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# Building stones of the Border abbeys

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O.S. 1:50000 sheets 73 Galashiels and Ettrick Forest and 74 Kelso

B.G.S. 1:50000 sheet 25W Galashiels

## Introduction

This excursion looks at two of the great Border Abbeys - Dryburgh and Melrose. The first is situated on Upper Old Red Sandstone and Lower Carboniferous sandstone outcrops, whereas Melrose Abbey is sited on Silurian rocks but very close to the outcrop of Old Red Sandstone which surrounds the Eildon Hill laccolith. This account draws on extensive earlier works by MacGregor and Eckford (1948) and Ekford and Anderson (1940) The aim of the excursion is to illustrate the use of local stone in the construction of two of these abbeys, Dryburgh and Melrose. This excursion is best made by private transport, though it is possible to visit the two abbeys and their associated quarries using the local bus services with a fair amount of walking.

## 1. Ploughlands Quarries: Upper Old Red Sandstone

Ploughlands Farm lies on the north side of the A699 St Boswells to Kelso road, about 2.5 km east of Maxton. 400 m east at the former Broomhouse School [NT 633 307] where the Broomhouse Burn crosses the road lies the area of Ploughlands quarries. The gorge north of the road has been extensively quarried, as seen from the spoil heaps and old faces of red sandstone. In an overgrown quarry south of the road the east face exposes bright red, pink and purplish, false-bedded fluvial sandstone, partly flaggy, partly massive, in places striped. The quarry is shown on mid 19th century O.S. maps, but was not in the 1895 Quarry List. Clearly a large amount of stone has been excavated, and tradition cites this as the source of stone for Melrose Abbey, 10 km to the north-west. Certainly during the reign of William the Lion (1165–1214), Robert de Berkeley and Cecilia his wife, the local landowners, granted to the monks of Melrose a parcel of land with pasture, fuel and 'stone from their quarry of Alwardene, sufficient to erect the buildings of their house of Melrose', Alwardene possibly being the gorge cut by the Broomhouse Burn.

## 2 Dryburgh Abbey

From Ploughlands it is necessary to return along the A699 to the A68, then right on to the A68, right on the B6404 through St Boswells and over Mertoun Bridge, and left on the B6404 through Clint mains to Dryburgh where the Abbey [NT 591 318] lies on a river terrace on the north bank of the Tweed. It is open daily except Sunday morning throughout the year. The Premonstratensian Order chose the locality for their first Scottish establishment from a base at Alnwick in 1140. Little substantial remains of their church, the main interest being in the domestic buildings of the abbey on the east side of the cloister (Richardson et al. 1985) Overall the abbey has a warm mellow pale pinkish grey tint. The pinkish to purple sandstone is very similar to the sandstone at Ploughlands Quarry which was probably the main source for Dryburgh Abbey as well as for Melrose.

Entering through the west doorway the abbey walls are seen to consist of a rubble core with ashlar facing surviving to a limited extent. The stone is uniform in appearance, probably coming from one quarry but well-bedded dark red sandstone and greywacke also occur in the walls where there are several masons' marks. Inside the church, the south wall of the nave is built of ashlar blocks of variable course depth on a rubble core.

The north transept built in pink cross-bedded sandstone is the only substantial part of the 13th century abbey to survive. It contains a rich selection of tombs using a variety of monumental stones. The sarcophagi of Sir Walter Scott and his family are all made of Peterhead granite, the Erskine family tomb is in a local sandstone. The headstones of the Haig family with that of Earl Haig in the form of a World War One tombstone, are probably a Carboniferous sandstone. The

other two tombstones, like two out the east side of the transept, are probably a Carboniferous sandstone from Doddington Quarry in the north of England. In the chapel and the east end of the Presbytery several monuments formerly recumbent were built into the walls in the late 18th century. Some are of sandstone clearly foreign to this area.

The most complete remaining area of the abbey is the two-storey east range of the cloistral buildings built of Norman style in the late 12th century. The sleeping room (dorter) of the canons and novices, used as the residence of the last Abbot (Commendator), can be approached by the night stair in the fragmentary south transept of the church. The same pinkish sandstone is used throughout the dorter. The east wall has regular blocks with variable course height, using occasional dark red blocks (16th century). Alterations made to the dorter above the chapterhouse show in the different style of masonry, snecked rubble re-using occasional squared blocks. The north wall of the dorter above the chapterhouse is thickened.

