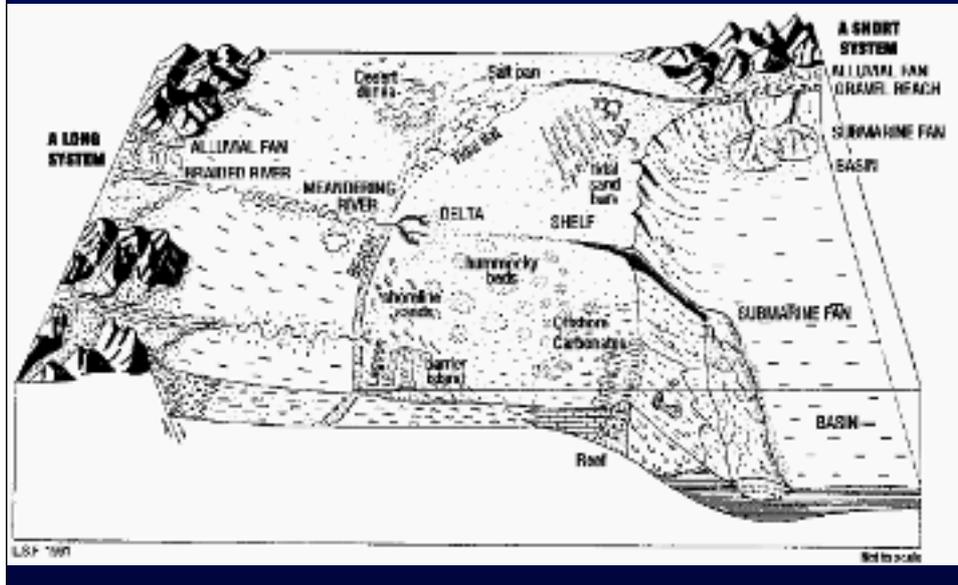


AMBIENTI SEDIMENTARI



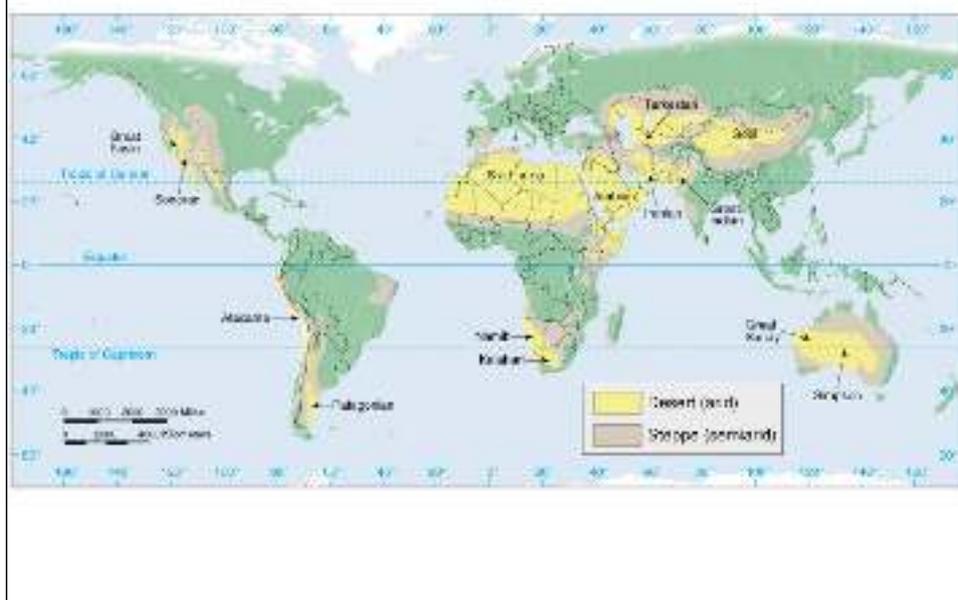
AMBIENTE EOLICO



AMBIENTE EOLICO



DISTRIBUZIONE AMBIENTI DESERTICI

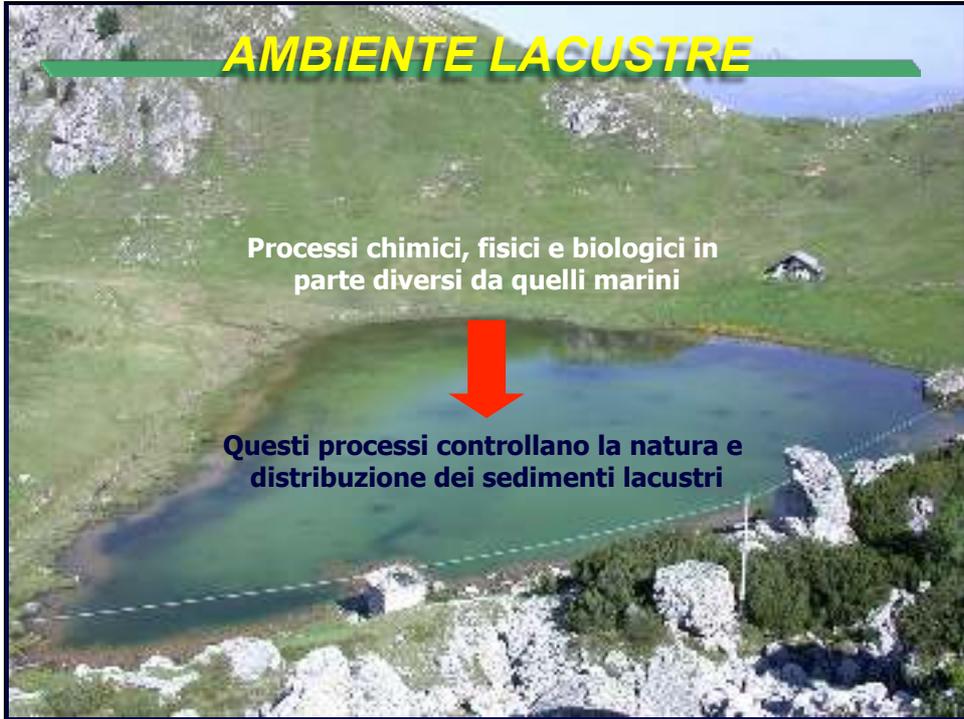


AMBIENTE LACUSTRE

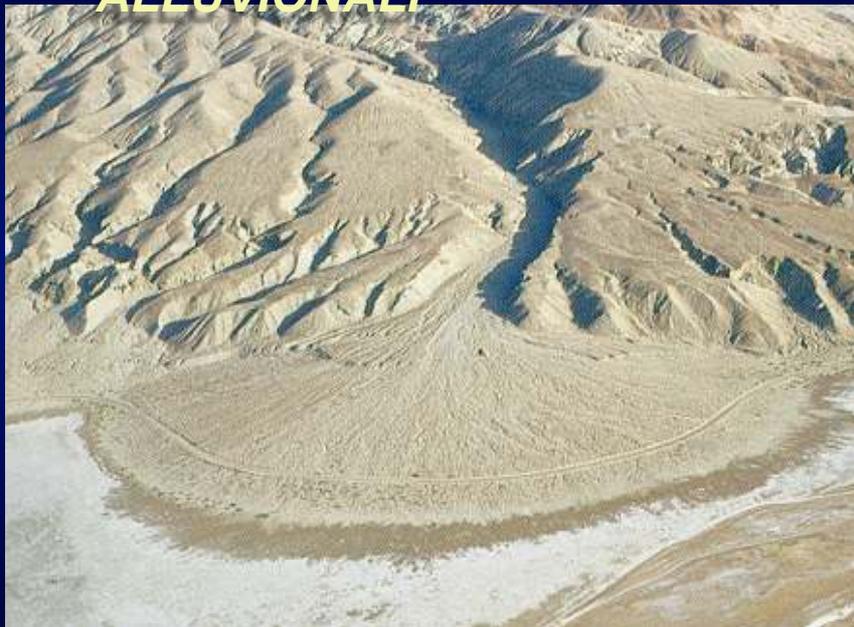
Processi chimici, fisici e biologici in
parte diversi da quelli marini



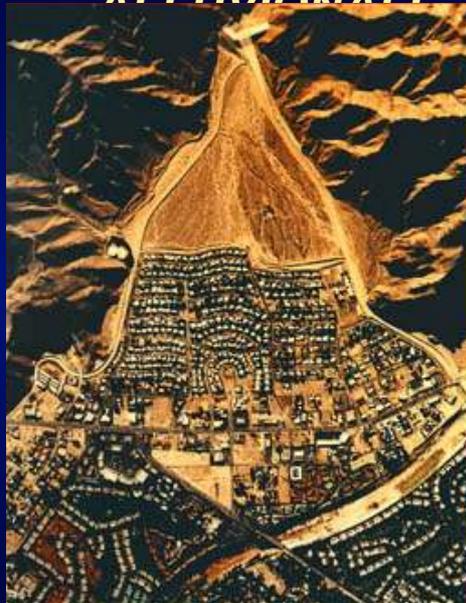
Questi processi controllano la natura e
distribuzione dei sedimenti lacustri



CONOIDI ALLUVIONALI



CONOIDI

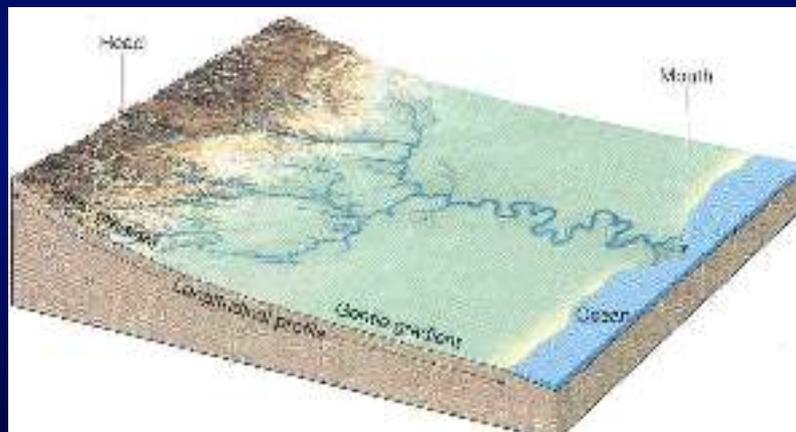


- Le piene su depositi di conoide sono molto più rischiose di quelle di fondo valle
- In alcuni casi aree intensamente urbanizzate
- Conoidi inattivi o parti di questi possono diventare attivi

Un ottimo esempio di pianificazione territoriale

I

clastico: trasportano acqua e sedimento dalle aree di denudazione a quelle di deposizione con un flusso principalmente intermittente



