

MOUNTAIN BUILDING THEORIES

Introduction

Mountains are significant Relief features of Second Order on the

earth's surface which has several forms →

Mountain Ridge
eg. → Mount Everest etc

* Mountain Ridge is a system of ^{which is the edge of the mountains, a small local feature} long, narrow & high hills maintains that form a "continuous elevated ^(Peak, Summit) crest" for some distance. A ridge is the top of the mountain usually flat & horizontal rather than a point. If the mountain ends in a point it is called a peak. It has a steep slope.

* Mountain Range is a system of ^{group or chain of} mountains and hills ^{which located close together} having several ridges, peaks, summits & valleys. In fact, a mountain range stretches in a linear manner.
eg. → The Andes, The Rockies, The Ural, The Atlas, The Alps, etc.

Example of Range & Ridge → The Himalays is a mountain Range with Himadsi, Himachal & Shivalik ridge.

* Mountain System consist of different mountain ranges of the same period, which are separated by valleys. Mountain systems are similar in their form, structure & extension. eg. → Appalachian.

* Mountain chain consists of several parallel long & narrow mountains of different periods & size.

Sometimes, mountain ranges are separated from by flat upland & plateaus. eg. → The Himalayas etc

* Cordillera is a community of mountains which includes Ridges, Ranges, Mountain chains & Mountain Systems. eg, Western Cordillera in the western part of North America.

⇒ Theories of Mountain Buildings ⇒ The process of the origin of Block Mountains, Dome & Volcanic mountains is more or less well understood but the problem of the origin of FOLDED MOUNTAINS is very much complex and complicated. The Hypothesis & theories related to mountain building are divided into two groups →

Theories Based on Horizontal forces

The first group includes those theories which postulate the origin of mountains due to "Horizontal crustal Movement and consequent contraction & folding of crustal surface into mountains". Further divided into two sub-groups →

Horizontal movements are caused due to contraction of the Earth

Because of cooling
(Geosynclinal Theory of Kober)

Theories based on vertical forces

The second group involves those theories which are based on vertical movements coming from within the Earth.

(A.G. Wegener theory)

Horizontal movement are caused due to Continental displacement & drift

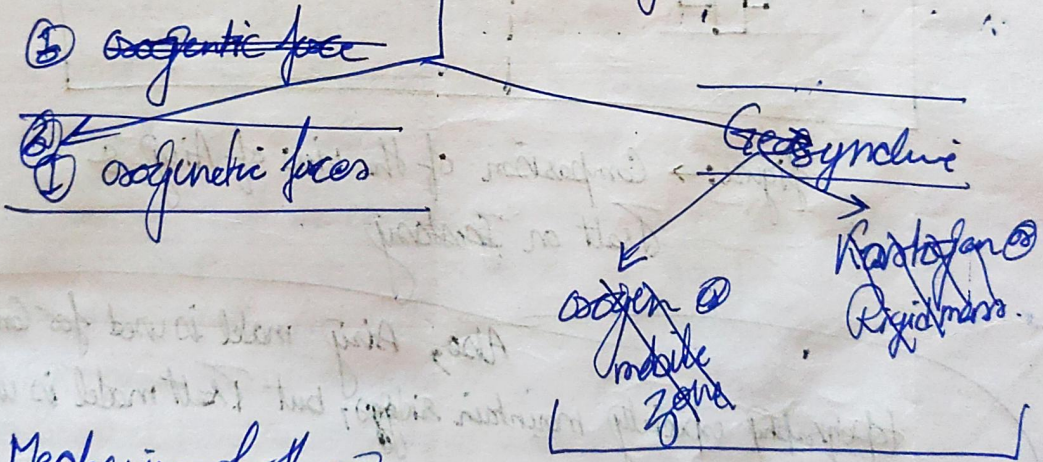
(Thermal Convection current Theory of A. Holmes) (Plate tectonic)

GEOSYNCLINAL OROGEN THEORY OF KOBER

Famous German Geologist "KOBER" has presented a detailed & Systematic description of the Surface features of the Earth in his book "Der Bau Der Erde".

⇒ Main objective → His main objective

⇒ ~~Orogenic face~~ Basis of theory → Orogenic face



⇒ Mechanism of theory

- First
- Second
- Third

⇒ Proof of the theory → ① Alps
② Himalaya

⇒ Evaluation

GEOSYNCLINAL OROGEN

theory of ~~Charles Kenneth Kober~~ Leopold Kober
(1883-1970)

⇒ Introduction → Famous German/Austrian geologist Leopold Kober has presented a detailed & systematic description of the surface features of the earth in his book called "Der Bau der Erde" (The Construction of the Earth) in 1921.

→ Main objectives → His main objectives was

to establish relationship between
Ancient Rigid Masses @ Tablelands
& more Mobile zones @ Geosynclines,
which he called "OROGEN".

Also, Kober not only attempted
+ to explain the origin of the
mountains on the basis of
his Geosynclinal theory but
he also attempted to elaborate
the various aspects of
Mountain buildings e.g. →

↓
↓
↓
Formation of Mountains, Geological History of the Mountains, & Evolution & Development of the Mountains.

⇒ Bases of the Theory →