At ground level the cloister east range is faced with polished ashlar in uniform regular pinkish sandstone blocks offset by bright red sandstone used in columns around the processional and chapterhouse door, and in the lintels of the inner parlour (conversation room). In the warming house the masonry is in blocks of uneven size and uniform colour except for a few blocks of bright red sandstone. The 16th century gatehouse to the south is built of rubble with dressed quoins. Towards the west door the cellars against the west wall of the cloister are built from rubble. Here are stored some moulded and carved stones from demolished parts of the abbey.

A few hundred metres north of Dryburgh Abbey [NT 590 319] indentations in the bank of the river could indicate former quarrying obscured by soil slippage. The reddish coloured sandstone cropping out at the water's edge was occasionally used in the Abbey.

The most likely source of limestone used throughout the Abbey is near Kelso.

### **3. Scott's View**

From Dryburgh the route runs north up the B6356 past Bemersyde and on to Bemersyde Hill at Scott's View [NT 593 343]. This is a splendid viewpoint to look at the Eildon Hills laccolith (Eildon Hills excursion) with its Iron Age ramparts on the nearest of the three hills. In the foreground the River Tweed sweeps round in an oxbow enclosing, among the trees, the site of the original monastic settlement of Old Melrose (The Dark Promontory). Three kilometres to the north stands the Black Hill of Earlston, a Lower Carboniferous intrusive trachyte sheet. Bemersyde Hill itself is a dome-shaped massive quartz-trachyte intrusion. The route continues down towards the river joining the A68 to cross the Tweed on the modern viaduct near the junction of the rivers Tweed and Leader. Two older bridges are the fine 19-span red sandstone Leaderfoot railway viaduct opened in 1865, and the redundant 4-span red and yellow sandstone Drygrange road bridge built between 1776–80.

### **4. Newstead: Roman fort**

At the top of the steep hill on the left side of the B6361 road to Melrose [NT 572 345] stands a sandstone monument in the shape of a large Roman altar. This marks the site of the north rampart of the first century A.D. Roman fort of Trimontium, named after the three Eildon Hills. The fort was excavated between 1905 and 1910 in a field known as Red Abbeystead, the name possibly deriving from Roman use of local Old Red Sandstone for the walls and some central buildings. Trimontium probably served as a quarry for later local settlements, nearby Newstead being commonly thought of as one of the oldest continuously inhabited villages in Scotland.

### **5. Melrose Abbey**

From Newstead, Melrose Abbey [NT 548 342] is approached from the north along the low-lying riverside B6361 road. Ample car and coach parking is available across from the abbey, which is open daily except Sunday morning throughout the year. Melrose Abbey was constituted in March 1136 by a colony of the Cistercian Order from Rievaulx in Yorkshire. Construction of the abbey on the alluvial terrace of the River Tweed had proceeded far enough for dedication to take

place in July 1140.

The grounds are entered on the west side where are the remains of one of the earliest parts of the abbey, a 12th century cloister. Here lived the lay brothers, those members of the community who had 'neither books nor learning'. The stonework is mostly orange or greenish-grey variably weathered agglomerate. Just west of the nave of the main abbey are agglomerate foundations, plain-coursed random rubble a metre high, the west gable of the original 12th century church. Buttresses of pale pink sandstone were added much later. The south wall of the Chapter House is also early, dating from 1159.

Early 13th century expansion of the prosperous abbey still used mainly agglomerate, as seen in the north part of the cellarium; other stones are sandstone with some red trachyte. Four pillars up to 2 m high at the southend are cut in fine agglomerate. Also using this stone are the foundations of the Abbott's Hall (or camera) on the south side of the mill lade carrying the abbey's water supply from the Tweed. Other early 13th century buildings are fragmentary foundations of the undercroft of the choir monk's dorter and the refectory, the latter with some felsite and trachyte as well as agglomerate

The history of Melrose Abbey is closely bound up with the almost continuous warfare on the frontier with England just 25 miles away in the 14th, 15th and 16th centuries. Apart from the disruptive effect which the conflicts had on the production from the abbey's farms and gardens there was severe structural damage. When Edward II retreated south after an unsuccessful campaign in 1322 he plundered Holyrood and Melrose 'causing great desolation' resulting in the rebuilding of Melrose Abbey. The church was completely rebuilt, and the foundations of the lay brothers' infirmary were added in the 14th century to the cellarium, using mostly angular felsite rubble with sandstone pillar bases. This has a later tank built in three sections of red tiles and possibly used for tanning.

