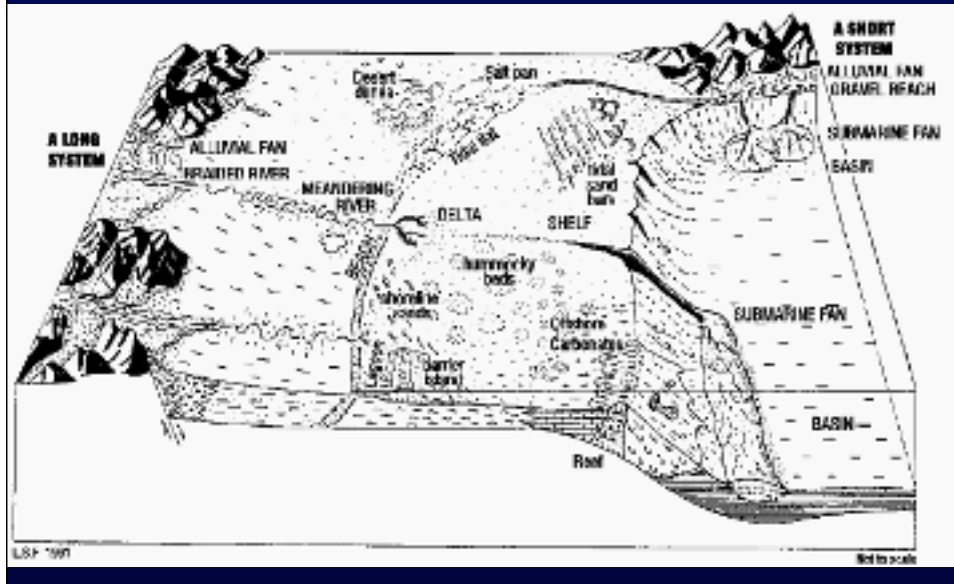


## AMBIENTI SEDIMENTARI



## AMBIENTE EOLICO

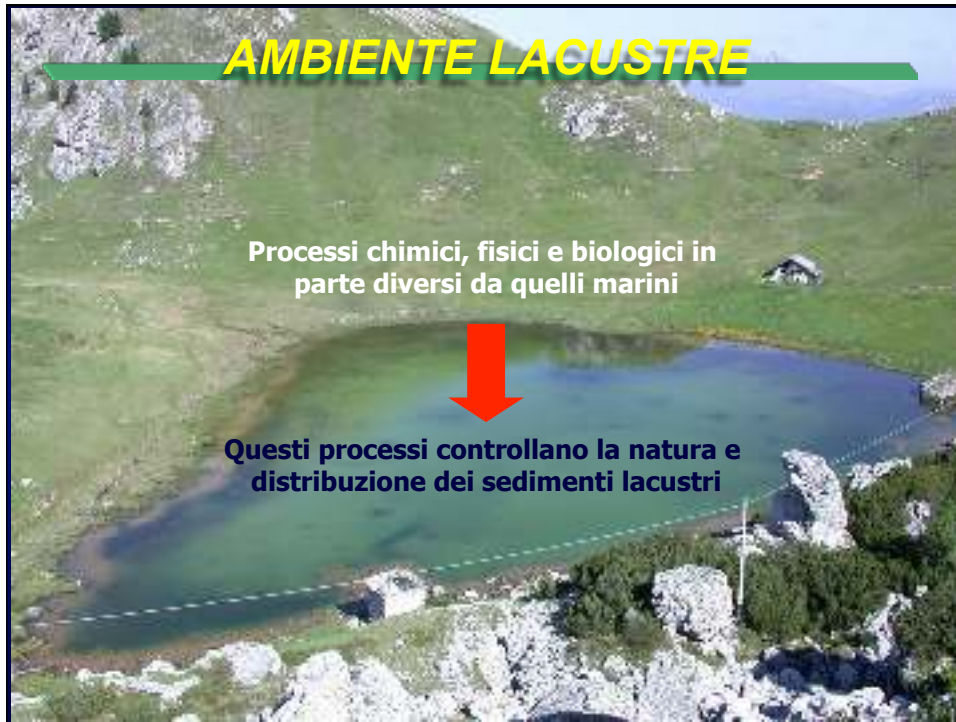


## AMBIENTE EOLICO



## DISTRIBUZIONE AMBIENTI DESERTICI







