often the external leaf of the cavity wall is supported by concealed lintels and so appears to be unsupported over the wide openings. This is visually unsatisfactory.



No visible lintel: wall looks unsupported.

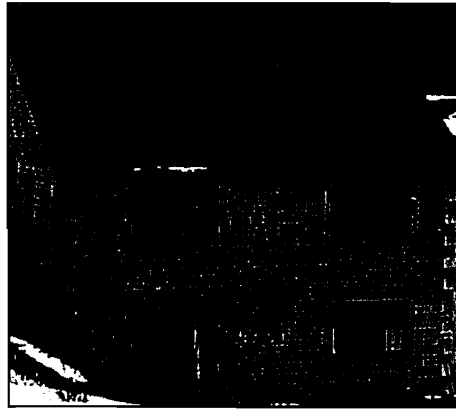
Traditional detailing of the window surrounds needs to be followed when natural or reconstructed stone is used as the walling material. (See 6: "Materials"). There may be exceptions to this however where the design calls for a more modern way of detailing.

Paint and stain finishes

Softwood window-frames may cause maintenance problems unless carefully made, installed and decorated. Water-repellent preservative-stains are available as alternatives to gloss paints and there are now wide ranges of finishes available—from opaque gloss white to transparent colours.

Whether paint or stain is used, it is preferable to use a light shade on subdivided windows such as traditional georgian sashes in order to pick out and make a feature of the glazing bars.

A dark shade is also unsuitable on a 2- or 3-light window where, if the vertical divisions between the lights are too dark, they will be lost against the dark glass, giving the appearance of a large horizontal void in the wall.

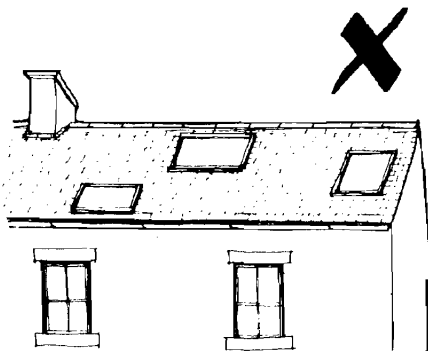


By contrast, a dark shade is useful in cases where the importance of the window frame is to be underplayed—as is often the case with barn conversions.

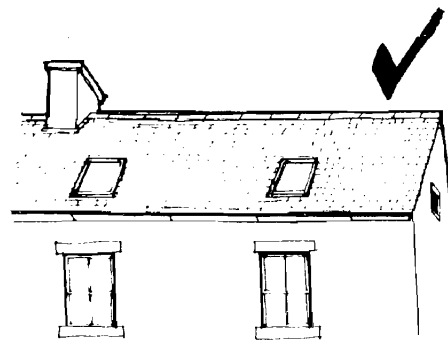
Rooflights

Where it is not possible to light rooms by means of a conventional window, the use of a roof window (parallel to the slope) may be considered.

Rooflights are manufactured as standard units and come complete with preformed metal flashings. Their daylighting efficiency is greater than that of a similar-sized window in a wall. The centre-pivot type can be cleaned from inside.



Variety of rooflights, poorly arranged: too near roof edges.



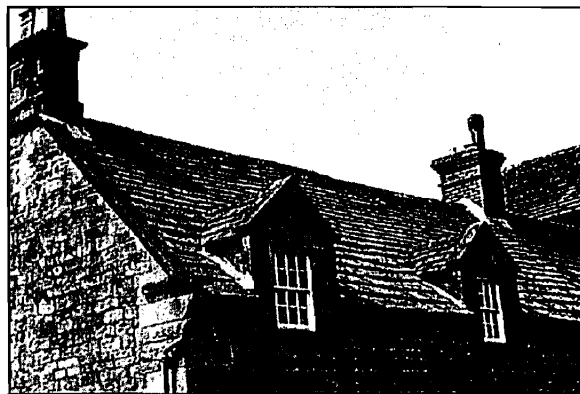
Smaller units more neatly arranged with a better relationship to what happens below on the elevation.

Their position on the roof must be determined with care. Rooflights look best if kept unobtrusive. Often the neatest way is to line them up with windows below. Generally they are best confined to the rear roof slope where their appearance is less noticeable. The proportion and size of the units is also important.

A square or vertically proportioned rectangle is the preferred shape. Rooflights inevitably look squatter when in position on the roof, and with a horizontally-proportioned rooflight this effect will be increased. It is often better to use two smaller units rather than one large rooflight. Generally speaking this will be less obtrusive from outside, whilst giving a more even distribution of light inside.

Dormer windows

Traditionally, dormer windows are not common in the National Park, and their use will not normally be accepted. Where they do occur however, they are usually a continuation of a wall face and have a gabled roof.



Traditional eaves dormers.

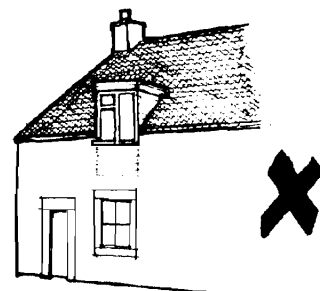
Where dormers have to be added to a building, and that building is in a part of the Park with a local tradition of dormers, they should be:

- as small as possible
- closely related to the scale and positioning of existing windows
- closely related to the traditional pattern

A dormer window should not be a large flat-roofed box dominating the existing roof, with different windows and claddings, bright-painted fascias, green felt trim, etc.



Large flat-roofed dormer dominates elevation.

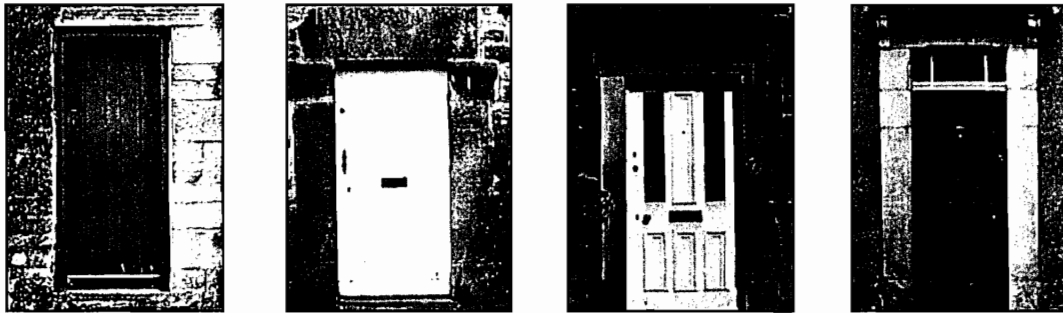


Original window opening raised and flat-roofed dormer provided.

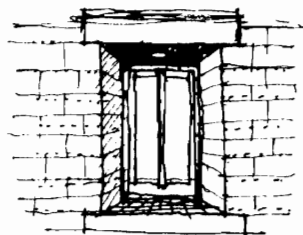
Doors

Door surrounds

The main door into a building should be suitably prominent. Both the door itself and its surround must be considered. Traditionally the surround took many forms.



Reproductions of traditional doorways are inappropriate on new buildings, particularly fibreglass copies. Instead, some appropriate expression is desirable and should conform to the overall design:



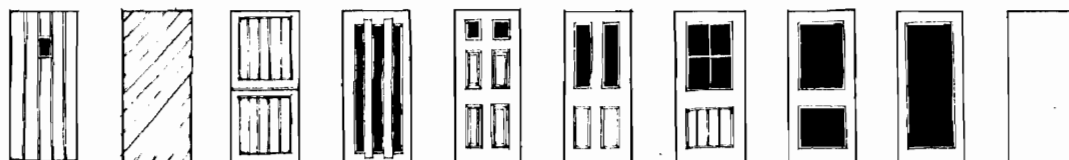
Inset porch.

An inset porch can express the front door's importance. Of course, the opening must be properly detailed. For example, the door frame often looks best set back from the face of the wall to emphasize the solidity of the walls.

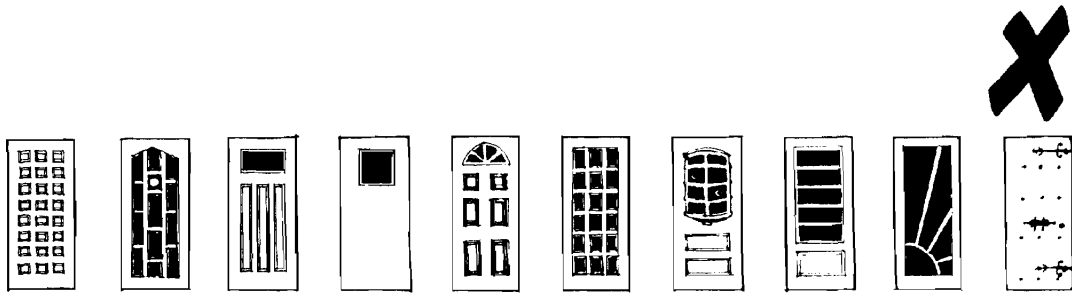
Type of door

Traditionally, this was either a vertically-boarded or planked door, or a variation on the panelled door. The range available today is much wider.

Many standard types of door are satisfactory in appearance, because of their simplicity. Matching the door to the building however still needs care, and not all the doors below will be appropriate in every case.



Other types are less satisfactory (and often more expensive) because of their complexity.

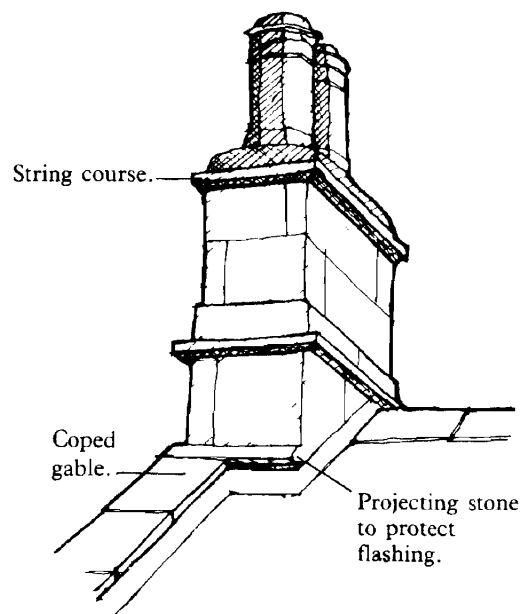


See 'Windows' section for a note on surrounds, decoration and placing in the wall.

For garage doors—see 2: "House Design".

Chimneys

Chapter 2 on House Design dealt with the location of the stack. The sketch illustrates the points of detail. It is important that single-flue chimneys built in masonry are not too thin and weak-looking. It is better to thicken the construction, or to combine two flues if possible.



