

Geology 100

Notes on Planet Earth version 30

Review - Exam 4

Chapter 13

Glaciers and their significance

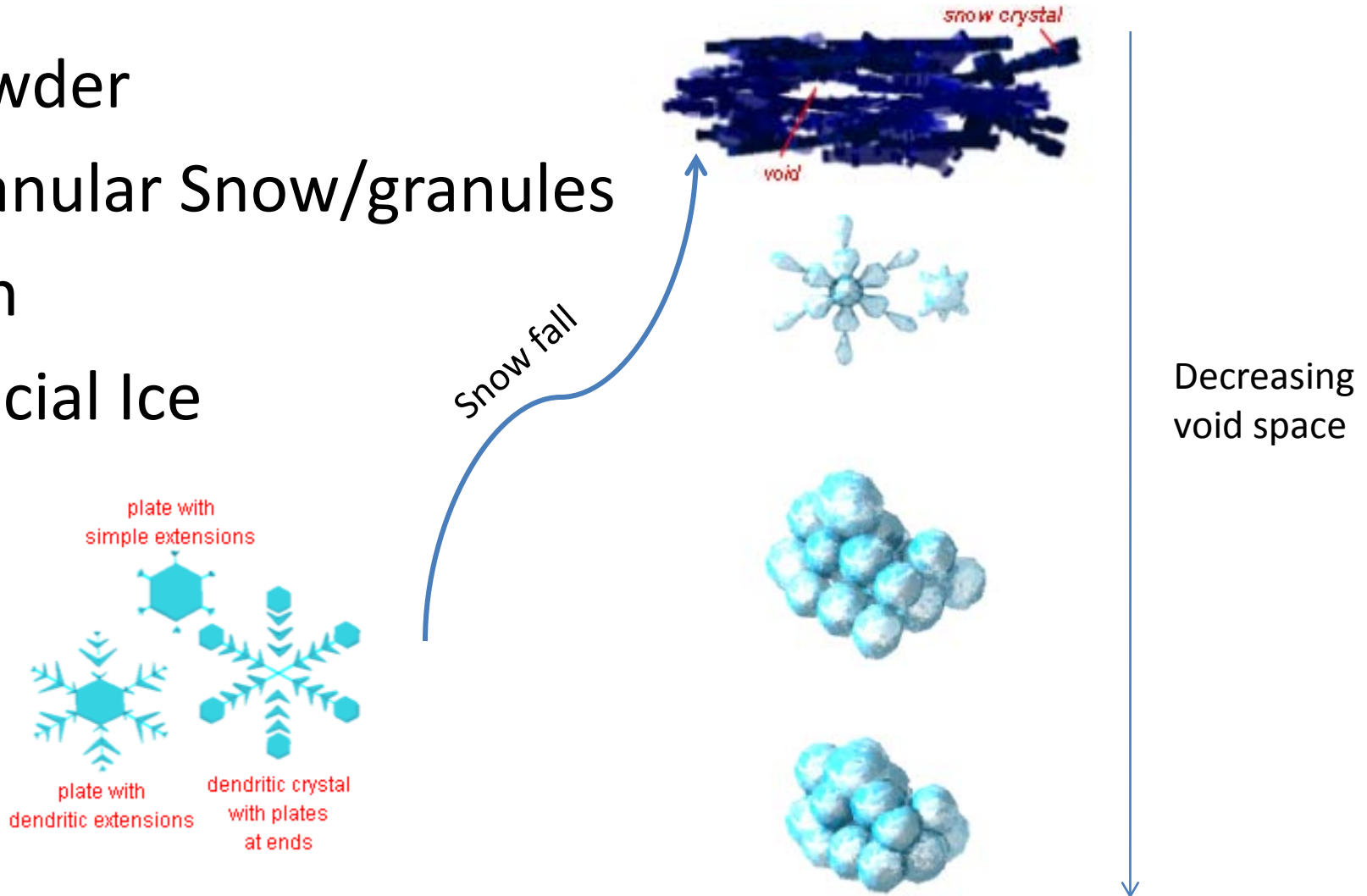
- >~75% of worlds freshwater supply
- Covers about 10% of land surface
- If melted, then sea level would rise 70 meters

