
GEOSYNCLINE THEORY BY KOBER

Geosynclines concept helps to understand the mountain building process especially fold mountain and evolution of landform.

What are Geosynclines?

Geosynclines are the area of long, wide, and shallow depression of the water body bordered by rigid masses and get huge sedimentation deposition from surrounding areas.

Our earth crust can be divided into two parts based on the strength:

- Rigid Masses
- Mobile zone of water

The *mobile zone of water* is called *geosynclines* where most of the mountains are built.

Geosynclines theory by Kober:

Kober explained the concept of geosynclines and mountain building based on the *force of Contraction* which is produced by the cooling of the earth.

As per Kober, there are two zones:

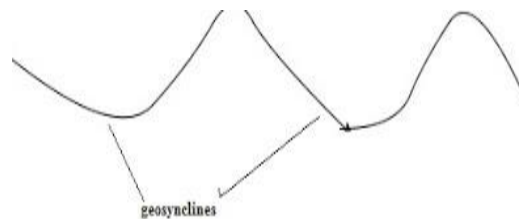
- Orogen or mobile zone: the place of mountain building
- Kartogen or rigid zone: Orogen is surrounded by Kartogen.

As per Kober, there are **three stages** involved in mountain building:

- Litho-genesis
- Orogenesis
- Gliptogenesis

Litho genesis:

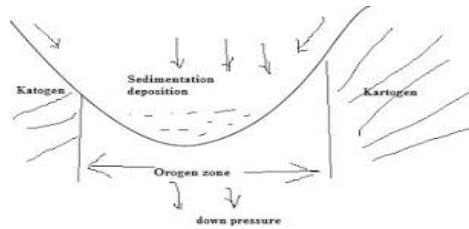
In this stage, geosynclines are created due to the cooling and contraction of earth and deposition started.



stage 1 litho genesis

Orogenesis:

In this stage, the mountain building process started.

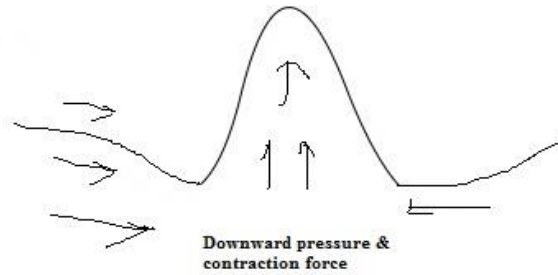


stage 2

Over time, due to huge sedimentation deposition in the orogen zone from Kartagen led to an increase in pressure and weight.

More erosion and more pressure led to the downward movement of the orogen zone.

Due to the contraction force, in the last stage, orogen starts uplifting.



stage 3

Gliptogenesis:

In this stage, it involved the gradual increase of the mountain ranges. Later, weathering, erosion, and deposition started over the mountains to make further landforms.

Criticism:

Force of contraction by cooling is not such power to make high mountains.