

# NATURAL COMPONENTS OF LANDSCAPE CHARACTER: 1. GEORELIEF (TOPOGRAPHY)



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author's archive and open sources on internet



# Topographical conditions\_1

- Roughness of the topography, we count the difference of altitude between the highest and lowest point in a square of area of 16 km<sup>2</sup>. There are also other possibilities how to count it.
- **Difference in altitudes:**
  - 0 – 29 m Plain
  - 30 – 74 m Flat hilly land, plain with shallow valley
  - 75 – 149 m Roughly hilly land, plain with medium valley
  - 150 – 199 m Flat highland, plain with deep valley
  - 200 – 299 m Rough highland (but not mountains)
  - 300 – 449 m Flat mountains
  - 450 – 599 m Medium rough mountains
  - 600 m – Very rough mountains

to know to the Exam:!

- => **Scale of Landscape shape – petite, medium, monumental**
- => **Scale of suitable buildings. In more rough possible bigger**

# Topographical conditions\_2:

- Necessary addition: Is the hill isolated? Are in a Landscape hills or it is a plain with deep vales?
- Height of slopes (and on which horiozontal distance)
- Valleys – depth, width between upper rims, width of the bottom, straight, meandering, close, open, with rocks, .....
- Sharpnes of moutains tops
- Sharpnes of slope edges – influence to architecture of buildings
- Height of rocks, are they visible above tree crowns? – more important
- Size and shape of boulders
- Depth and frequency of gullies and ravines
- How dramatic is the Horizont (flat, undulated, mountain flat ridge, rocky with pronounced tops, ...) → attractiveness.



# White Carpathians – flat long slopes - landslides, flat horizons



This and next pictures are for better understanding, not necessary to exam



# Bohemian hilly land – plain with medium size valley





Flysh Carpathians – medium long and steep slopes, many springs, landslides. Almost no rocks.





Mountains of Bohemian highlands (Jeseníky) – steep slopes, small basins, deep valleys, ± flat horizons



