



MASS WASTING

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CONCEPT

- Mass wasting is **the movement of rock and soil down slope under the influence of gravity**. Rock falls, slumps, and debris flows are all examples of mass wasting. Often lubricated by rainfall or agitated by seismic activity, these events may occur very rapidly and move as a flow.



TYPES

- A. VERTICAL MOVEMENT
 - a. FALL
 - i. ROCK FALL
 - ii. EARTH FALL
 - iii. DEBRIS FALL
 - b. TOPPLE
 - c. SUBSIDENCE
 - i. COLLAPSE
 - ii. SETTLEMENT



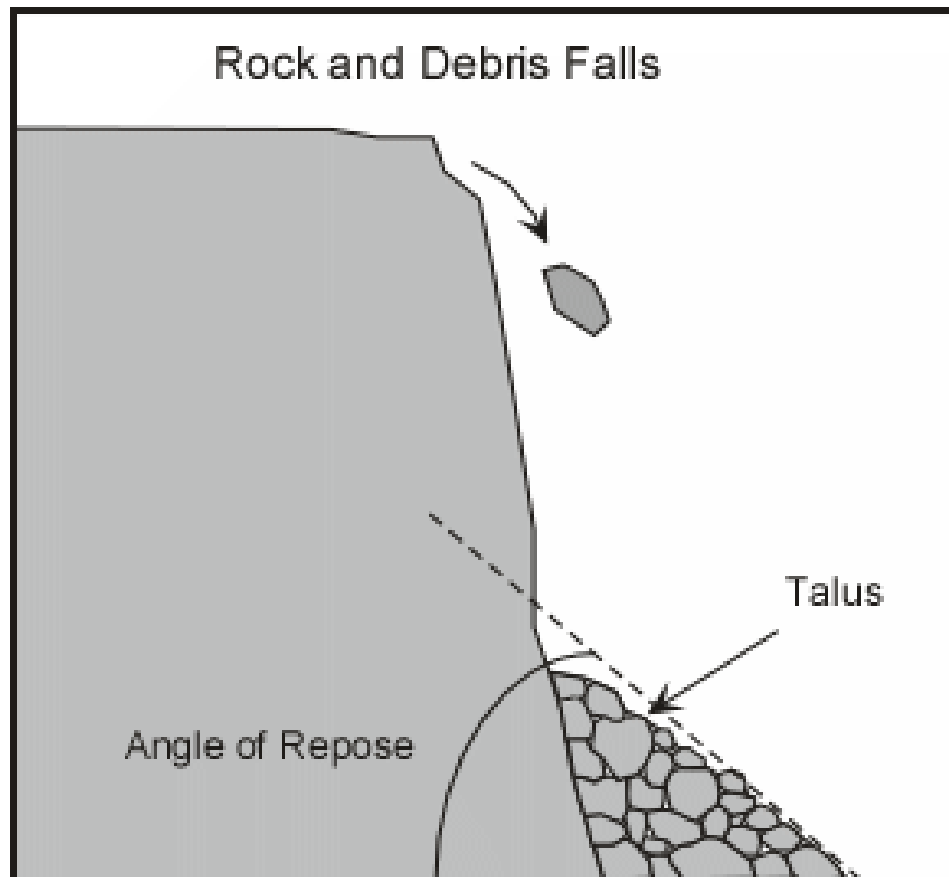
- B. LATERAL MOVEMENT
- a. BLOCK GLIDE
- b. SPREADING
- c. CAMBERING
- d. SACKUNG