## 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)***

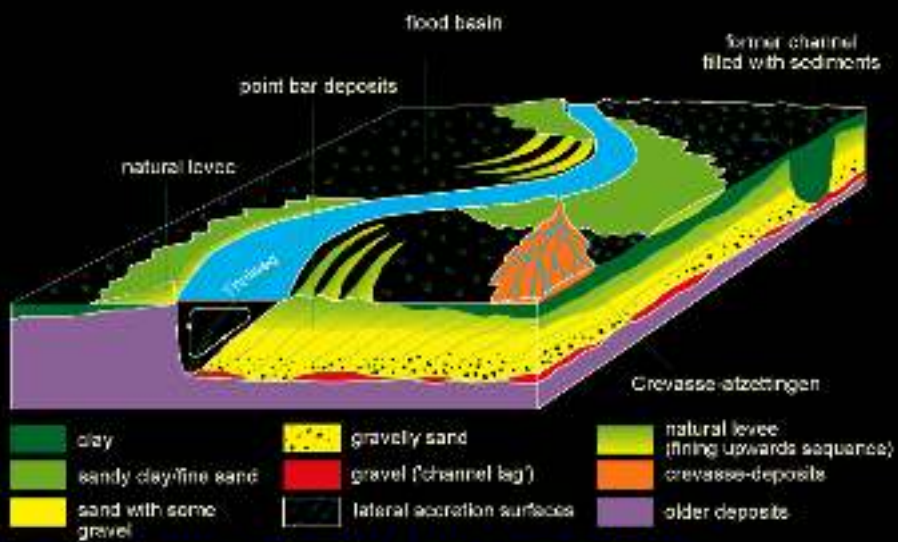




## Depositi di piana alluvionale



## Elementi fluviali

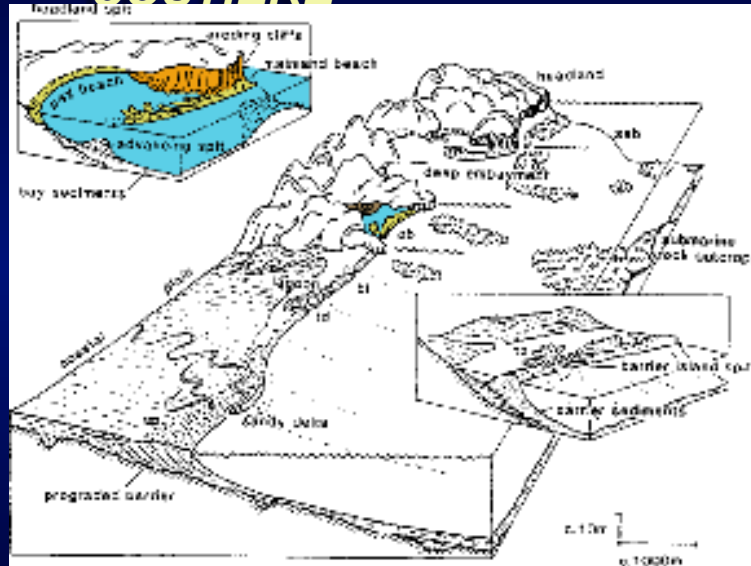


