

# GLACIAL LANDFORMS

A photograph of a snow-capped mountain range under a clear blue sky. The foreground is dominated by a large, flowing glacier with visible crevasses and a textured surface. The mountains in the background are rugged and partially covered in snow. The overall scene is a high-altitude, alpine environment.

Department of Geography  
Jawahar Lal Nehru College, Palakkad

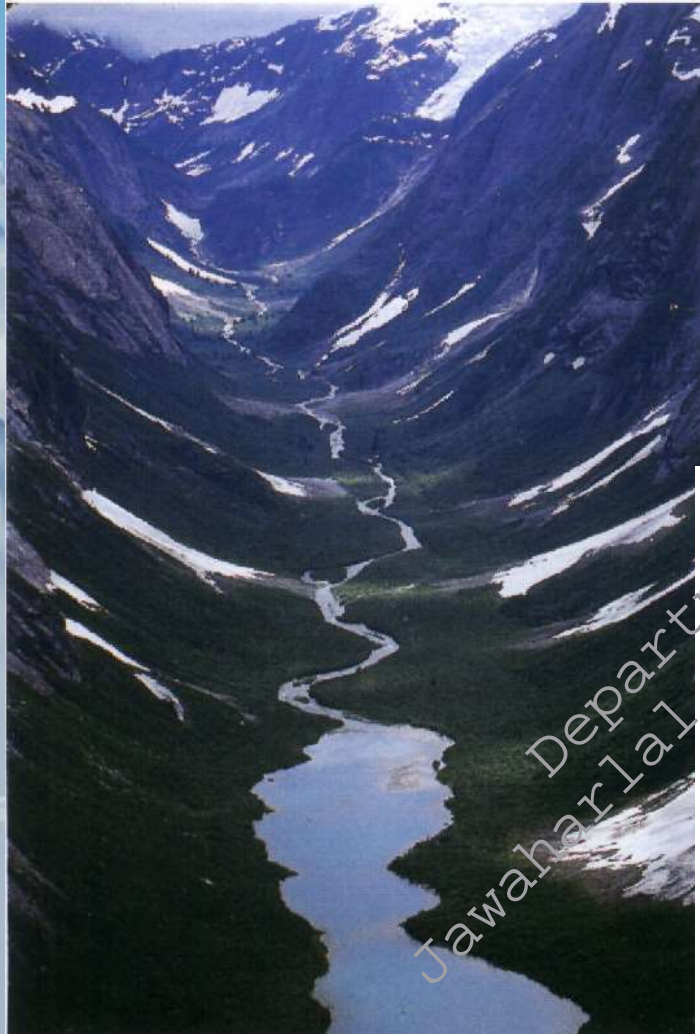
*Marina Langkam*

# EROSIONAL LANDFORMS

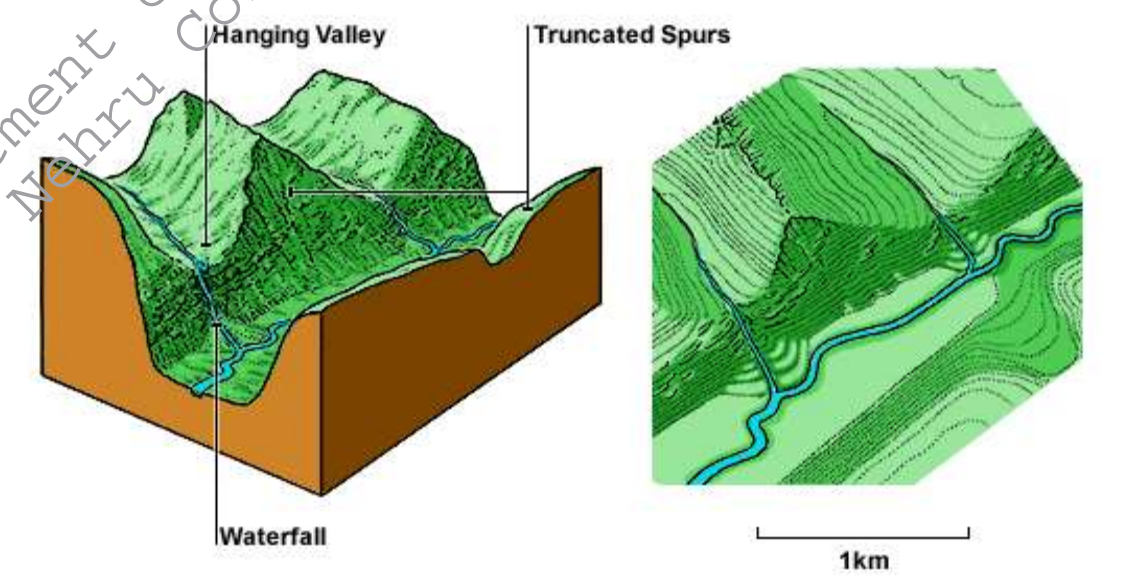
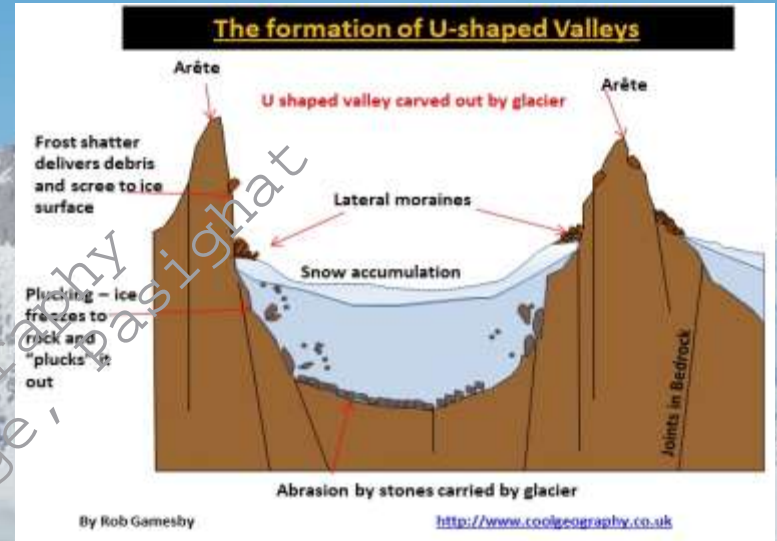
- ❖ U-shaped valleys
- ❖ Hanging valleys
- ❖ Cirques
- ❖ Aretes
- ❖ Horn
- ❖ Nunataks
- ❖ Roches moutonnées
- ❖ Fjords

# U-SHAPED VALLEY

- The cross-section of glacial valleys is U-shaped which is characterized by steep valley walls