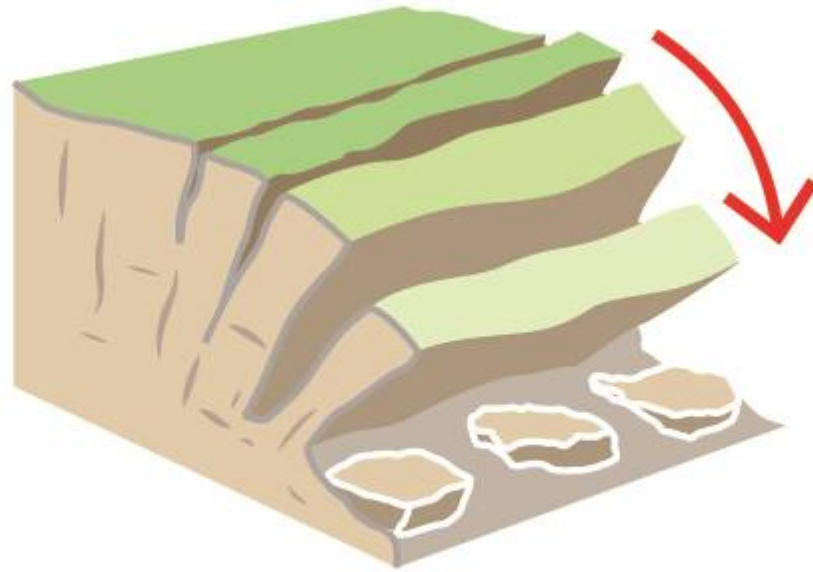
- C. DIAGONAL MOVEMENT
 - a. CREEP
 - i. SOIL CREEP
 - ii. ROCK CREEP
 - iii. TALUS CREEP
 - iv. ROCK GLACIER CREEP
 - b. SLIDE
 - i. ROCK SLIDE
 - ii. DEBRIS SLIDE
 - iii. SOIL SLIP
 - iv. SLUMP
 - c. FLOW
 - i. SOIL FLOW
 - ii. DEBRIS FLOW