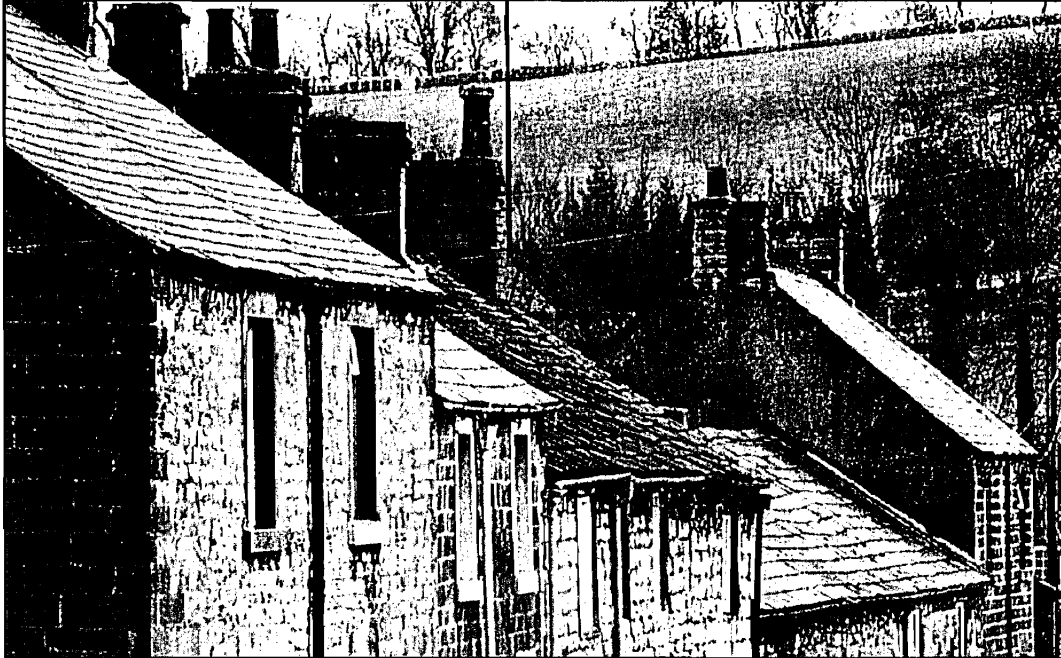
It is always preferable to make the chimney deeper than it is wide—i.e. the major dimension should be at right angles to the ridge. Chimneys were traditionally of coursed masonry of large block size not walling scale, and usually had some form of projecting or banding course to help to throw rainwater clear of the base of the stack.

Lightweight chimneys of metal or mineral fibre pipes should be used only on the rear roof slope. They may be preferable to a midslope masonry stack. Their use is particularly appropriate in barn conversions, where a new masonry stack would introduce a domestic element (see 4: "Conversions"). There are several standard flue systems available for use with both open fires and closed appliances.

Flues to wall-mounted gas heaters should not, if possible, be on principal elevations. An option is to take the flues up existing chimneys or discharge them through the roof by means of a ridge vent.

Eaves and verges

The traditional detail of the eaves and verge is both plain and simple.



Flush verges; clipped eaves.

Ashford.

In Victorian times, more elaborate detailing was employed with fascias and barge-boards. However, this was very much part of a more florid approach to design overall.

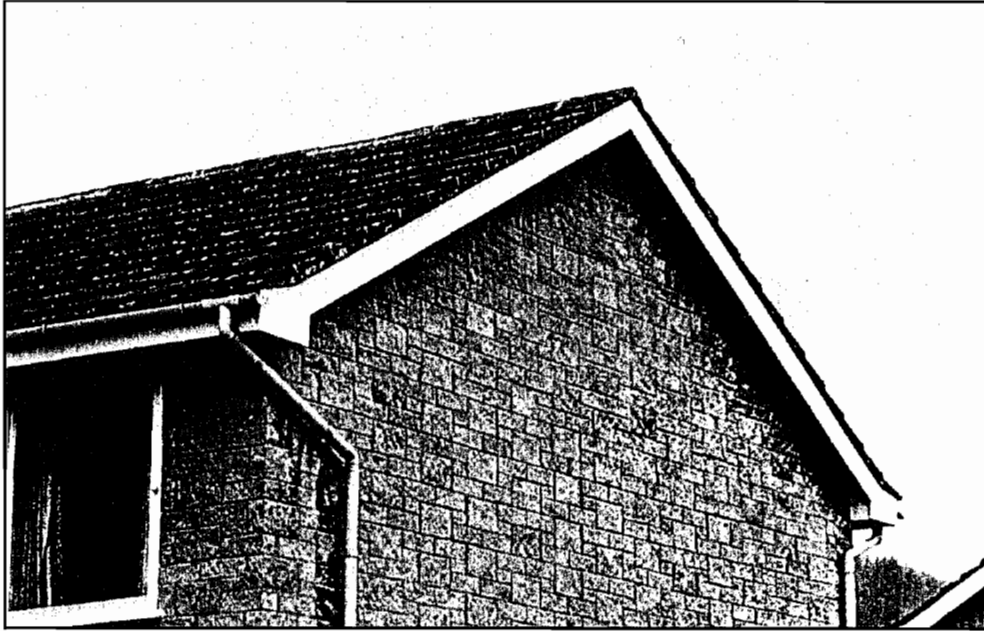


Coped gable.



Elaborate Victorian bargeboard.

By contrast, the typical modern detail looks cumbersome, fussy and is inappropriate to the plainer house designs of today.



Cumbersome bargeboard, box fascia and soffit boards.

Such an inelegant solution is out of place in the Peak.

A plain verge and a slightly projecting eaves is the simplest, cheapest and normally the most appropriate way of detailing a new building.



Simple cement-pointed verge and slightly projecting eaves on modern house.

Gutters, rainwater and soil vent pipes

Traditionally, guttering, if present at all, was usually in timber; cast iron (half-round or ogee section); or lead. Rainwater pipes were generally in square-section lead or round-section cast iron.

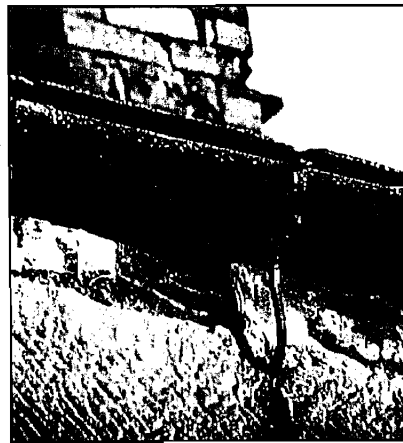
Ogee section.



Timber and cast iron guttering were carried on stone corbels or iron brackets fixed directly to the wall (rise and fall brackets) or in some Victorian buildings to the rafter feet or to the fascia.



Timber guttering on stone corbels.



Half-round cast iron guttering on spiked bracket.

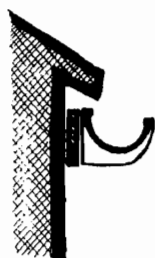
Although lead is now too expensive for normal use, timber and cast iron are still available. In addition, there are some modern alternatives given below.

It is preferable to paint all rainwater goods and soil vent pipes either in a colour which will blend in with the walls or in a dark shade, of which black or dark brown are probably the best.

Gutters and rainwater pipes: modern materials include:

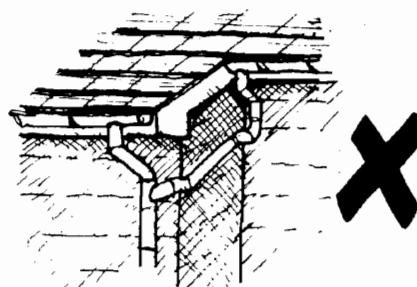
- cast iron
- lead
- timber (for guttering only)
- cast aluminium (in traditional cast iron sections)
- uPVC
- mineral fibre
- (for rainwater pipes): a steel chain, for small areas of roof such as a porch in a sheltered location.

Modern gutters can be fixed to flush eaves, either by plugging and screwing the brackets direct to the wall at the required points; by supporting them on traditional rise and fall brackets; or by screwing them to a timber fascia fixed against the wall. This method although the commonest is in many ways the least attractive. If not properly treated the fascia will be susceptible to wood rot. It will also, if too deep, become a very obtrusive, non-traditional feature on the elevation. By far the most preferable method is to use rise and fall brackets.



Fascia should be hidden by gutter and stained or painted dark.

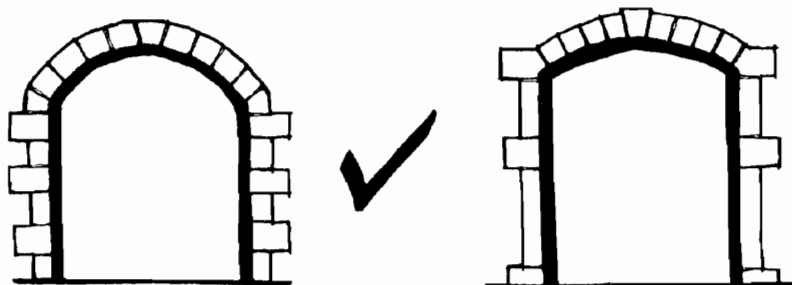
Keep the guttering and downpipe arrangements as simple as possible—avoid running gutters across gables and avoid complicated arrangements such as that shown:—



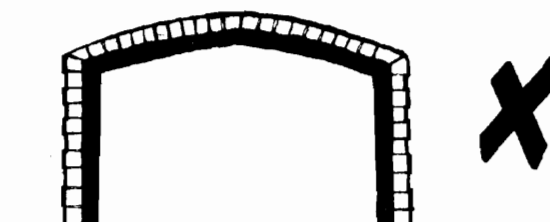
Soil vent pipes

As these have a large diameter section they can look very obtrusive and should be located internally whenever possible. This will also help to prevent freezing up in winter. If vent pipes have to be external they are best kept to the rear of the building.

Arches

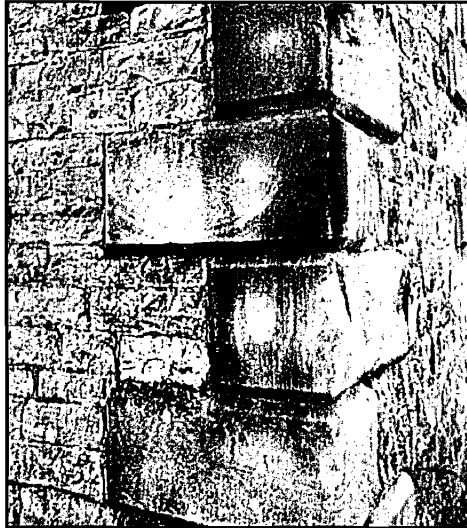


These need to be properly detailed to respect the form and character of the traditional arches in the area. Too often the voussoirs (wedge-shaped stones) are too small and insubstantial.

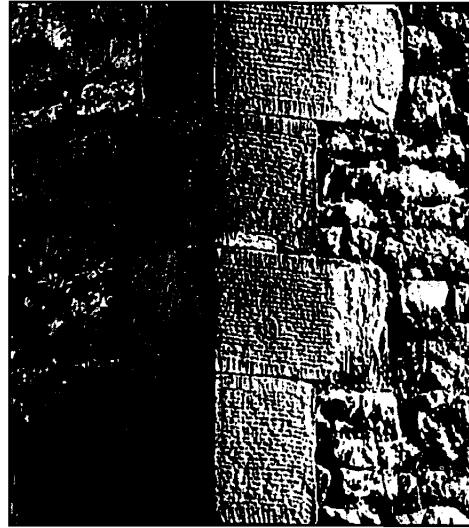


Any infilling of the arch also needs careful design. It must be recessed visually to allow the arch shape to be dominant. Horizontal boarding is best avoided.