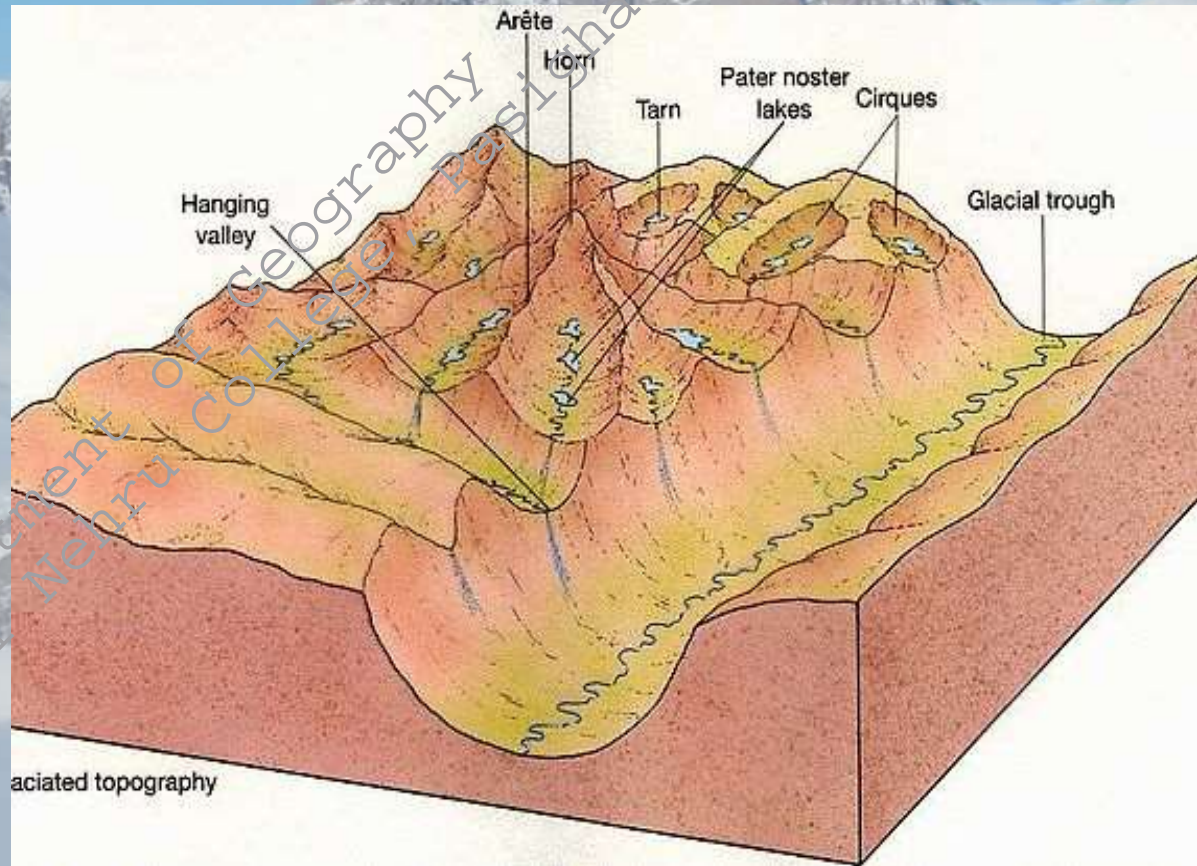
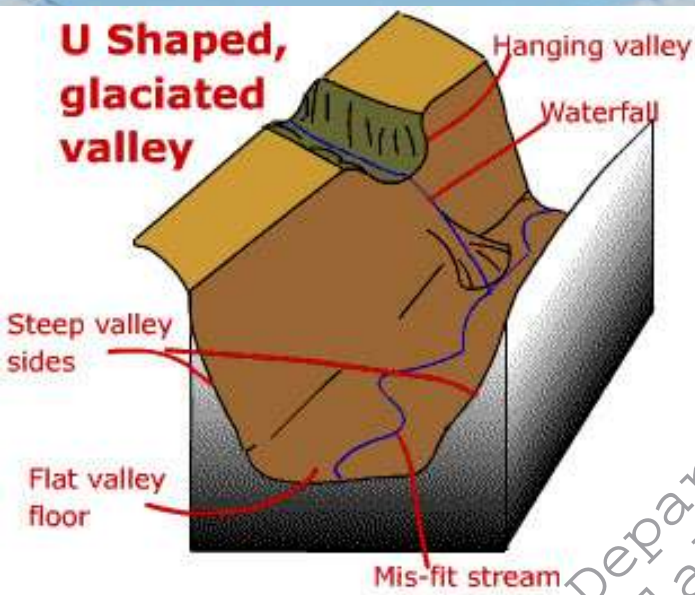


Department of Geography,  
Jawahar Lal Nehru College, Pasighat



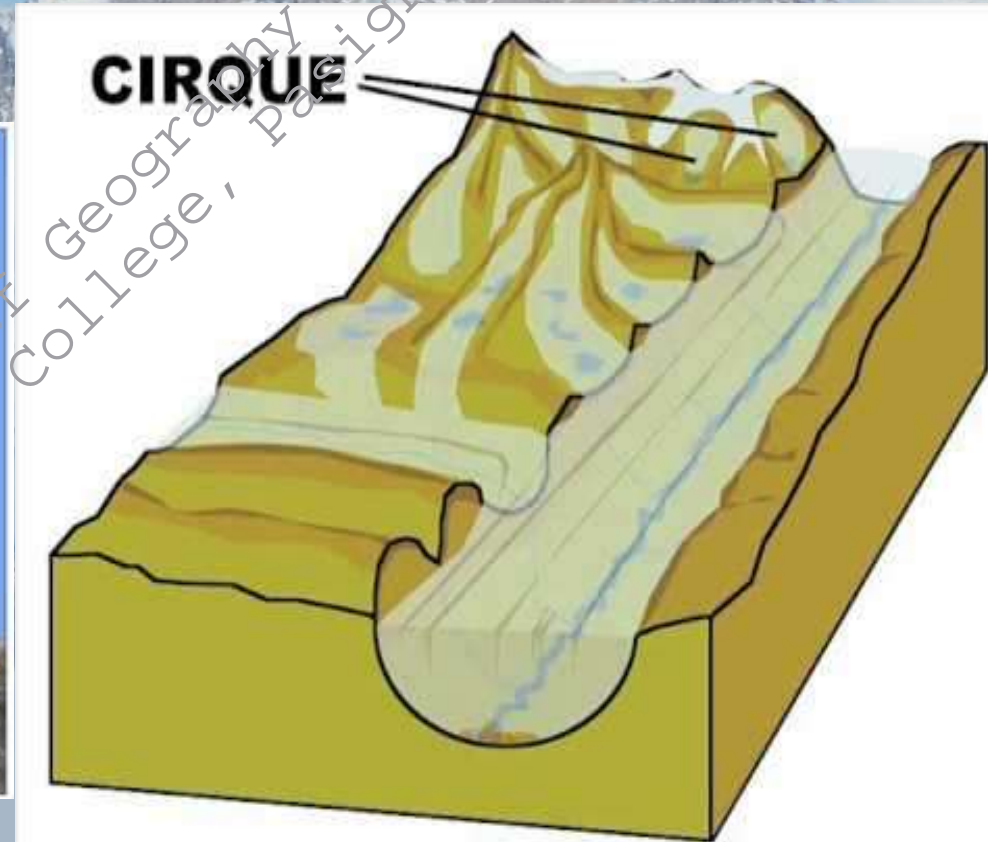
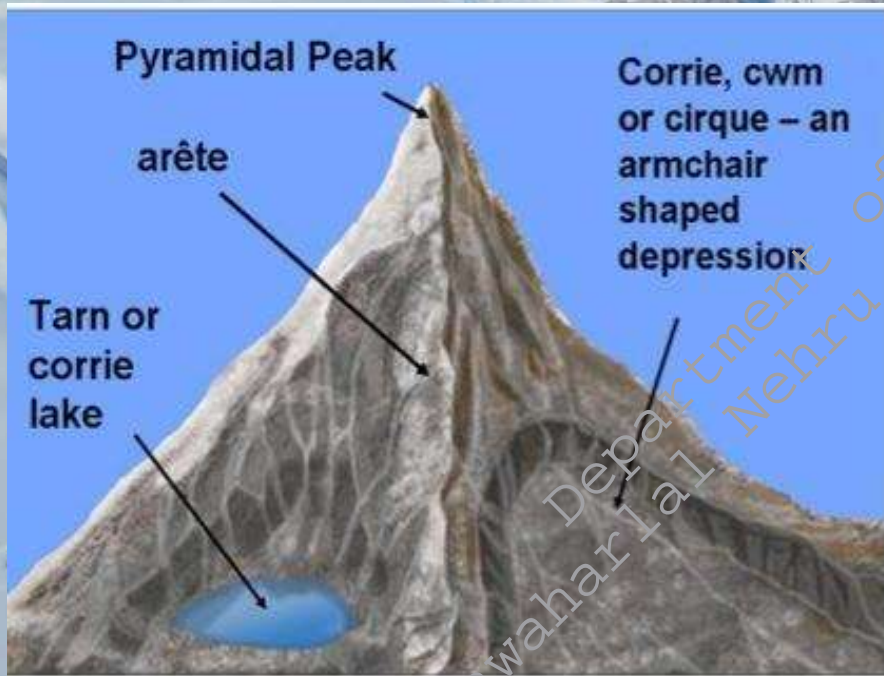
# HANGING VALLEYS