FALL



TOPPLE



Rock topple

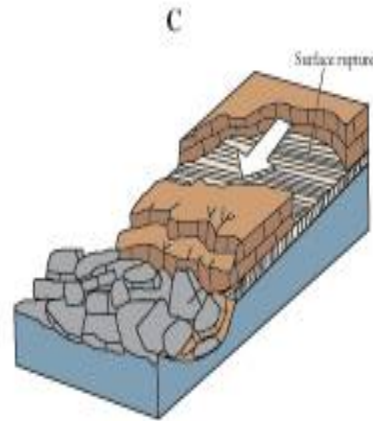




Rotational landslide



Translational landslide



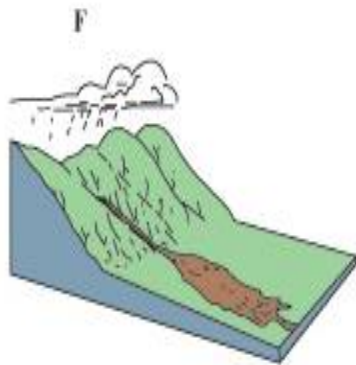
Block slide



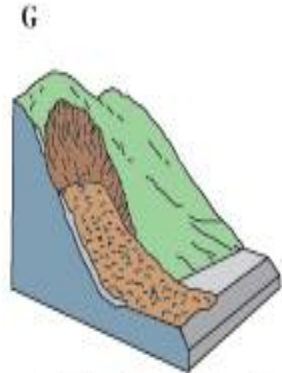