Quoins



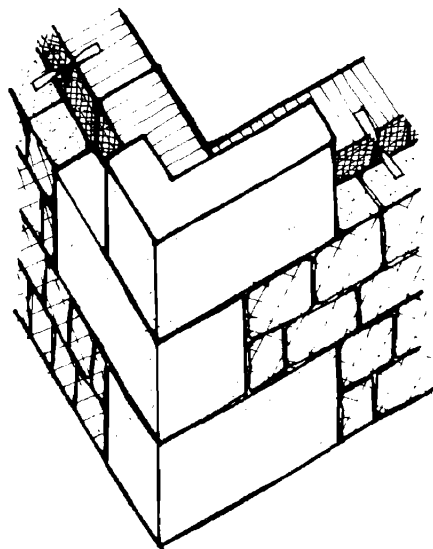
Rusticated quoins.



Flush ashlar quoins.

Quoins, or corner stones, were used traditionally to give both structural and visual strength to the corners of a building, particularly where the general walling stone was of an uncoursed, rubbly character.

They were often 330-350mm high and were generally of good quality dressed stonework.



Quoins are L on plan with one long and one short leg.

Their use today is most appropriate where a product such as rubble stone block (see 6: "Materials") is used as the walling stone. Again, however the use of quoins should depend on the overall approach to the design of the house.

Care should be taken to ensure that quoins are not too small or too reticent in character.

Meter boxes

Electricity and gas meter boxes need to be sensitively located—on the side of a porch or at the rear—rather than be allowed to spoil an otherwise blank gable or a well designed facade. Their use may not be appropriate at all on buildings of architectural quality and other means of gaining access to the meters may need to be found.

Where they are used, they can be beneficially ‘painted out’ by using a stone-coloured paint or whatever is appropriate to match the background. In the case of electricity meter boxes there are less obtrusive alternatives to the standard design. For example, the letter-box type may be appropriate, but the local electricity board should be consulted to check what is acceptable.

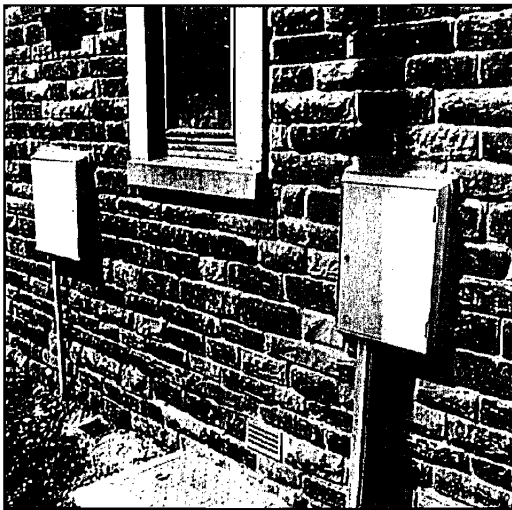
Pointing

Bad pointing can mar the appearance of a building and accelerate decay in stonework. More than any single building operation, pointing is frequently badly done.

Generally, mortar should be slightly weaker than the stone or brick it joints. The tendency is to use too strong a mix which is harmful to the walling material.

Pointing should normally be slightly recessed. This not only looks best but is the most effective in resisting weathering.

More information, including recommended mortar mixes and methods of application is available in a leaflet from the National Park Office.



Ugly and prominent electricity meter box spoils this elevation.



Bad pointing . . . joints too thick.

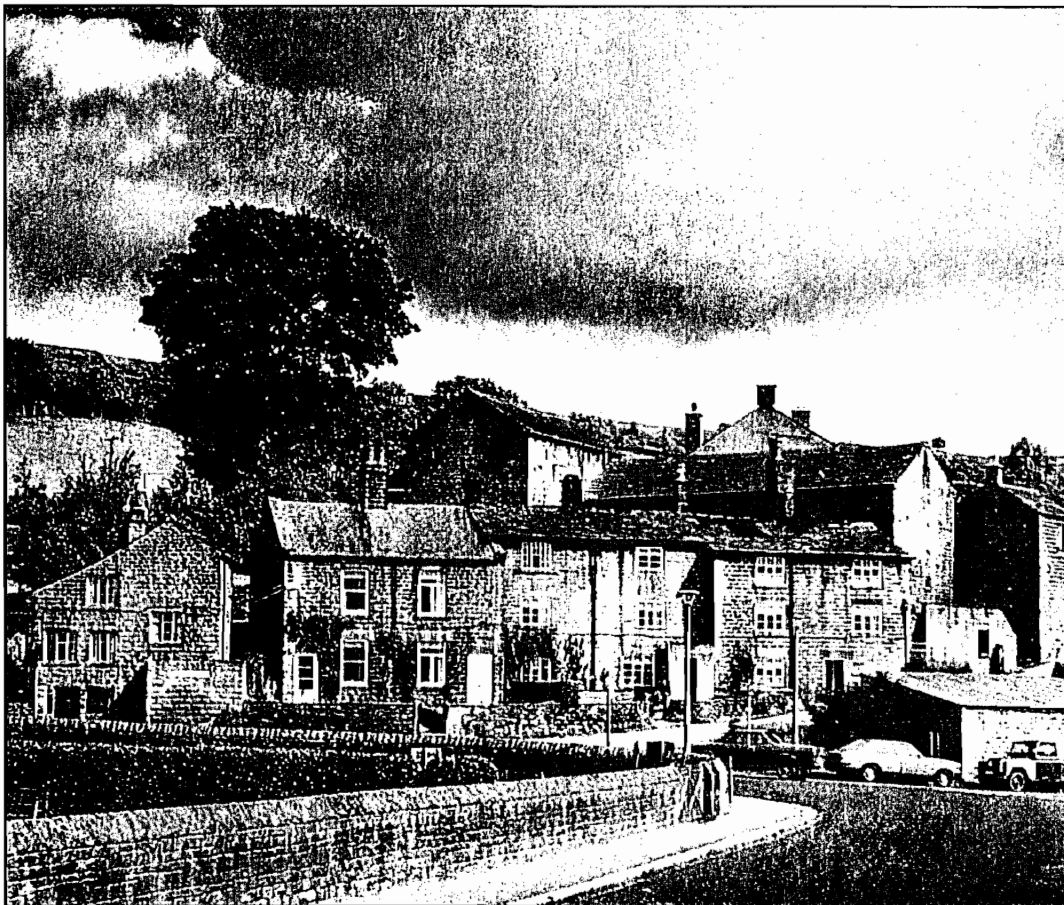
. . . and good, flush or slightly recessed.

6: Materials

Introduction

Historically, the use of local building materials significantly influenced the pattern of buildings in the Peak District. The choice of materials for new buildings is important if the local character is to be maintained.

Most of our building stock dates from after the time that masonry had become the dominant walling material and stone, slate and clay plain tiles the choice for roof covering. Little evidence survives of earlier techniques such as timber frame with wattle and daub infilling or clay bricks for walling, straw, reed or heather thatch for roofing. The choice for the traditional builder was small, based upon availability and suitability for purpose. The structural limitations and workability of this narrow range of materials were strong influences on the form of detailing of our buildings.



Gritstone walls and roofs.

Low Bradfield.

Traditional walling materials

The National Park can be divided geologically into limestone and gritstone regions. Walling materials have traditionally been related to these.

Gritstone is a coarse-grained sandstone. It is strong and can be accurately shaped into squared masonry. It takes a good arris (sharp edge) and can be tooled to various finishes, but cannot be carved into deep relief. This accounts for the solid robust character of traditional gritstone buildings.

The colour of gritstone can vary considerably even from one quarry, but care should be taken to ensure a good match with surrounding buildings after weathering.

Limestone is a dense, fine grain rock. It is durable, strong and non-porous but also very difficult to shape into squared blocks. Its texture varies from smooth to rough (exposed fossils) and its colour from grey-black to grey-white. A few old buildings have walling totally in limestone, but most buildings made use of the more easily worked gritstone for quoins, lintels, sills, copings, kneelers, etc. It was fairly common practice to use coursed limestone on the front elevation and the cheaper rubble limestone on the sides and rear. Coursed limestone is usually more uniform in colour than rubble limestone.

Render is a rough-textured surface treatment resulting from a mixture of limestone chippings and mortar. It is mostly applied to rubble walls, often with gritstone quoins and surrounds to openings.

Some buildings were designed to be rendered, but many have render applied during their life with the aim of repelling rain and/or masking unsightly alterations.



Variety of walling and roofing materials.

Hartington.

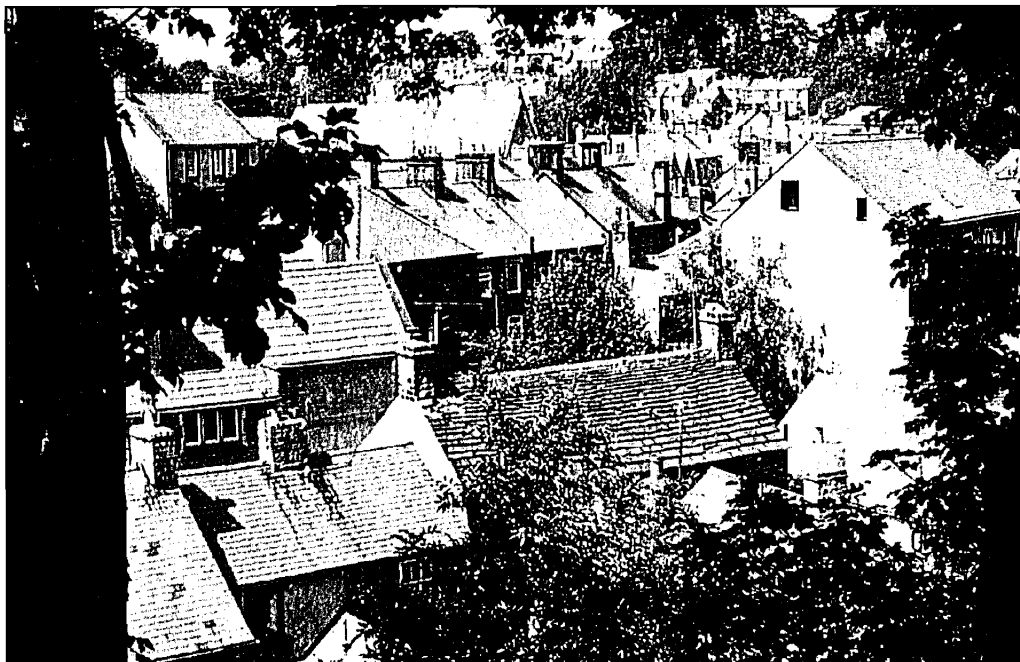
Traditional roofing materials

There are three traditional roof coverings dominating the Peak: gritstone slates obtained locally, clay plain tiles from the area immediately to the south-west and slates from further afield.

