

### **3. Slovakia – Geomorphological patterns**

#### **Geomorphological segmentation**

##### **Pannonian Basin**

- *Vienna Hollow Basin* → *Záhorská Lowland* →
  - o Borská Lowland
  - o Chvojnická Upland
- *Little Danube Basin* → *Podunajská Lowland*
  - o Podunajská Flatland
  - o Podunajská Upland
- *Great Danube Basin* → *Východoslovenská Lowland*
  - o Východoslovenská Flatland
  - o Východoslovenská Upland

##### **Carpathians** – Western and Eastern (the Čergov and the Slanské vrchy Mountains)

- a) *Outer Western* = “flysch” zone and klippen belt
- b) *Inner Western* = crystalline mountains, hollow basins, volcanic mountains, Juhoslovenská Lowland
- c) *Outer Eastern* = the Ondavská vrchovina Highlands, the Laborecká vrchovina Highlands, Busov, the Bukovské vrchy Mountains
- d) *Inner Eastern* = the Vihorlatské vrchy Mountains

#### **Geomorphological types**

- ✓ **Glacial relief** – High Tatras, Low Tatras, Malá Fatra Mountains where *mountain glaciers* formed:
  - i. huge glacial holes (*corries* within e.g. Mt. Gerlachovský peak) and *moraines*
  - ii. large glacial *U-shaped valleys* (e.g.. Kôprová and Veľká studená Valleys)
  - iii. glacial lakes (*tarns*, e.g. Popradské, Zelené pleso)
- ✓ **Eolian relief** – winds blew while forming:
  - i. *dunes* (in the Záhorie Region)
  - ii. *loess* (Podunajská a Východoslovenská Lowlands)
- ✓ **Fluvial relief** – the most common in our homeland = rivers and streams (creeks/brooks) formed many valleys and *karst areas* all around.
  - i. *hollow basins* (e.g. Žilinská)
  - ii. *gorges and ravines* (e.g. Malá Fatra)
  - iii. *canyons* (e.g., Zádielský)
  - iv. *holes and abysses* (the Slovak Karst)
  - v. *caves and caverns* (e.g., Demänovská Ice Cave, Domica Cave)
- ✓ **Anthropogenic relief** – *quarries* (when extracting, e.g. limestone or sandstone), agricultural *terraces*, *roads* and motorways, *dams* and reservoirs, *levees* (regulated river banks)

#### **Tasks**

- a) *Which of the geomorphological units is your hometown located in?*
- b) *What is the country like in your place of residence?*
- c) *Find and locate 3 large valleys in the Malá Fatra Mountains*
- d) *Find the most famous cave in the Malé Karpaty Mountains.*
- e) *Think about the origin of the name of the Borská Lowland.*
- f) *Write down the worst impacts of man to the landscape.*
- g) *Give an example of a cement factory.*

#### **Keywords**

glacial/eolian/fluvial/anthropogenic relief, loess, dunes, abyss, cavern, cave, corrie, tarn, gorge, ravine, lowland, upland, basin, flatland, units, segmentations, logic, impacts