A2 Geography 4.2 Glacial Systems

Student Notes

The Range and Variety of Erosional Landforms

You should be able to describe and explain the processes of formation of each landform. Annotated diagrams and sketches should be used as well as examples from one or more located areas.



A cirque glacier

crevasse at the back of a cirque glacier marking the line along which the glacier ice is moving away from the cirque's *backwall*.

Arêtes (French): a narrow rocky, and often jagged ridge that derives its steep slopes from two adjacent *cirques*. (See *horn*)

Horns, pyramidal peaks: a steep sided isolated mountain summit produced by the convergence of the backwalls of adjoining cirques. The precipitous cliffs are often separated by arêtes. The most striking example is the Matterhorn in the Swiss Alps.

Corries and related landforms in the Glacier National Park, Montana Note the North-east Orientation

Cirque, corrie, cwm (Wales), coombe (Lake District) kar (German): a glacially eroded rock basin with a steep back wall and steep sidewalls, surrounding an" arm-chair" like depression. It has been suggested that cirgues are created initially from pre-glacial streams fluvially eroded hollows in highland terrain. These have been slowly enlarged and deepened by snow patches and nivation in which melt water removed the disintegrating rock. Glaciers occupied the hollows. The erosion is aided by freeze-thaw processes along the backwall that became oversteepened and gradually retreated. The rotational slip of the glacier deepened the cirque floor leaving a rock bar or lip across the mouth of the cirque. Most cirques have a length to height ratio of 3:1.

Backwall: the steep precipitous rock wall at the back of a glacially eroded hollow or *cirque*.

Bergschrund: a deep narrow