- The valleys of tributary glaciers which join the main glacial valleys of much greater depth



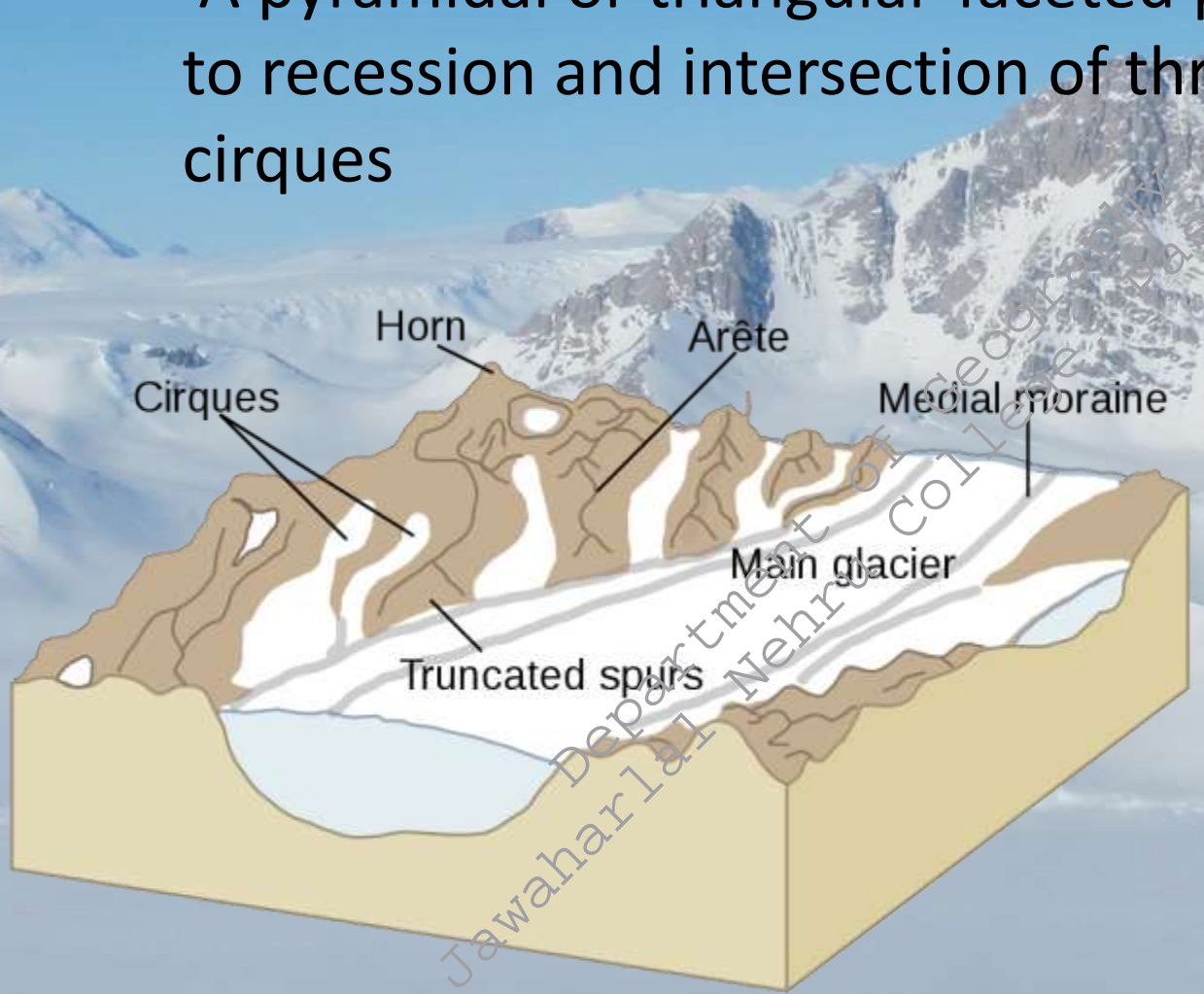
# CIRQUE

- It is an armchair-shaped steep walled depressions representing a glaciated valley head

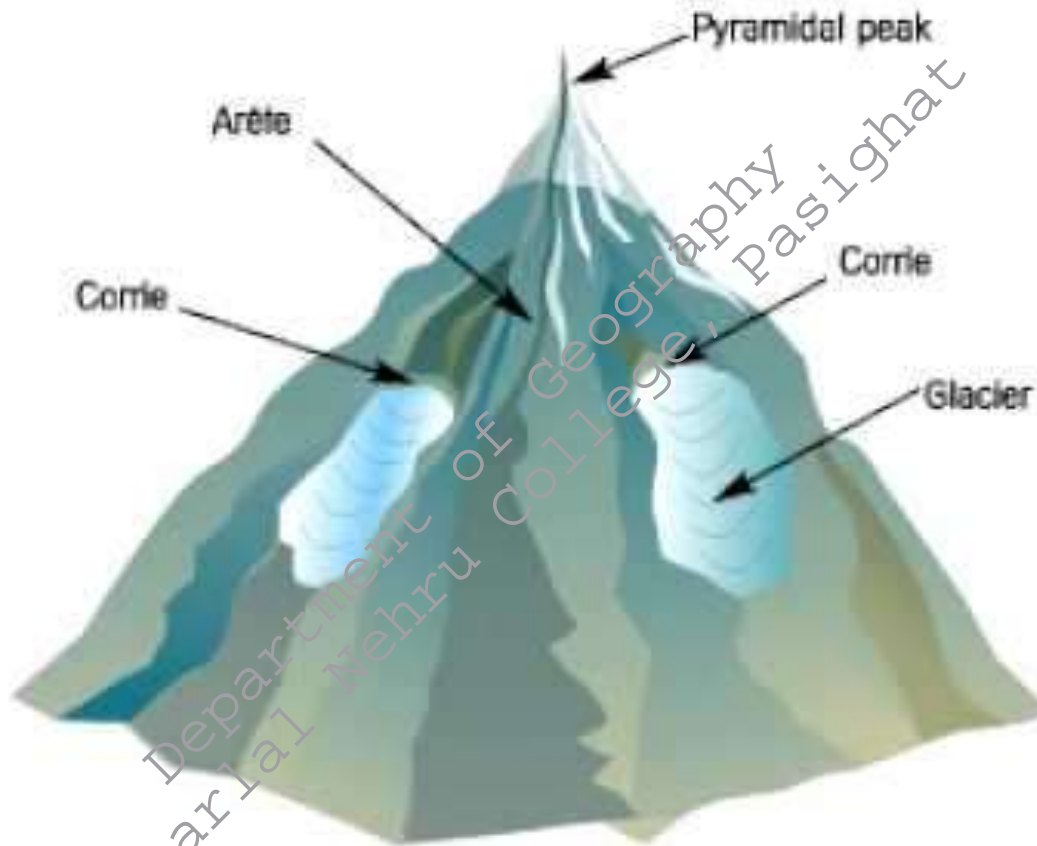


# HORNS AND ARETES

- A pyramidal or triangular-faceted peak formed due to recession and intersection of three or more cirques



