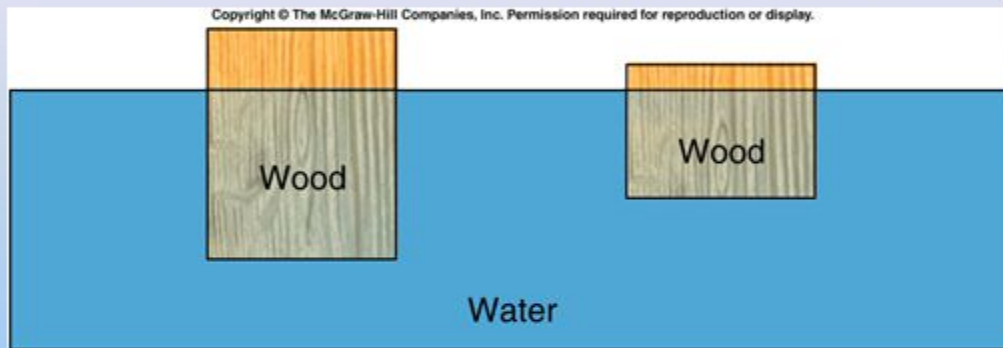


Oceanology 5

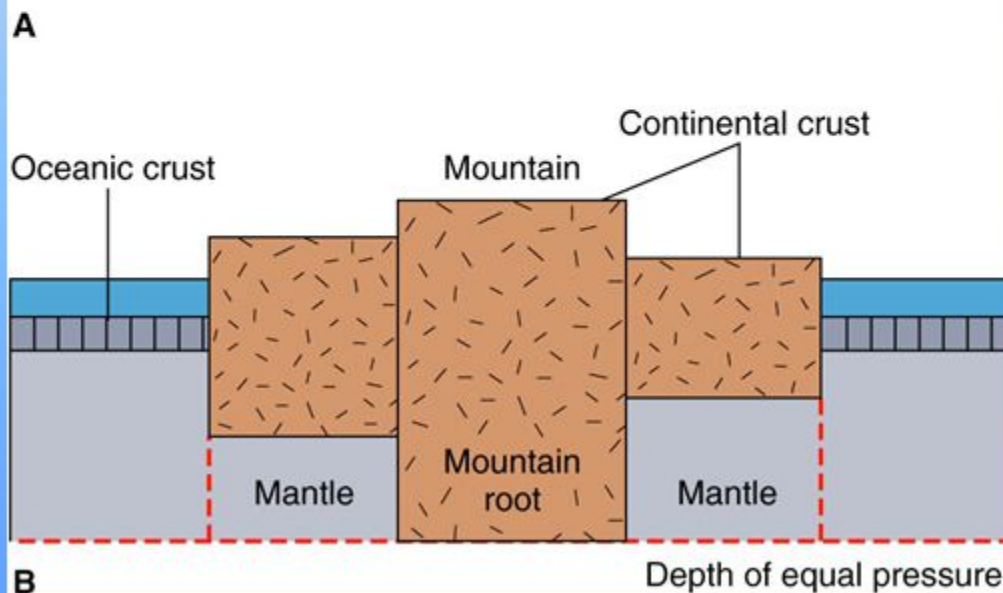
Prof. Dr. Nilsun Demir

Isostasy

A. Balance or equilibrium of adjacent rocks of brittle crust that float on the plastic mantle.



Wood blocks float in water with most of their mass submerged



Crustal blocks "float" on mantle in a similar way.

- The thicker the block the deeper it extends into the mantle.

The continental crust formed by 3 layers

- The continental crust is the layer of granitic, sedimentary and metamorphic rocks which form the continents and the areas of shallow seabed close to their shores, known as continental shelves.
- Sediment layer 10 km
- Granit layer 15 km
- Bazalt layer 20-25 km
- Mohorivicic discontinuity
- Mantle

Ocean Crust

- Water
- Sediment layer 0.3-0.6 km
- Volcanic and sediment layer 1.7 km
- Oceanic layer: Bazalt: 4-6 km
- Mohorivicic discontunity
- Mantle

Age of Earth

- 4.5 Billion years
- It was formed by breaking away from the sun

Ocean trench formation

- Permanence theory
- Continental drift theory



Permian Period
225 million years ago



Triassic Period
200 million years ago



Jurassic Period
135 million years ago



Cretaceous Period
65 million years ago



Present Day

Origin of ocean water

- Atmosphere (?)
- Decomposition of volcanic rocks(?)
- Water addition during geological time
- Volcanic activity + Water vapor+ Volcanic events