

## Derbyshire (2) - Summer 2008

Click on a picture and use the navigation tip to progress forwards or backwards. DERBYSHIRE (2) - SUMMER 2008 NOTE - THIS PAGE IS CURRENTLY UNDER DEVELOPMENT - MORE GEOLOGICAL NOTES TO BE ADDED A visit to the Christian Guild Holiday Willersley Castle Hotel for a walking holiday in July 2008 allowed various geological viewings of the Carboniferous Limestone and the Namurian Millstone Grit Series in the vicinity. Areas visited were: 1. Carboniferous Limestone to south of Willersley Castle, Cromford 2. Millstone Grits along White Edge and Baslow Edge 3. Carboniferous Limestone caves and lead mine workings at Matlock Bath - The Heights of Abraham 4. Millstone Grits of The Roaches and Hen Cloud (Upper Hulme) 5. Landslipped area at Lud's Church in Forest Wood - Millstone Grit Series

### CARBONIFEROUS LIMESTONE - SOUTH OF WILLERSLEY CASTLE, CROMFORD

Willersley Castle, Cromford (SK 297 572) is situated just to the north of the River Derwent on an outcrop of Limestone in the Matlock Group (Carboniferous Limestone Series). The BGS Chesterfield Sheet 112 refers. On the south side of the River Derwent is an east-west fault line with the downthrow on the north side. To the south of this fault is an outcrop of Limestone in the Matlock Group which forms a near vertical rock face. This rock face can be seen from Willersley Castle and is popular with rock climbers. The following pictures show the outcrop as seen from the first floor of the Castle with a 'zoomed' shot of some rock climbers on the limestone rock face.

{gallery}wc1{/gallery}

### MILLSTONE GRITS ALONG WHITE AND BASLOW EDGE

White Edge runs from around SK 266 778 to SK 264 754 some 2 km to the east of Grindleford and Curbar (OS Explorer Map OL24) with Baslow Edge from SK 260 746 to SK 262 735. BGS Sheets 100 and 112 refer. The edges are formed by the Chatsworth Grit in the Millstone Grit Series which dips to the east forming the edge feature. Eagle Stone (SK 263 738) stands alone on an area called Eaglestone Flat - an area of the Chatsworth Grit.

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### CARBONIFEROUS LIMESTONE CAVES AND LEAD WORKINGS - MATLOCK BATH

At Matlock Bath (SK 292 587) at The Heights of Abraham are a series of limestone caves and old lead workings. Limestones are of the Matlock Group. A cable car can be used to access the site from the valley below. The Great Masson Cavern and the Great Rutland Cavern - Nestus Mine can be visited. The mineral veins in this rock have been mined over the past hundreds of years. The following pictures show a schematic of the cave layout taken from the display together with miners graffiti, mineral veins and a detail of a sample of galena (lead sulphide PbS).

{gallery}wc3{/gallery}

### MILLSTONE GRITS OF THE ROACHES AND HEN CLOUD

Hen Cloud is situated near Upper Hulme at SK 009 617 with The Roaches forming a marked edge from SK 007 621 northwards to around SK 000 640. The Roaches are an edge of the Roaches Grit in the Namurian (Millstone Grit Series) which dip steeply to the east on the west side of a syncline (which plunges to the north towards the Goyt Trough). Dips are up to 22° as shown on the BGS Chesterfield Sheet 112. Hen Cloud is at the southernmost end of the syncline with the eastern side forming another edge of the Roaches Grit. Approaching The Roaches from the south both west and east 'dip' edges of the harder grit bands can clearly be spotted. Looking north the effect of the syncline can be seen (see picture with dip arrows) with the younger (and softer) rocks in the middle of the fold. Good examples of cross-bedding features can be seen in some of the exposures - picked out by wind erosion. The western side of The Roaches, a near vertical face of rock, is popular with rock climbers.

{gallery}wc4{/gallery}

### LANDSLIPPED AREA AT LUD'S CHURCH - MILLSTONE GRIT SERIES

An area of landslipped material in the Roaches Grit has formed a deep chasm in what is known as Lud's Church (SJ 987

657) in Forest Wood near Gradbach, Staffordshire. Apparently the landslipping movement has caused massive blocks of rock to be separated forming a deep gully with vertical, moss covered, sides. In places some 15 metres high, over 100 metres long but in places only 2 metres wide. Steps lead down into this area which is damp and sheltered and, according to legend, has provided many a hiding place in historic times!

{gallery}wc5{/gallery}