

BUILDING STONE AT THE WESTERN EDGE OF THE BLACKDOWN HILLS

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The western slopes of the Blackdown Hills and the east side of the Exe Estuary are not well endowed with good quality building stone. The buildings here are characterised by mixtures of local and imported stone and the use of cob is widespread for vernacular farmhouses. In this respect the area contrasts with the main part of the Blackdown Hills where chert from the Upper Greensand preponderates over other building materials and the tracts further east where the area of each local building stone is well delineated. The distribution of some of the local and imported stones in buildings is illustrated by a series of maps and the factors that affect their distribution discussed.

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INTRODUCTION

Architects frequently refer to the use of 'local stone' when describing the construction or finishing materials of buildings. This is the case, for example, in the citations of buildings listed for the purposes of the Planning (Listed Buildings and Conservation Areas) Act 1990. It leaves unanswered questions about the appearance of the stone and its source and in some cases appears to be a cover for ignorance about the nature and origin of the stone in question. In any case, there are many buildings composed of more than one kind of stone which therefore cannot all be entirely 'local'. There are also stone buildings in areas underlain by rocks that are not suited to building, in which case, the stone must have been imported from elsewhere.

The western slopes of the Blackdown Hills beneath the Upper Greensand escarpment in Devon are mostly underlain by marls and mudstones and generally lack good quality building stone. This is therefore an area where some stone for building was imported and illustrates within a relatively restricted area, some of the factors that have controlled which kind of stone was used and where.

Figure 1 illustrates the different kinds of stone used in this area. The symbols on the map represent churches, houses, outbuildings, walls and embankments and other structures with a stone-built element. The methods used to collect the data are outlined in Barr (2006). For the sake of clarity, the observations in the figure have been sampled so that no two observations are closer than 200 m. This does not materially affect the broad distribution pattern. However, buildings composed predominantly of Jurassic limestones and man-made materials other than cob have been excluded.

The area is characterised by a mixture of main building materials, contrasting with the central Blackdown Hills, where chert greatly predominates (east part of Figure 1) and the areas to the east of the Blackdown Hills where the zones where each 'local' building stone predominates are relatively well defined (Barr, 2006).

IMPORTED DEVONIAN AND CARBONIFEROUS LIMESTONE

Imported grey recrystallised limestone, in many cases with purple staining, is widely used throughout the area especially for walls, embankments and bridge parapets (L in Figure 1). The source of much of this stone is indeterminate because of a lack of distinctive features but it is possible to differentiate: (1) dark grey limestone with lamination defined by grain size and laminae/beds of quartzite and chert from Westleigh and nearby quarries (Figure 2a), and (2) light grey limestone and dolomite, often crushed or sheared, with corals and stromatoporoids from the Middle Devonian rocks of Torbay (Figure 2b).

The use of Westleigh limestone is concentrated in the north of the area near the source quarries but is quite widespread (Figure 3). For buildings remote from the source it is mainly used for garden walls and public works, especially roadside walls and embankments built in the twentieth century; the qualities of the stone, combined with relatively cheap modern transport by rail or road has made the choice of this stone advantageous over quite a large part of the area of study.

Pale grey limestone from Torbay is particularly characteristic of coastal towns and the Exe Estuary where building mainly took place in the late eighteenth and nineteenth centuries. Its concentration along the coast is believed to result from relatively cheap transport by sea even though the source quarries are at least 20 km away. However, relatively expensive onward transport by land at that time prevented further penetration of the stone into the hinterland of the coastal ports. The contrast in dispersion of Westleigh and Torbay limestones is probably the result of continued production of stone for building at Westleigh into the era of easy road transport but its cessation at the Torbay quarries shortly after the First World War and transport mainly by sea.