

9. Geomorphological processes and landforms

Inner geomorphological processes = endogenic processes (earthquakes, volcanoes, folding and faulting) create rough (great) features of the Earth's relief

- e.g. continents, oceanic basins, mountain ranges, oceanic ridges and trenches, rift valleys, folds, faults and volcanoes, etc.

Outer geomorphological processes = exogenic processes (solar radiation, wind, temperature changes, water) create relief sculptures, surface features

- e.g. mountains, valleys, etc.

Exogenic processes consist of 3 main stages:

- ❖ *weathering of rocks*
- ❖ *transportation of the material*
- ❖ *deposition of regolith*

Weathering vs. Erosion

Weathering = process of disintegration or decomposition of rocks which stay then in the same place.

Erosion = process of disintegration or decomposition of rocks which are transported somewhere else.

Limestone relief (karst)

Limestone = sedimentary, hard, permeable rock (not very resistant to water) => seeping precipitation infiltrates into the parent rock and creates underground spaces:

- *caves and caverns*

Limestone scenery is unique by its *permeability* and *solubility* in water – it percolates below the surface gaining organic acids from the soil and vegetation.

Typical soil type developed on limestone = Rendzina

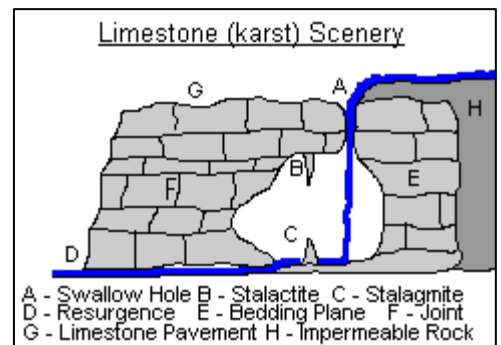
Granitic relief

Granite = igneous, crystalline, very hard and impermeable rock, resistant to water, consisting of quartz, mica and feldspar.

It creates huge mountain ranges (by *batholiths*)

- *Rocky Mts. Himalayas, Alpes, etc.*

Typical landforms are solitary *tors* and soil is very infertile, thin => only several pine species grow here.



Keywords

weathering, transportation, deposition, limestone, karst, caves, caverns, permeability, solubility, rendzina, batholith, tor