# Horns and Aretes contd...



# NUNATAK

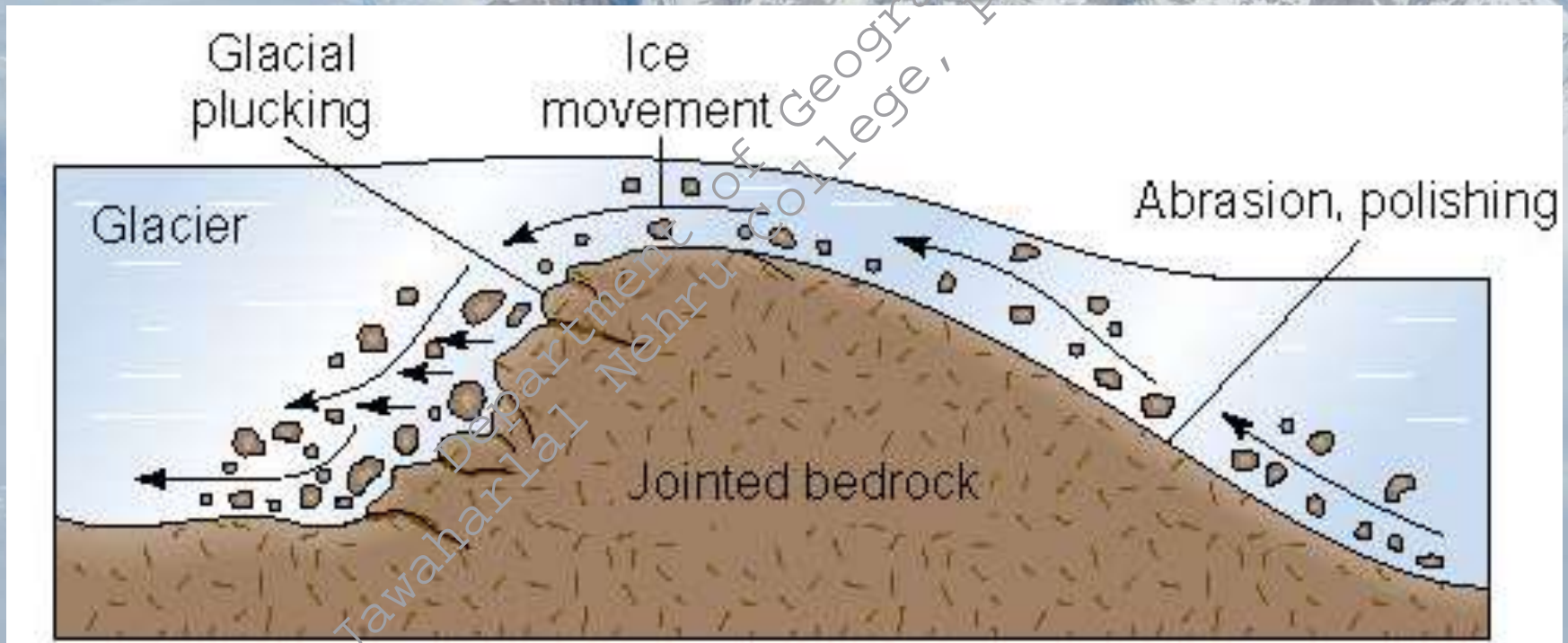
- The higher peaks and mounds surrounded by ice from all sides
- They look like scattered small islands
- Therefore also called glacial islands

Department of Geography  
Jawahar Lal Nehru College



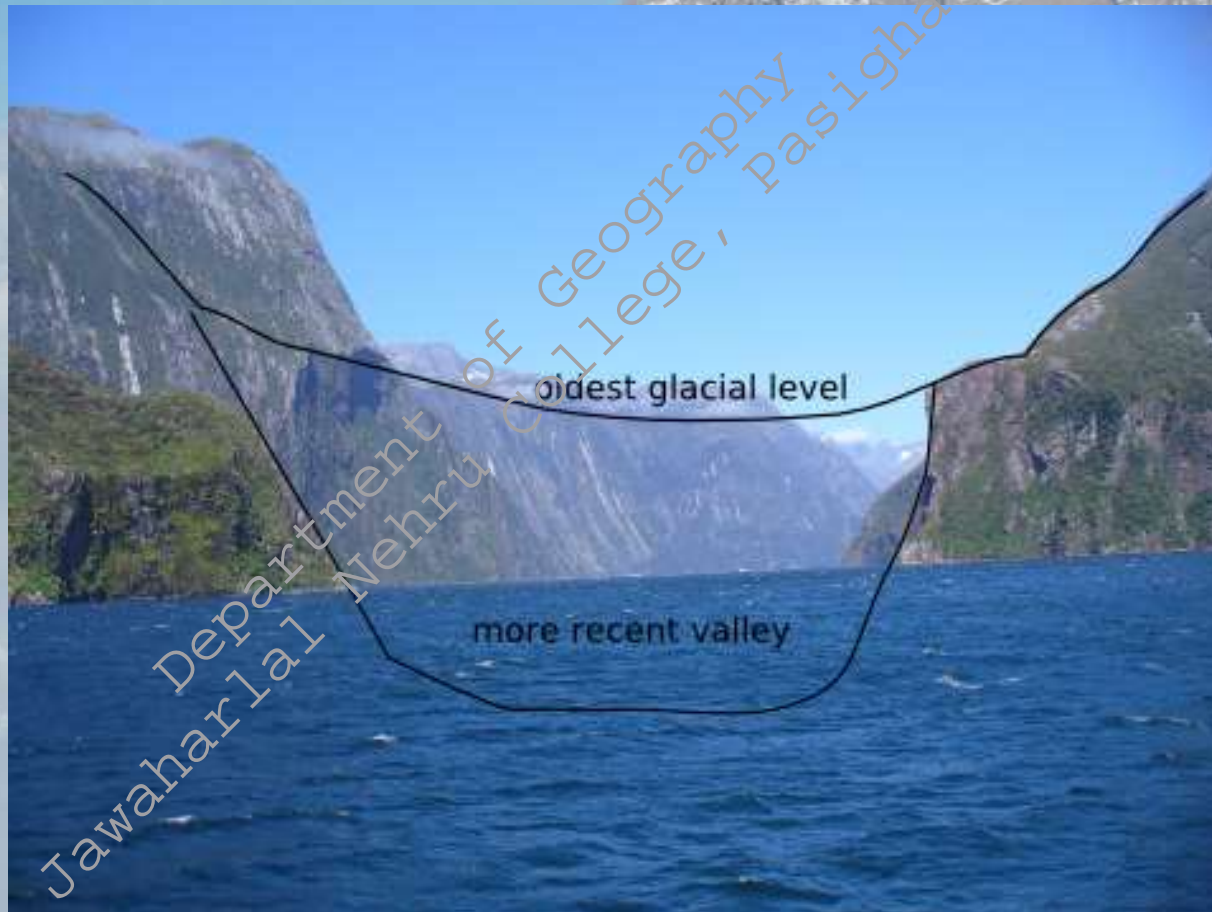
# ROUCHES MOUTONNEES

- These are streamlined asymmetrical hillocks, mounds or hills having one side smoothly moulded with gentle slope and the steepened and craggy lee side



