

Folds

Folds are ¹⁰⁰ curvatures found in the rock masses. Such structure appears as wave line in the rocks. These are non-planar structures. Due to compressive pressures folds develop.

Folding is the process by which folds develop. So, folds are product of folding.

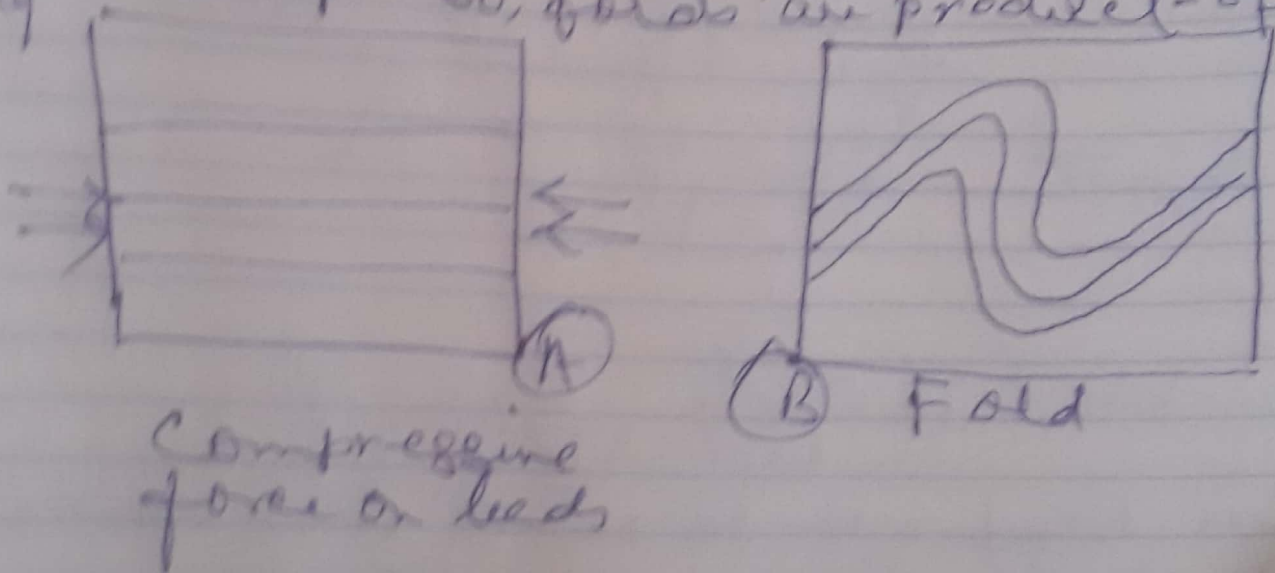


Fig:- Development of Fold

Folds may be minor or major depending up on the size. Some minor folds may be measured in few centimeters where as the other major or large folds may be measured in μ meters or even kilometers.

(v) Fold Axis - The direction of intersection between the bedding plane and Axial plane is called as Fold Axis. Fold Axis may be inclined or vertical or horizontal.

(vi) Plunge of the fold - ^{horizontal line} The angle between the Ax. pl. ^{to a pt.} and fold axis in the fold has plunge it is plunge fold.

(vii) Hinge of fold - The maximum curvature of a fold is called as Hinge of fold.

Types of Fold -

Folds of different nature develop due to variation in compressive force, according to different types of fold are recognized.