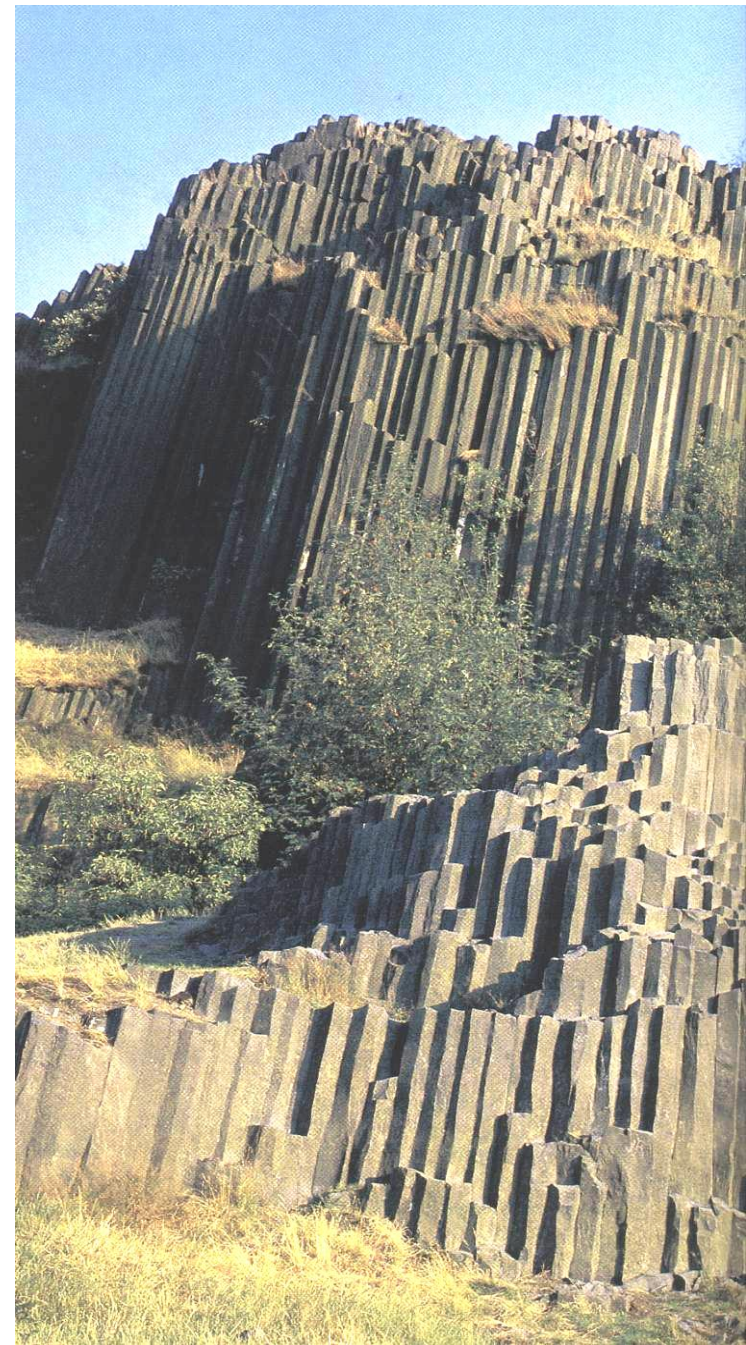


Flat tops and horizons of Bohemian highland – in altitude about 1000 m. Krušné hory Mts. at Abertamy





Pronounced hills of neovulcanic cones. Dramatic horizons. And their rocks:





This and next pictures to the Exam!



Bohemian Karst Protected area. But can you see any karstic relief? It is on