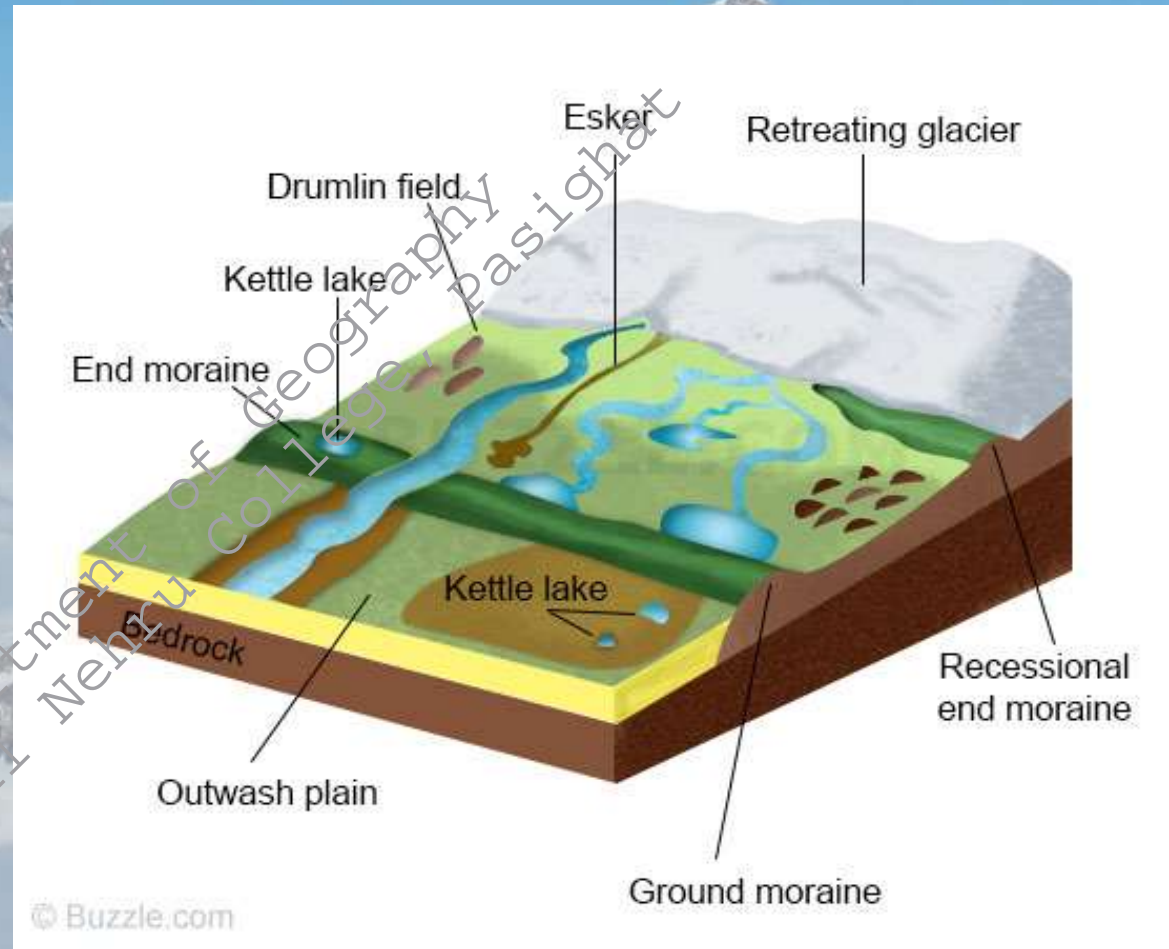
# FJORDS

- These are glacial troughs which are occupied by the sea
- Characterized by steep side walls and several hanging valleys



# DEPOSITIONAL LANDFORMS

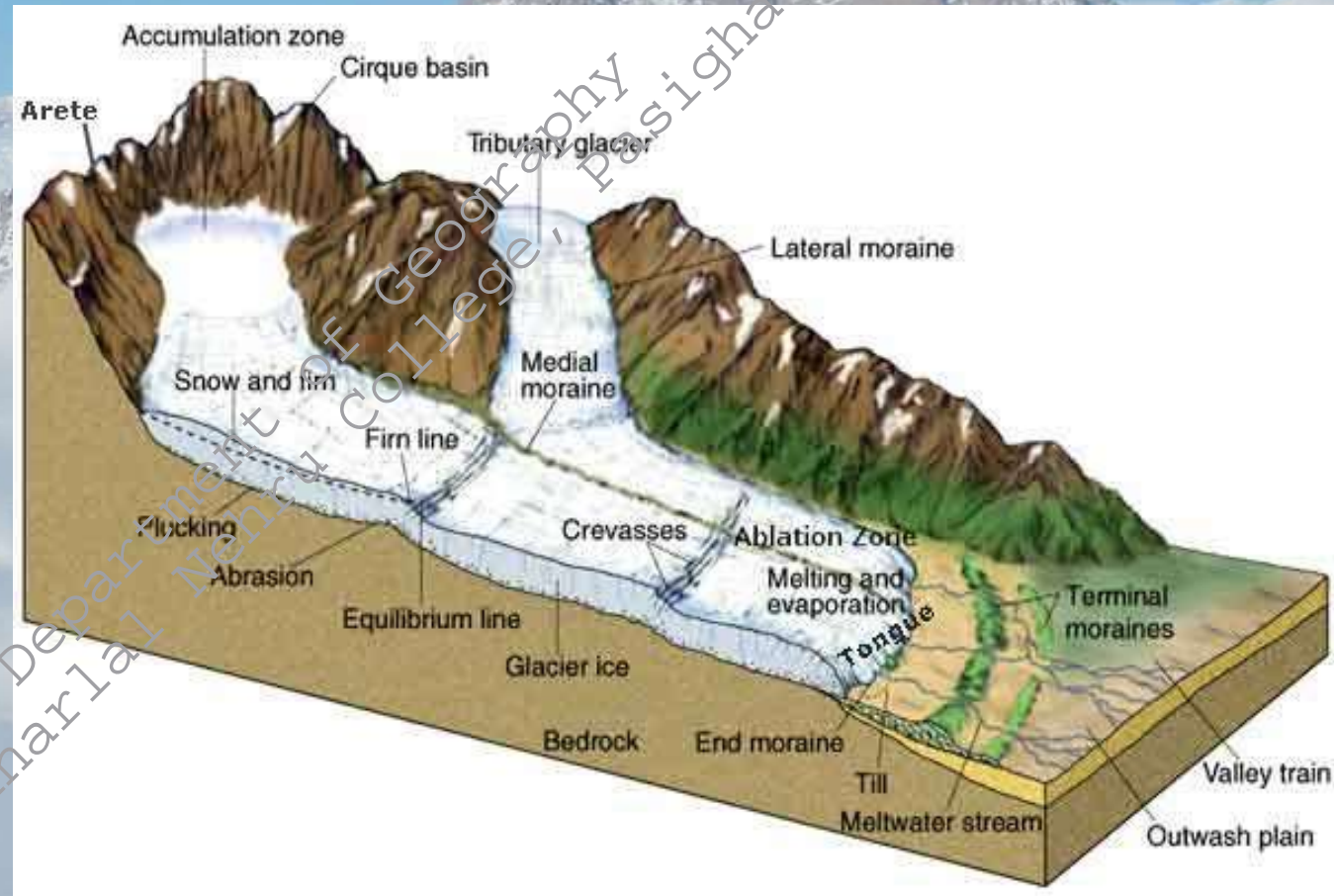
- Moraines
- Drumlins
- Esker
- Kames
- Kettles
- Outwash Plains



# MORAINES

These are ridge-like depositional features of glacial tills.

