

Types of Continental Shelf

Mostly researched in U.S. Closely related to land Geology.

- (a) Irregular floor - not a true gentle slope
- (b) Deep and Irregular bays or fjords
- (c) Deep troughs & shoals out to sea (troughs 100 FA +) basins are muddy (some sand grainy)
- (d) Fishing Baness (Cool & Warm H₂O == food/ nutrients)

Banquerean/Nova Scotia/ **50 fathoms**

Grand Bank/ Newfoundland **100 fathoms**

Floor from Boston Mass (East)

Mass Bay - Stelluragian Bank - Sand Ridge - Geoges Banks - (Possible Breakers) - gradual shelf to 60 fathoms than shelf duplins greater

(2) Shelf With Elongated Sand Bank & Depressions

Usually smooth and sandy and flat (Cape Cod) New Jersey Note: At points irregular of gravel beds

Shifty of Nantucket Shoals (Ship graveyard) (North Sea North of the English channel/ Themes Estuary)

(3) Shelves with strong current actions

Straits of Florida (Narrow nick of the Gulf Stream (1 mile from shore only) Palm Beach)

- (a) Sand, gravel & worn shells

(b) Deep holes at Bay Mouth - golden entrance @ 64fathoms - Banrigo
Strait entrance to Tokyo Bay 230 fathoms. Poor Japanese defenses to
US subs during WWII

(4) **Shelves Bordering Deltas**

Mississippi River-Bird foot delta (23,36, & 50 Fathoms)

Indus Delta (50 fathoms)

Niger Delta - Bends Seaward

(a) Sediment is mostly muddy (high clay content if sand it is meca - more
easily transported

(b) Largest Rivers have mud than a sand border to seaward

Orinoco

Amazon

Yukon

South East Asia

Whang Ho

Sediment Size and Deposition Theory is Refuted

(5) Smooth Shelf- Sediment size diminishes seaward - thought to be the typical
type particles get finer and finer as you go further out to sea.

Arkansas Pass (Central Texas)

Sand

Mud



Shells - forams

Globigerina ooze

(6) **Shelf with Salt Dome Shells:**

Mississippi Delta - Gulf of Mexico

(1 mile diameter possible) trough or mountain surrounds - lime/coral on top

Dome stands above shelf

Economic Interest:

Texas and Louisiana Withdraw:

- a. Sulfur
- b. Salt
- c. On periphery is oil

(Gravity potentials)

(Only other plan Dones and forest is on Persian Gulf)

(7) **Shelves rimmed with Rocky Banks and Rocky Islands**

- a. Narrow shelf areas
- b. Many caves
- c. Great kelp

Tigreana River: from sand - boulders - cobbles - from sand - silt ~ coarse brown sand (not usually gray)

(8) **Shelf with Shallow Discontinuous Valley Systems**

Shallow troughs - not deep



Sunda Shelf- (Brenda + Bonnes) (Jain /Indonesia)

Tidal appears to be reason but?

New York Harbor

Delaware & Chesapeake Bay

(9) **Shelves Shoaled by Coral Reef**

Australia Great Barrier Reef

(Not all coral are reef formers)