Rockfall



Topple



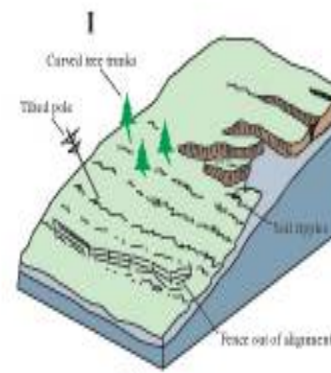
Debris flow



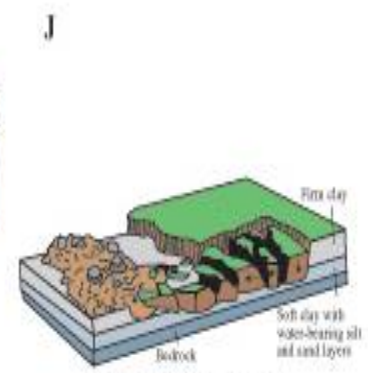
Debris avalanche



Earthflow

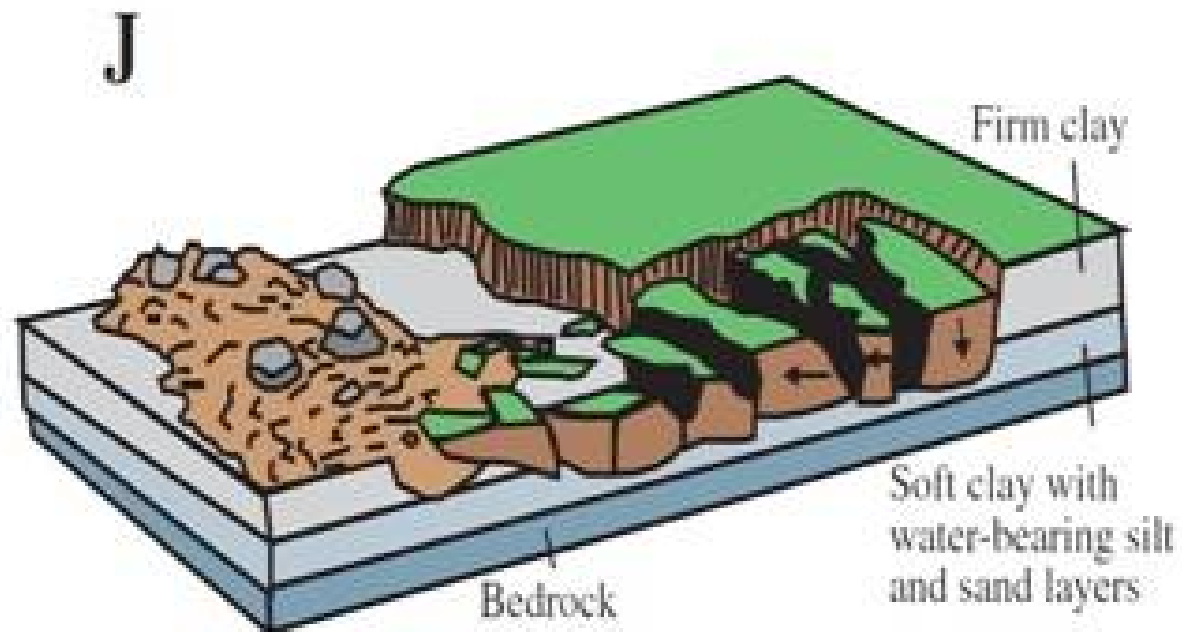


Creep