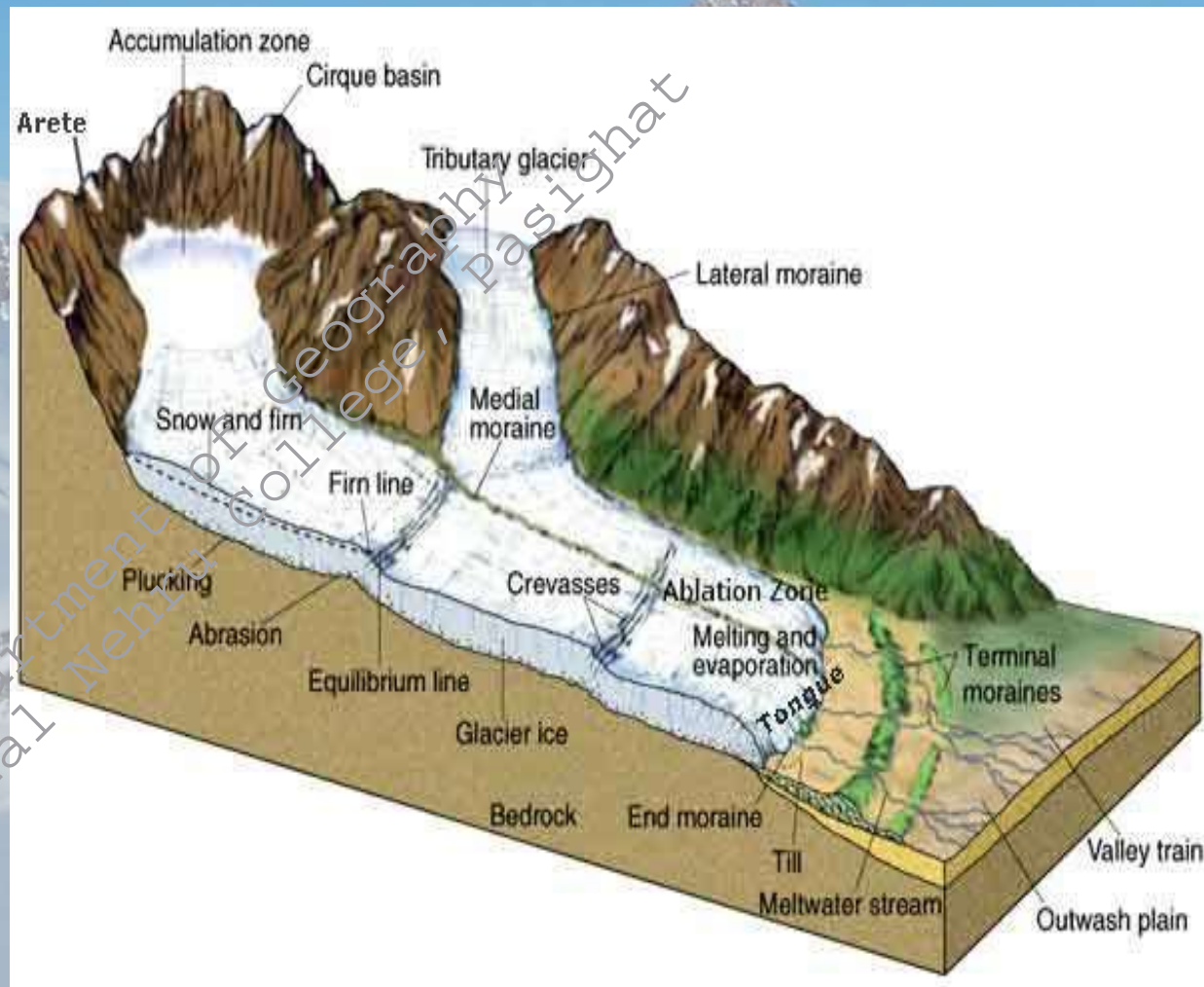
1. Terminal Moraine: The materials dropped at the end of a mountain glacier.
2. Lateral Moraine: Materials deposited at either of the two sides of a glacier.



# Moraines contd...

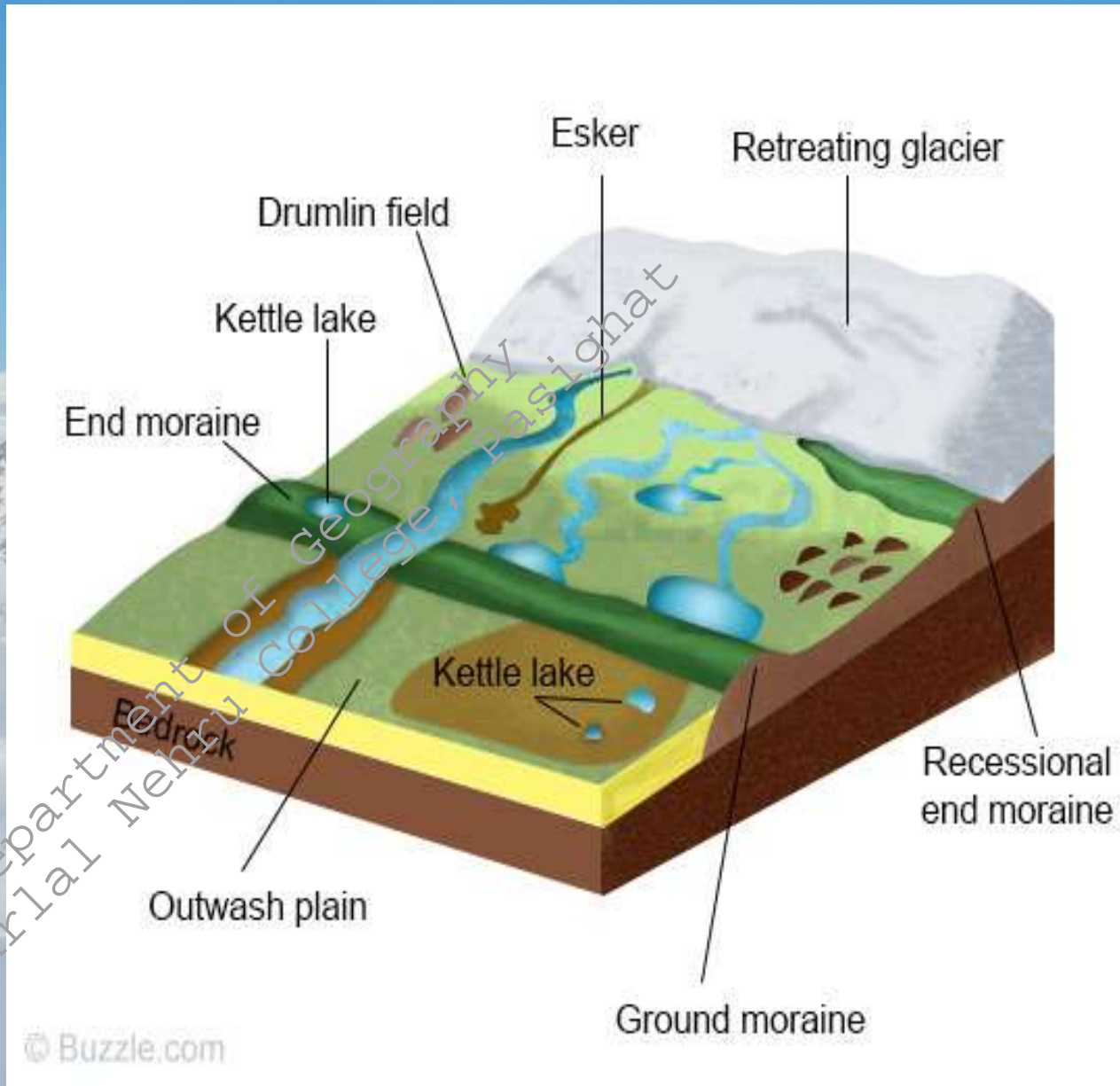
3. Medial Moraine:  
When two glaciers join, the two lateral moraines also join and form a single moraine at the confluence of the two glaciers. It is called medial moraine.