Gritstone slates (grey slate or stone flags) are the characteristic roofing material in the Peak. These large heavy slates are laid with the largest placed at the eaves and the smallest at the ridge with diminishing courses between. This arrangement made use of the available sizes and gave an attractive graded appearance which overcame the top-heavy effect. The slates were double-lapped and usually fixed by oak pegs above the lath (batten). Torching in lime and hair mortar from inside the roof sealed the roof and prevented any movement of the pegs.

Slates (North Wales and Lake District) were introduced into the Peak in the late 18th century, and were extensively used in the 19th century. The oldest examples which remain have large, thick slates laid in diminishing courses in the stone-slate tradition. It became more usual to have regular courses and thinner, smaller slates. They are laid double-lapped, fixed by nails into or above the laths, with torching applied from the inside. The earliest slate roofs had stone ridge tiles, but clay ridge tiles or lead roll ridges were more common later.

Clay plain tiles (Staffordshire Blues) are the predominant material in the south-west of the Peak. Regular coursed, cambered tiles (mostly 275 × 175mm) were laid double-lapped with 75mm minimum lap. Each was supported by integral nibs on the back of the tile and/or by nails driven into the laths. Torching was applied from the inside. The weight of tile roofing and the steep pitch make it essential to have sound fixing of tile to lath and lath to spar. The Clean Air Act put an end to coal-fired kilns and so to the traditional blue tile.



Sloping sites make roofs a prominent feature.

Tideswell.

How to choose materials

The aim is normally to use materials sympathetic to the locality. This means choosing from the range of relatively sober materials either in their traditional form or as modern substitutes. Stronger colours found elsewhere such as bright red brick, pink colour-wash or green tiles are unsuitable for the Peak District. Furthermore, the materials suggested below are not suitable for use throughout the Peak. Whilst stone slate roofs for example are found in most parts of the National Park, Staffordshire Blue tiled roofs are commonest in the south-west. Brick is uncommon; its use is restricted to the southern fringes. Consequently, brick is unlikely to be suitable for walling in most of the Park. Render is also not commonly found and is never a suitable substitute for repointing.

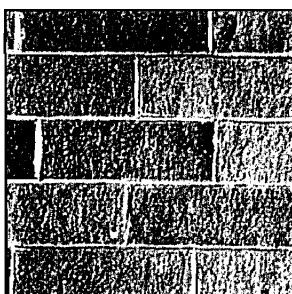
Clearly, the particular location has a bearing on the choice of materials. The nearer a new building is to existing buildings and to the public eye then the stricter the requirements for colour, scale, pattern and texture. This does not however imply a slavish matching of materials in even the most sensitive cases. For example many listed buildings have been successfully extended using modern materials which nonetheless harmonize with the originals. Conversely however, where the new building is to form part of a well-defined existing group using unusual materials, then a matching to these might be more appropriate than to those used in the area as a whole.

The most satisfactory results are often obtained with natural materials because they weather well and display subtle variations in colour which are difficult to match in artificial materials. They can however be expensive and difficult to obtain. For this reason, the use of reclaimed materials is strongly recommended. These are particularly good for matching with existing because they have a mature look as a result of weathering. The quality is often excellent, displaying the skills of by-gone craftsmen. Demolition contractors and some builders' merchants are the usual sources of such materials.

In using the lists which follow, bear in mind that no material is of universal application, nor is the list exhaustive.

Today's walling materials

Natural gritstone



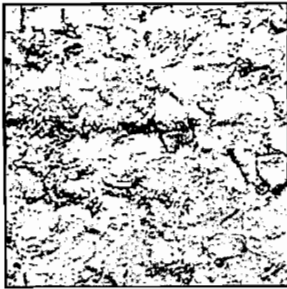
- Obtained readily new or salvaged (which generally has less colour)
- Laid coursed or random. Coursed work has usually squarish stones laid to regular courses although longer stones do occur in Victorian work. Snecked, squared rubble is a recent fashion in gritstone walling with little precedent in traditional practice. It is fussy and should be avoided.
- Finished as ashlar, tooled, sawn, or split-faced and bolstered.
- Relatively expensive—especially with tooled finish although less so if salvaged.
- Skill required to avoid random stonework looking like vertical crazy paving.

Natural limestone



- Obtained in limited range new or salvaged.
- Laid coursed or random. Coursed limestone usually has elongated stones in courses of varying depth. Rubble is also more elongated and angular than in gritstone. Sneaked squared rubble limestone is not part of the tradition and should be avoided.
- Finished as ashlar or split-faced.
- Relatively expensive
- Skill required to avoid random stonework looking like vertical crazy paving.

Rubble blocks



- Formed by setting pieces of stone into the face of a concrete block.
- Obtained readily in either gritstone or limestone form.
- Laid coursed. Random effect obtained by pointing as a separate operation with mortar mix the same as used in manufacture of block and finished with either a bristle brush or wood scraper.
- Inexpensive compared with traditional random walling. Avoid those blocks which have a regular pattern of stones, not enough stone or where the stones are too small.
- Skill required to avoid individual blocks destroying continuity of random wall.
- Appearance may sometimes be too rugged/crude for small intricate buildings.

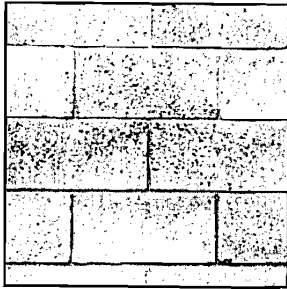
Artificial stone



- Concrete blocks containing crushed stone and pigments with a surface texture intended to simulate natural stone.
- Obtained readily, simulating gritstone or limestone.
- Laid coursed (or with coursed appearance).
- Finished as moulded or split-faced, preferably with edges bolstered so as to offset effect of concave profiles.
- Split-faced blocks are not able to reflect the colour variations of natural stone and, in the case of split-faced 'gritstone' blocks, gritstone aggregate should be used (if necessary with a colourant) not limestone aggregate. Then, if the colourant fades, the gritstone aggregate will provide some colour and not result in an 'off-white' block. Natural gritstone aggregate is most successful with white cement.

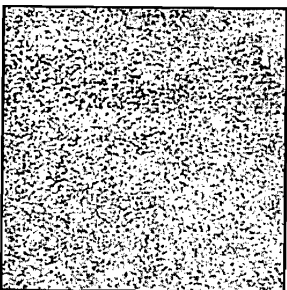
- Inexpensive compared with natural material.
- Moulded blocks can reproduce the texture of natural stone very well and colour variation to a degree.
- For some disadvantages, see footnote on cement-based products below.

Concrete masonry blocks



- Concrete blocks containing crushed stone and pigments with a variety of textures.
- Obtained readily in a number of colours sympathetic to the Peak District.
- Laid coursed.
- Finished as ashlar, with moulded faces or with exposed aggregate.
- Inexpensive compared with natural materials.
- Appearance may sometimes be too robust for small intricate buildings.
- For some disadvantages, see footnote on cement-based products below.

Wet dash render



- Materials obtained readily.
- Satisfactory performance and good appearance depends to a high degree on the correct use of undercoats and detailing plus skill of operative.
- Finish has rough texture which is less susceptible to defects and deterioration than any other type of render. It can last the lifetime of the building.
- Relatively inexpensive overall, counting cost of background walling.
- The correct specification is important. See the note at the end of this Chapter for details.

Clay facing bricks



- Obtained readily in red or red/brown colours.
- Laid coursed.
- Finish similar to traditional 'hand made' should be chosen.
- Wide range of prices.
- Beware sand-faced bricks with finished colour very different from body colour as the body colour will come through.

Today's roofing material

Gritstone slates (grey slates or stone flags).

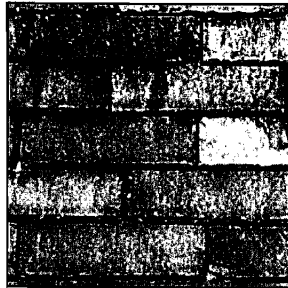
Minimum pitch 25°.



- Obtained second-hand, intermittent supply.
- Laid in diminishing courses.
- Finish textured.
- Expensive especially if cost of roof structure added in order to carry heavy roof covering.
- Skill required to achieve good performance and satisfactory appearance—then capable of long life.
- The modern practice of underfelting prevents torching being done, and so there is no restraint for the pegs (if this method of fixing is used) and the slate could slip. The slates should be fixed by using alloy nails driven into the laths. It is good practice to grade the slates for thickness at the tail (leading edge) to ensure tight coursing. This can only be done by batching the slates tail upwards and peg holes downwards, before grading and fixing. Stone-ridge tiles are butt-jointed.

Slates (North Wales & Lake District)

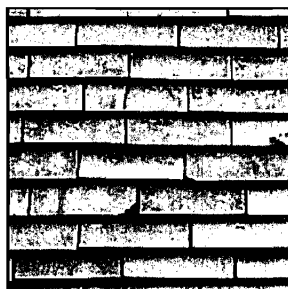
Minimum pitch 30°.



- Obtained new from Wales and the Lake District or salvaged.
- Laid in regular courses.
- Finish-smooth.
- Of average cost.
- Easy to fix—capable of long life.
- Ensure colour is blue or blue/black, not purple.

Clay plain tiles

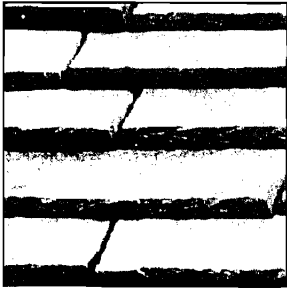
Minimum pitch 40°.



- Obtainable new (check the colour) and as salvaged.
- Laid in regular courses.
- Finish-smooth.
- Of average cost.
- Easy to fix, permitting intricate roof shapes.
- Ensure colour is appropriate to locality.

Concrete tiles

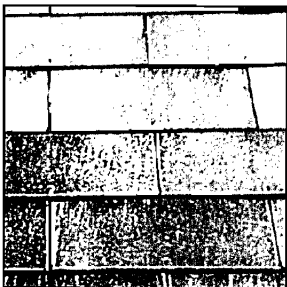
Minimum pitch: various.



- Obtained readily; may simulate gritstone slates or clay plain tiles with varying degrees of success.
- Those simulating gritstone are with a moulded textured surface and can be laid in diminishing courses. May be obtained with apparent thickness similar to gritstone slates.
- Those simulating plain tiles must be chosen with care to ensure correct colour. Bear in mind that the colour will fade.
- Flat section interlock tiles allow for low pitches but have limited application due to their appearance being too mechanical.
- For some disadvantages, see footnote on cement-based products below.

Mineral fibre/cement tiles

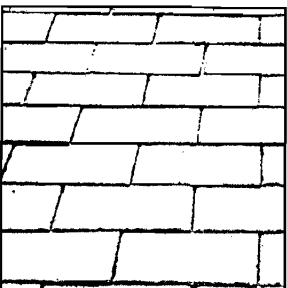
Recommended minimum pitch 30°.



- Obtained readily.
- Laid in regular courses.
- Finish smooth, similar appearance to slates.
- Average cost.
- Easy to fix and light in weight.
- For some disadvantages, see footnote on cement-based products below.

