

## **ENGLISH HERITAGE STONE ROOFING WORKING GROUP**

### **A format for regional stone -slate roofing guides**

#### **1 Introduction**

##### 1.1 General introduction to stone-slating

The general introduction should include a reference to other systems of roof slating and tiling, perhaps with illustrations, to make clear how to identify diminishing course random stone-slating.

##### 1.2 Specific introduction to stone-slating in the region.

#### **2 Characteristics of stone -slates and their sources**

##### 2.1 A description of the region's stone slates and an introduction to the local slating techniques for each in turn.

The description of the stone-slate(s) should include geology, colour, texture, sizes and size ranges, edge and surface details

##### 2.2 References to sources of regional geological information.

#### **3 The winning and preparation of stone slates**

##### 3.1 Introduction to stone-slate quarrying. The random nature of production and the probable fingerprint of a quarry. Problems of intermittent occurrence of fissile rock amongst a quarry's product mix.

##### 3.2 Treatment of edges and surfaces and local policy

##### 3.3 Local sources of supply

##### 3.4 Use of second-hand stone-slates, local and national (EH CADW HS) policy.

#### **4 Original roofing techniques**

##### 4.1 Types of building upon which stone-slates were most likely to have been originally used.

##### 4.2 Explanation of weather resistance and the importance of laps and pitches

##### 4.3 Description of building details

- stone-slate at eaves and gable parapet level including special or local methods
- timber frame detailing at wall-plate level with barge boards etc.
- use of mortar: lime mortar as a filler and its compressive component; risks of frost exposure; modern practice including use cement mortar as a tensile adhesive
- abutments: lead or mortar flashing
- lead work
- ridges and the importance of heavy-weight ridges for security.

##### 4.4 Local practices:

- local slating gauge calculations
- use of shadow slates

## **5 Roofing and re-roofing**

### 5.1 Condition surveys

- slates
- fixings: pegs, nails, laths and battens
- roof structure: timber species, repairs, defrassing etc
- loading capacity of structure (Building regulations)

5.2 Defects in stone roofs including a discussion on the advisability of careful repair, and the difficulties that are generated by careless unsympathetic repair.

### 5.3 How to decide between repair or re-roofing

### 5.4 Retention of original details

- existing details
- lost details
- bad details

### 5.5 Description of bad repairs and other bad practice.

### 5.6 Options and local policy on use of

- cleft laths or sawn battens
- pegs or nails
- torching or underlay
- introduction of counterbattens
- ventilation.

The local policy should cover three main options and these should not be mixed in practice:

- completely authentic covering where the underside appearance is critical.
- covering where the external appearance is authentic but modern methods can be used because the underside appearance is of lesser importance than the efficiency and durability of the finished work.
- authentic external appearance with added modern techniques such as rafter level insulation etc

5.7 Discussion of the options and local conservation policy for re-using existing slates and the inclusion of replacement slates to achieve the best visual results. Inadvisability of turning slates from their original orientation.

### 5.8 General specification followed by specifications for the various details of the roof:

ridges, eaves, verges, gables, abutments, hips, valleys, chimneys, rooflights, pipes, leadwork, guttering etc. Each of these items should be dealt with in three sections:

- details of the historic methods used.
- discussion of modern practice which would enable a distinction to be made.
- details of improvement which may be acceptable,

Ideally these sections should be structured to emphasise the reasons for the recommended local practice.

### 5.9 Choosing a slating contractor

- refer to the SRWG's Best Practice guide
- master slaters
- use of master slaters / consultants in developing the specification

5.10 Small scale repair work

5.11 assessing suitability of old stone -slates

5.12 Sorting slates and setting out the roof

5.13 The slating process - what should happen

## **6 Model specification for stone -slating**

6.1 This should be set out as a series of options using the three specifications given above.

6.2 Request for a method statement from slating contractors.

6.3 Dangers of using a main contractor and nominated slating sub-contractor.

6.4 Risk of choosing the lowest price.

## **7 Other sources of information**

As full a list of documents as possible should be included, however they must be correct. Wherever possible they should be downloadable from websites and web addresses given.

(The SRWG is willing to comment on draft regional guides and may be willing to make them available through their website at <http://www.brookes.ac.uk/geology/stoneroof/>. Contact Terry Hughes - [terry@slateroof.co.uk](mailto:terry@slateroof.co.uk))