SISTEMA FLUVIALE

Valle fluviale con terrazzi alluvionali



Fiume intrecciato



Fiume meandriforme



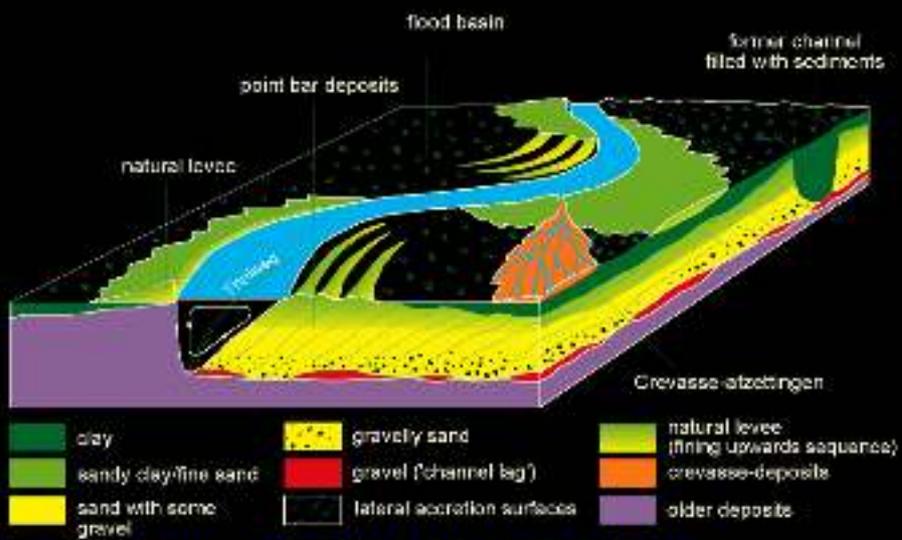
Depositi di rotta (Crevasse splay)



Depositi di piana alluvionale

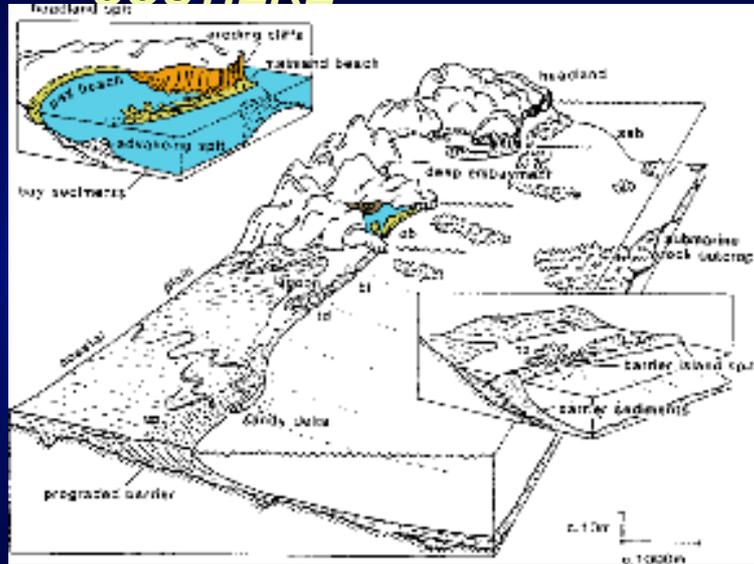


Elementi fluviali



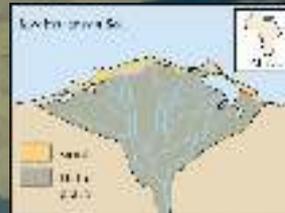
Block diagram of a meandering river

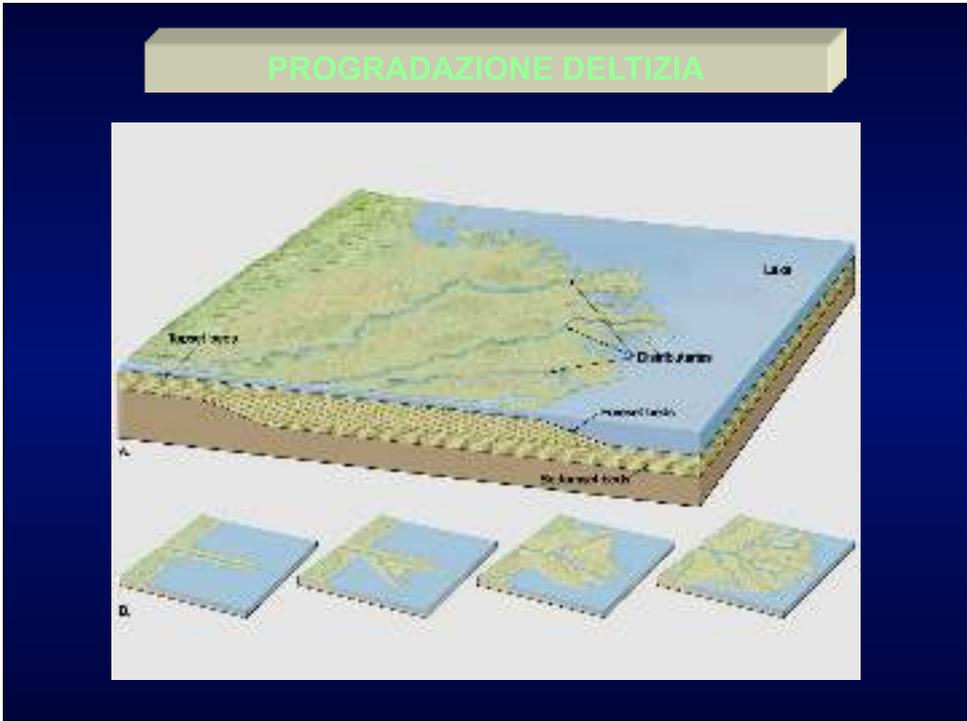
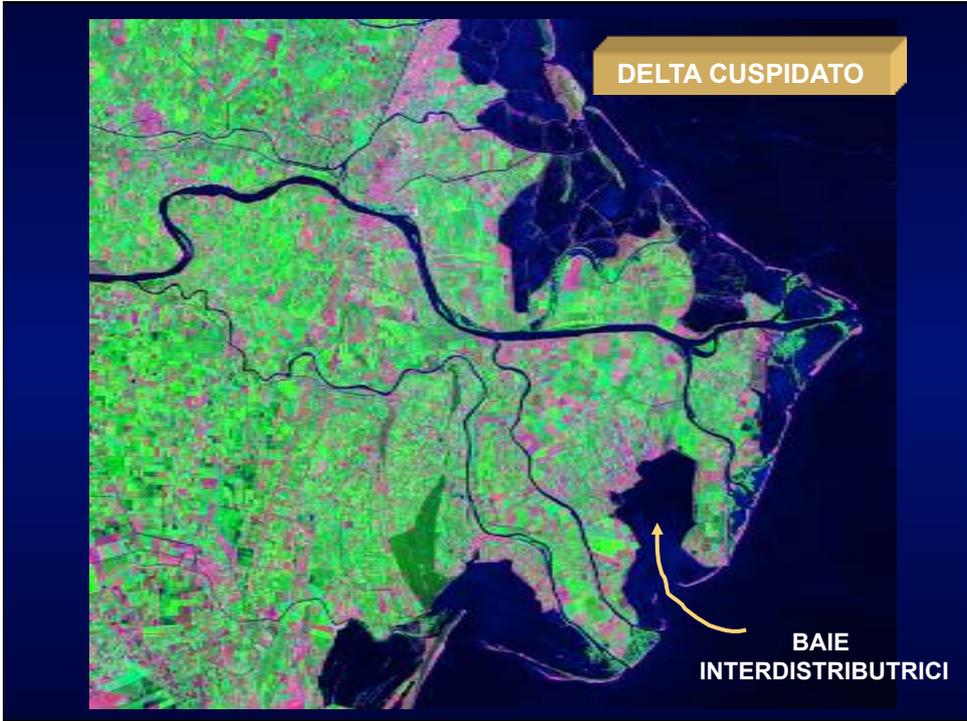
TIPOLOGIE COSTIERE



Roy et al., 1995, *ridis*.

Erodoto (490 A.C.) riconosce che la parte terminale del Nilo ha la forma della lettera greca delta