Lateral spread

LAND SLIDE

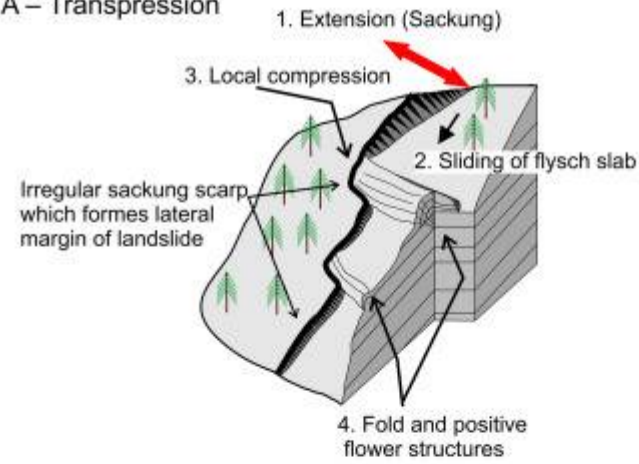


Lateral spread

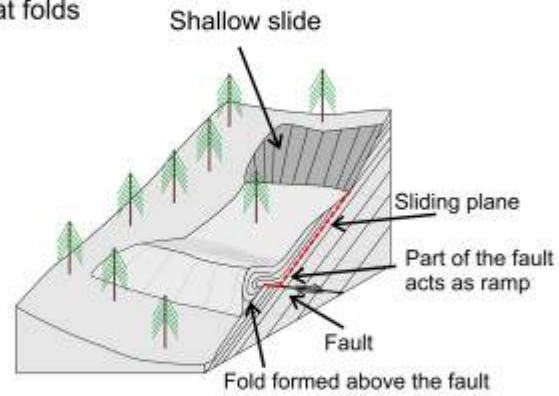


SAKUNG

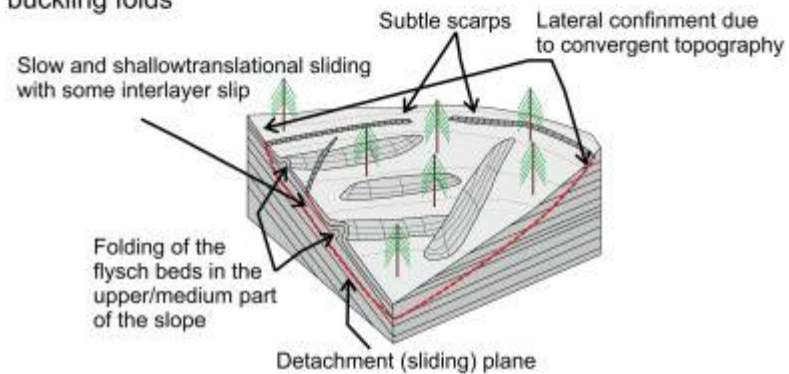
A – Transpression



B – Ramp-flat folds



