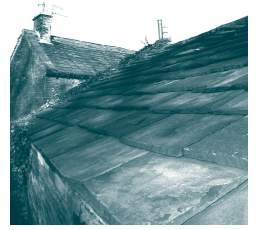


# 1b

## Maintenance, Repair and Restoration

# Stone Slate Roofs



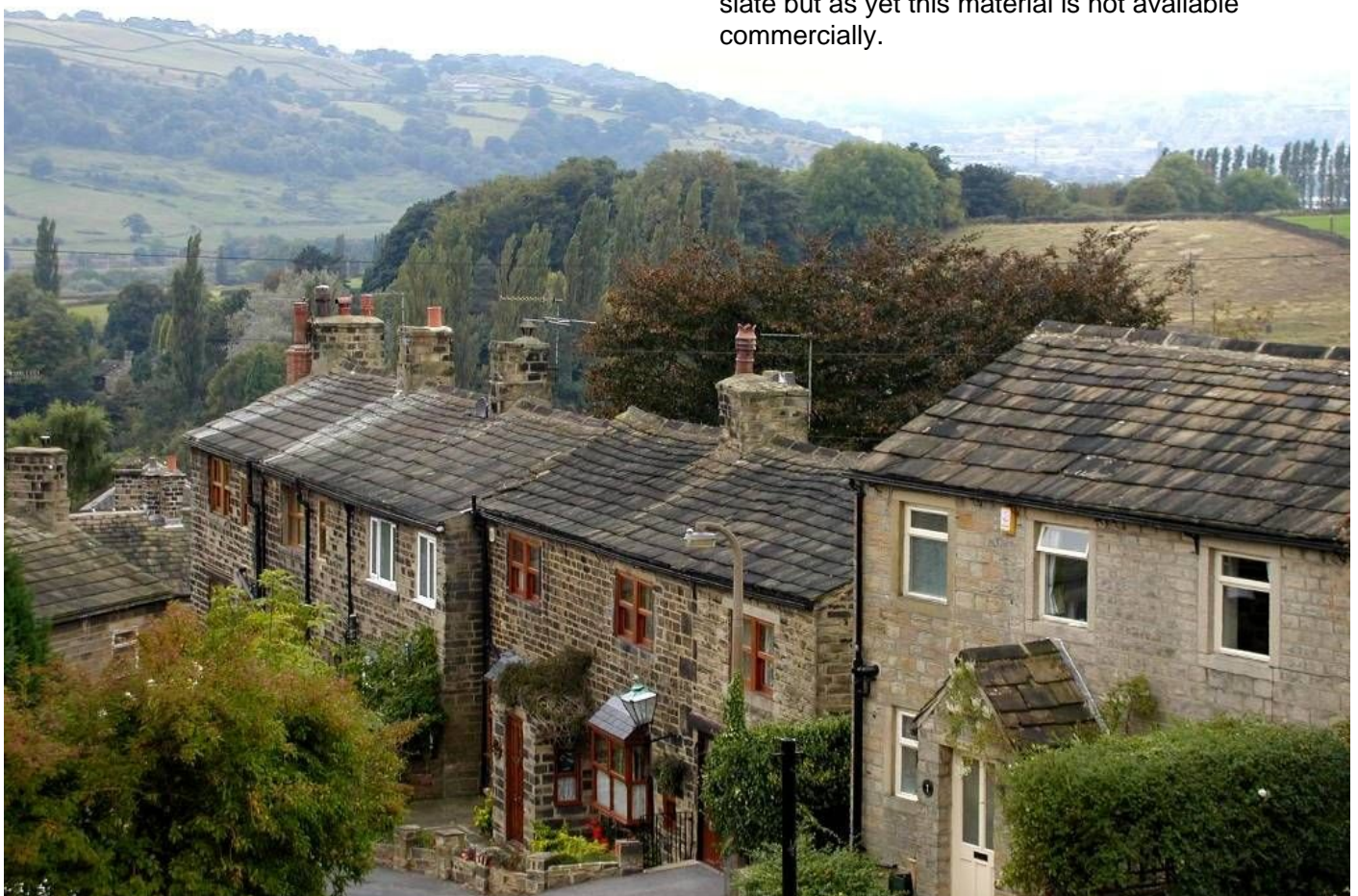
### The Conservation Value of Stone Slate Roofs

Stone slate roofs give conservation areas a distinctive skyline and roofscape, as well as giving older buildings an authentic appearance. Originally it was the only roofing material available locally apart from thatch. The texture, tone and proportioning of stone slate gives the roofscape a unified, coherent appearance, even if the buildings themselves vary in size, scale, age or original function. The qualities of this material cannot be replicated convincingly, making this particular roofing material



irreplaceable. With regular maintenance and the carrying out of minor repairs as and when needed, a stone slate roof should last for well over a century. The long-lasting nature of stone slate means that re-roofing is rarely required and much of the material is reusable.