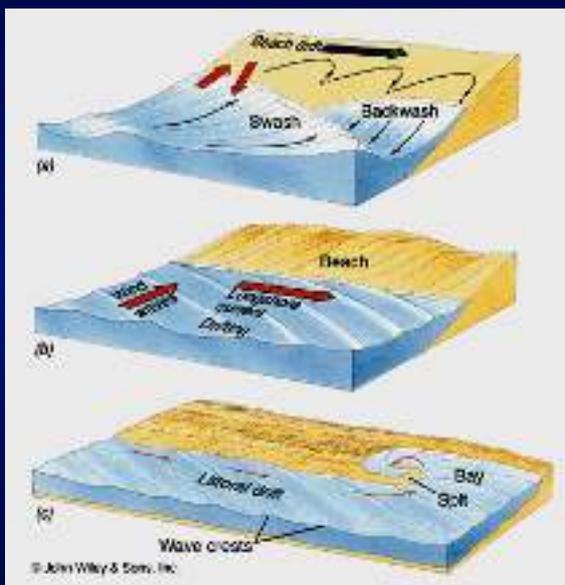




SISTEMA DELTIZIO



Processi di formazione

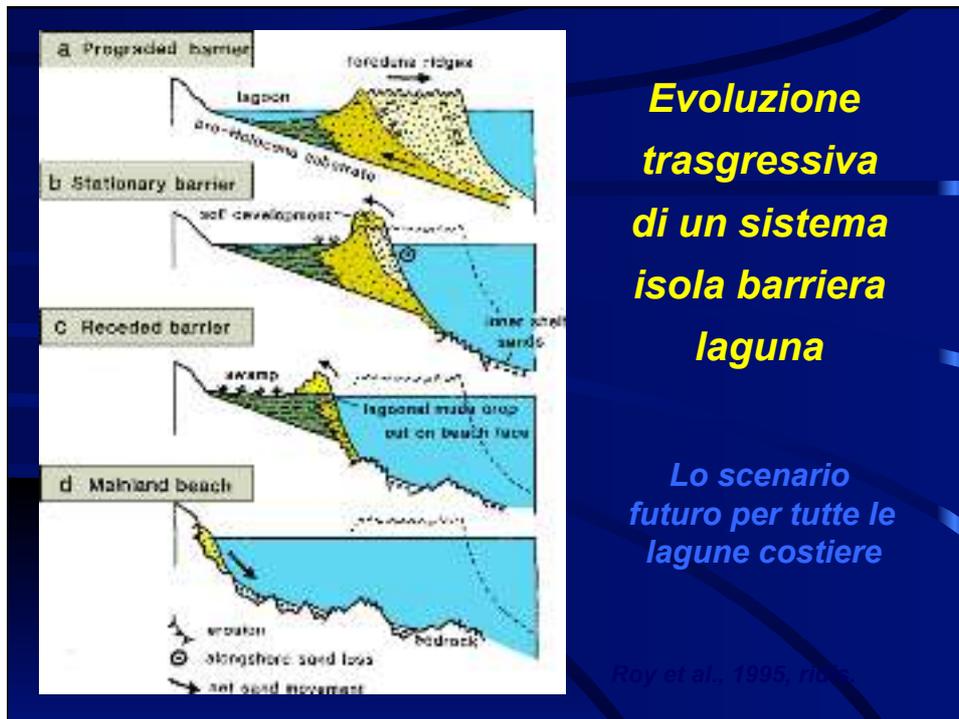


*Azione delle onde
e deriva litorale*

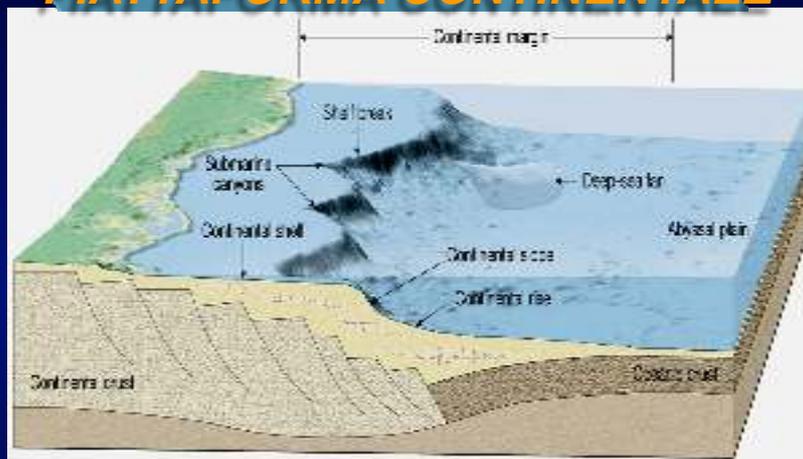
*creazione di una
corrente
lungocosta*

*accumulo di sabbia
in prossimità
di una baia*





PIATTAFORMA CONTINENTALE

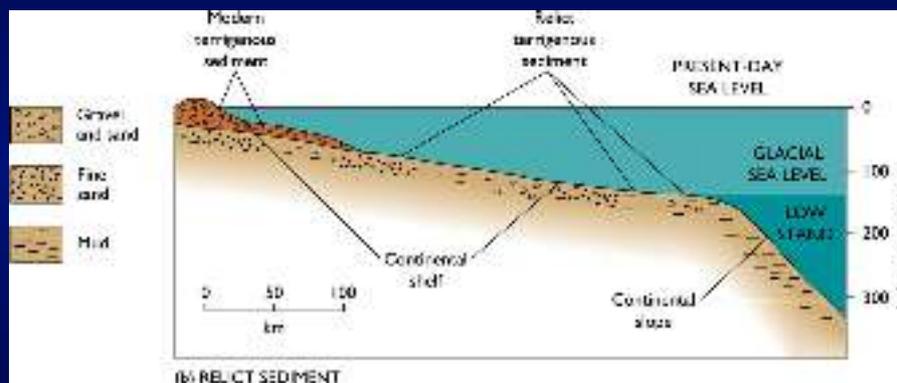


- Larghezza da pochi km fino a centinaia di km
- Profondità ciglio 130-140 m, max 200 m (shelf break)
- Pendenze molto basse da 1° a 0.1°

PIATTAFORMA CONTINENTALE

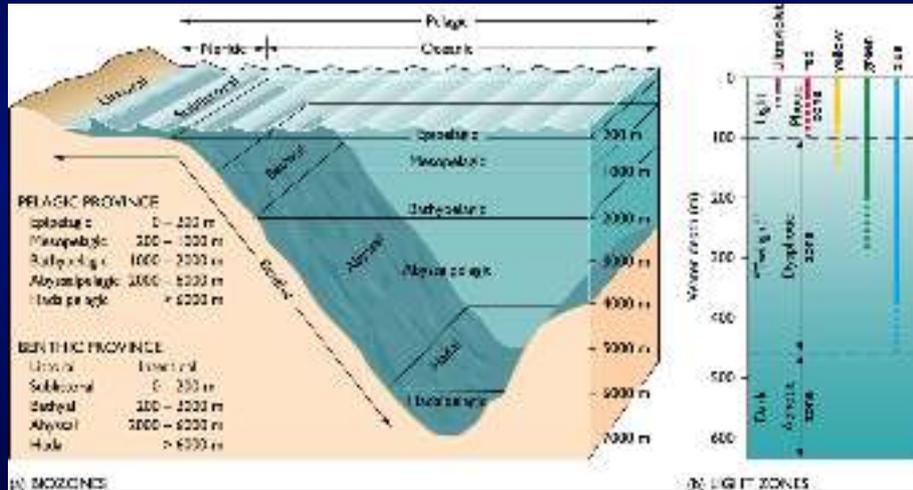


PIATTAFORMA CONTINENTALE

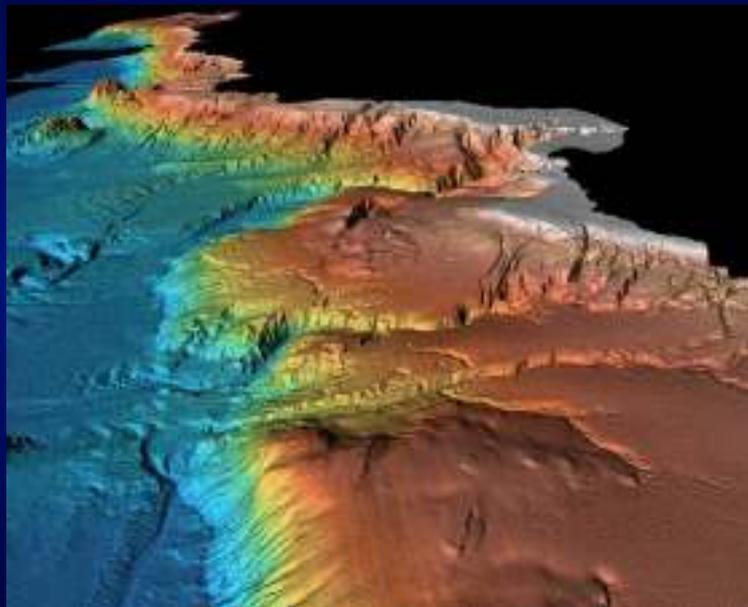


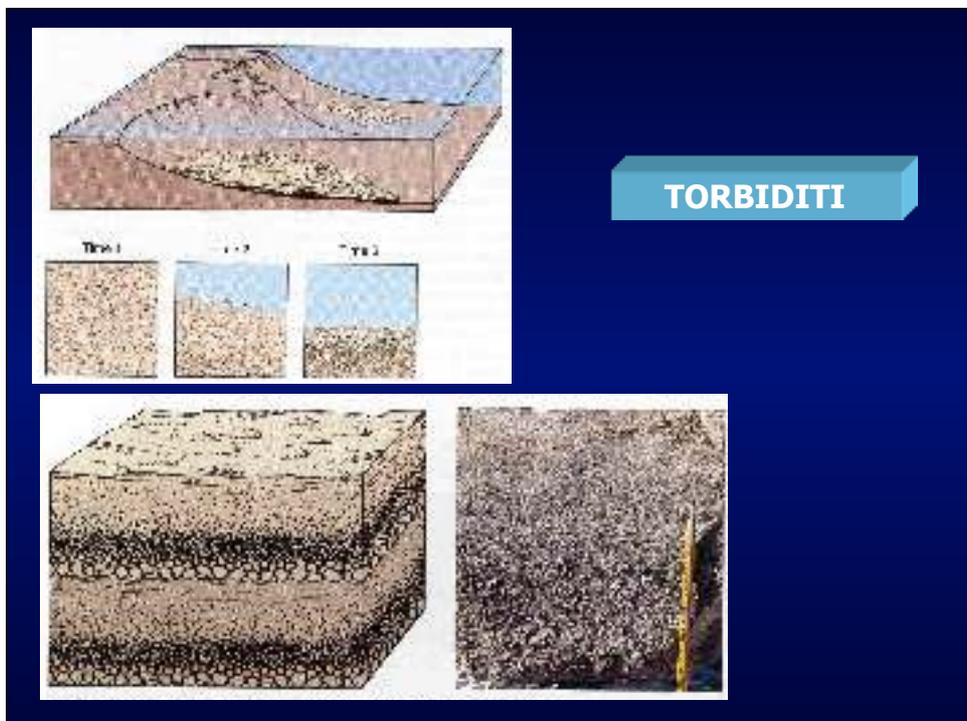
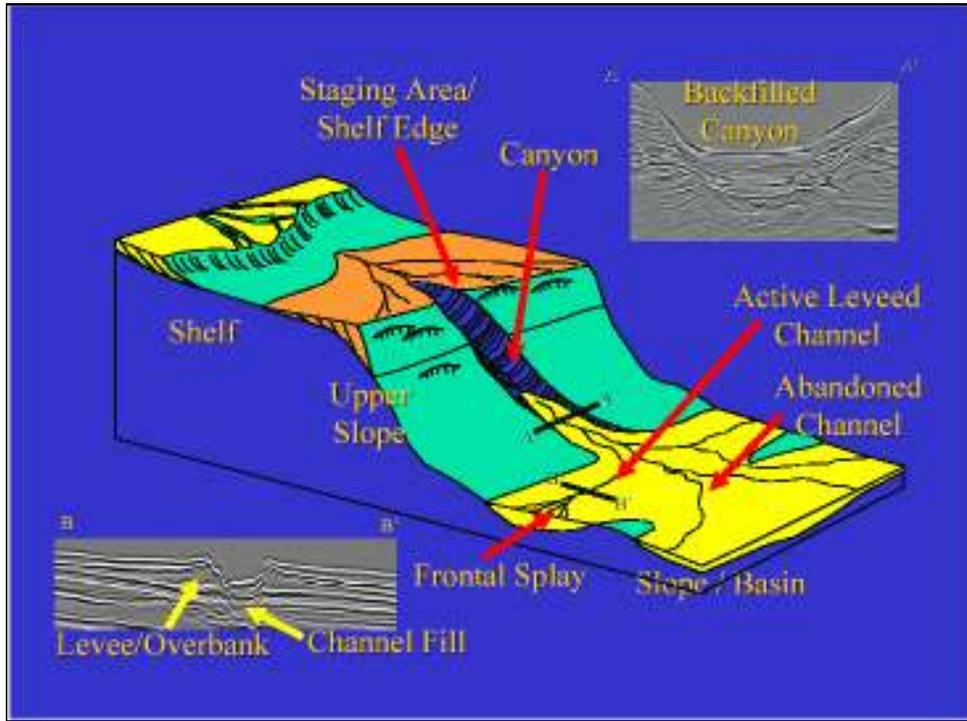
SCARPATA - BACINO