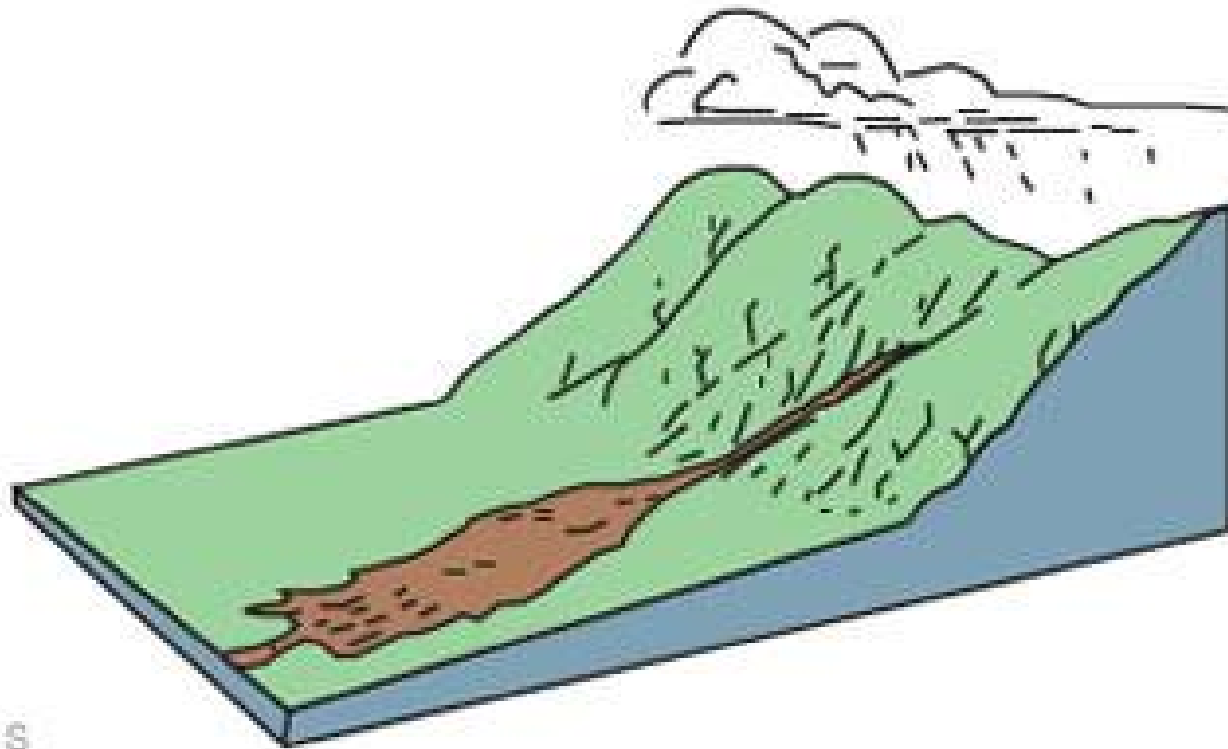
C – Detachment and buckling folds



EARTH FLOW



DEBRIS SLIDE



USGS

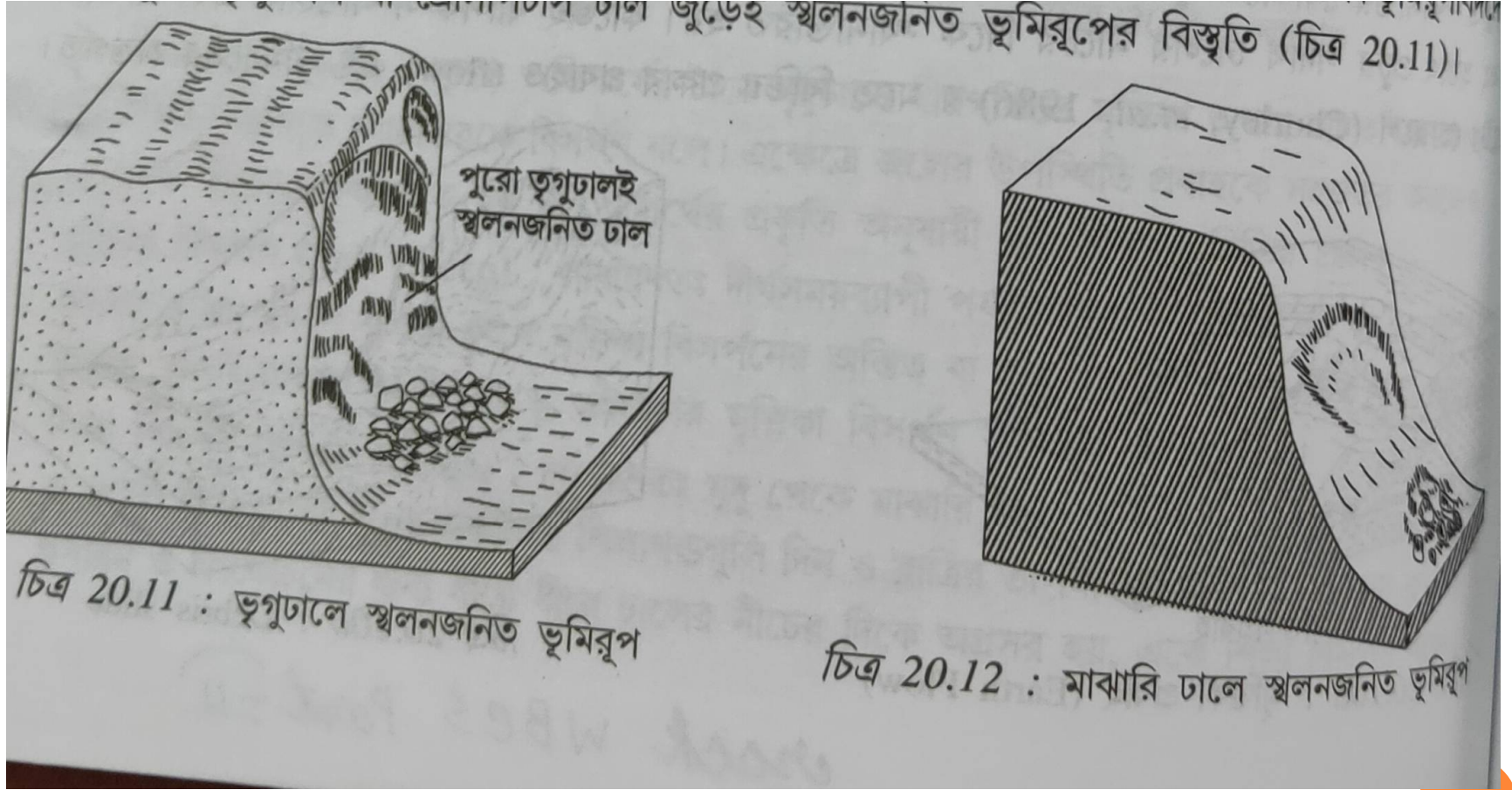


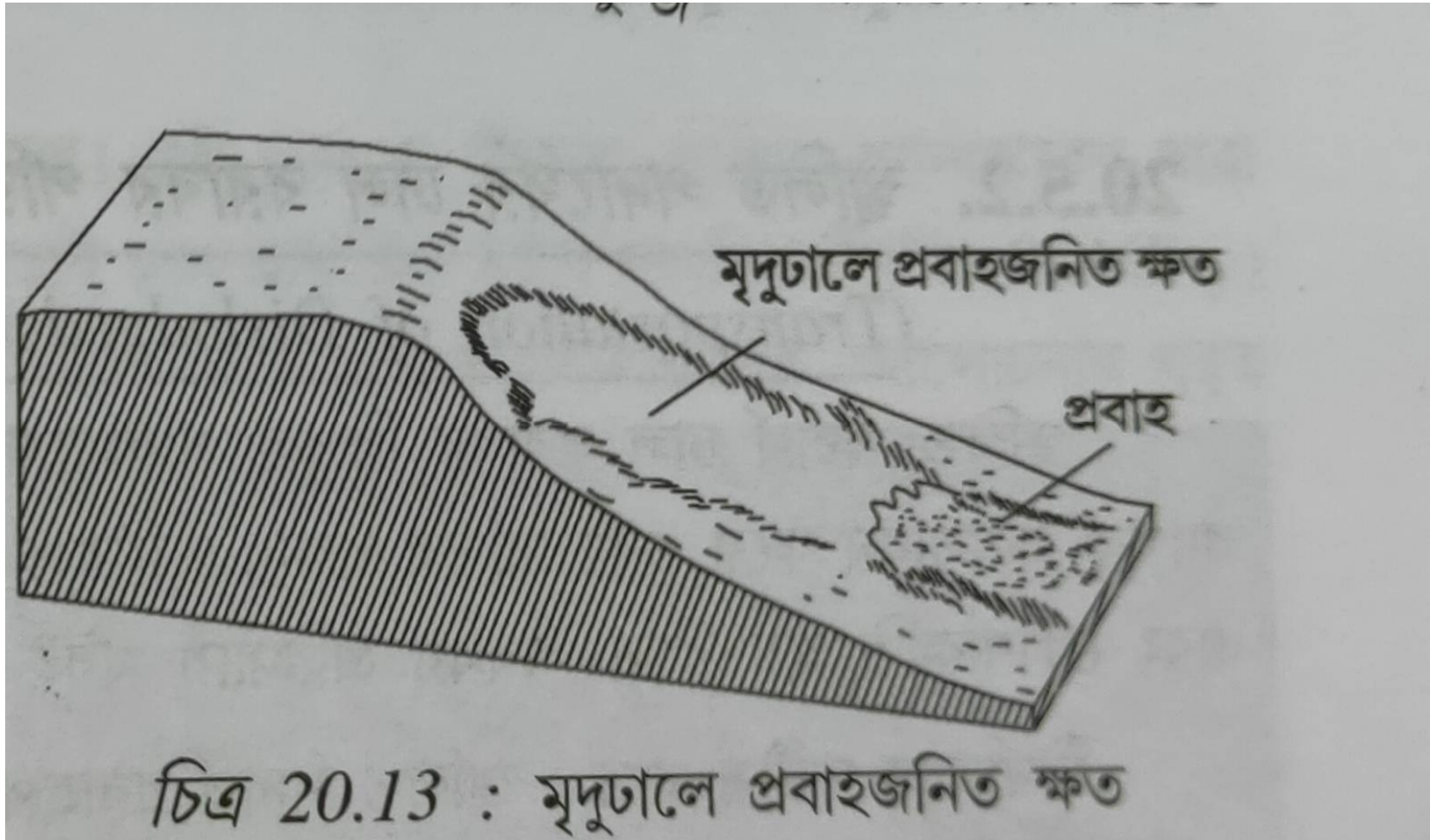