Block diagram of a meandering river





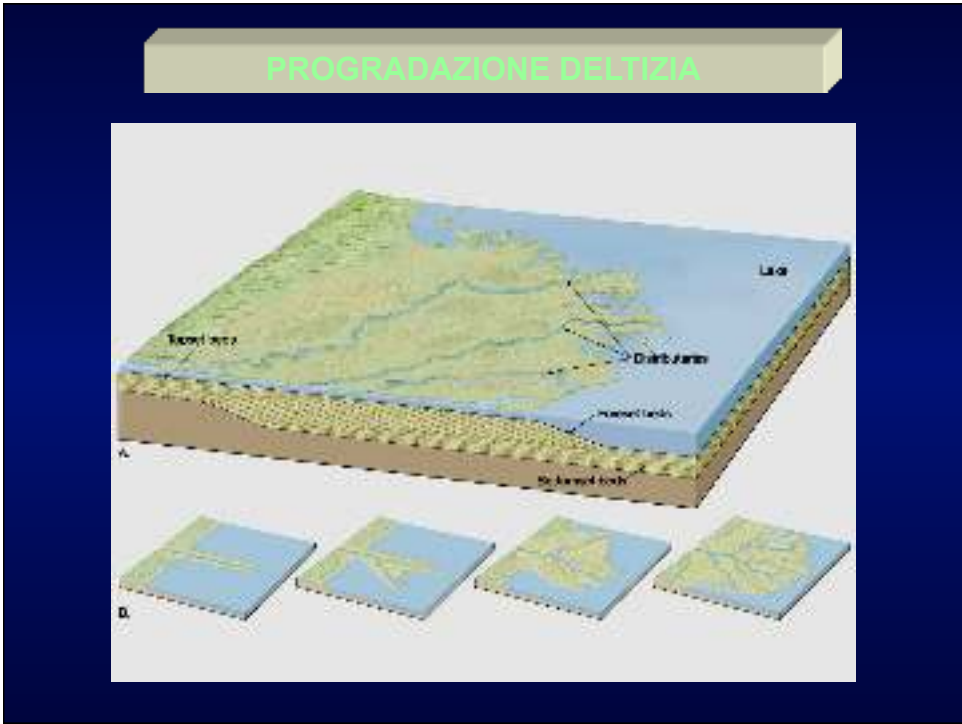
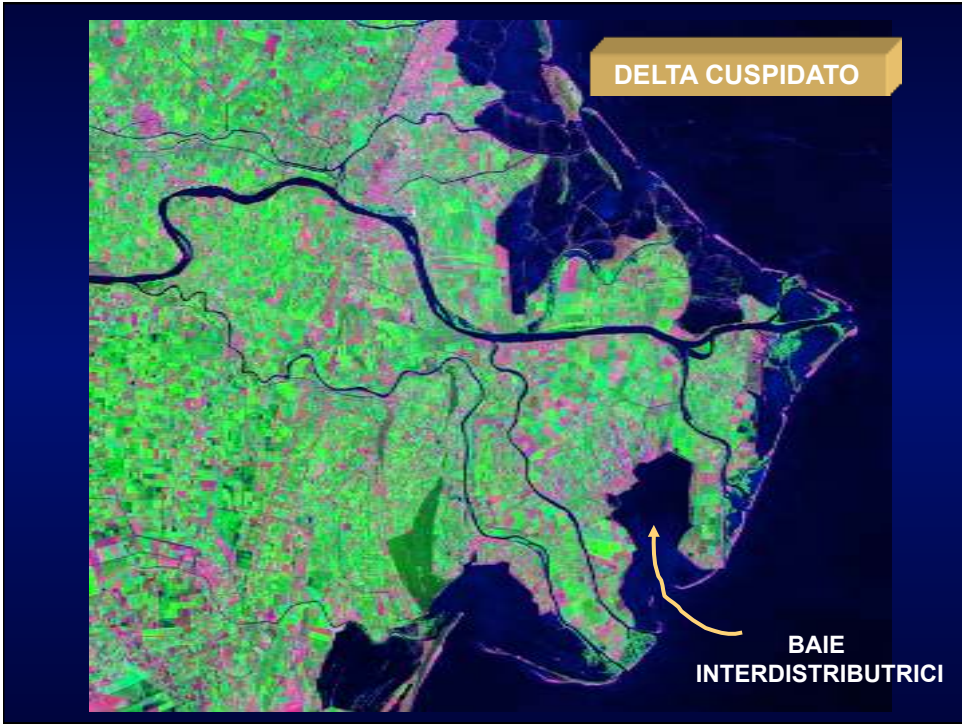
# TIPOLOGIE COSTIERE



Roy et al., 1995, *ridis*.