4. Ground moraine:  
When glacial sediments (till) are deposited at the floor of glacial valleys.



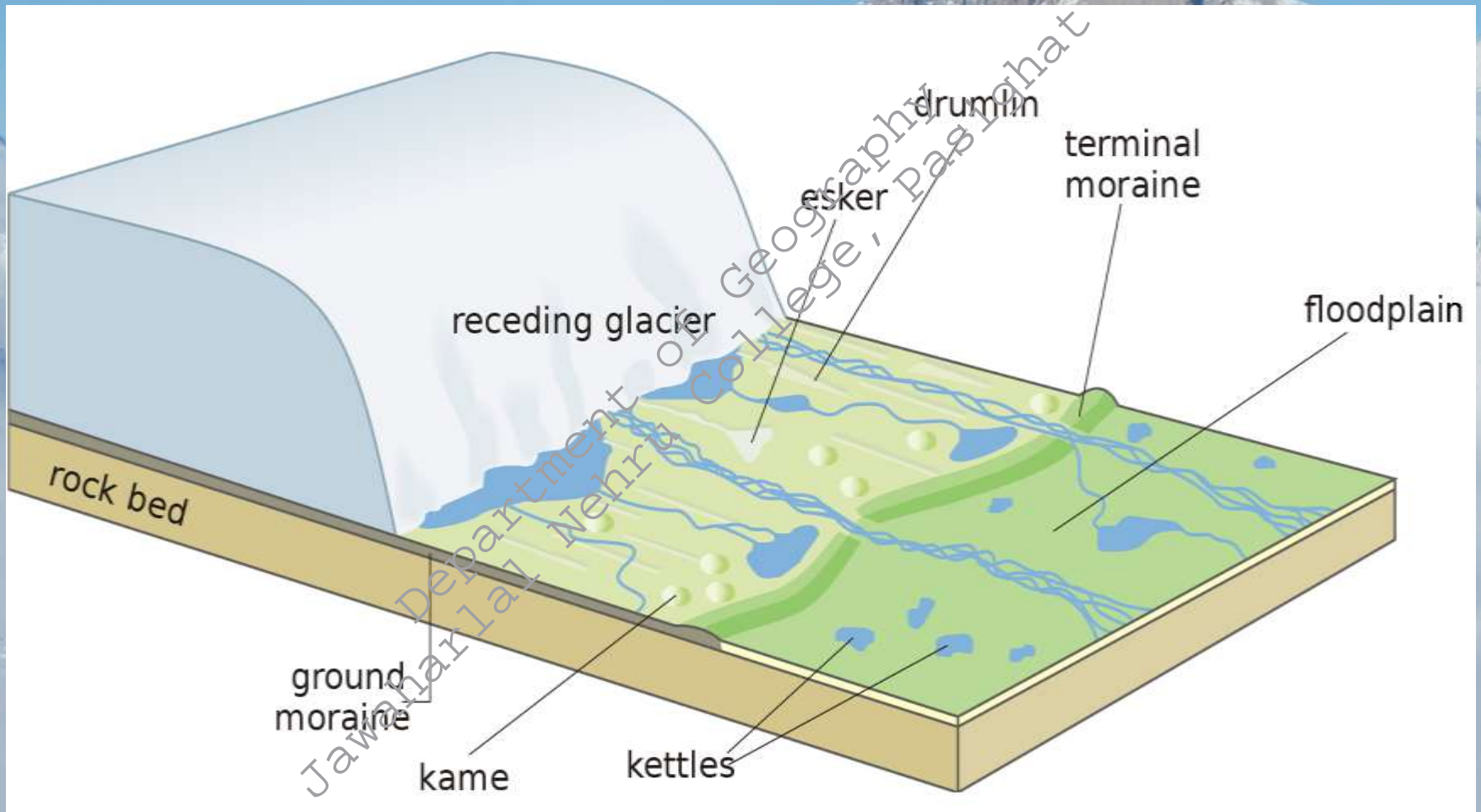
❖ **DRUMLINS:** A smooth, egg-shaped hummock of glacial debris. Drumlins look like an inverted boat or spoon.

❖ **ESKERS:** These are long, narrow and sinuous ridges of sands and gravels.