The abbey was sacked again by Richard II in 1385 when, according to Froissart, it was 'clene brent and exiled'. The English king may have felt some remorse for he later granted a reduction in custom duty on wool sent by Melrose through Berwick-on-Tweed. The work carried on after 1385 forms the bulk of the present church. Reconstruction work proceeded in five stages which can be distinguished in the stonework. Standing under the site of the crossing tower and looking east, the presbytery with its two flanking chapels, the central bay of the chapel aisles, two piers of the south transept-arcade and one pier of the north transept-arcade can all be seen to be built out of a mostly cream coloured stone. The source of this stone is uncertain but two possibilities are either at St Boswells Green, 5 km to the south-east, on land that once belonged to Melrose Abbey or on the northwest side of the Eildon Hill north at Bourjo where the old workings are in a yellowish sandstone matching the stone seen in the abbey. In the second stage the north and south transepts, their eastern aisles, the crossing-piers, the three eastern bays of the nave arcade and the pulpitum were built of pink and red stone especially obvious in the transepts. Yellowish stone, probably from Ploughlands Quarry, has been used at the top of the north inside wall of the north transept and for a large part of the east wall of the south transept.

The third stage of the reconstruction saw continuation to the west of the church. The wall of the north side of the nave was built in predominantly pink sandstone at the bottom and cream sandstone at the top. Three chapels on the south side of the church, second to fourth counting from the transept, were built and a start was made on the fifth chapel using cream coloured sandstone. Recent repairs with Dumfries red sandstone have been made to the upper parts of the fifth chapel. Part of the vaulting over the presbytery, eastern chapels, transept and monastic choir may also have been built during the second quarter of the 15th century. The lowest courses of the south wall and the west gable were built, the fifth chapel was completed and a start was made on the sixth around the middle of the 15th century. This fourth stage again used pink stone. At the beginning of the 16th century the fifth stage involved construction in a reddish sandstone of three further chapels to the line of the west gable of the original church. Before these could be completed the church was burned by the English in 1544–5 as part of the 'rough wooing' of Mary Queen of Scots

Melrose Abbey was not repaired after the Reformation and the cloister and the church were allowed to fall into disrepair, eventually being used as a quarry. The Commendator's House, for example, built in the 15th century as the abbot's palatium or palace, was rebuilt in 1590 using stones from the early abbey, mainly agglomerate with some greywacke and using pink sandstone for corner, coping, sill and lintel stones. The house is rubble below 2 m, ashlar to the wall head, then more rubble. The south end of this building which now houses the museum is a modern restoration.

That much of the main church survives is due to the fact that in 1618 a new church was set up in the remains of the nave extending from the pulpitum eastwards to the crossing. Four massive pillars were built inside the north pier arcade using material quarried from other parts of the church. This reduced the span of the central area of the nave so that a semi-circular barrel vault could be built inside the original rib vault. The new vaulting was covered outside with stone flags which replaced the original leaded wooden roof. The crossing tower had probably collapsed by 1618 as a belfry had been built on the south transept gable. The rest of the abbey continued to be used as a quarry in the early 18th century. In 1810 the parish church was moved to a new site and the abbey used only for burials. In 1919 it was handed over to H.M. Office of Works. Modern repair work is carried out from time to time using matching stone. The most recent work has been on the fifth chapel on the south side where re-used Dumfriesshire sandstone originally quarried at Locharbriggs for the now demolished Portobello Power Station forms a good match for the original local Old Red Sandstone.

## **6. Chiefswood Quarries: agglomerate**

Two of the quarries which supplied much of the earlier building stone for the abbey lie just to the south of Melrose, within the Chiefswood volcanic neck, a steep-sided elliptical vent, 3 km by 1 km in size (McRobert 1914) The larger quarry [NT 339 542] is reached from Melrose by taking the Galashiels road (B6374), turning left into High Cross Avenue, signposted Darnick (B6394) and left again into Chiefswood Road, signposted Dingleton Hospital. The quarry lies through a gate and along a path 800 m from the road. The two faces of the quarry expose massive yellow-brown-weathering agglomerate, with red-staining. The poorly-sorted angular clasts, up to 25 cm across, consist mostly of trachyte, but with some grits, greywacke, red sandstone and shale. The predominance of trachyte suggests that the Chiefswood Vent cut through the nearby Eildon Hills trachyte laccolith. There is some stratification of thick beds dipping in from the vent margin. The quarry faces are cut by large nearly vertical joints, exploited in working the quarry. The quarry was an early source of stone for Melrose Abbey and continued in use until the beginning of the First World War. During reconstruction of the Melrose bypass the quarry was partly infilled, greatly reducing the original 30 m height of the eastern face. Further up on the east side of Chiefswood Road the smaller quarry [NT 541 334] exposes agglomerate of similar appearance and similarly well-jointed. Return to Melrose by turning left along the B6359.

## **[References](#)**