limestone, but not everything looks karstic. Especially if forested.





Isolated rock on hilltop is more important than on the valley slope



Boulder, partly used, granitic rocks of Boh. mas.





Rocks in valleys are mostly not so visible.



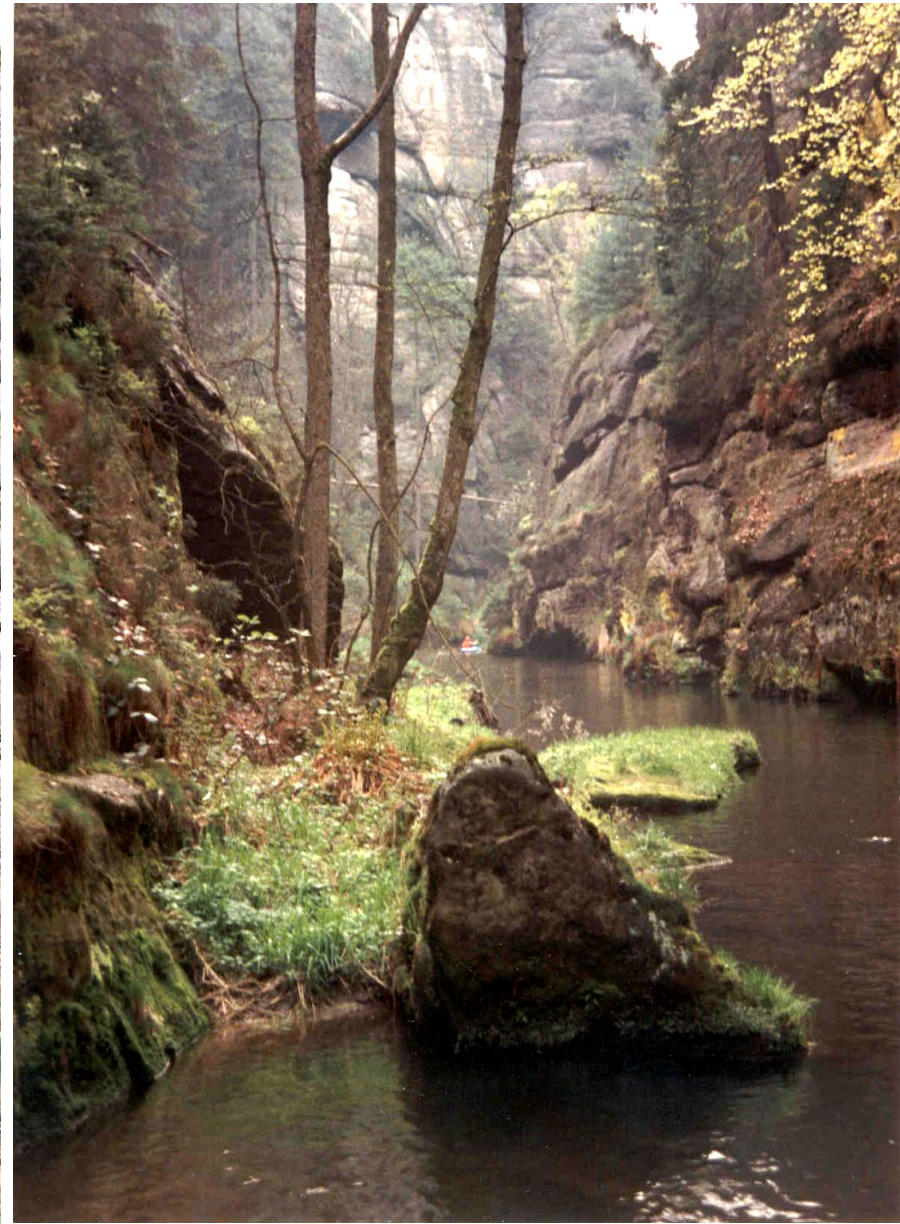
# Various types of rocks and boulders – anyway attractive