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

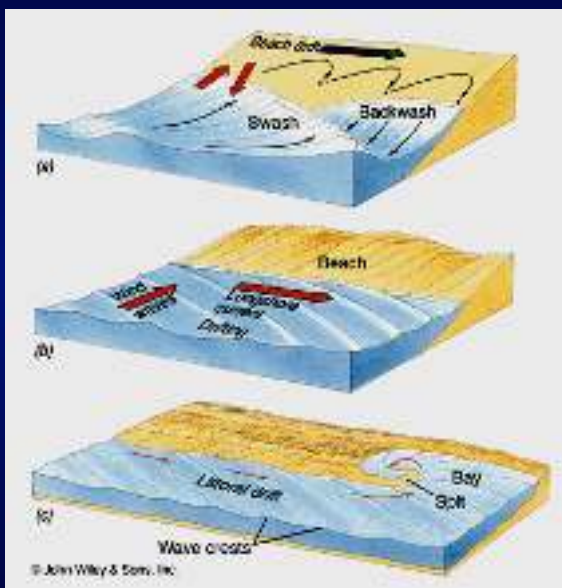




## SISTEMA DELTIZIO



### Processi di formazione



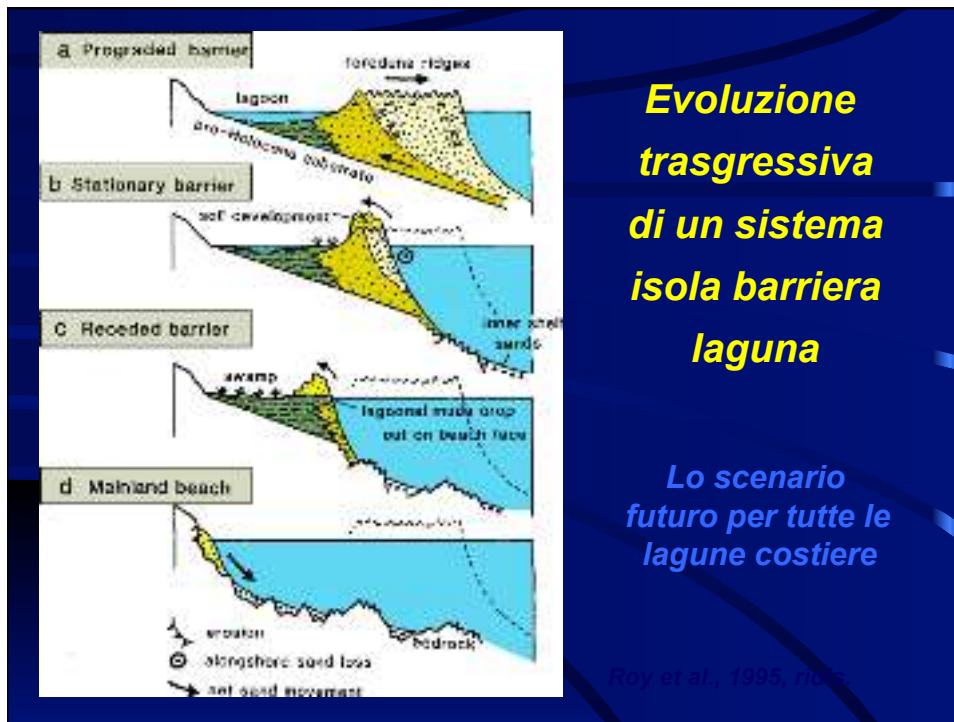
*Azione delle onde  
e deriva litorale*

*creazione di una  
corrente  
lungocosta*

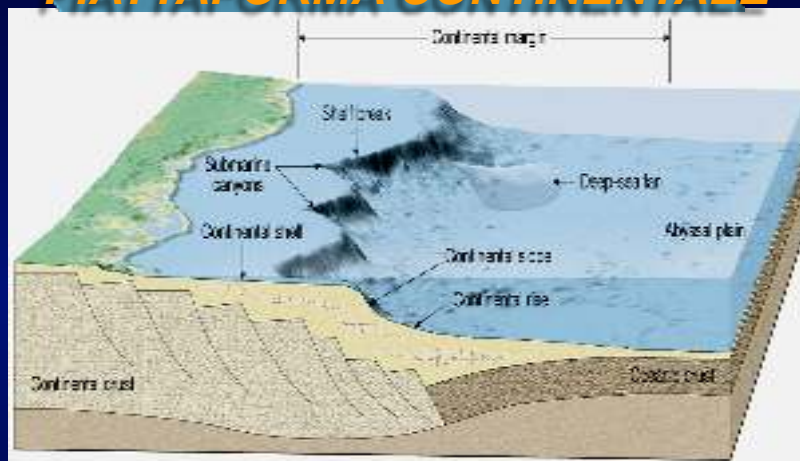