Resin-based artificial slates

Minimum pitch as for natural equivalents.



- Obtained readily in a variety of types simulating Welsh or Lake District slates.
- Laid as natural equivalents.
- Moulded to simulate the natural product both in texture and thickness.
- Cost approaches that of a natural product.
- Easy to fix.
- Ensure colour is appropriate to locality.

Specification for wet-dash render

The following specification is recommended but may require to be varied due to background material, thickness of render and exposure conditions.

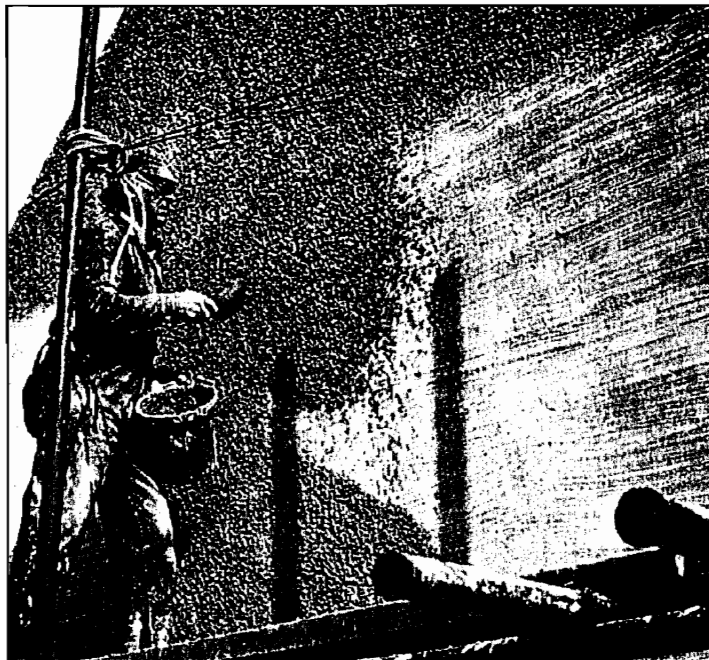
First coat 1 part cement
 1 part lime
 4 parts sand

Provide a well scored finish.

Second coat 1 part cement
 1 part lime
 3 parts limestone dust
 3 parts 5mm and smaller limestone chippings.

For each coat the mix is applied quite wet and slapped on wall hard in a continuous process to avoid joints.

Limestone dust and chippings can be obtained from various quarries locally.



Second coat being applied.

Footnote: Cement-based products

N.B. Most cement-based products may exhibit the following characteristics:

- drabness when wet due to water absorption.
- dullness after prolonged exposure to the atmosphere.
- initial lime bloom.
- long term fade of artificial colour pigment.

For further information see the Cement & Concrete Association booklet 'External Rendering'.

7: External works

Introduction

Good design of the setting of buildings greatly affects their appearance. Landscape design must not be regarded as a cosmetic treatment, added to a scheme as an afterthought.

All but the most basic domestic garden situations need professional skill, from the initial stages when the setting and layout of buildings are being considered as well as the spaces between them.

A sufficient proportion of the total building costs should be set aside for external works including both hard and soft landscape treatment.



Good landscaping around an old persons' home.

Bakewell.

Design principles

An analysis of the site is essential and will need to include not only reference to features of the site itself but of the wider setting.

The local landscape style

The landscape component of any building development in the National Park must attempt to reflect the distinctive character of the landscape in that area.

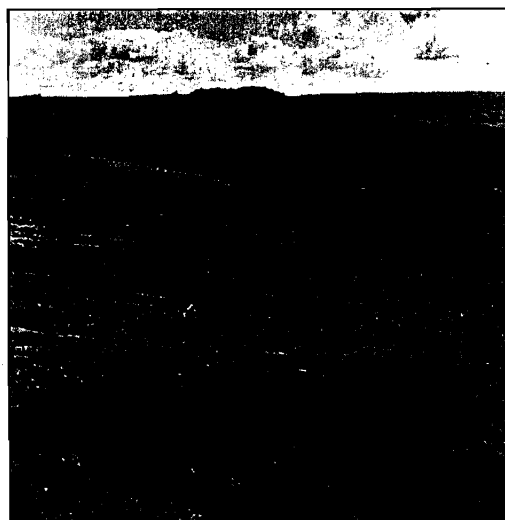
Although some of the peripheral parts of the National Park reflect adjoining landscape styles, there are really only two main areas, each with its own distinctive landscape features:—

The White Peak (or limestone area) is gently undulating plateau with most buildings in villages which are usually sited in sheltered hollows. The main exceptions are the farmsteads which characteristically are set in belts of hardwood trees. The predominant boundaries are dry limestone walls. Coniferous trees are very rare, primarily because they do not grow well on limestone soils.

The Dark Peak (or gritstone and shale area) is a series of valleys dividing up high bleak and uninhabited moors. Buildings are with very rare exceptions on the lower valley slopes. The characteristic boundaries are gritstone walls. Mixed hardwood and coniferous woodlands are common. Some remnants of the natural oak/birch/rowan woodlands still remain in places.



White Peak landscape.



Dark Peak landscape.

Within villages most of the detached houses have small front gardens each bounded by a stone wall, but many of the cottages are built immediately behind the road or pavement edge. Traditional paving materials—setts or stone slabs—are still to be seen often forming the only ‘landscape’ or open space in front of houses, whether street or ‘square’. However, in recent years tarmac has unfortunately been used to form many of the hard landscape areas. Tree belts are common features to provide protection to exposed settlements. They often provide a backdrop to the scene.

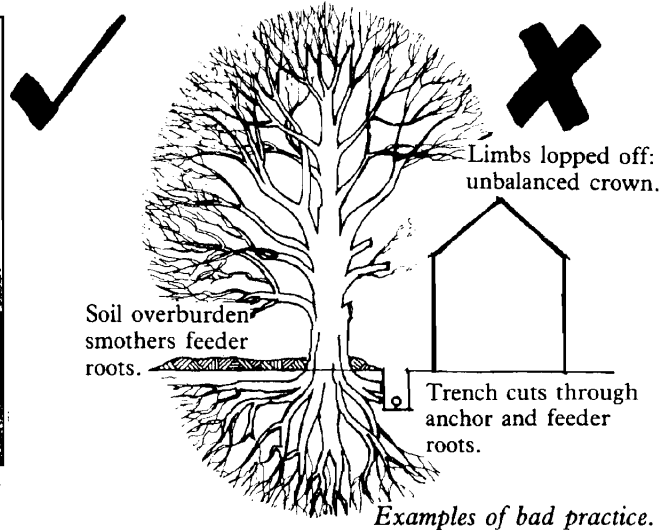
Retention of existing features

Adequate regard must be given to existing trees on a development site. Trees and hedges are slow growing in the Peak District, so the retention of what exists can help greatly in assimilating a new building into its setting. The existence of Tree Preservation Orders (T.P.O.s) and Conservation Areas—where notice of proposed tree work or felling is required—must always be checked at an early planning stage. Frequently skilled surgery will be required using the services of an arboriculturalist or qualified tree surgeon in accordance with BS 3998: 1966.

Where trees are to be retained on a development site, it is important that they are given adequate room, in particular ensuring that root systems are not damaged by underground services. Due account should be taken of the advice contained in the Department of the Environment’s ‘‘Housing Development Notes’’ and ‘‘The Care of Trees on Development Sites’’ published by the Arboricultural Association.



New building benefits from mature tree nearby.
Monyash.



Examples of bad practice.

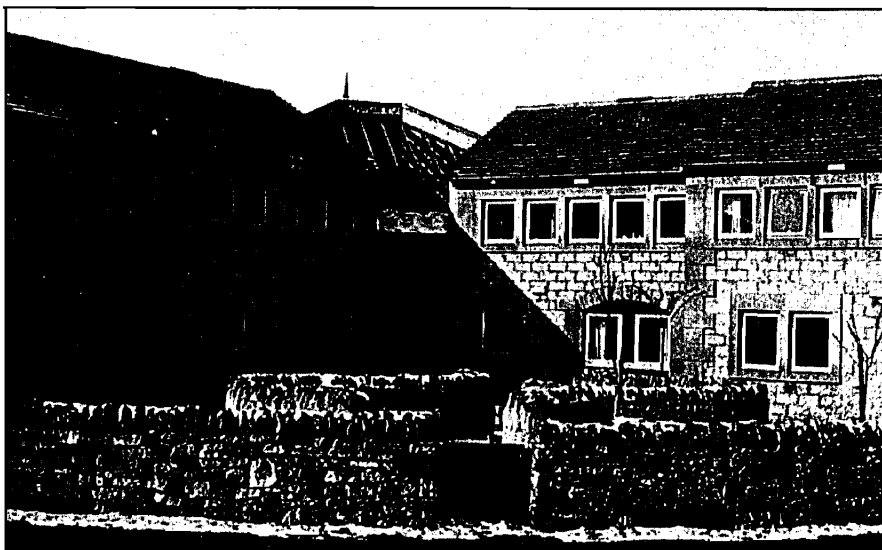
One or more of these will probably cause the tree to die; at any time during and after this process it may be a danger to the building and its occupants.

Existing boundaries—walls and hedges—are features which should be retained wherever possible. If some removal is inevitable then the walling stone should be retained for use elsewhere on the site.

Other features worthy of retention might be found on site. These could include areas of old stone paving and items of street furniture such as bollards.

The provision of new landscape features

A development as a whole should develop a reasonably consistent landscape character. The existing features of the site itself and the character of the wider locality provide a guide. New features—walls, hedges, tree belts, etc. can be added to make new development more harmonious. For larger developments a clear framework of boundaries and tree planting is often essential to provide shelter, to screen areas or just to ‘fix’ the buildings into the landscape in the traditional way.



Stone walls make an attractive boundary.

Bakewell.

Trees should be included in groups on the house frontages, and/or rear gardens and verges etc. Stone walls, hedges, or well designed fences should be used to define garden boundaries.

Great improvements can be made to an existing housing area by planting on the 'public' side (front gardens) by means of trees, shrubs, ground cover plants, and by adding boundary walls or hedges.



Bleak open street with little enclosure.



The same, improved with planting and boundary walls.

Future management

Too often the management of open spaces and trees is neglected. Responsibility for this must be clear from the outset. The design should encourage the people who live in an area to take a pride in its appearance and have a direct and obvious interest in its management. The layout and design can do much to achieve this. For example: open spaces should be carefully located so that each home has a view of at least some green vegetation; and that what is provided can be effectively looked after.

It is in the interests of residents or users of building developments that paved areas and parking bays are adequate and carefully located. Footpaths should follow logical desire lines rather than leading to do-it-yourself additions.

Specification of plants and hard surfaced areas should be carefully thought out. Small trees with thin stakes will not survive long in heavily used areas. Loose gravel soon gets everywhere. These are two obvious examples of short-sighted savings made on initial costs that lead to failures and neglect.