Folds may be classified

as below -

(1) Types of fold on the basis of Geometry -

(a) Antiform - A fold which

Convex upward with unknown nature of core bed is called as Antiform

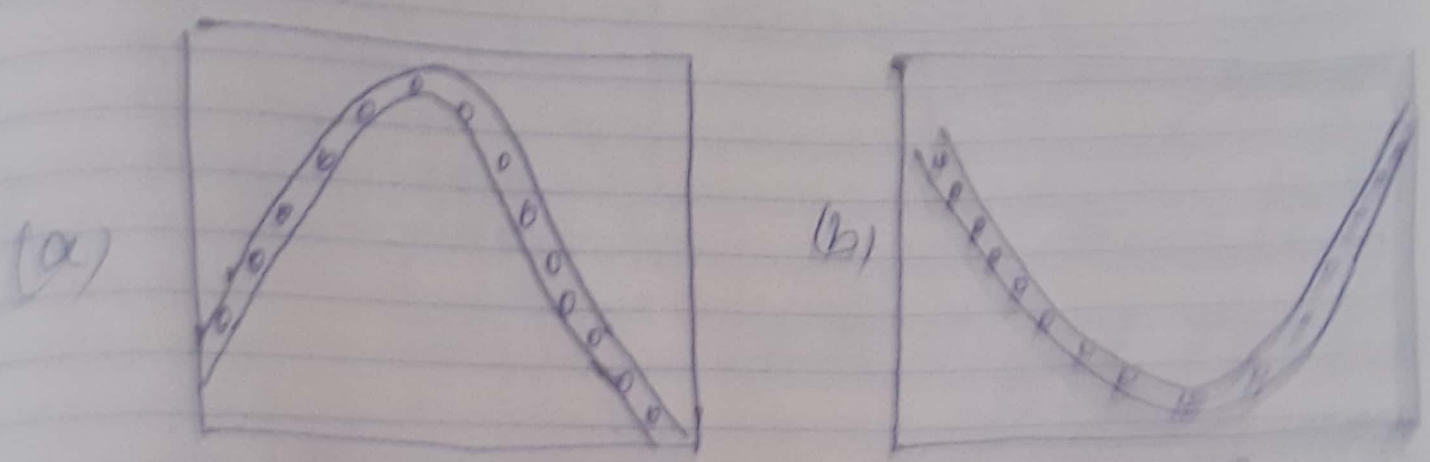


Fig- (a) Antiform & Synclinal
 (b) Synform - A fold which is concave upward and with unknown nature of its bed in top is called as Synform.

(c) Anticline - A fold which is convex upward and oldest bed in its top is called as Anticline.

(d) Syncline - A fold which is concave upward with youngest bed in its top is called as Syncline.

(1) Recumbent fold - A fold with the axial pl. horizontal is called as recumbent fold. Usually these are very large fold.

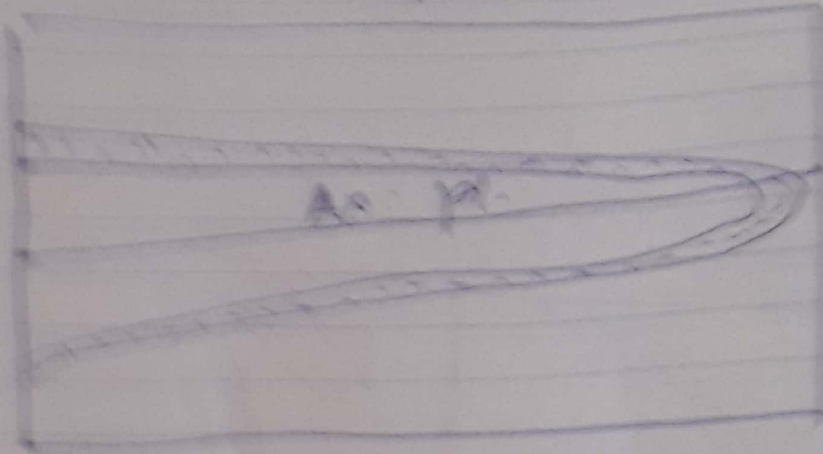


Fig. - Recumbent fold

(2) Types of fold on the basis of nature of limbs -

(a) Overturned fold - If one of the limbs appears to be rotated more than 90° , it is called as overturned fold. The limbs of such fold have different dip in this case.



Fig. - Overturned BI structural fold

(c) Recumbent fold - A fold with the axial pt. horizontal is called as recumbent fold. Usually these folds are very large fold.