*accumulo di sabbia  
in prossimità  
di una baia*







## PIATTAFORMA CONTINENTALE

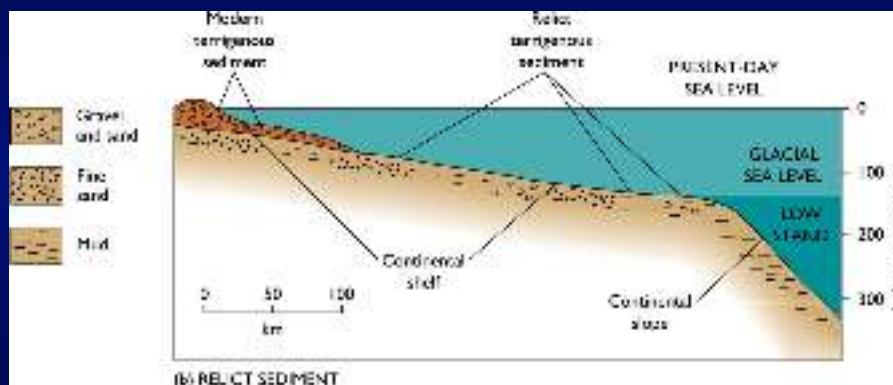


- Larghezza da pochi km fino a centinaia di km
- Profondità ciglio 130-140 m, max 200 m (shelf break)
- Pendenze molto basse da  $1^\circ$  a  $0.1^\circ$