Hard landscaping

Buildings of good design, whether new or old, can be spoiled by unsuitable external works. Many modern materials are economical to use and to maintain, but their appearance can be unsatisfactory in relation to traditional materials unless used in a sympathetic way. Careful attention to the junctions between different materials is needed.



Concrete block paving with stone curbs and sets. Steel bollards of traditional design.

Tideswell.

Surfacing

Tarmacadam is of course a commonly used material for road surfacing, but other more traditional paving materials include setts and cobbles; Yorkstone or similar stone flags; and crushed stone or gravel, bound with bitumen.

In recent years many substitutes for these traditional paving materials have come on to the market. Smaller unit concrete slab paving and concrete/clay block-type paving are becoming increasingly popular.



Stone setts complement the stone buildings.

Winsters.

Where tarmacadam or similar surfaces are needed for roadways or footpaths their area should be the minimum required by the highway authority and careful attention should be given to their junction with other hard materials or with grass or shrub areas.

The following are unsatisfactory:

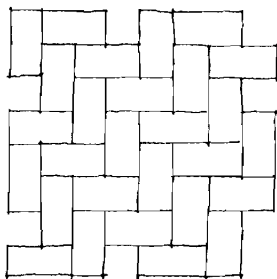
- 'Blanket' areas of rolled asphalt, tarmac or poured concrete, especially in green or red.
- Blocks and concrete flags in bright and/or unnatural colours, or in fancy shapes.
- Concrete flags which are larger than 600×600mm.

The following types of paving are recommended for pedestrian areas:

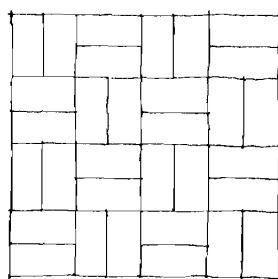
- Natural stone flags or setts.
- Artificial stone or concrete flags of a domestic scale (preferably smaller than 600×600mm) preferably with exposed aggregate or a riven surface. Avoid garish colours.

The following can be used for both pedestrian and vehicle areas and for shared pedestrian/vehicle areas distinguishing them from more conventional roads.

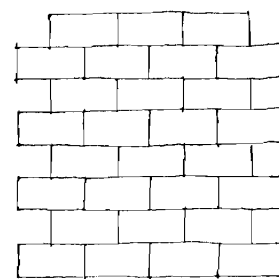
- Poured concrete slab with exposed aggregate, but only in limited areas (this treatment could be used for car parking areas).
- Loose gravel, or limestone chippings bound by laying on a tar-sprayed base ('tar and chip').
- Interlocking clay or concrete blocks in natural or darker colours. These offer the following advantages: a scale similar to setts, but a smoother overall surface; a choice of repetitive patterns; quickly and simply laid by unskilled labour without concrete bed or pointing; can be taken up and relaid; cost comparable to tarmac.



Herringbone (suitable for heavy vehicles).

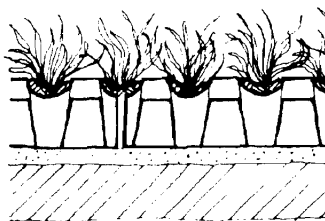
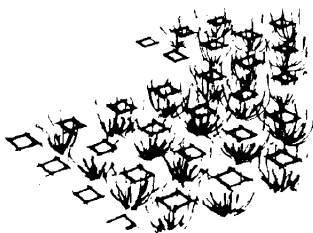


Basket weave.



Running bond.

- Areas which are to be subject to occasional light vehicular traffic can be given a green appearance by using precast concrete grids infilled with soil and sown with grass.

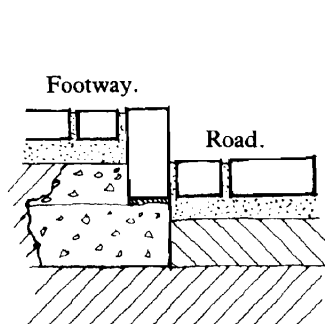


Concrete/Grass Grid (600×400 or 400mm square×120mm units). Laid dry on a prepared base. Up to 75% grass, 25% concrete exposed on surface.

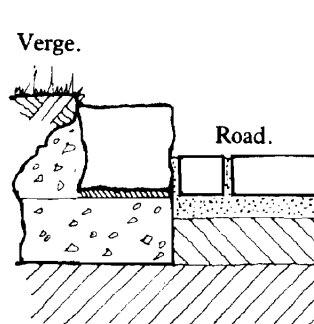
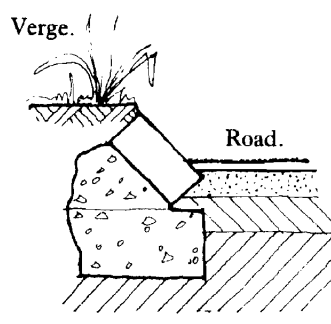


Car park surfaced with concrete/grass grid.

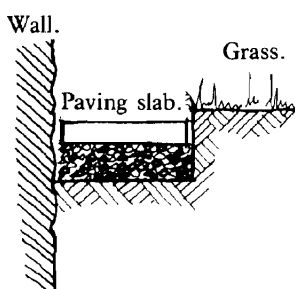
Standard concrete road kerbs can be used to retain tarmacadam areas but other satisfactory alternatives for use particularly with other paving types are shown in the cross-section examples below.



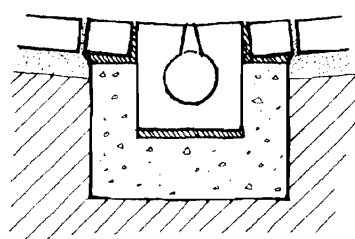
Blue brick or concrete paving block on edge at angle.



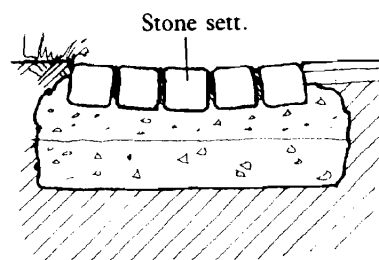
Stone kerb.



Mowing strip.



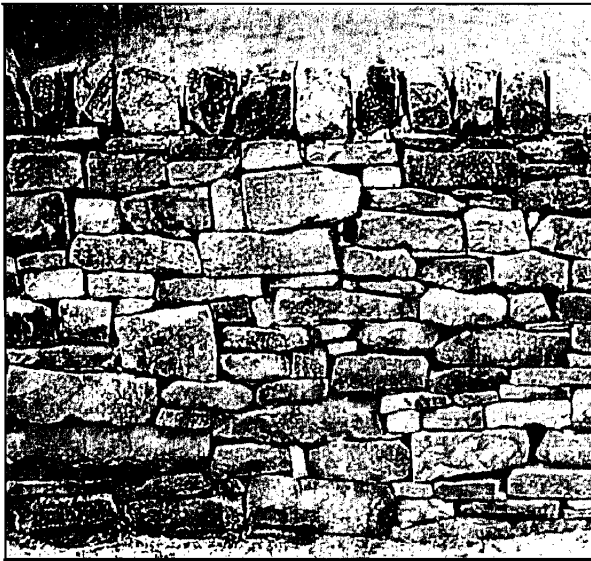
Concrete slot drain.



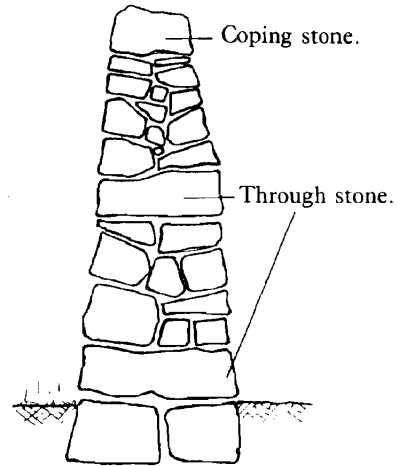
Setts channel.

Walls

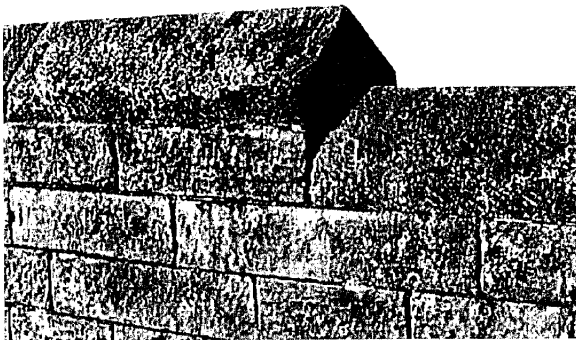
Stone boundary walls are a predominant feature of the Peak District. The most common is the drystone type used for both field boundaries and in villages. Also to be seen in some villages are coursed garden walls with shaped or flat copings, usually of gritstone whether in the White or Dark Peak.



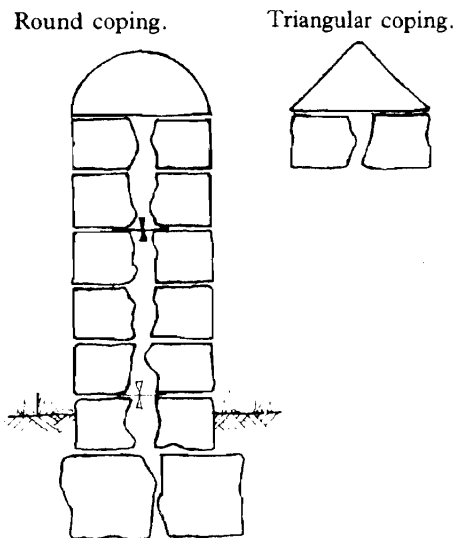
Gritstone field wall, note no vertical joints line through.



Section Drystone wall.



Coursed gritstone garden wall with pointed coping.

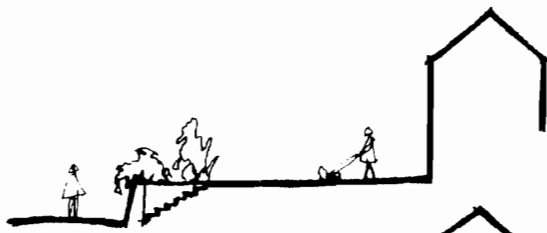


Coursed walling.

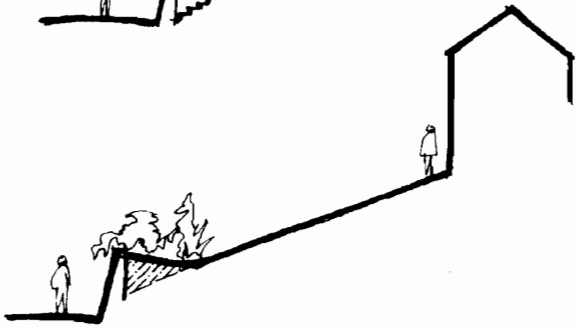
Wherever possible, natural stone should be used and then in a traditional manner. A crazy-paving effect is not appropriate. Where coursed walling is a feature of the locality, reconstructed stone could be appropriate but then only if laid coursed.

Thin wall construction with stiffening piers on one side is satisfactory for screen walls if the piers are hidden from public view.