ZONAZIONE BATIMETRICA – MASSA ACQUA - LUCE

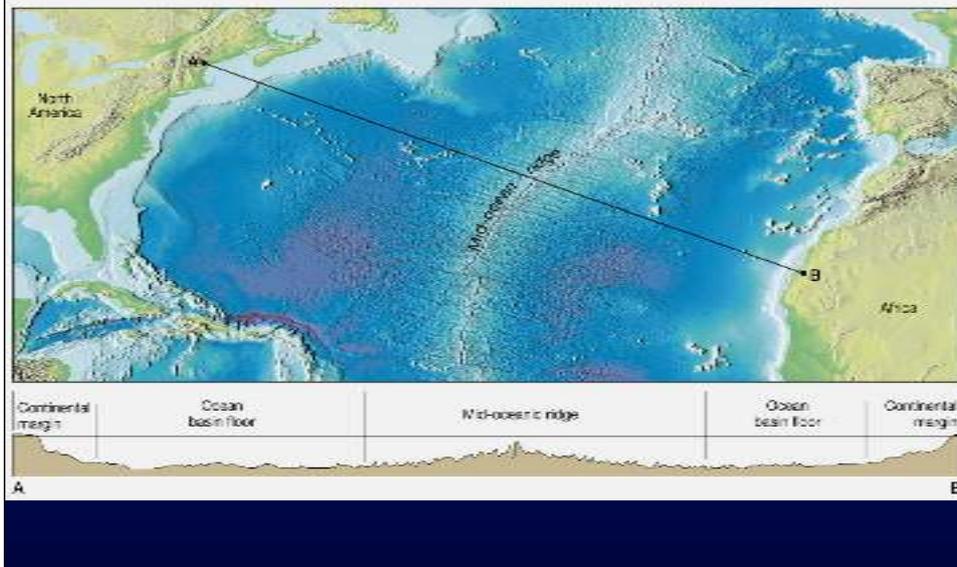


Offshore California – near Monterey

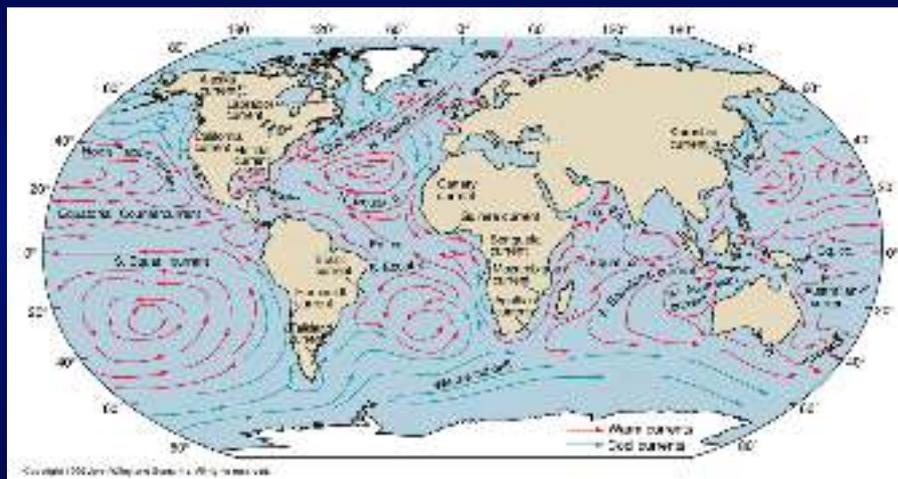




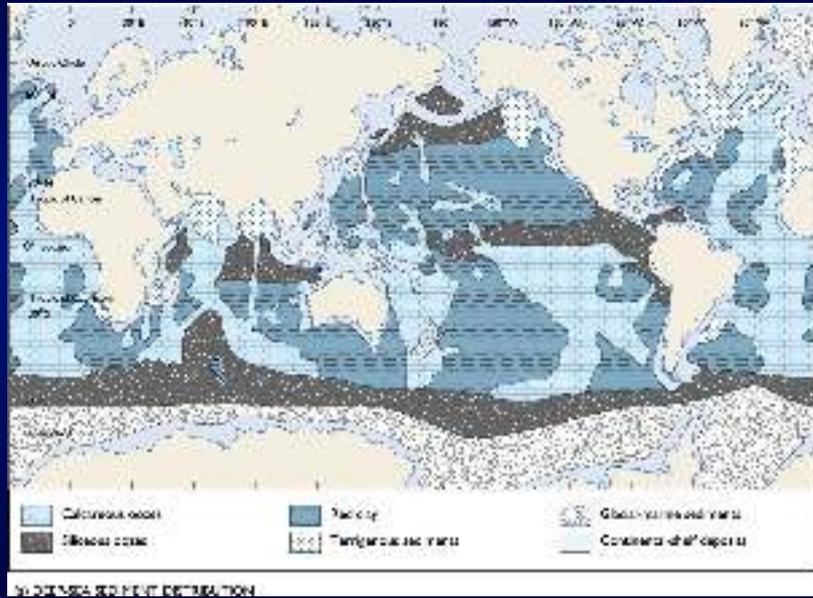
BACINI OCEANICI



CIRCOLAZIONE GLOBALE CORRENTI



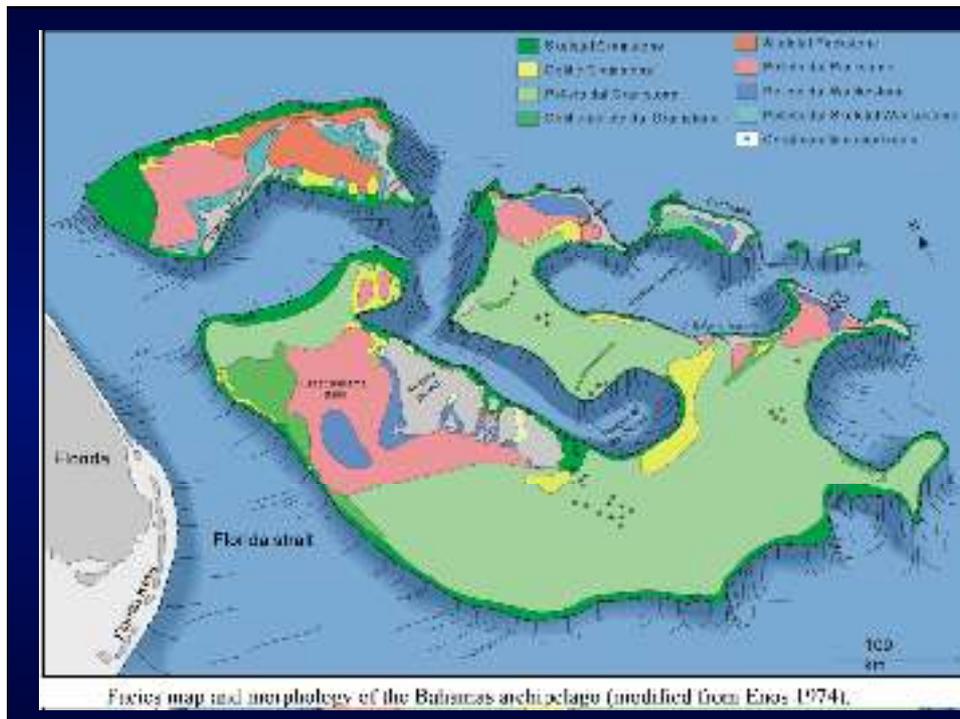
DISTRIBUZIONE SEDIMENTI OCEANICI



Gli ambienti deposizionali carbonatici

IDEALIZED FACIES-BELT MODEL FOR CARBONATE PLATFORMS





Piana tidale (Tidal flat)



- 1- subtidale
- 2- intertidale
- 3- sopratidale

- Zona marina
- Zona canalizzata
- Palude algale



Andros Island

Piana tidale - canali tidali



Three Creeks - Andros Island



Andros Island

Piana tidale - Algal mat



Lamine stromatolitiche



Dolomiti

Stromatoliti subtidali

molar shape



Lee Stocking Island - Bahamas

Stomatoliti domiformi di tipo LLH



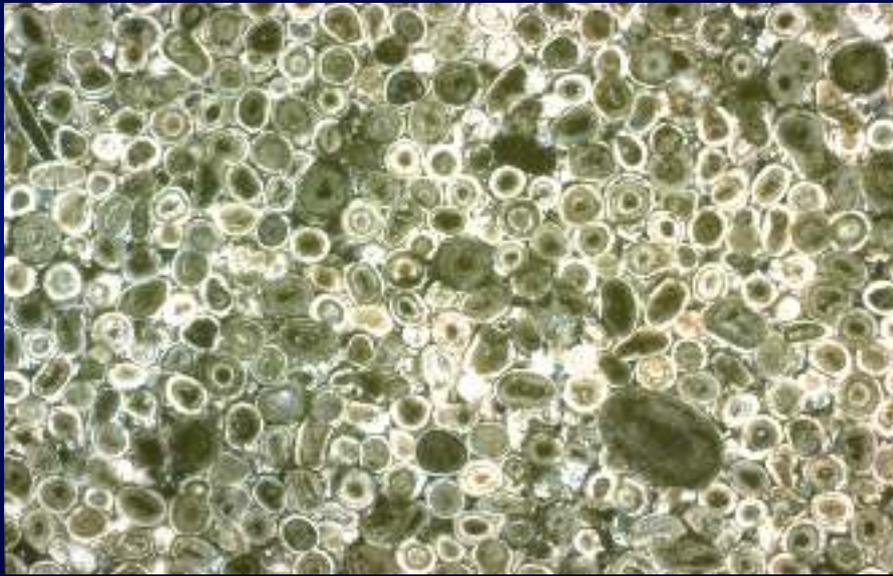
Calcere di Esino (Val Seriana)