## PIATTAFORMA CONTINENTALE



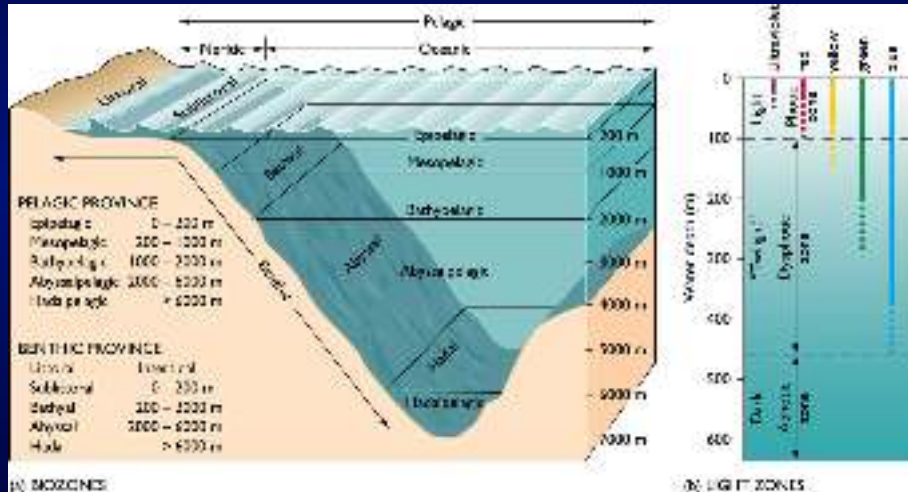
## PIATTAFORMA CONTINENTALE



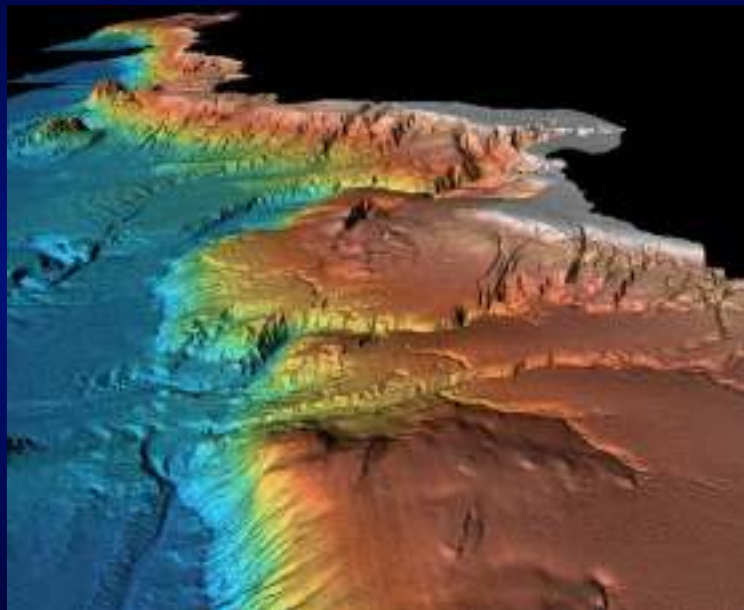