Retaining walls in natural stone are a common feature of traditional gardens and outdoor areas:



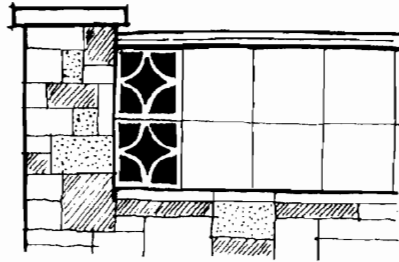
Use of retaining wall to raise gardens above street level.



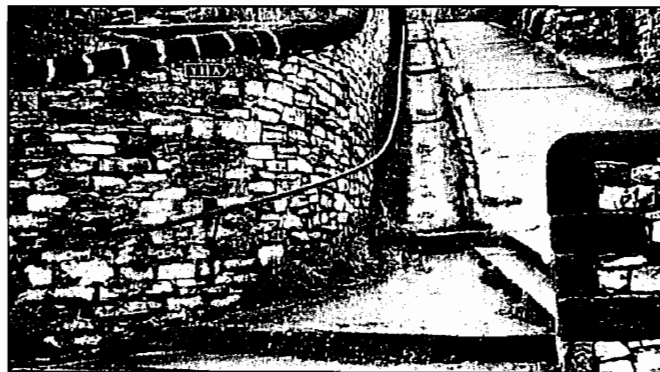
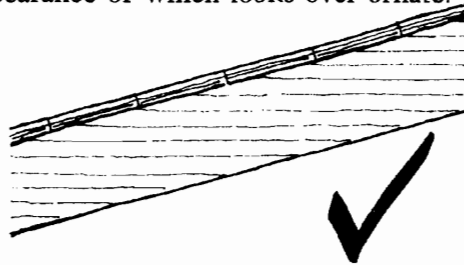
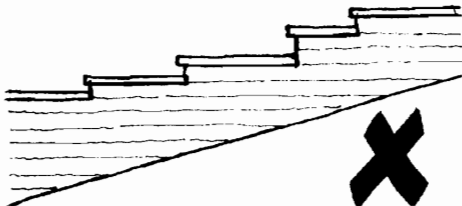
Reversing the slope at the foot of the garden benefits the occupier, by providing security and a view of the garden.

The following types of walling are **UNSATISFACTORY** in appearance, in the National Park.

- Perforated concrete screen blocks.



- Cement thin render or sprayed finish on blockwork or brickwork.
- Any type of walling which has a flimsy appearance or which looks over-ornate.

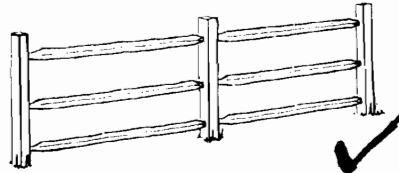


Good details combine to make a pleasing street scene. Bakewell.

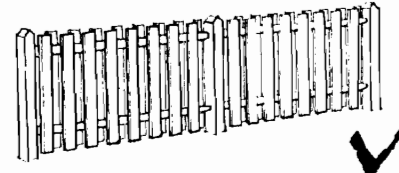
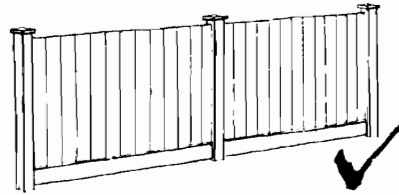
Fences

The choice of fencing is important, for it is easy to spoil the appearance of a building or landscape by using an unsuitable design. The following types are satisfactory:

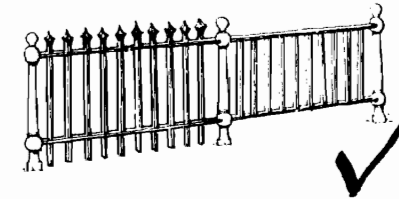
- Timber post and rail: clear or dark finish (can be used to provide early protection for a hedge).



- Sawn vertical close-boarded or hit-and-miss fencing (clear or dark finish).

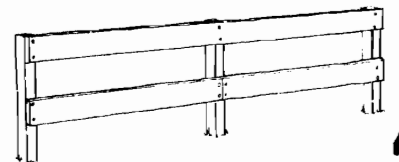


- Iron railing.

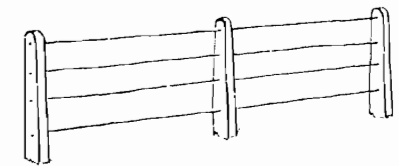


Unsuitable types include:

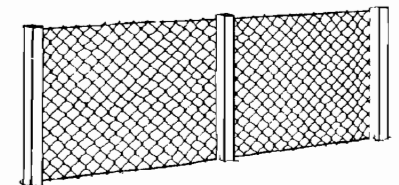
- White ranch fencing.



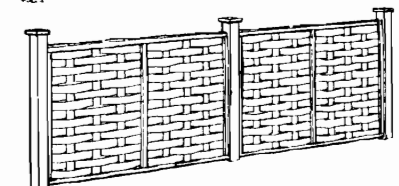
- Concrete posts and wire.



- Wire mesh, especially the green coloured variety.



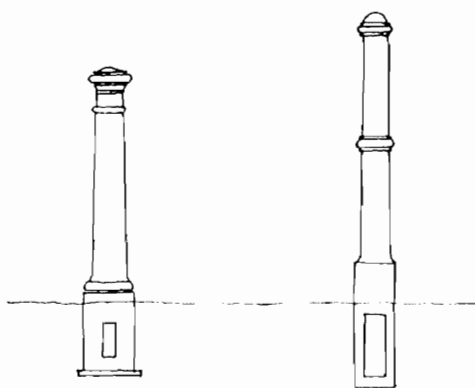
- Waney edge boarding or panels or flimsy interwoven panels.



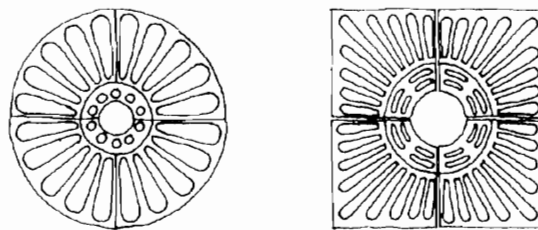
Street furniture

Items of street furniture should be considered together in a scheme not as individual 'one-off' items, but as an integral part of the overall development. Seats, lamp standards and brackets, bollards, litter bins etc. should harmonise with one another and their setting. Each item of street furniture must have a clear purpose. Items such as seats need to be carefully related to hard surfaces to minimise any difficulties of wear and therefore subsequent maintenance.

Nameplates and direction signs should also be specifically chosen in conjunction with the development as a whole. Where possible they should be fixed to walls, fences and buildings, rather than on separate supports, to reduce visual clutter.



Cast iron, steel or aluminium bollard of traditional design.



Cast metal tree grids.



Cast metal street name plate: raised lettering and border.

*Steel bollards of traditional design.
Hathersage.*



Soft landscaping

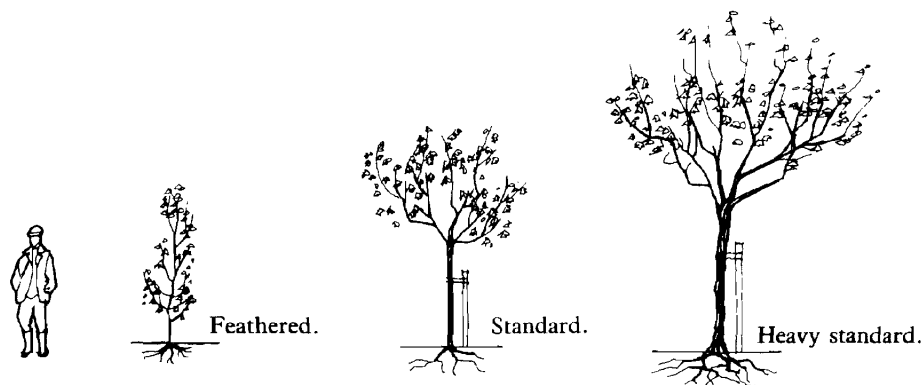
This category covers all 'growing' landscape features i.e. trees, shrubs, herbaceous plants, earth modelling, soil and grass. The location of the various soft landscape elements needs to be considered in relation to the design as a whole. Its role is not just to fill in the spaces after the building, roads and paths have been provided.

Trees and shrubs can be used to provide screening for privacy, enclosure or shelter. Used in large groups they produce a structural feature linking buildings and defining open spaces.

The planting of any trees and shrubs should be carried out, if possible, between November and March i.e. during the dormant season (although evergreen species can also be planted in October and April). Containerised plants can be planted throughout the summer, provided regular watering is guaranteed. Grass seeding is best in spring or early autumn.

Trees

When the landscape framework for a development is drawn up it is important to identify the most suitable sites for trees of different types and sizes.



Heavy and extra-heavy standards—are normally specimen trees for prestige sites. They are most suitable for planting alongside important pedestrian routes, as smaller trees are prone to vandalism. Heavy standards are normally 3.5-4.0m high (120-140mm girth at 1m above ground level) and extra heavy standards 4.0-5.0m high (140-160mm girth).

Standard and feathered trees are more appropriate for group planting, rear gardens or enclosed front gardens and other enclosed spaces. Standards can be anything from 2.5-3.5m high (60-120mm girth) and feathereds 1.5 to 2.5m high, the latter more appropriate to massed or screen planting, preferably protected within a fenced enclosure.

Whips and transplants are smaller again; they should only be used for plantations. Conifers will only successfully establish when planted below 1.5m and preferably below 600mm.

When planting standard and feathered trees it is important to prepare the site and provide a pit of topsoil or soil and compost or peat at least 450mm deep and about 600mm diameter. An application of fertiliser is also useful to provide the tree with an initial boost of nutrients.

Standard trees and, in more exposed positions, feathered and even whips will need stakes for initial support. Ensure that untreated timber is used, that stakes are driven firmly into position on the windward side of the tree, and that proprietary plastic ties are used (not string or worse, wire). In rural areas, rabbit protection will be needed for transplants and whips. Use plastic rabbit sleeves or tree shelters or enclose a plantation in rabbit-proof fencing.

Tree species

In selecting tree species, their respective rates of growth and eventual height and spread must always be anticipated.

Tree roots can damage the foundations of buildings and particularly underground services. Poplars and willows are the worst examples, e.g. the over-used 'Weeping Willow'. They are not really suitable for small gardens.

Conifers should be used sparingly. They can be used as nurse species for slower growing deciduous trees but their most common use will be within private gardens in villages; or as screen hedging within villages.

Most of the trees listed below are indigenous, but there are also some imported species and varieties of the basic native species. In village housing schemes Birches (*Betula* species), Rowans (*Sorbus aucuparia*), Whitebeams (*Sorbus aria*), Maples (*Acer platanoides*) and Cherries (*Prunus* species) are a good choice. The more ornamental Japanese Cherries and Maples should be avoided as garish colours and unnatural shapes are common.

The following species are recommended as suitable for the Peak District.