Shoals oolitici



Lily Bank – Little Bahama Bank

Ooliti





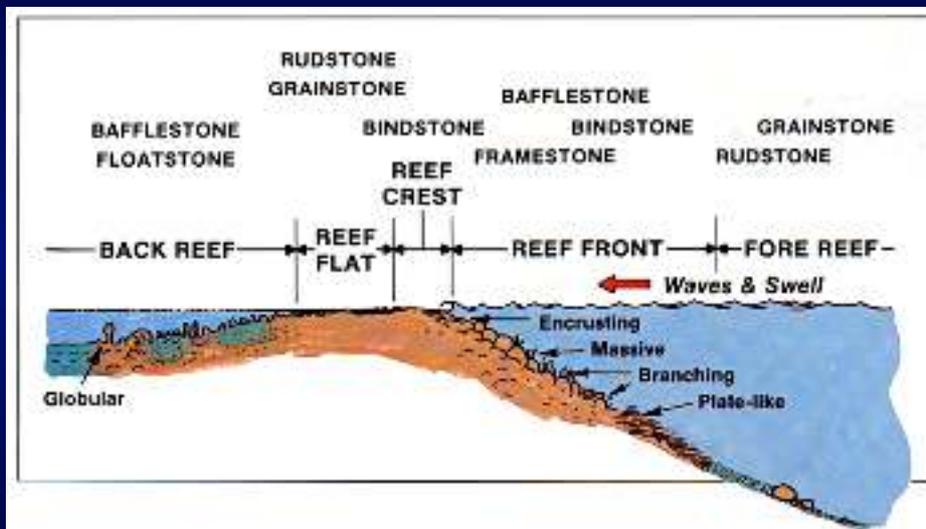
San Salvador

Margine biocostruito



Bahamas

Zonazione sedimentologica e biologica



James, 1979





Acropora palmata

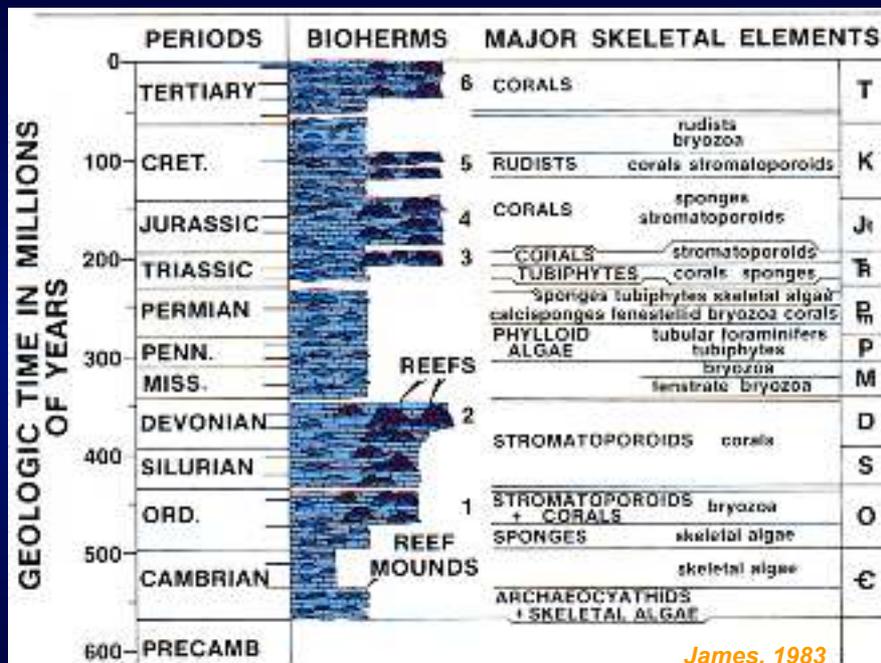


Montastrea annularis





Coralli fossili



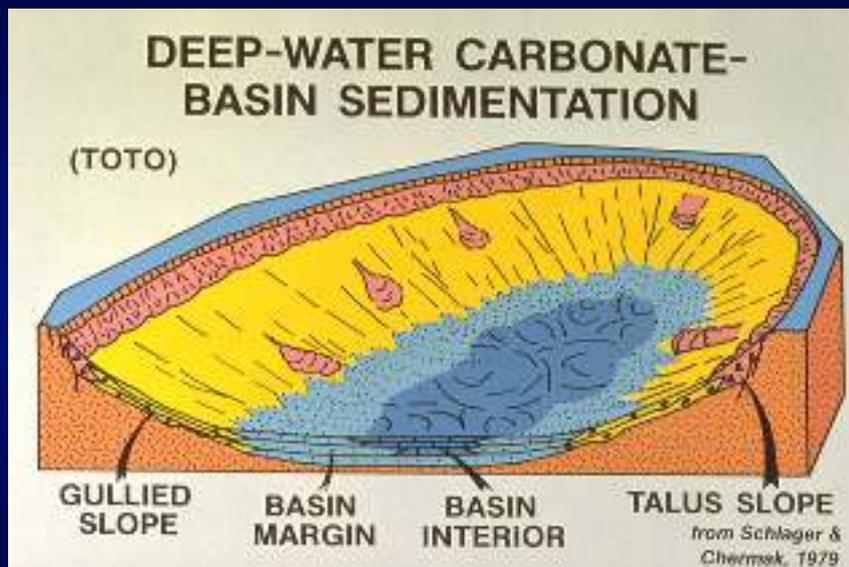
James, 1983

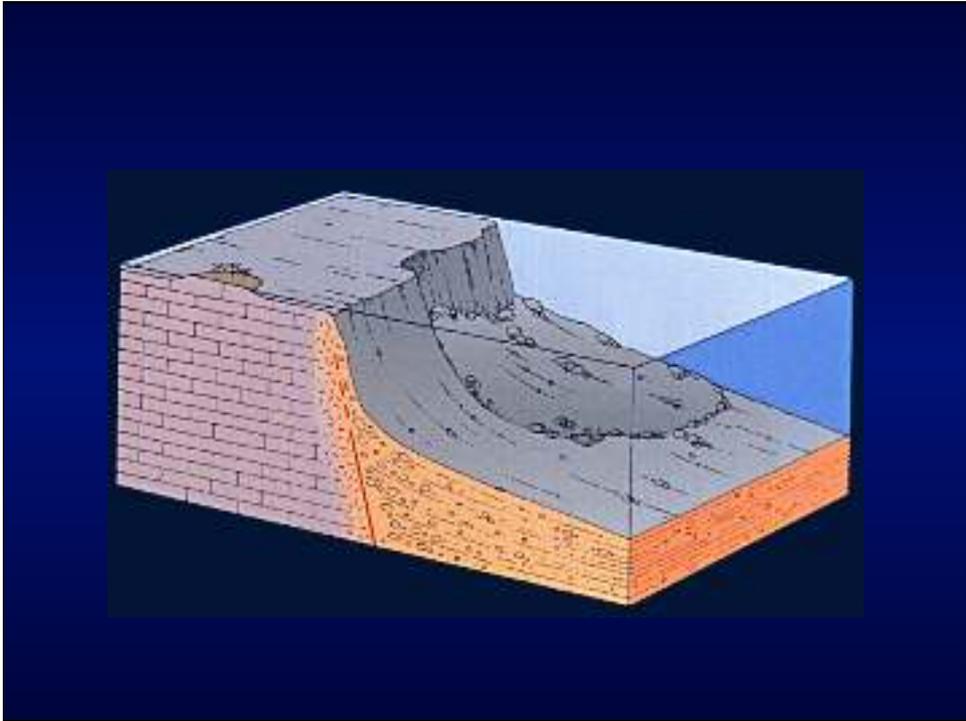
Gli ambienti deposizionali carbonatici



Scarpata

(slope)







Le rocce bacinali



I FATTORI DI CONTROLLO DELLA SEDIMENTAZIONE



TASSO VARIAZIONI EUSTATICHE



STRATIGRAFIA SEQUENZIALE

CHRONOMOVIE

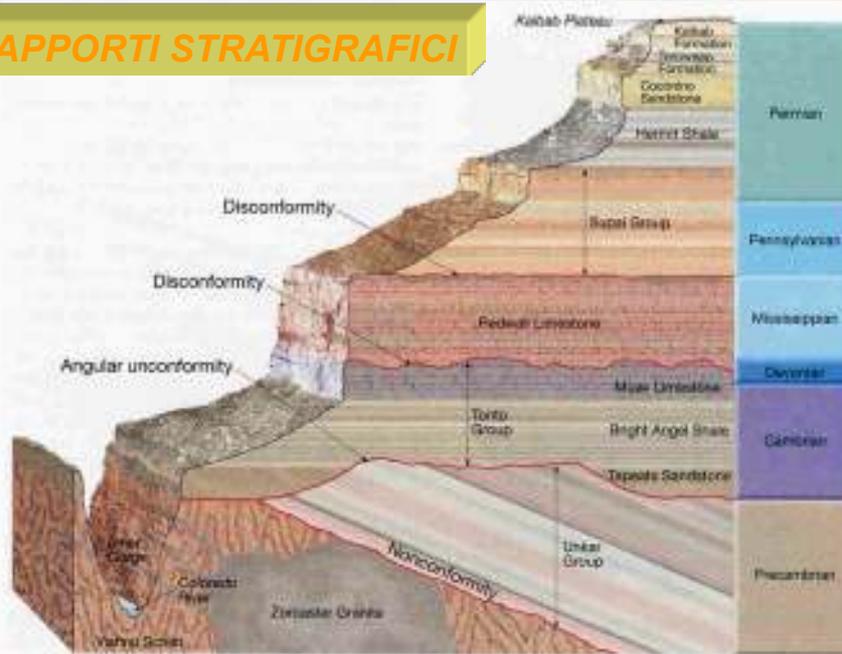
STRATIGRAFIA

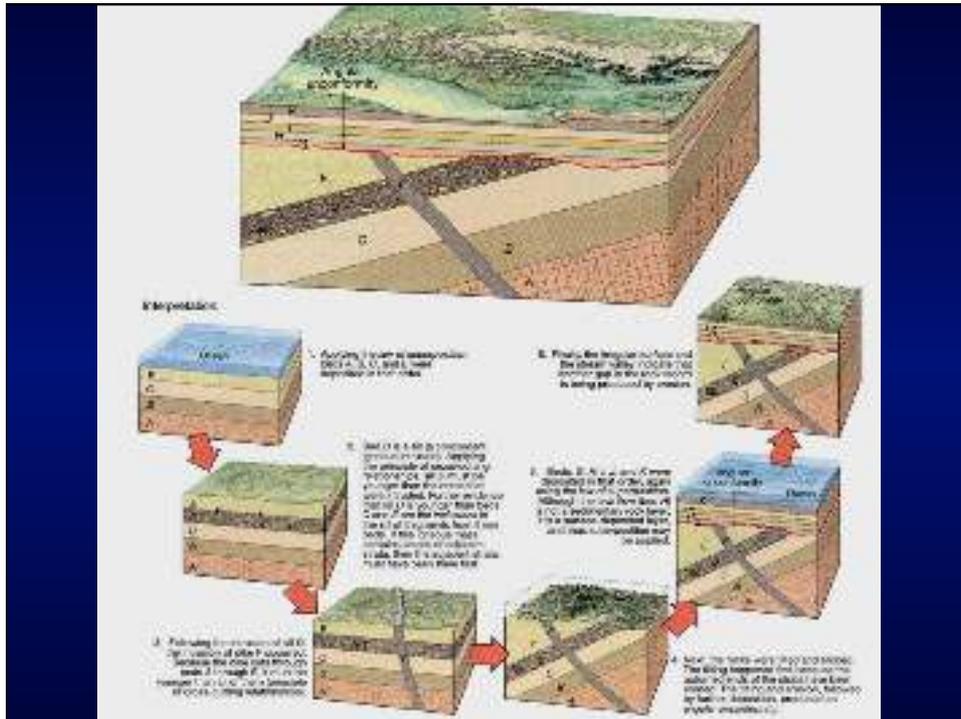
Disciplina che si occupa della classificazione e dell'ordinamento dei corpi rocciosi secondo vari criteri