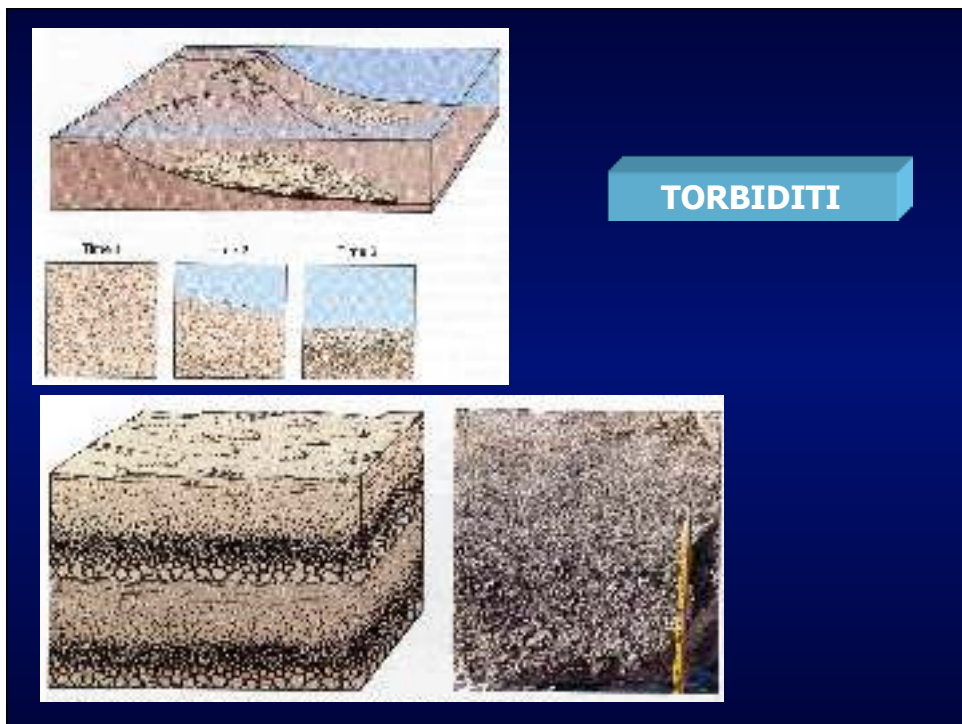
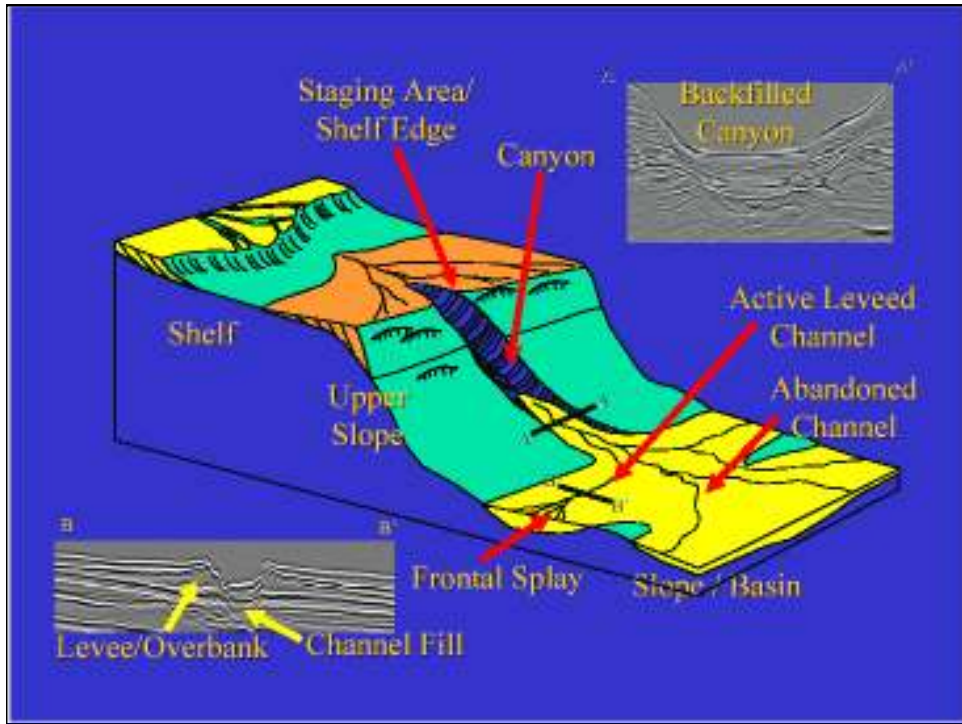
# SCARPATA - BACINO

