

Cycle of Erosion

Propounded by W.Penck

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CONCEPT OF PENK
ON CYCLE OF
EROSION



Walter Penck

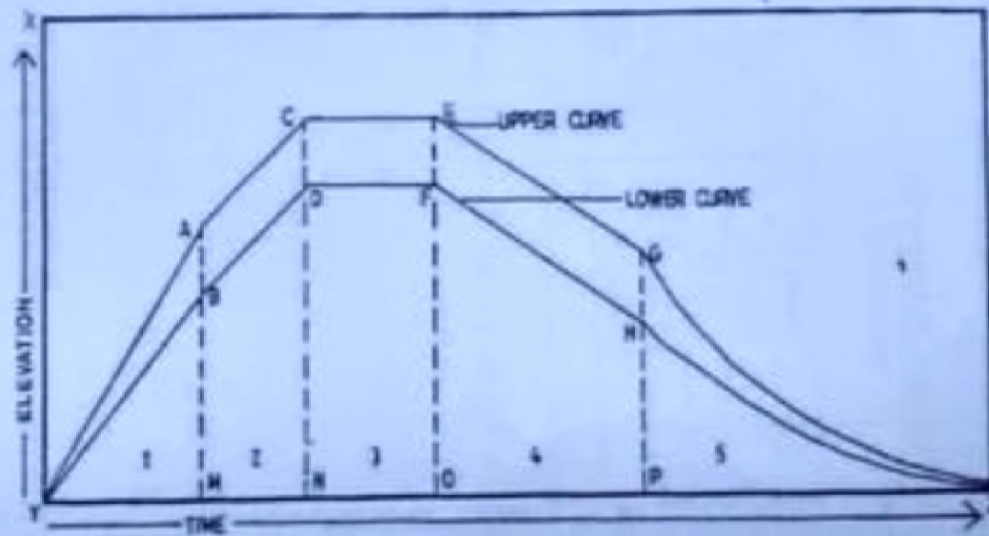
Walter Penck

- German Geomorphologist
- Accepted the cycle of erosion
- Main critic of Davisian cycle
- Concept of phase, rate of uplift and degradation.
- According to Penck, the characteristics of landforms of a given region are related to the tectonic activity of that region.

The main postulates of Penks model,

- morphological characteristics of any region of the earth's surface is the result of competition between crustal movement and denudation processes.
- Development of landscape is not time- dependent.
- Upliftment and erosion are always coexistent.

GRAPH OF PENKIAN CYCLE



Case	Uplitment	Absolute height	Relative relief
First	Active	Increases	Increases
Second	Active	Increases	Constant
Third	Active	Constant	Constant
Fourth	Finished	Decreases	Constant
Fifth	Finished	Decreases rapidly	Decreases

- There was certain misunderstanding in the interpretation of Penck's work as it was published in obscure German language.
- Penck's morphological system was severely criticised in the United States in the same way the 'geographical cycle' was criticised in Germany.
- Penck's concepts of parallel retreat of slope and continued crustal movements were subjected to severe criticism by many geomorphologists and geologists.

Davis cycle

Penk's cycle

1. upliftment finished before Degradation starts.

1. upliftment and degradation strats together as soon as the landmass comes above the sea level.

2. The period of upliftment is small.

2. The period of upliftment May long or small or intermediately

3. The rate of uplift is very rapid.

3. different rate some times it is pride averge or slow also.

4. Landform is the result of structure , process and stage.

4. Landform is the result of the rate of uplift , rate of degradation and there lation ship in between these tow.

5. the start and end of the cycle is associated with three stages youth , mature and old.

5. He has not taken the stage into account but says three conditions of upliftment
Aufsteigendo (inereasing) and geichformic (constant)
Andabsteigende (decreasing).

6. daives has not given more importance to dlope.

6. penk has more important
Because it accelerates the rate of erosion and differentiate the landform.

7. There five cases , In first case relief inereases , and in second , third , and fourth it is constant and in the last fifth one it decreases .

7. In his case in the first two stage relief increases out of his three stage it decreases but never becomes constant .

8. Erosion does not exist in the first stage.

8. Erosion takes place in every stage and every cases .

9. He has assumed the last stage of cycle as the " peneplain "

9.He assumes the last stage as
" Endrumpf "

10. His cycle over humid areas

10. His cycle over arid areas

Thanks