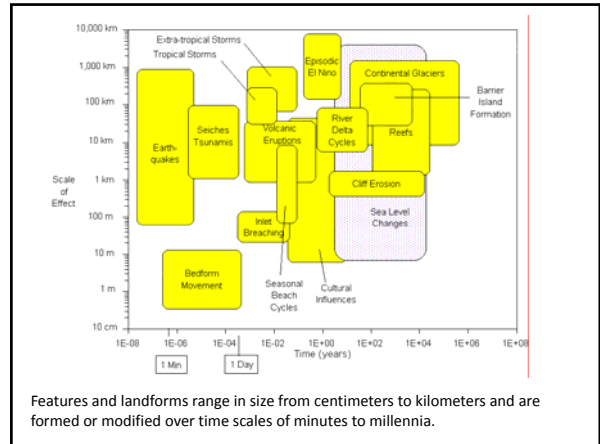


CEM Part IV: Chapter 1
Coastal Terminology and Geologic Environments

- Coastal Zone Definitions
- Geologic Time
- Factors Influencing Coastal Geology
- Sea Level Changes
- Cultural Influence on Coastal Geology



Coastal zone: is defined as the transition zone where the land meets water, the region that is directly influenced by marine or lacustrine hydrodynamic processes.

- The coastal zone extends offshore to the continental shelf break and onshore to the first major change in topography above the reach of major storm waves.
- The CZ is divided into four subzones:
 - (1) Coast.
 - (2) Shore.
 - (3) Shoreface.
 - (4) Continental shelf.

Coast: a strip of land of indefinite width that extends from the coastline inland as far as the first major change in topography.

- Cliffs, frontal dunes, or a line of permanent vegetation usually mark this inland boundary.
- On barrier coasts, the distinctive back-barrier lagoon/marsh/tidal creek complex is considered part of the coast.

The shore: extends from the low-water line to the normal landward limit of storm wave effects.

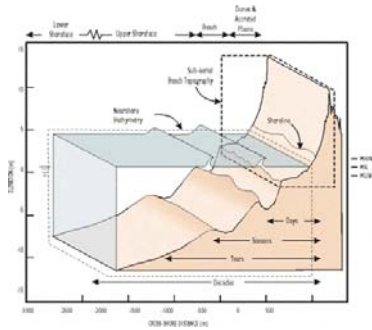
- divided into two zones: **backshore (berm)** and **foreshore (beach face)**.
- **Foreshore:** low-water line to the limit of wave uprush at high tide.
- **Berm crest:** marks the juncture of the foreshore and backshore.

Shoreface: seaward-dipping zone that extends from the low-water line offshore to the beginning of the continental shelf (slope transition).

The shoreface is not found in all coastal zones (low-energy coasts/ consolidated material)

The shoreface can be delineated from shore perpendicular profile surveys or from bathymetric charts (if they contain sufficient soundings in shallow water).

The shoreface is the zone of most frequent and vigorous sediment transport.



Continental shelf: the shallow seafloor that borders most continents.

•Extends from the toe of the **shoreface** to the **shelf break** where the steeply inclined **continental slope** begins.

•It has been common practice to subdivide the shelf into inner-, mid-, and outer zones, although there are no regularly occurring geomorphic features on most shelves that suggest a basis for these subdivisions.