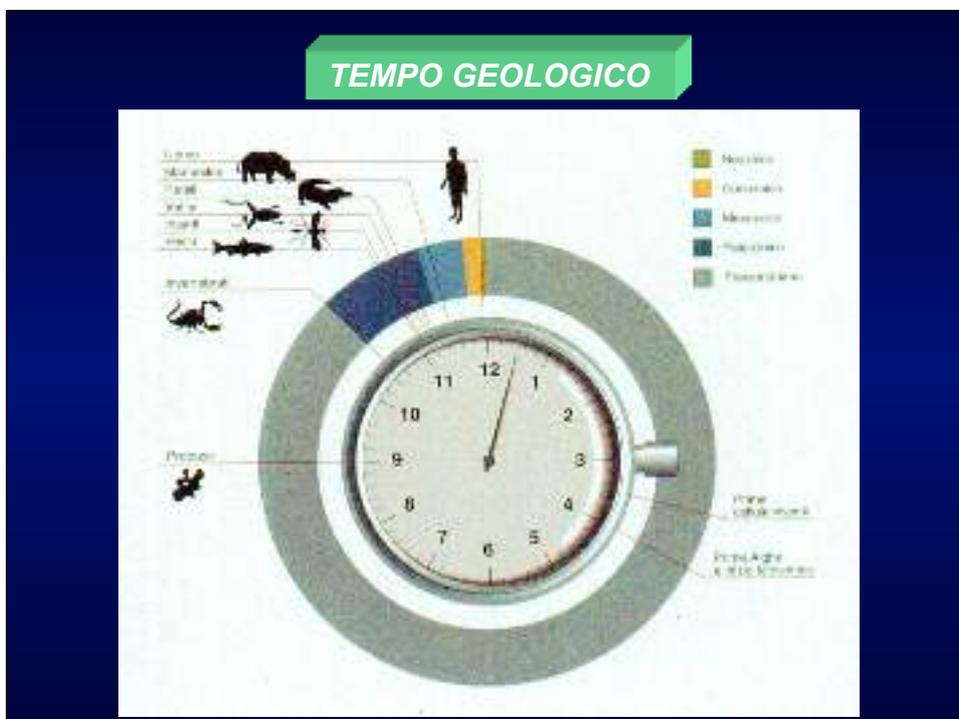
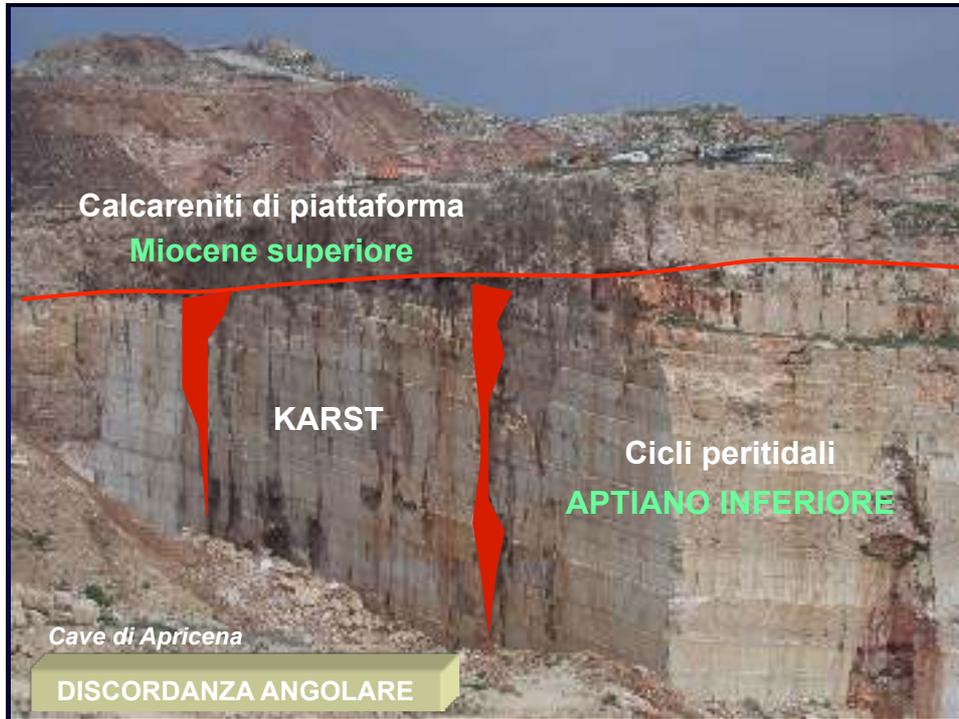
Forma, distribuzione, ordinamento, successione e relazioni geometriche e temporali delle rocce

Unità di tempo in cui è divisa la storia della Terra

RAPPORTI STRATIGRAFICI







STRATIGRAFIA

TEMPO GEOLOGICO

UNITA' GEOCRONOLOGICHE

PERIODO CRETACEO
(144-65 Ma)

EONI

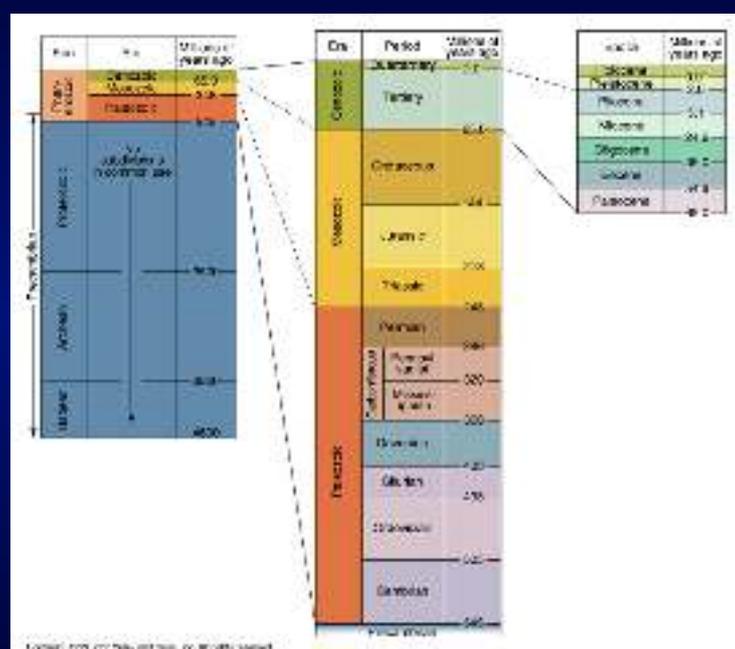
PERIODO VITTORIANO
(1837-1901)

ERE

PERIODI

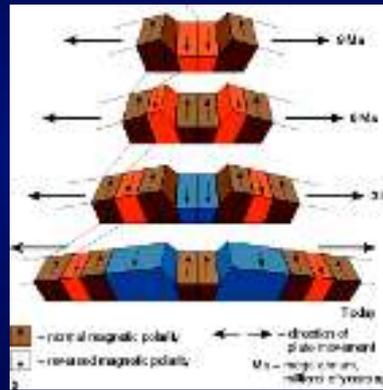
EPOCHE

ETA'



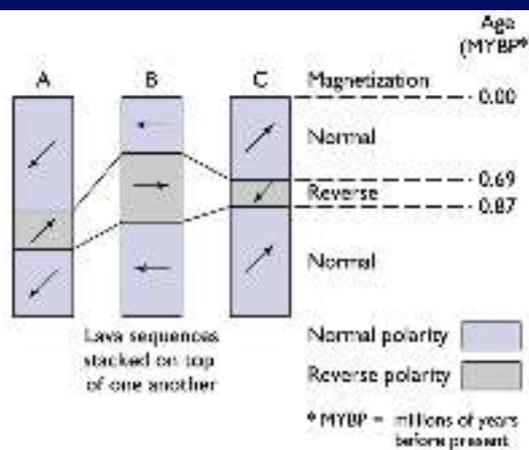
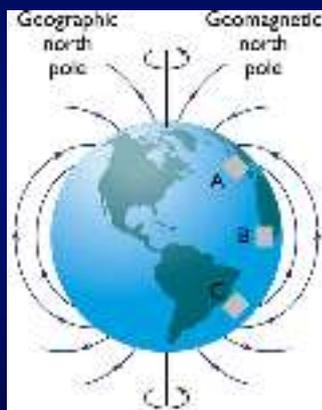
STRATIGRAFIA

MAGNETOSTRATIGRAFIA



STRATIGRAFIA

MAGNETOSTRATIGRAFIA



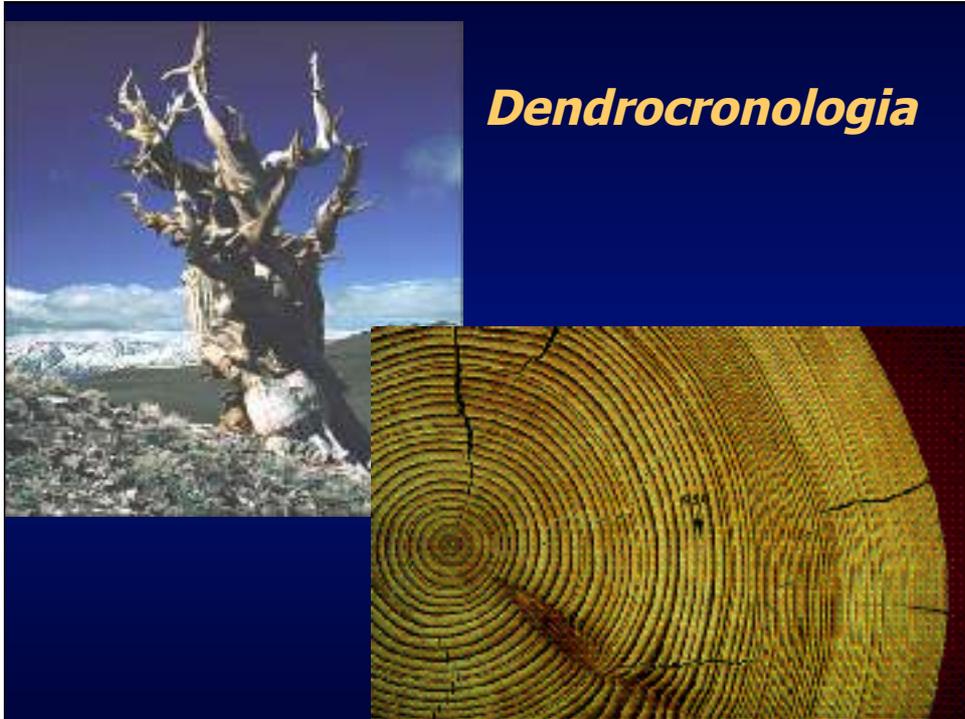
(3) MAGNETIZATION OF LAVAS

Tecniche di datazione assoluta

- Radiometriche
- Carbonio
- Fission Track dating
- Dendrocronologia
- Licheni

Radiocarbonio (C-14)