Two types

- Valley or alpine
- Continental
 - Ice Sheets
 - Ice caps

Converting snow to ice

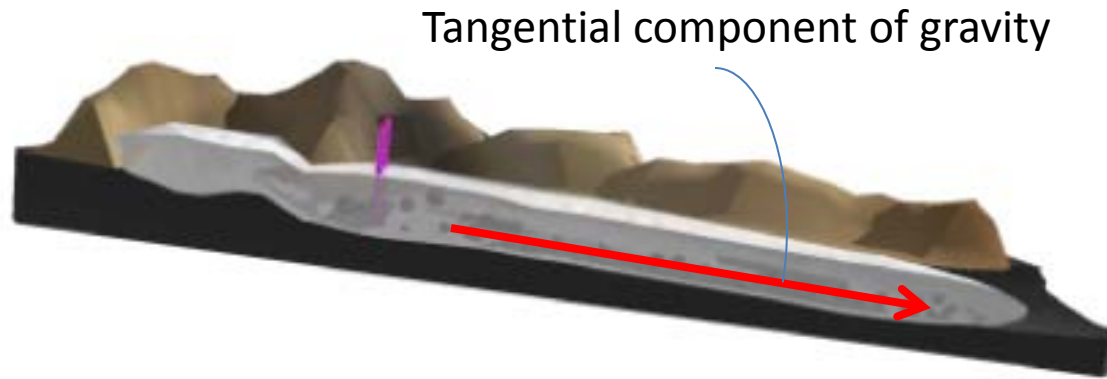
- Powder
- Granular Snow/granules
- Firn
- Glacial Ice



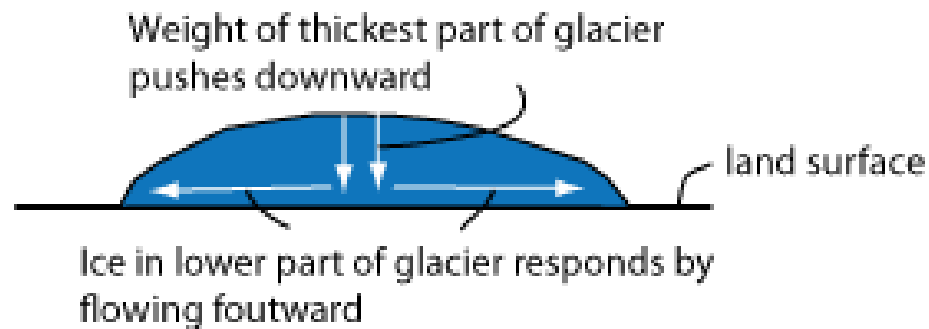
The budget of a glacier

- Zone of accumulation
- Zone of wastage
- Snowline
- Negative versus positive budgets