RESULTANT LANDFORMS

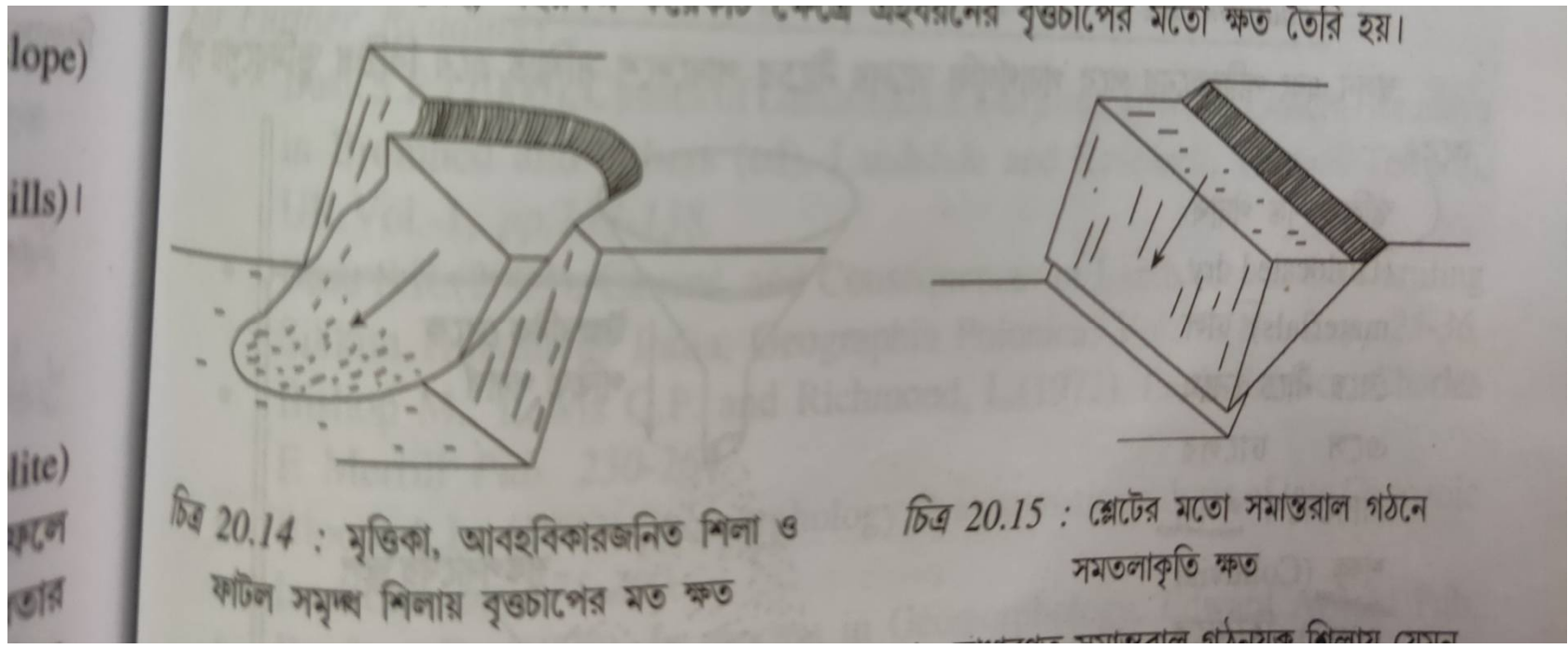


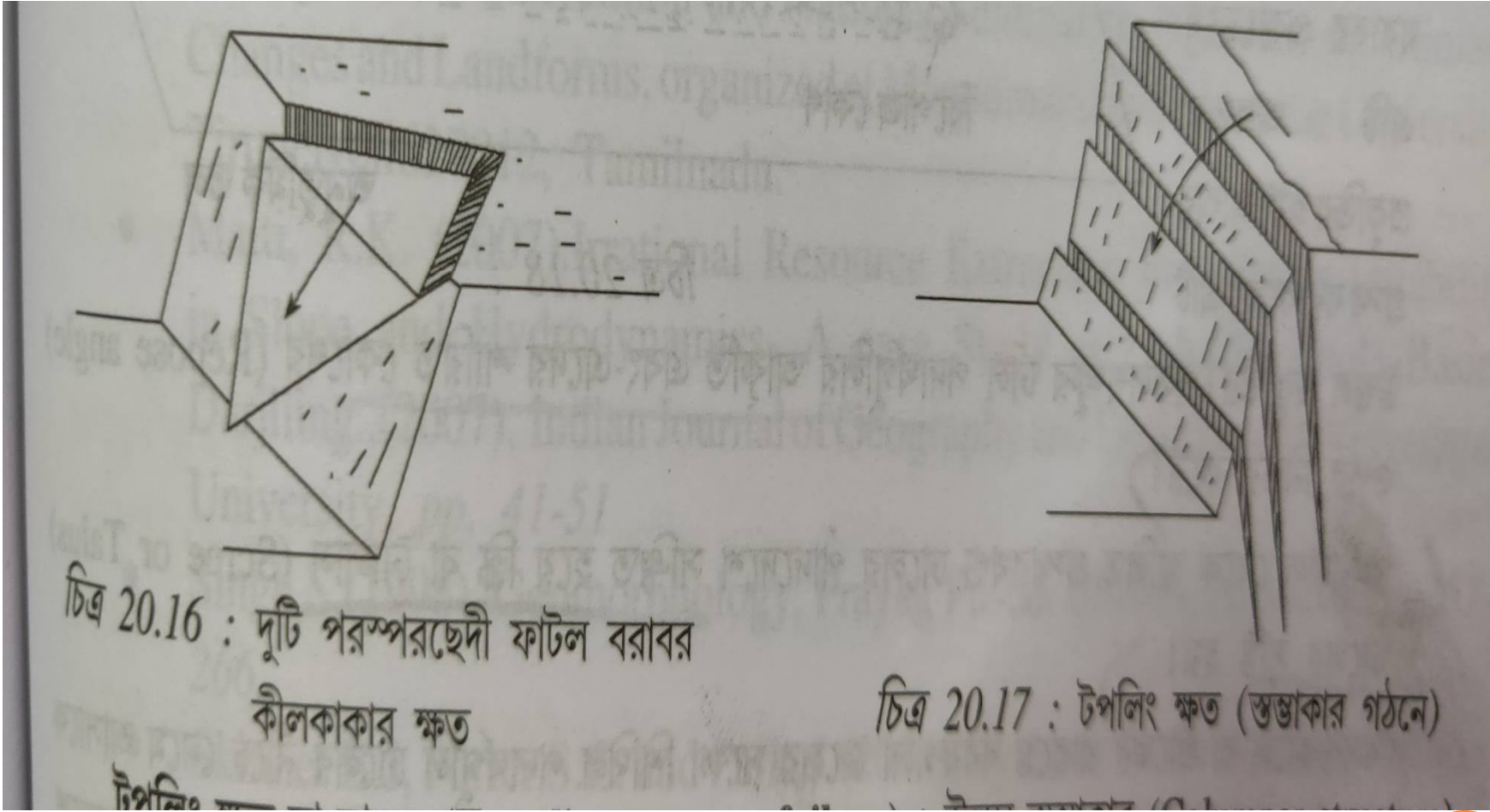
- **1. VERTICAL SLOPE**
- **2. STEEP SLOPE**
- **3. GENTLE SLOPE**
- **4. CIRCULAR SCAR**
- **5. PLANER SCAR**
- **6. WEDGE_LIKE SCAR**
- **7. TOPPLING SCAR**
- **8. SCREE OR TALUS**
- **9. GELIFLUCTION LOBE**











চিত্র 20.16 : দুটি পরস্পরছেদী ফাটল বরাবর
কীলকাকার ক্ষত

চিত্র 20.17 : টপলিং ক্ষত (সুভাকার গঠনে)



Thank you