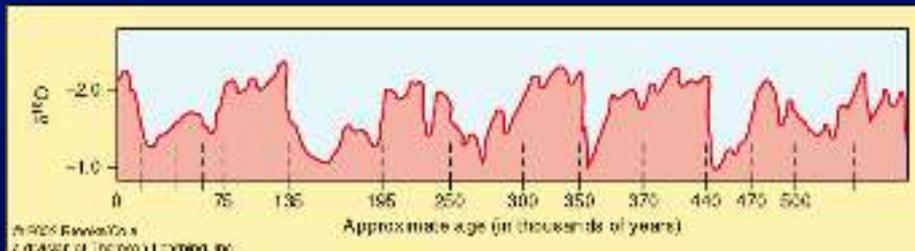
STRATIGRAFIA ISOTOPICA

Variazioni temporali

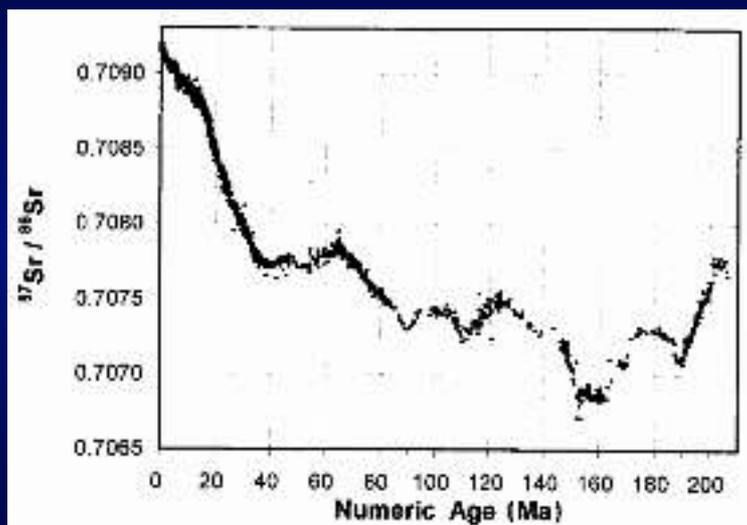
- Ossigeno
- Carbonio
- Stronzio
- Zolfo

Isotopi dell'ossigeno

**aumento rapporto isotopico =
diminuzione della temperatura**

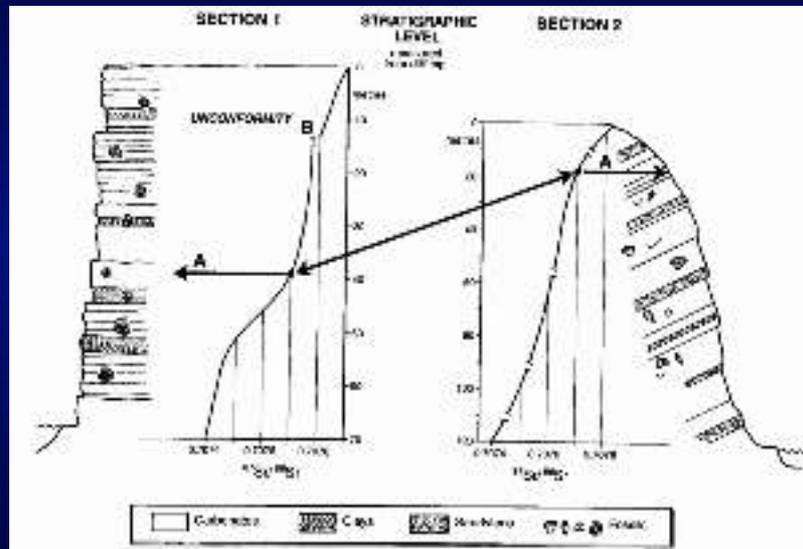


Stratigrafia isotopi Stronzio



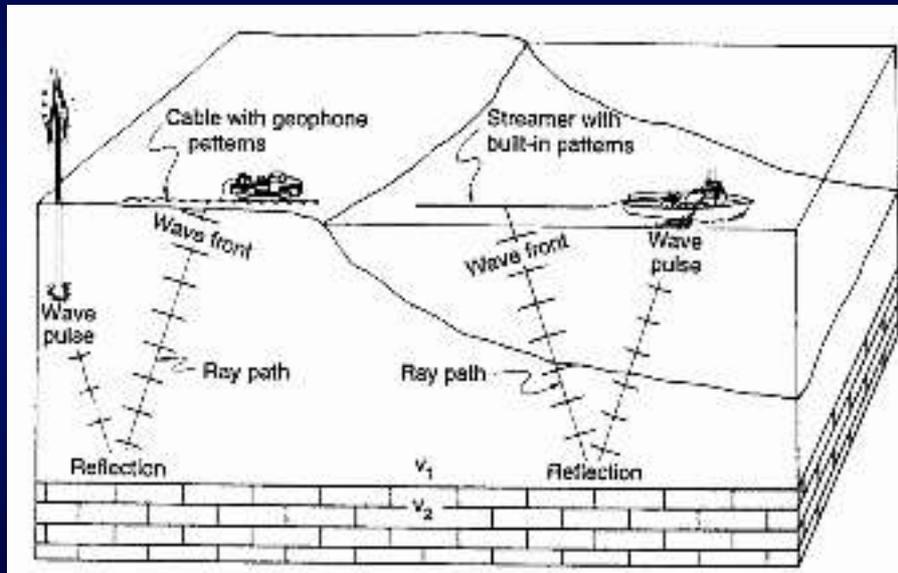
McArthur, 1998

Stratigrafia isotopi Stronzio



McArthur, 1998

Rilevamenti sismici



Rilevamenti sismici



Rilevamenti sismici

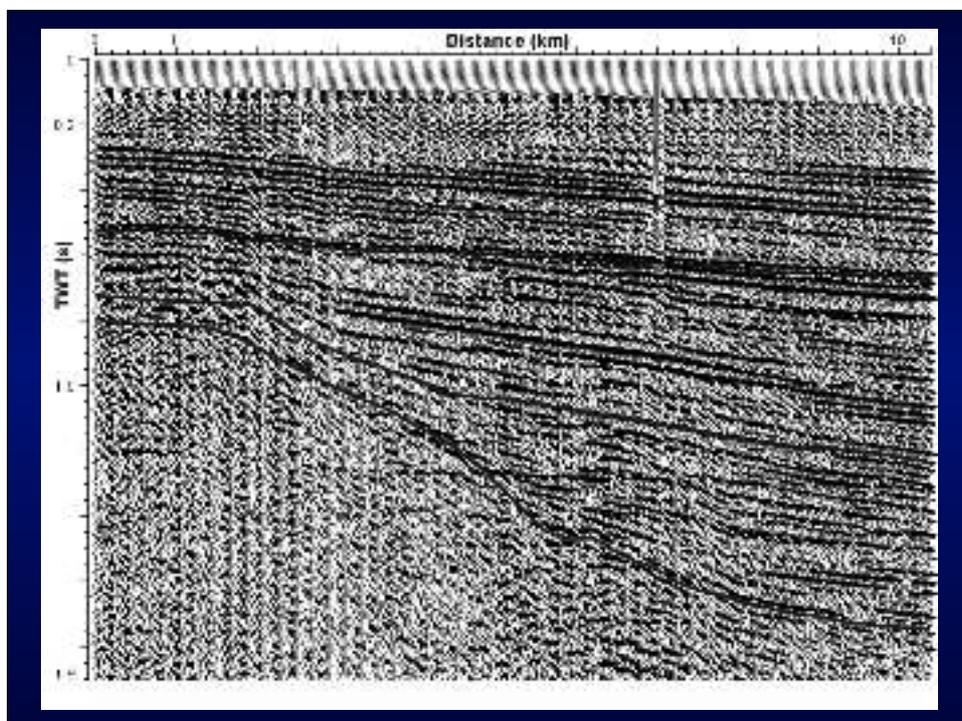
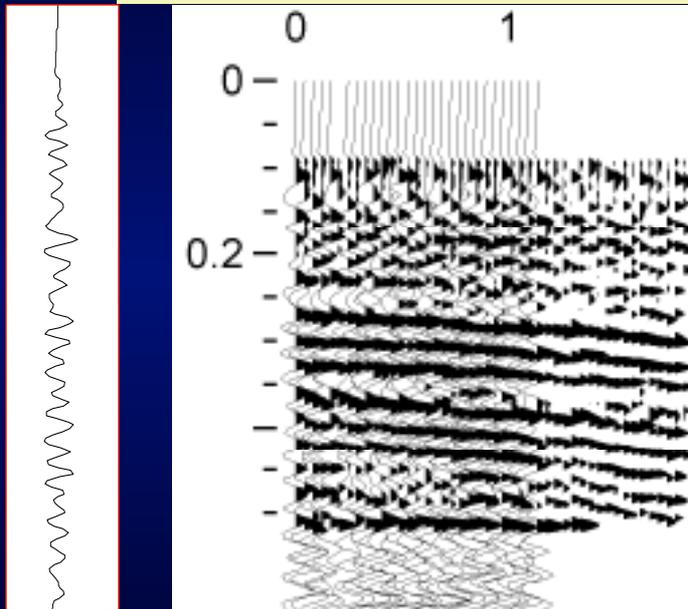