The movement of a glacier



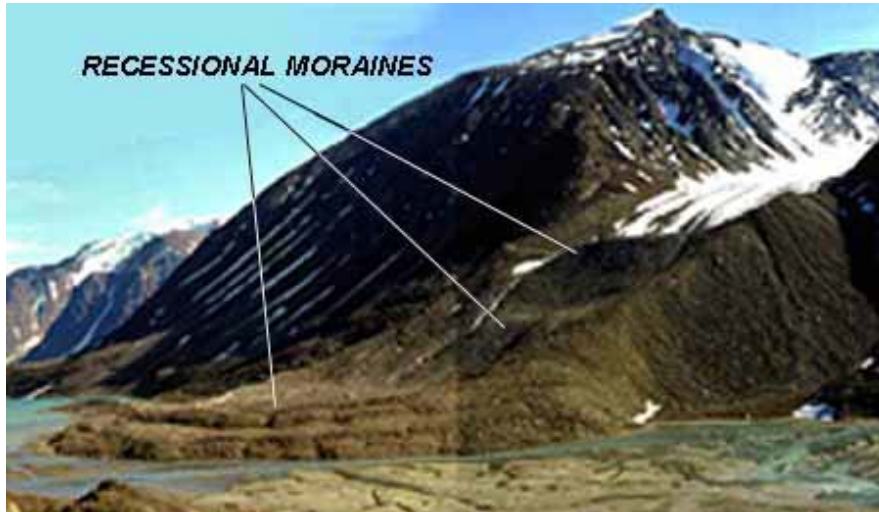
Glacier thicker in central part



Result



Till and moraines



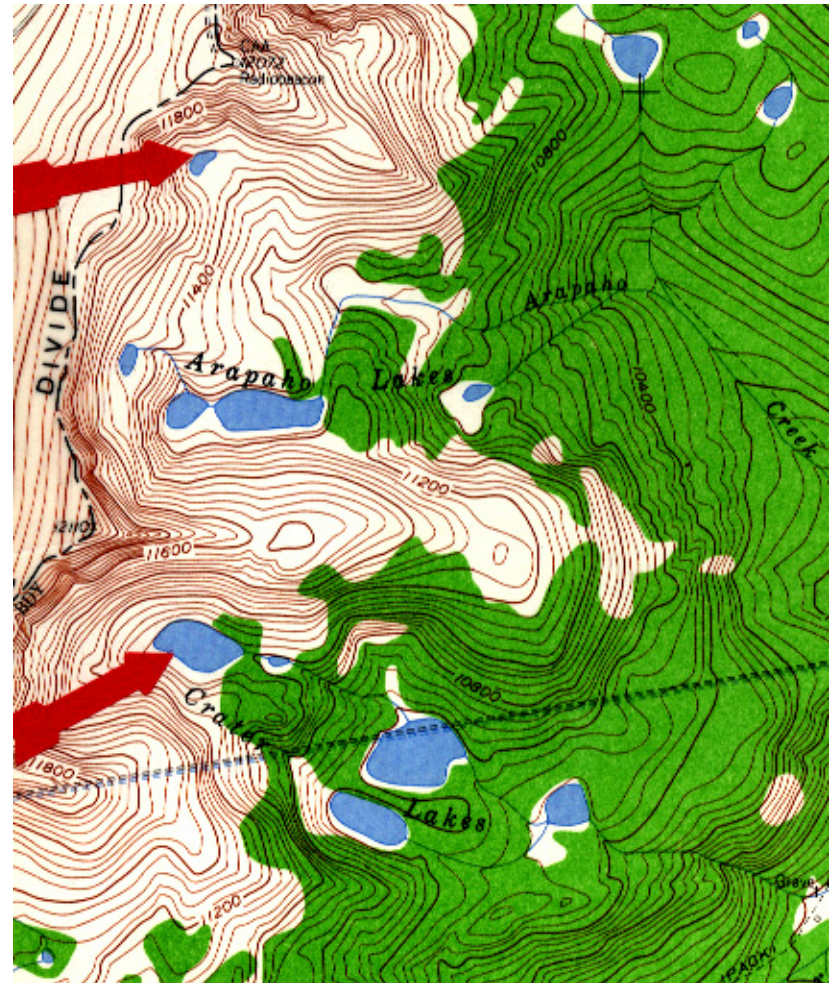
Landforms resulting from glaciation

- U-shaped valleys
- Hanging valleys



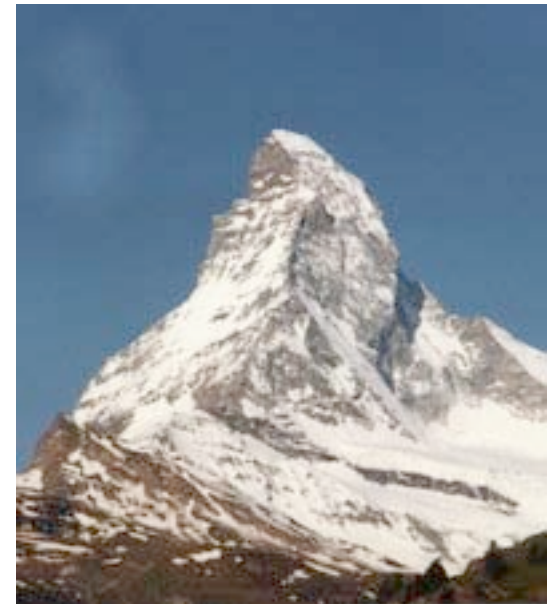
Landforms resulting from glaciation

- Cirques
- Tarns
- Paternoster lakes



Landforms resulting from glaciation

- Arêtes
- Horns



Landforms resulting from continental glaciers

- Eskers
- Kettles
- Kames
- Drumlins



The Great Ice Age

- The Pleistocene epoch

Milankovitch hypothesis

- Eccentricity
- Obliquity
- Precession

