3. new development - designing in sympathy

New David Mellor Design Museum, Hathersage, with the cutlery factory reflected in the glass.
Setting

3.1 The setting of any building should be carefully considered whether on an isolated site or within a settlement. Attention should be paid to its impact on views into, over and out of the site. Those views should not be significantly harmed, rather they ought to be enhanced.

3.2 In the countryside or on the edge of settlements, buildings should sit comfortably in the landscape. This is best achieved by emulating the horizontal, ground-hugging form of traditional buildings with their strong eaves and ridge lines and simple, low silhouettes parallel with the contours.

3.3 In comparison, buildings with a vertical emphasis seem to shoot up from the ground and rarely fit harmoniously into the landscape. They appear too intent on making a statement. When such buildings break the skyline, the effect is doubly apparent. Pole and tower-based infrastructure pose similar problems.

3.4 When sites are in villages, the pattern for new development will depend on the nature of that settlement - whether for example it is a farming or a mining/quarrying village. The former are usually on more level sites and have an open arrangement; the latter are often on sloping sites with buildings tightly packed together. Sites on the edge of villages need to relate well to immediate fields and the wider landscape setting. The juxtaposition of village housing to stone walls, barns and farmed fields is crucial to maintaining a sense of rural character.

3.5 Settlements contain a variety of building forms ranging in scale from two to four storeys. The relationship of one to the other creates a sense of rhythm, balance and good neighbourliness that should be maintained.

3.6 There is usually an intricate pattern of roofs at different heights but with a common roof pitch and similar length of ridge. The palette of roof materials is often limited. New roofs should fit in with the existing roofscape of an area by respecting these traditional characteristics. The rhythm established by chimneys and coped gables present a similar opportunity.

3.7 New development, be it a single building or a group, must respect the ‘grain’ of the settlement. By this we mean the relationship buildings have to the street and to each other. A new house adjacent to the footpath in a high density, close-knit village is likely to be designed very differently from one in a more open village where properties are spaced apart and set back from the road.

3.8 Because of these differences it is essential that the application drawings for a new development show the site in context with the existing eaves and ridge heights of surrounding buildings accurately plotted.
Large Buildings

3.9 Large buildings, such as agricultural sheds or industrial units, are generally inappropriate in the National Park and look alien when compared to traditional building forms. As a consequence they should be restricted in size and be designed to be as inconspicuous as possible. This can be achieved by giving them a low profile, a shallow pitched roof to reduce the ridge height, and ensuring they are in dark, recessive colours. For very wide buildings, creating a series of parallel roofs rather than one enormous roof will help to break down the apparent bulk of the building. Sites on the skyline should be avoided. Instead, wherever possible, such buildings should be sited in shallow depressions or otherwise positioned to fit into the landform. Extensive landscaping, in the form of a wide shelterbelt will normally be required to reduce their impact further. For more detail on agricultural buildings, please refer to the National Park Authority's Supplementary Planning Guidance: Agricultural Development in the Peak District National Park.

3.10 There are instances when larger buildings fit in well with the landscape. Historically, mill buildings are the obvious example. Appropriately sited, well designed modern buildings of similar size can work well.
Harmony in New Design

3.11 New buildings should be in harmony with the earlier buildings around them. Historic buildings are important in setting the context for new development. The aim is to create a pleasing visual relationship between new and old.

3.12 There are three main factors to consider in this:
   - Form
   - Detailing
   - Materials

3.13 Successful schemes tend to ensure that at least two of these factors, and if possible all three, are matched to the existing. Of the three, form is probably the most important. If the basic shape is not right, it is difficult to make the building fit in. Matching the materials used is relatively easy. Detailing is the factor that can often be treated most flexibly.

3.14 Form and Detailing are discussed below. Materials are dealt with in the next section.

Form

3.15 The basic form and scale of a building depends on its length, height, depth (or gable width) and roof shape.

3.16 Peak District cottages and houses are traditionally only one room deep and, for the most part, single aspect. This gives a relatively narrow gable width of 5.5m–6.0m. Though generally two storeys high, they nevertheless have low eaves of between 3.5m and 4.5m high. As a consequence, ground floor rooms are relatively low by modern day standards, the rooms at first floor being partly within the roof space.

3.17 The earliest buildings consist of two ground floor rooms - one with a front door and the other – though also on the front – accessed internally. Later plans separated the two rooms with a central door and stair. These buildings were inevitably rectangular in form, being two or three times longer than their height to the eaves. This gave a strong horizontal proportion to the front wall.

3.18 Gables were plain and supported a simple ridged roof. Because the characteristic roof material of the Peak District – stone slate – is laid at a relatively shallow pitch, this gave the roof much less prominence than the walls. Hipped roofs are not a traditional feature of the area and lack the visual strength of a gabled roof.