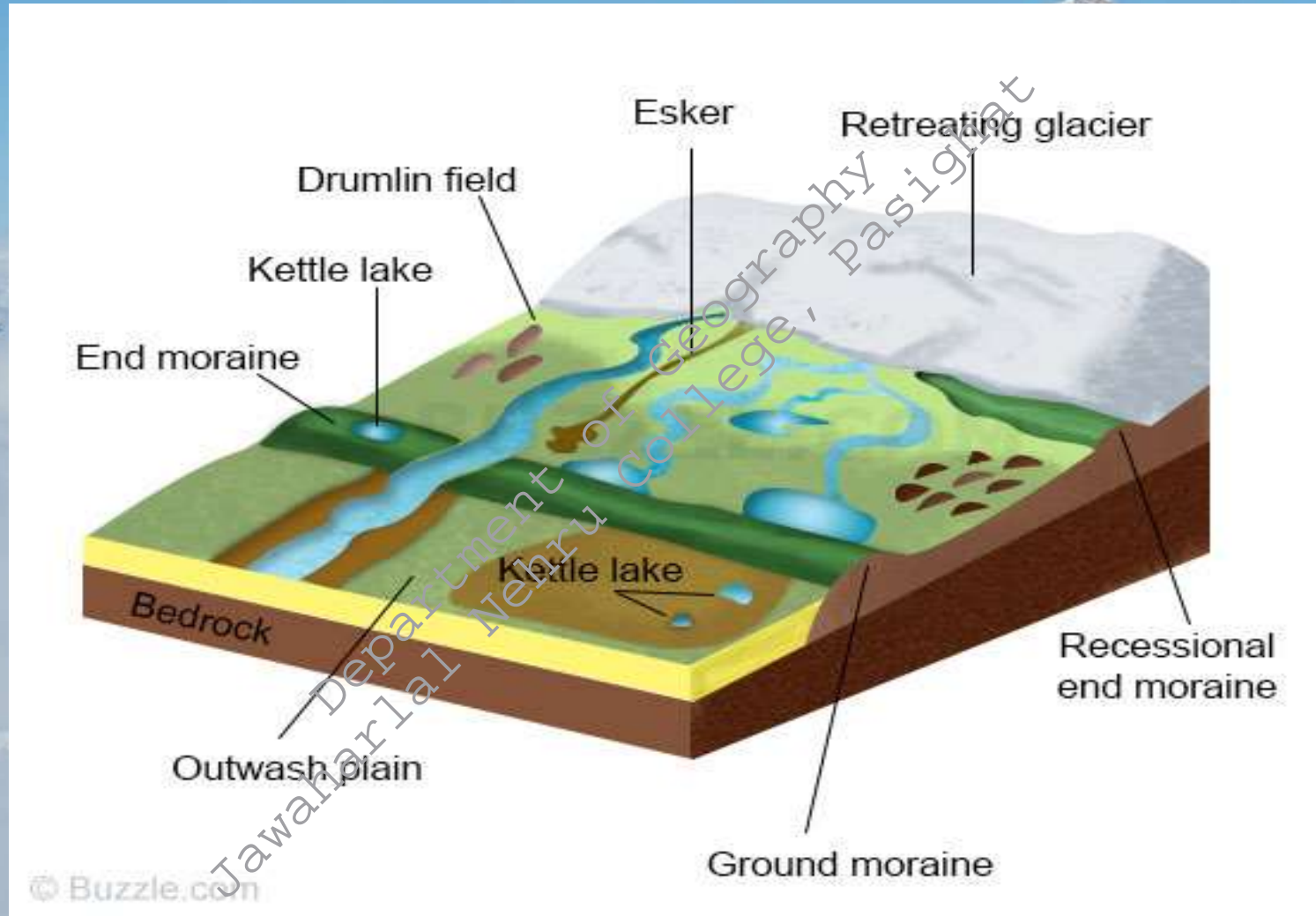


❖ **KAMES:** Small hills or irregular mounds of bedded sands and gravels which are deposited by meltwater

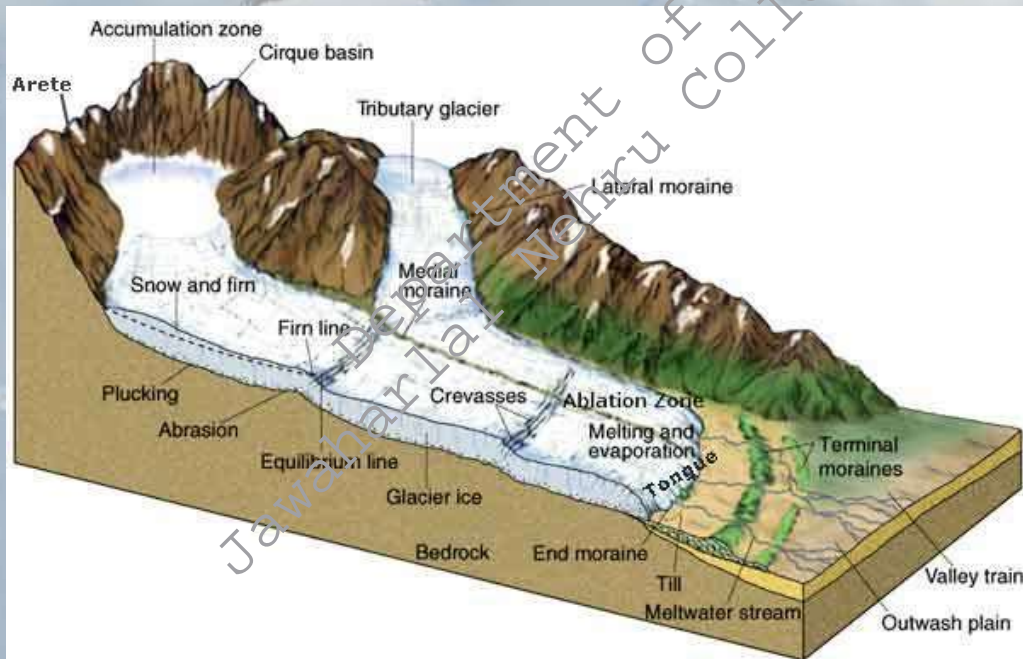
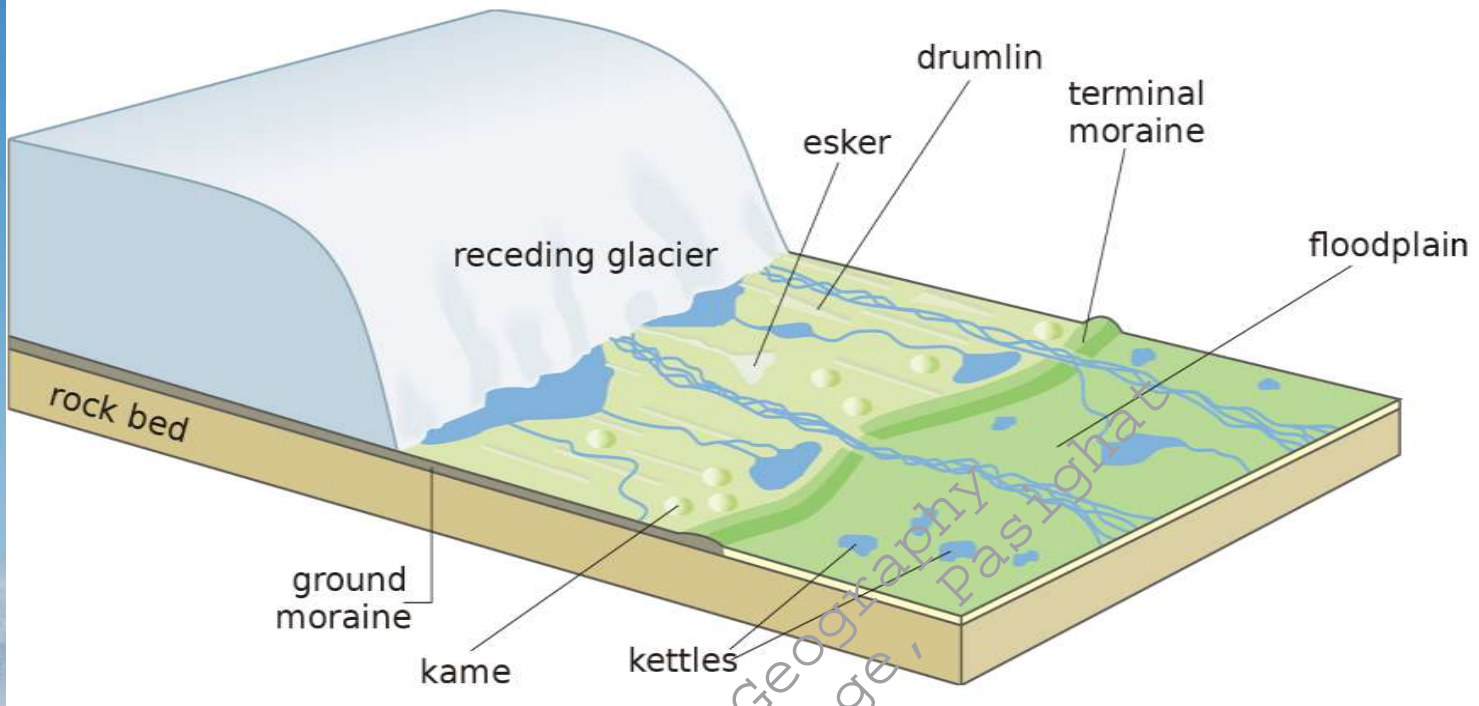
❖ **KETTLES:** These are depressions in the outwash plains



- **OUTWASH PLAINS:** An extensive land surface covered by glaciofluvial sediments







*Marina Langkam*



**THANKS**

Department of Geography  
Jawahar Lal Nehru College, Punalpru

*Marina Langkam*