National Park of Podyjí





Rocky „cities“ – very attractive, often visited





# Artificially conditioned topography

- Inform us about history of Man, Landscape
- Sunken lines = hollow way – rests of old roads
- Surface quarries in slopes, hills - problem
- Open pits (also abandoned) – often brown coal
- Spoil heap (Spoil tip) – belongs to the mine  
Landscape, not necessary to destroy
- Dams of damlake
- Embankments of highway, railway – for  
Landscape shape better Furrow



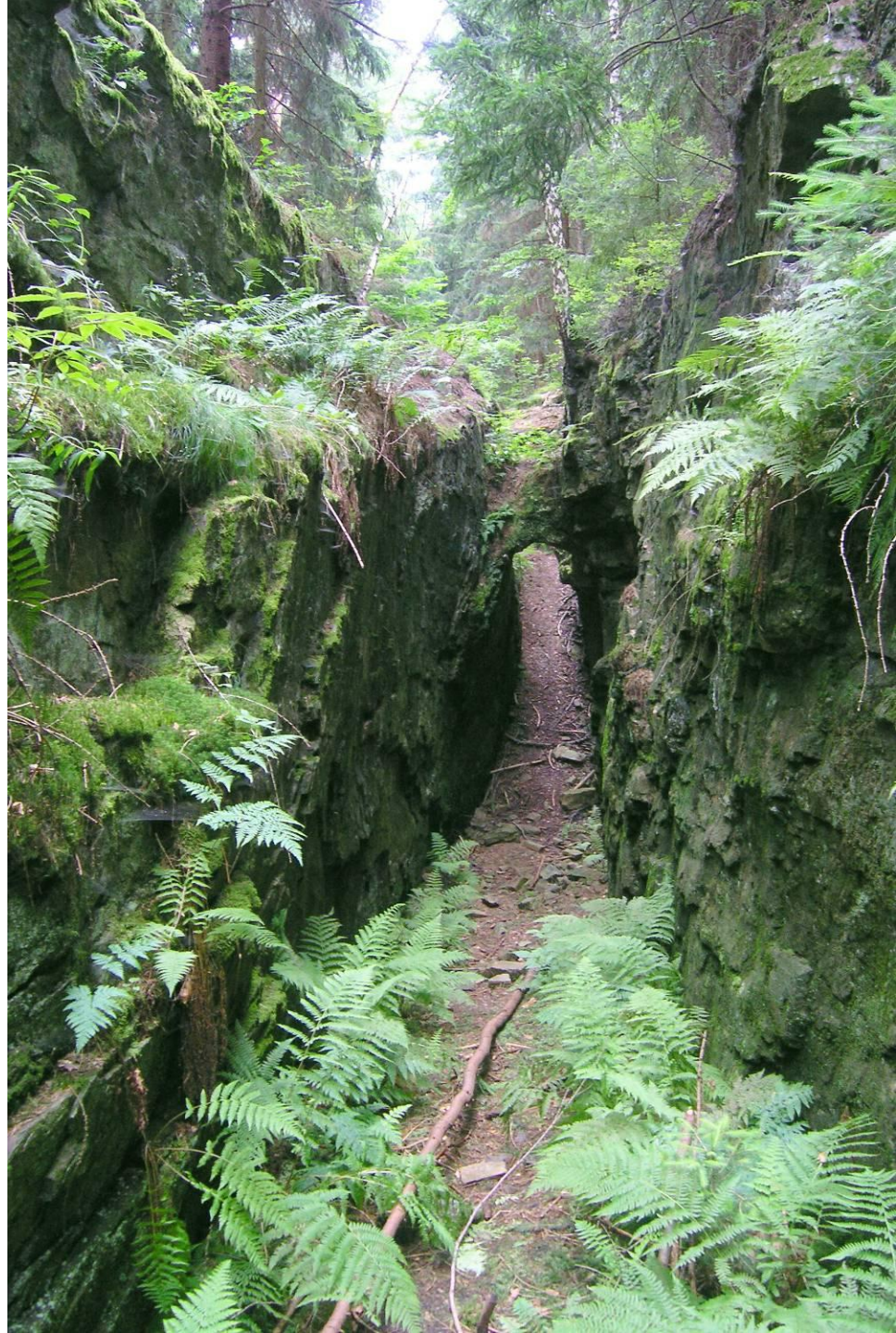


System of hollow ways



# Medieval golden mine

Bohemian-Moravian  