3.19 Unfortunately, much of the new housing built in the National Park in the second half of the twentieth century has been at odds with this traditional form.

3.20 Suburban houses tend to be two rooms deep in plan and have higher floor to ceiling heights. This results in wider gable widths (7m - 8m) and an eaves height in excess of 5m giving the building a squarer, boxier appearance. The wider gable also results in a higher ridge line making the roof more prominent.

3.21 There is no tradition of single storey houses in the Peak District. Bungalows are a modern day unwelcome addition in many settlements. With their deep plan and tall roofs that completely dominate the insignificant area of walling beneath, they are utterly alien. Single storey dwellings, which have a traditional narrow plan, may be acceptable if they are designed to fit into the character of the locality. However as well as fitting in better; a low two storey or one and half storey cottage has the benefit of extra accommodation in the roofspace. This could provide space for a carer.

3.22 Modern houses have been built in the Park which do respect the local tradition and are valuable additions to the scene. We would like to see more such examples in the future.
Detailing

3.23 Although there is more freedom when it comes to detailing a building compared with resolving its overall mass, there are still some basic principles that need to be respected if the new is to harmonise successfully with the old. These relate to the three main characteristics of traditional elevations:

- A balance of proportions between the overall shape of the walls and the openings they contain.
- A high solid to void ratio in which the wall dominates.
- A simple arrangement of openings, usually formal (often symmetrical) in the case of houses, and informal in the case of outbuildings.

3.24 Proportion is critical. New buildings should be well proportioned and relate to the human scale. Whether the result is arrived at intuitively or by means of theory, a well-proportioned building delights the eye.

3.25 How the use of one design theory – the Golden Section – has left its mark on buildings from the mid-18th century onwards is apparent when we consider sash windows. The Golden Section is a harmonious relationship of dimensions known to the Greeks and expressed as the ratio 5:8. Applying the ratio to one dimension generates a second dimension that will relate harmoniously with the first.

3.26 In a sash window the size of each individual pane is often based on the Golden Section. This results in a vertical rectangle whose proportions are similar to those of an A4 page on end. The same proportion is then repeated in the overall size of the window opening itself. It may also reoccur – but the other way this time, as a horizontal rectangle – in the height and length of the main elevation. The proportion of a single pane of glass thus echoes the proportion of the building itself. No wonder such buildings look resolved and composed.

3.27 Generally, the overall horizontal shape of traditional dwellings was balanced visually by the vertical emphasis given by windows, doors and chimneys. Compare this with a ‘picture window’ elevation on a house without chimneys or rear door: All the shapes are horizontal or square. The rainwater pipe provides the only vertical emphasis. The proportions of openings to overall shape of the wall are nowhere near balanced. The result is an unresolved, unsatisfactory design.

3.28 Solid to Void Ratio is the technical term for how blank or windowed a building looks. Traditional construction techniques effectively limited the width of openings, making them vertical in proportion and relatively small. For structural reasons, openings were kept well clear of corners or verges. As a result, doors and windows were surrounded by large areas of masonry making the wall the dominant element. This gave the building a high solid to void ratio.

3.29 Modern construction allows much larger openings. The wall can become mostly windows or even dispensed with entirely by supporting the roof on an independent structural frame. Adding windows beyond what is needed to adequately light and ventilate a room and provide views out creates problems in terms of heat loss and lack of privacy. More importantly, reversing the solid to void ratio in this way visually weakens an elevation and denies it the strong appearance of traditional buildings. It is interesting to note that successful modern buildings that fit well in the Peak District often have a high degree of visual solidity.

3.30 Where large openings are necessary, they should be balanced by a complementary area of solid walling alongside. Getting the correct solid to void ratio is crucial, as the effect on the elevation is more far-reaching than the type of windows chosen.
3.31 The Disposition of Openings, or how the doors and windows are arranged in an elevation, needs careful thought. Traditionally, elevations tend to have a simple, restful appearance as a result of:

- Using a similar size and proportion of opening throughout.
- Limiting the number of openings.
- Arranging the openings harmoniously, often in a formal, symmetrical manner.
- Keeping them away from corners.

3.32 Rear elevations were traditionally less formal than the front and had fewer openings. They were also often used for extensions – usually in the form of lean-tos. Gables were traditionally left blank or near blank to maintain their structural integrity. Doors are rarely found in gables, and windows where they do occur, tend to be small and narrow. Outbuildings were either a continuation of the house or separate structures. In both cases however the form and detailing remained simple and distinct, with a higher solid to void ratio.

3.33 Summary of Main Considerations

The basic principles of designing in sympathy with the local tradition and ensuring a simple form and appropriate scale and detailing 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 a high solid to void ratio.
5. Keep the types and number of openings to a minimum and arrange them with care.
6. Keep the number of openings on gables and rear elevations to the minimum wherever possible.

Detailed Design Guidance Notes: New Housing gives more advice.