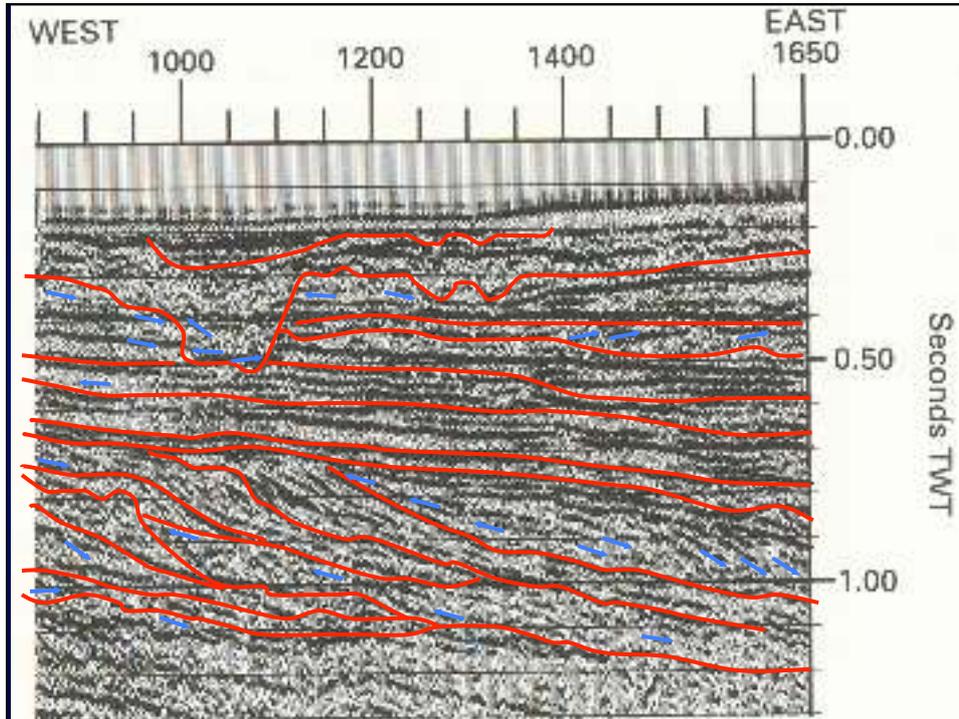
Rilevamenti sismici

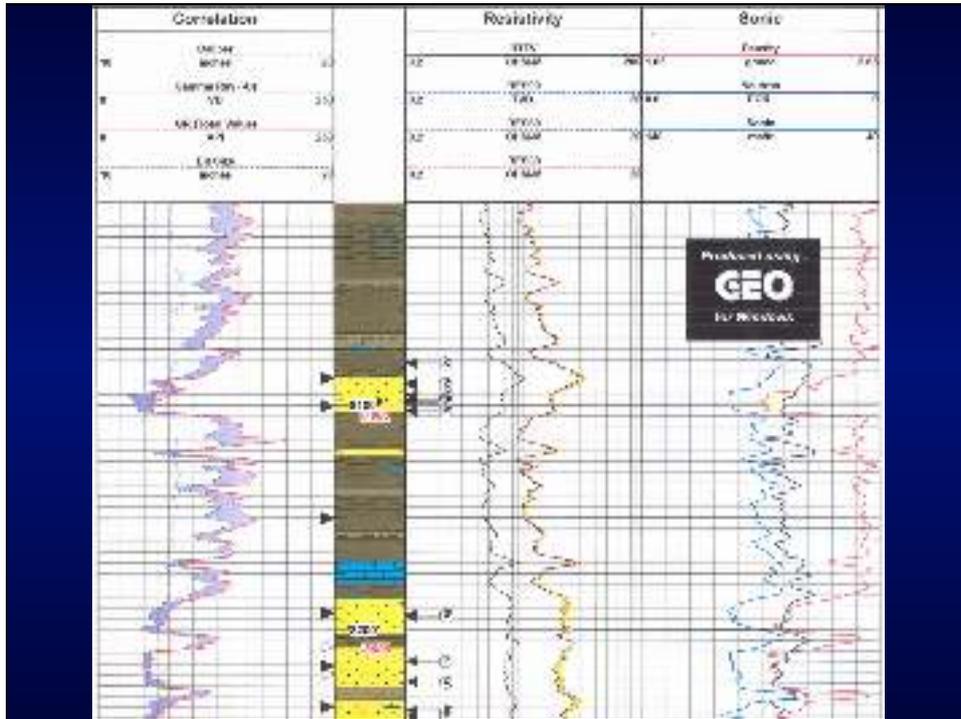
As array of sensors tracks 40 km x 40 km
the migration path of an oil field, providing
the seismic images required to manage the
development of the reservoir.



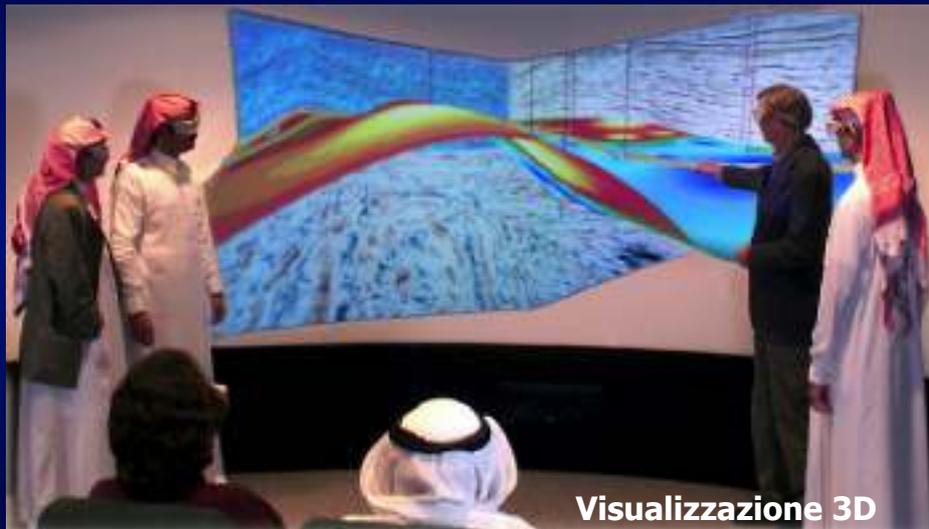
Profili sismici a riflessione



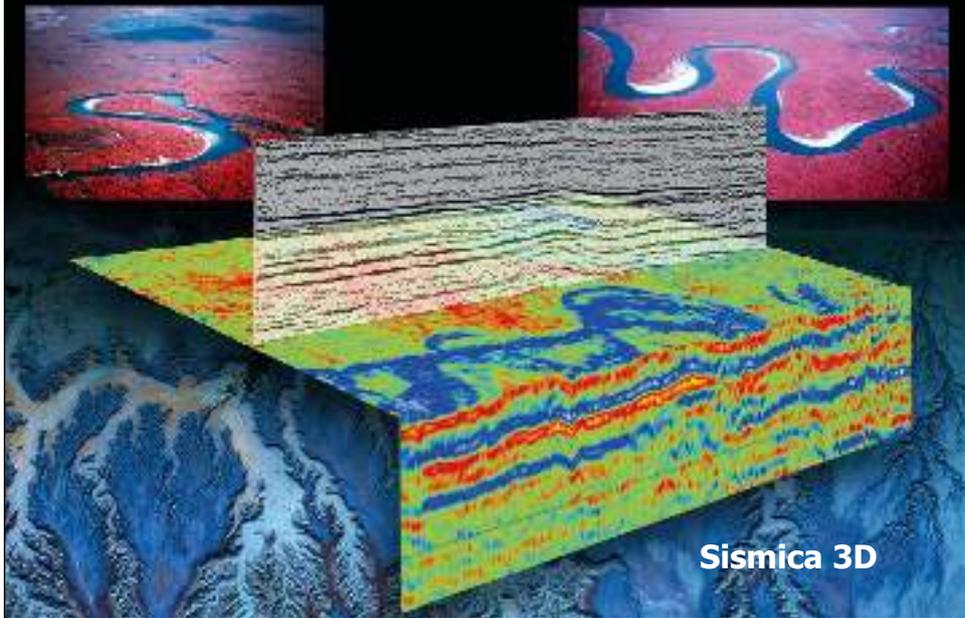




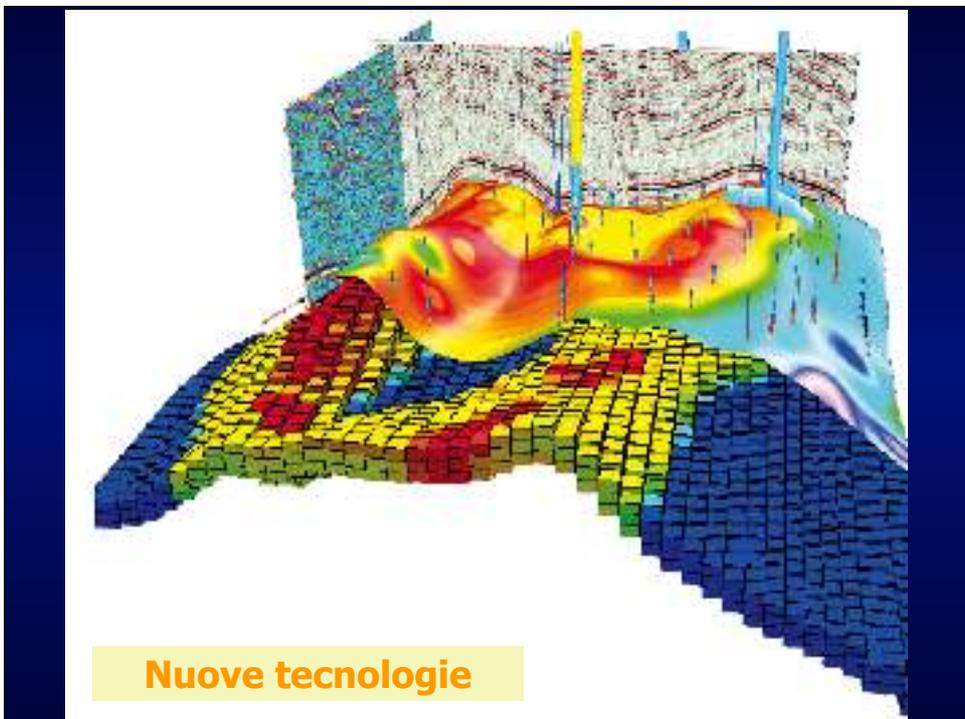
Nuove tecnologie

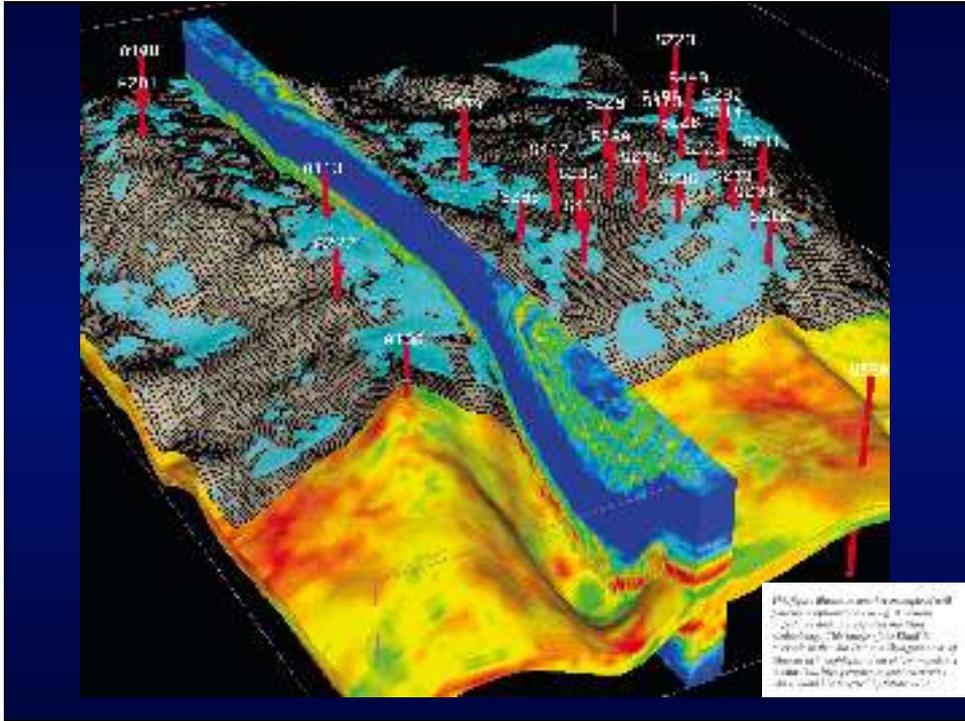


Nuove tecnologie



Nuove tecnologie





Nuove tecnologie

Pozzi orizzontali