Highland

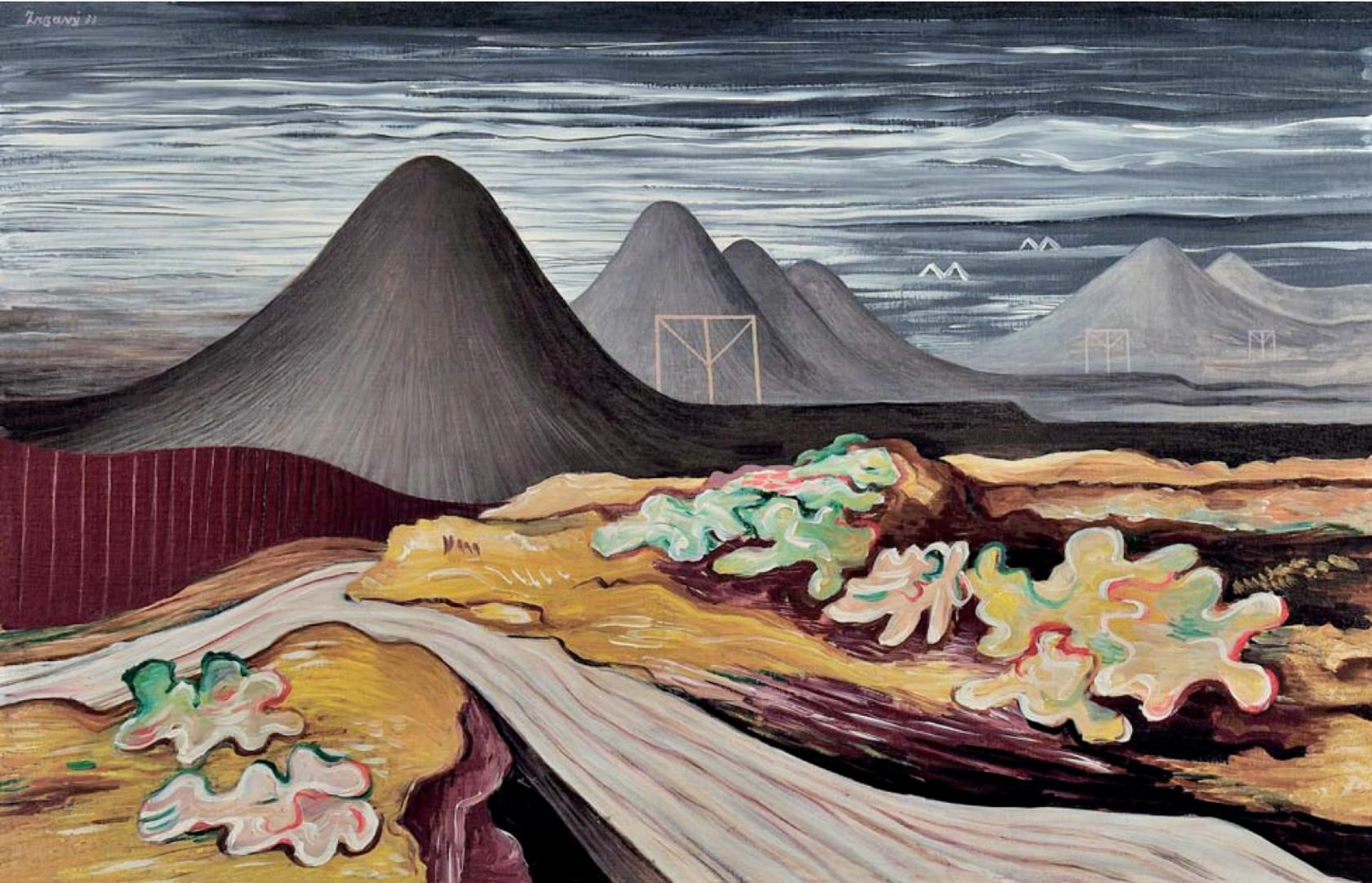






City Ostrava, former city of stone (black) coal, with only 3 spoil heap left – it is a pity because of identity, it was specific for this city.





Jan Zrzavý 1933:  
Ostravské haldy

Painting from y. 1933 – typical, impressive





Biggest spoil heap left, touristic attraction, lookout, park,  
interesting rests of Carboniferous life ....





It is also burning inside, temperature  $1500^{\circ}\text{C}$  – like a active volcano (in Czechia is none natural active), it is also attraction, formation of rare bedrocks, thermophilous biota