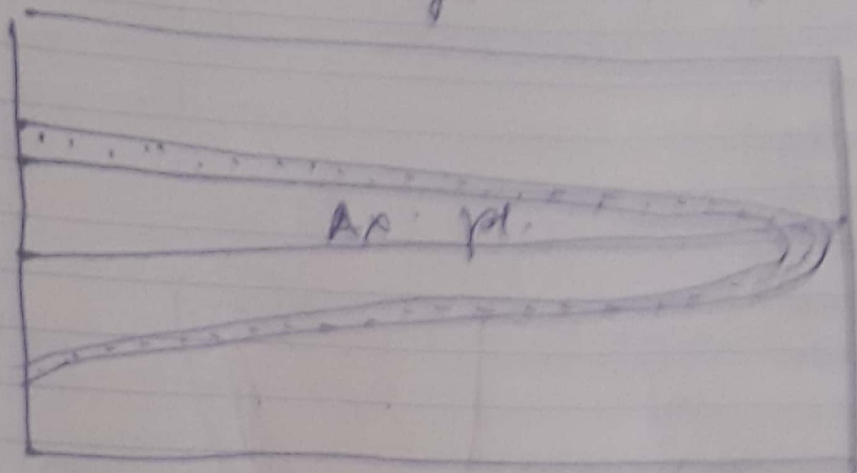


Fig. :- Recumbent fold

(3) Types of fold on the basis of nature of limbs

(a) Overturned fold - If one of the limbs appears to be rotated more than 90° , it is called as overturned fold. The limbs of such fold has different dip in this case.

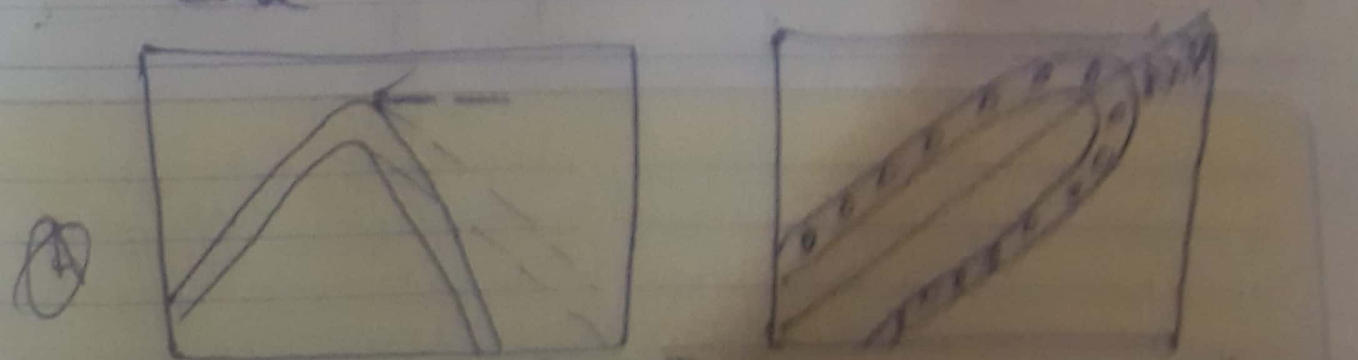
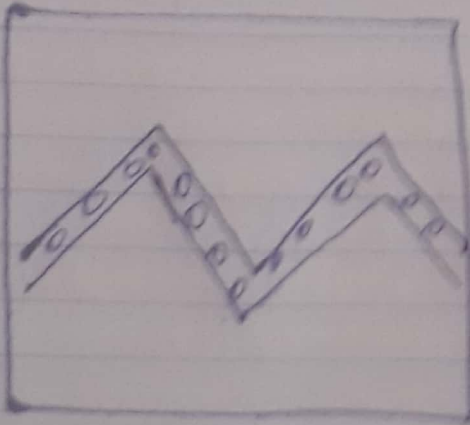


Fig. (A) Overturned fold (B) Recumbent fold

(e) Chevron fold - The fold in which limbs meet at sharp angles is called as chevron fold.

(f) Fan fold - Folds with circular or subcircular trough and crest are called as Fan folds. In such case crest and trough are

Fig. (A)
Chevron fold



(B)
Fan fold



thick but limbs are thin

(g) Box fold - The fold with rectangular nature of crest and trough are called as Box fold. In such case each trough and crest have axial plane.

Box fold