The use of stone slate is a product of the area's history and geology. Sandstone was widely available in the Bradford district and can be cut into regular slates. It began to replace thatch as a roofing material from the late 16th century and was used almost universally in the district until the arrival of the railways in the mid-19th century, which allowed lighter, cheaper slate to be imported from Wales and Westmorland. However, in some areas the use of stone slates persisted until the early 20th century, and the material was a key feature of turn of the 20th century 'vernacular revival' style architecture which emulated the local architecture of the 16th and 17th centuries. At present, a few local quarries have experimented with supplying new stone slate but as yet this material is not available commercially.



## The Maintenance and Repair of Stone Slate Roofs: Best Practice

### DO...

- 4 Inspect the condition of the roof every year for minor problems such as loose slates, and loose ridges externally, and damp roof timbers internally. However, not all colour changes, minor cracks or flaking of the slates mean that the roof is in poor repair or needs replacing.
- 4 Remove any vegetation or debris from the roof. Excess moss holds water and can speed up the deterioration of the stone, while creepers such as ivy can dislodge slates.
- 4 Hire roofing contractors who have proven experience in working with stone slate roofs and can show you local examples of their work.
- 4 Obtain advice from a structural engineer if you are worried that the structure of a roof might be unstable. Only prolonged neglect or a serious failure of the structure would occasion the full replacement of the roof structure.
- 4 Re-use as much of the existing roof as possible. If replacement stone slates are needed, these should be locally sourced, and have the same proportions as the existing slates. Agree with your contractor the source and detailing of replacement slate and ensure that this agreement is observed.
- 4 Only use reclaimed stone slates if you can be sure that they have come from a genuine source, such as a building which has been demolished, and have been legally obtained.
- 4 Fix stone slates using oak, treated softwood, or copper pegs, or copper nails. Stainless steel or galvanised nails should be used in the roof structure.
- 4 Photograph the roof before it is repaired or re-laid. This way there is a record of the original detail which can be used for comparison.

### DO NOT...

- 6 Ignore minor problems, as they can lead to larger and more costly problems if left unattended.
- 6 Turn over stone slates. Some roofing contractors offer this service. The underside of a slate may not be as weather resistant as the originally exposed surface and can deteriorate rapidly if exposed to the weather.
- 6 Hire building or roofing contractors with no proven experience with working with stone slate roofs, otherwise repairs may be inappropriate.
- 6 Regularise the shape of a roof by replacing perfectly sound timbers with new ones. The irregular shape of some stone slate roofs is the result of the roof settling within the first few years of being laid. The roof may still be weathertight and the undulating shape of the ridge is a traditional feature.
- 6 Use reclaimed stone slates if you cannot be sure of where they came from. As this material is fairly scarce, stone slates are often stolen.
- 6 Bed stone slates in mortar. The mortar can draw moisture between the stones and into the roof, and also damages the stone.
- 6 Tar or add any other external coating to a stone slate roof. The coating can seal the roof void, causing problems such as fungal attack and infestation of roof timbers due to the lack of ventilation. In these cases the stone can rot to the point where it becomes soft.
- 6 Allow the coursing of your roof to differ from that of any attached houses. In terraces or semi-detached houses, when re-roofing is poorly done, the courses of the slates don't line up with the courses of the attached houses. The roofer will conceal the join of the mismatching courses under false tabling which is mortared onto the roof. This is very poor practice and the end result is not only unattractive, the mortar under the false tabling will draw moisture into the roof.
- 6 Substitute stone slate with another roofing material. Any replacement material will not have the same local distinctiveness and will detract from the feel of the conservation area.

## The Restoration of Stone Slate Roofs

Some stone slate roofs have been re-roofed with synthetic modern materials. If the original roofing material were to be reinstated, most of the advice above would be applicable. More detailed and in-depth advice concerning the maintenance repair and re-laying of stone slate roofs can be found in English Heritage's (1998) '*Stone Slate Roofing*' technical advice note,

which can be downloaded from [www.english-heritage.org.uk](http://www.english-heritage.org.uk). In any event, the Conservation Team is happy to advise.