- Frequent visitors







Lookout, best in region

Not necessary to the exam





Bark of paleozoic *Araucaria*, fired by inner heat

Not necessary to the exam





Embankments – barriers in Landscape for views and migration,  
for people







# A furrow with highway – better solution for Landscape

Photo: ŘSD







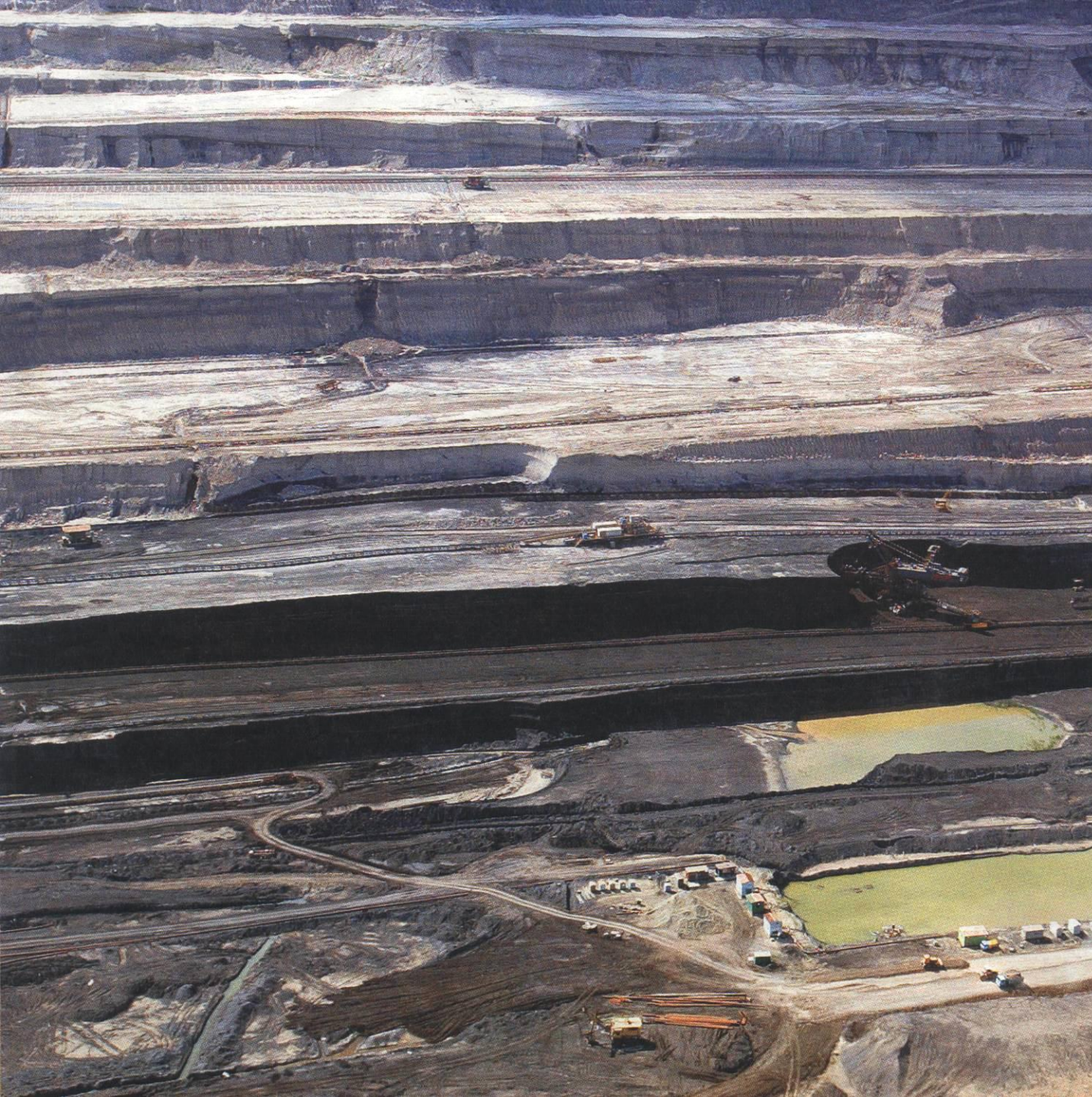
Dam of a damlake – barrier for water species, touristic routes, water touristic, barrier for views



# Regional and supraregional changes of topography

- Seldom, but than great and permanent:
- Stone Mining – disappearing of hills, esp. isolated hills - bad
- Giant open pits + Spoil heap = bad, in future some of them to be preserved for identity.
- Flooding of valley by damelake – disappearing of canyons, rapids, attractive Landscape.
- Great buildings on elevations (e.g. towers)
- Optically – great buildings and wind turbines
- Be careful of this.





Open pit on  
brown coal –  
town Most,  
Northern  
Bohemia.

There are many  
of them, but I  
think, that one or  
two should be  
preserved for  
future – may be  
as a attraction,  
part of the history  
of that region,  
part of identity of  
people.





Originally steep limestone hill, isolated, impressive, with white rocks, but devastated, almost nothing interesting persists. 15 km to northwest of our Faculty. **Bad.**





Other case in one of our most popular Landscapes. Disappeared.  
And many others. We are loosing our interesting parts of  
Landscape, Bad. Very bad.