<i>Acer campestre</i>	(Field Maple)	S L
<i>Acer platanoides</i>	(Norway Maple)	T/M
<i>Acer pseudoplatanus</i>	(Sycamore)	T E
<i>Alnus cordata</i>	(Italian Alder)	M/S
<i>Alnus glutinosa</i>	(Common Alder)	M/S
<i>Betula pendula</i>	(Silver Birch)	E; G; M/S
<i>Crataegus monogyna</i> & varieties	(Hawthorn)	S E
<i>Fagus sylvatica</i>	(Beech)	E; L; T
<i>Fraxinus excelsior</i>	(Ash)	E; L; T
<i>Ilex aquifolium</i>	(Holly)	S
<i>Larix</i> species	(Larch)	T E
<i>Pinus nigra austriaca</i>	(Austrian Pine)	T E
<i>Pinus sylvestris</i>	(Scots Pine)	E; G; T
<i>Prunus avium</i>	(Gean; Wild Cherry)	M L
<i>Prunus padus</i>	(Bird Cherry)	M/S L
<i>Prunus sargentii</i>	(Sargent's Cherry)	S
<i>Quercus robur; petraea</i>	(Oak)	T/M G
<i>Robinia pseudoacacia</i> & varieties	(False Acacia)	M/S
<i>Sorbus aria</i> & varieties	(Whitebeam)	S L
<i>Sorbus aucuparia</i> & varieties	(Rowan; Mountain Ash)	S E
<i>Taxus baccata</i>	(English Yew)	S
<i>Tilia euchlora</i>	(Hybrid Lime)	T
<i>Tilia cordata</i>	(Cordate or small-leaved Lime)	T L

Key:

The approx. mature height is indicated as—

T	=	Tall (20m upwards)
M	=	Medium (12m to 20m)
S	=	Small (up to 12m)

The appropriate choice for different soils:

E	=	Trees suited to exposed situations
L	=	Mainly suited to limestone (calcareous) soils
G	=	Mainly suited to gritstone/shale (acid) soils

(Otherwise assume that a tree's preference for a particular soil type is not significant).

Hedges

Hedges are most commonly used to define garden areas. If left to grow to 2m high they can be used instead of screen fences or walls where privacy is not essential immediately a building is in use.

Hedges are planted as a single or staggered double row of transplants (i.e. about 450mm high) and planted up to a maximum of 600mm apart.

Trees used for hedging will need regular trimming. Shrubs left untrimmed will develop a more natural shape but take more space. This must be allowed for.

The following are recommended as suitable for any reasonable soil conditions.

U	S	<i>Berberis darwinii</i>	
U	S	<i>Berberis stenophylla</i>	
U	S	<i>Buxus sempervirens</i>	(Box)
U/R	T	<i>Carpinus betulus</i>	(Hornbeam)
U	T	<i>Chamaecyparis Lawsoniana</i> & varieties	(Lawson Cypress)
R	S	<i>Corylus avellana</i>	(Hazel)
U	S	<i>Cotoneaster simonsii</i>	
R	T	<i>Crataegus monogyna</i>	(Hawthorn)
U/R	T	<i>Crataegus oxycantha</i>	(Quickthorn)
U	T	<i>Cupressocyparis leylandii</i> & varieties	(Leyland Cypress)
U	S	<i>Escallonia</i> species	(Apple Blossom)
U/R	T	<i>Fagus sylvatica</i>	(Beech)
U/R	T	<i>Ilex aquifolium</i>	(Holly)
U	S	<i>Ligustrum lucidum</i>	(Privet)
R	S	<i>Ligustrum vulgare</i>	(Common Privet)
U	S	<i>Lonicera japonicum</i> — <i>involucrata</i>	(Shrubby Honeysuckle)
U/R	S	<i>Prunus cerasifera</i>	(Myrobalan; Cherry Plum)
R	S	<i>Prunus spinosa</i>	(Blackthorn; Sloe)
U	S	<i>Prunus laurocerasus</i> & varieties	(Laurel)
U	S	<i>Pyracantha</i> species	(Firethorn)
U/R	S	<i>Symphoricarpos albus</i>	(Snowberry)
U/R	T	<i>Taxus baccata</i>	(Yew)
		(except where exposed to grazing animals—poisonous)	

Key:

T	=	tree used for hedging
S	=	shrub used for hedging
U	=	suited to urban/village sites
R	=	suited to rural sites



Beech hedging.

Ground cover planting

The term 'ground cover' relates to plants—shrubby or herbaceous—which creep over the ground or have a spreading or low, arching habit of growth. They provide total soil cover, eliminating weed growth and giving maintenance-free planted areas, in areas too small or too steep for a lawn or as part of the overall design (they can look very effective in conjunction with block paving areas).

Ground cover shrubs

A minimum depth of 300mm of topsoil should be provided in areas intended for shrub planting and the individual plants placed at about 4 per m² (i.e. at 450mm centres). Smaller plants (e.g. heathers) may need closer spacing.

The following are recommended as suitable for any reasonable soil conditions, unless indicated otherwise; most grow to 600mm high or less.

Calluna vulgaris & varieties	(Ling, Heather)	G
Cotoneaster adpressa; dammeri, skogsholm etc.		
Cotoneaster horizontalis		
Cotoneaster salicifolius repens		
Erica species	(Heath; Heather)	G
Euonymus fortunei & varieties		
Gaultheria procumbens; shallon	(Checkerberry)	G
Genista hispanica; lydia	(Spanish Gorse)	
Hebe species	(Veronica)	
Hedera species	(Ivy)	
Hypericum calycinum	(Rose of Sharon; St. John's Wort)	
Juniperus horizontalis	(Creeping Juniper)	
Juniperus sabina tamariscifolia	(Savin)	
Lonicera pileata	(Shrubby Honeysuckle)	
Mahonia aquifolium	(Oregon Grape)	
Pachysandra terminalis		
Pernettya mucronata		
Potentilla arbuscula; fruticosa and varieties		
Prunus laurocerasus 'Otto Luyken'	(Laurel)	
Santolina chamaecyparissus	(Lavender Cotton)	
Viburnum davidii		
Vinca major variegata	(Variegated Greater Periwinkle)	
Vinca minor & varieties	(Lesser Periwinkle)	

N.B. In addition there are a great many herbaceous perennials which are most effective as ground cover.

G: Only suited to gritstone/shale (acid) soils.

Grass areas

The use of grass as a 'soft' landscape surface is usually a major part of any landscaping scheme.

When designing grassed areas, the following points need to be noted:

- Grass is not suitable for slopes exceeding a 1 in 3 gradient if mowing is intended.
- The shape of land must be carefully linked to buildings, paved areas etc. both to look right and for ease of mowing. Thus any earth modelling must be integrated within the overall design, especially where conspicuous from external viewpoints. Unnecessarily uniform, 'engineered' slopes and sharp ridges should always be avoided.
- All likely 'desire lines' (preferred pedestrian routes) across grassed areas should be accommodated by means of paths in some form of hard surfacing but left flush with the grass for ease of mowing.
- Generally a proprietary seed mix should be used, comprising specially bred varieties of grass species, all dwarf growing, in order to minimise mowing.

If early occupation of a development is expected, all grassed areas close to pedestrian access should be turfed rather than seeded.

APPENDIX I

Building Control Authorities for the Peak District National Park

Kirklees Metropolitan Council
P.O. Box 95
Market Street, Huddersfield
West Yorkshire
HD1 2NA
Telephone: 01484 422133

North East Derbyshire District Council
Council House
Saltergate
Chesterfield
S40 1LF
Telephone: 01246 231111

High Peak Borough Council
Council Offices
Hayfield Road
Chapel-en-le-Frith, Stockport
SK12 6QJ
Telephone: 01663 751751

Macclesfield Borough Council
Town Hall
Macclesfield
Cheshire
SK10 1DX
Telephone: 01625 500500

Barnsley Metropolitan Borough Council
Town Hall
Church Street
Barnsley, South Yorkshire
S70 2TA
Telephone: 01226 770770

Staffordshire Moorlands District Council
Moorlands House
Stockwell Street
Leek
ST13 6HQ
Telephone: 01538 399181

Oldham Metropolitan Borough Council
Civic Centre
West Street, Oldham
OL1 1XN
Telephone: 0161 911 3000

Sheffield City Council
Town Hall
Sheffield
South Yorkshire
S1 2HH
Telephone: 0114 272 6444

Derbyshire Dales District Council
Town Hall
Matlock, Derbyshire
DE4 3NN
Telephone: 01629 580580

Highway Authorities for the Peak District National Park

Derbyshire County Council
Chief Planning and Highways Officer
County Offices
Matlock, Derbyshire
DE4 3AG
Telephone: 01629 580000

Sheffield City Council
Design and Building Services
2-10 Carbrook Hall Road
Sheffield
S9 2DB
Telephone: 0114 273 6320

Staffordshire County Council
Highway House
Riverway
Stafford
ST16 3TJ
Telephone: 01785 226000

Barnsley Metropolitan Borough Council
Development Programme Area
Central Offices
Kendry Street, Barnsley
S70 2TN
Telephone: 01226 772000

Cheshire County Council
Engineering Services Department
Backford Hall
Cheshire
CH1 6EA
Telephone: 01244 602424

Kirklees Borough Council
Flint Street Office
Far Town
Huddersfield
HD1 6LG
Telephone: 01484 510342

Oldham Metropolitan Borough Council
Highways Department
Henshaw House
Cheapside
Oldham
OL1 1NY
Telephone: 0161 911 4325

APPENDIX II

DESIGN CREDITS FOR WORK ILLUSTRATED

Page	Designer
9	Housing Scheme, Longnor Coventry Churches Housing Association
12	House, Cressbrook David Oulsnam, Bakewell
23	House, Middleton-by-Youlgreave Bernard Hiorns, Rowsley
23	House, Holme Arthur Quarmby Associates, Huddersfield
24	Garage, Parwich Peter Knowles, Youlgreave
25	Garage, Over Haddon Liani Design, Sheffield
25	Garage, Ford, Chapel-en-le-Frith Hayes, Turner & Partners, Manchester
30	House, Ashford-in-the-Water Christopher Marriott, Nottingham
30	House extension, Parwich P. R. Bowmer, Ashover
31	House extension, Foolow Antony Maufe, Norwich
35	House extension, Youlgreave Peter Knowles, Youlgreave
35	House alterations, Thorpe Anthony Short & Partners, Ashbourne
37/41	Coach House conversion, Castleton Aldington & Craig, Bucks.
37	Joiners Shop conversion, Tideswell Liani Design, Sheffield
38	Barn conversion, Shatton David Galloway, Bamford
40	Barn conversion, Stoke Cedric Green, Sheffield
40	Barn conversion, Kettleshulme John Costin, Stalybridge
42	Barn conversion, Grindleford Peak Park Joint Planning Board
71	OAP housing, Bakewell Derbyshire County Architect
73	Village Hall, Monyash Christopher Marriott, Nottingham
73	OAP Housing, Bakewell Derbyshire Dales District Council
75	Landscaping, Tideswell Peak Park Joint Planning Board
75	Paving, Winster Peak Park Joint Planning Board
81	Paving, Hathersage Peak Park Joint Planning Board