And others. This is even Landscape protected area.

Not necessary to the exam, nor next two



Other lost hill, now a rubbish place







A case from southern Moravia, former steep granit hill with hillforts, extraordinary shape, biota, lookout. Bad.





Suitable form of quarry because under a flat surface:  
Bohemian Karst – „Great America“



A damelake named Želivka – originally deep valley, recreation area. The topography was flattened, changed to optical „plain“. The greatest attraction disappeared. We have enough of other flat surface. Bad.







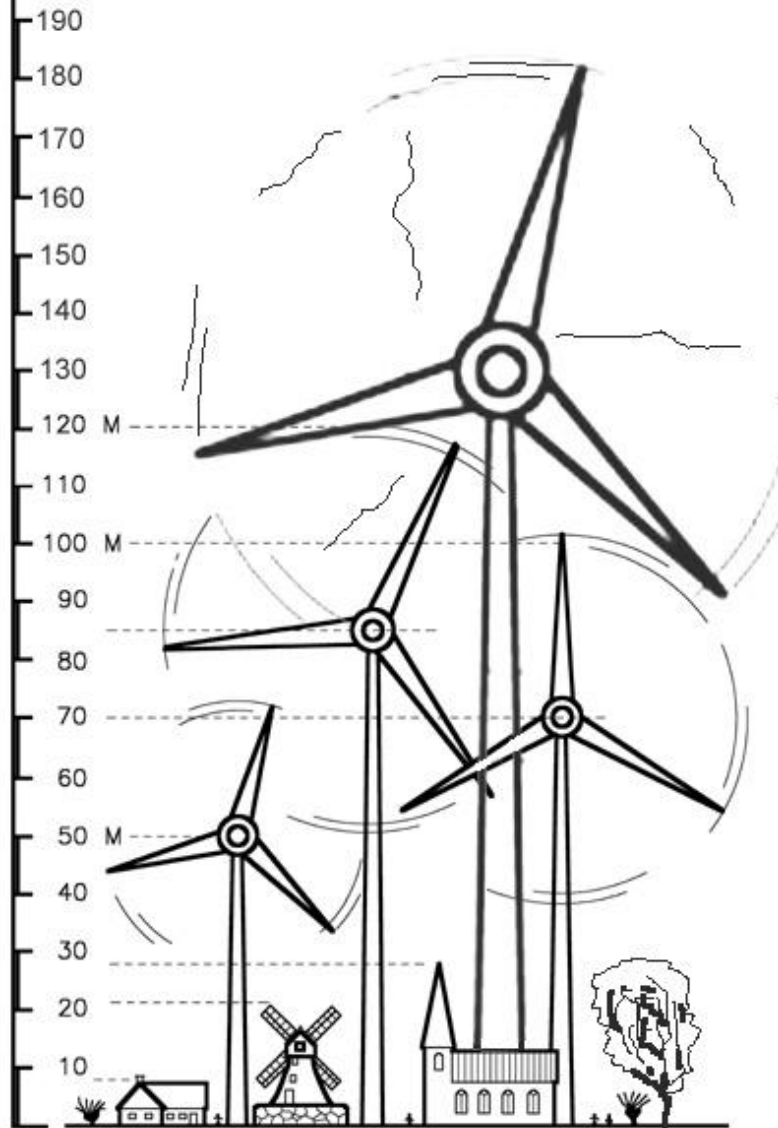
- **TV tower + hotel** on the Ještěd Mt. (1013 m)
- **It picks up the top to sky. Very good.**
  
- Built 1966-73
- 1969 highest price of International union of architects - Price of August Perret.



Nuclear powerplant in Temelín built on top of hill + 155 m high towers with clouds – changed shape of a hilly land. Not good locality.







Wind turbines – mostly escaping of Landscape scale. And are proposed bigger and bigger.



# Taking the role of dominats instead a neovulcanical cone hill – visualisation







Project of wind farm. People do not want it, wind turbines are too high and close.



California, the USA, in semidesert OK