## ZONAZIONE BATIMETRICA – MASSA ACQUA - LUCE

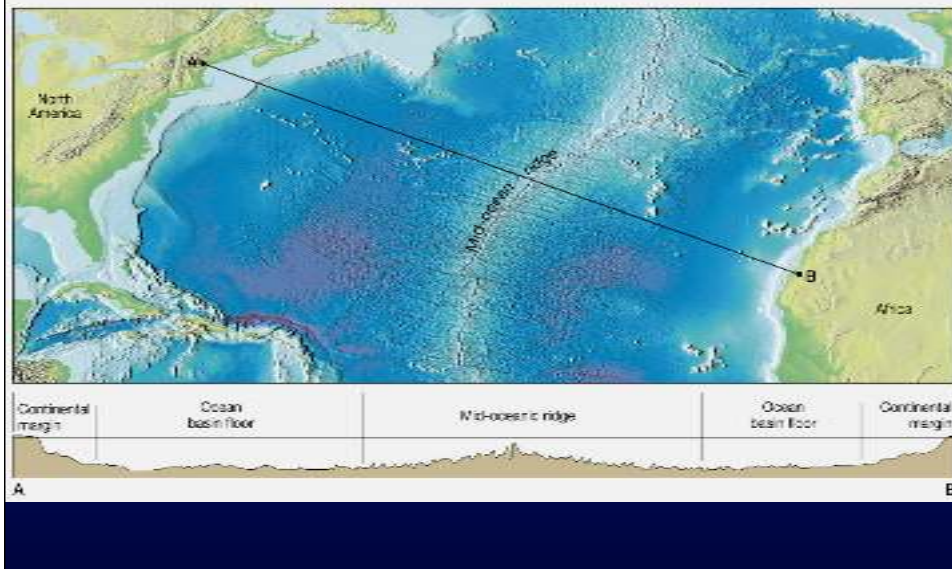


## Offshore California – near Monterey

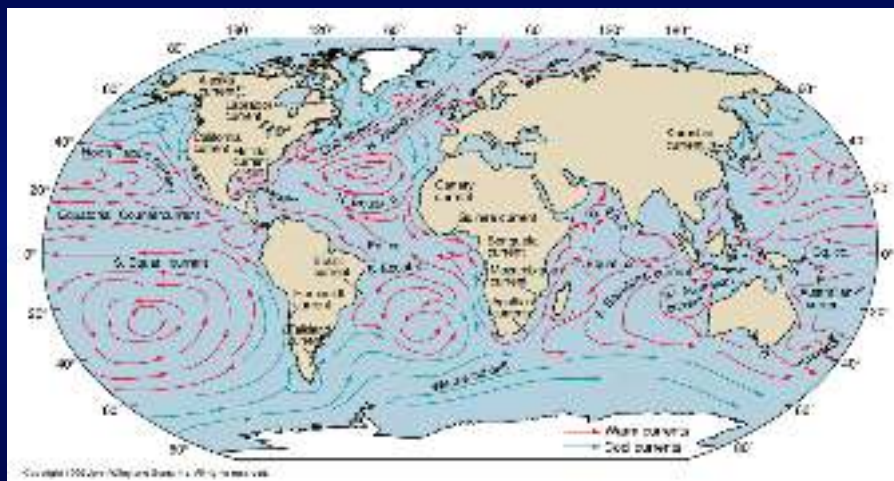




## BACINI OCEANICI

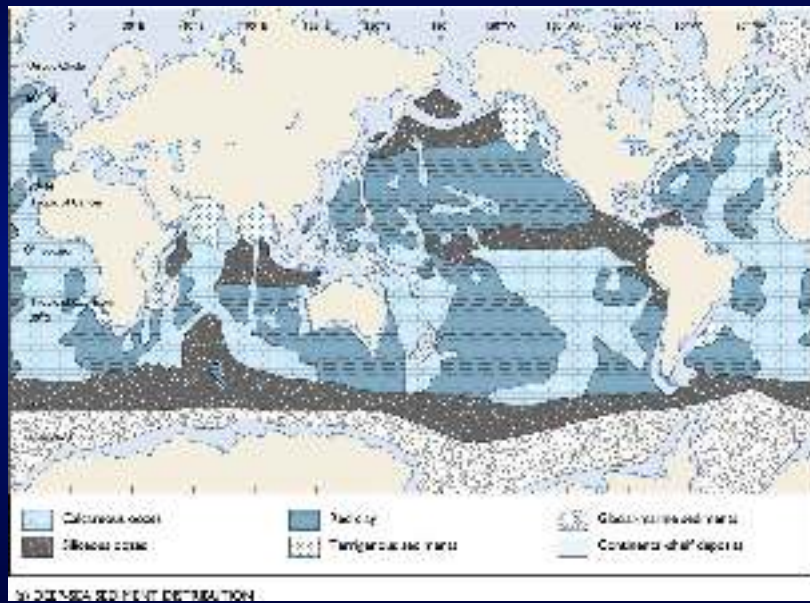


## CIRCOLAZIONE GLOBALE CORRENTI



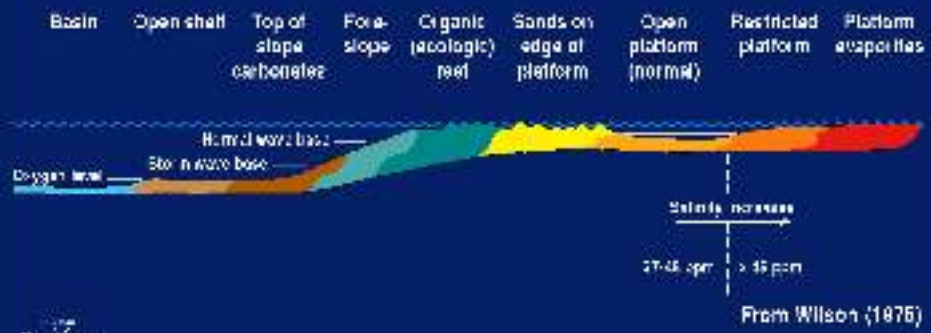


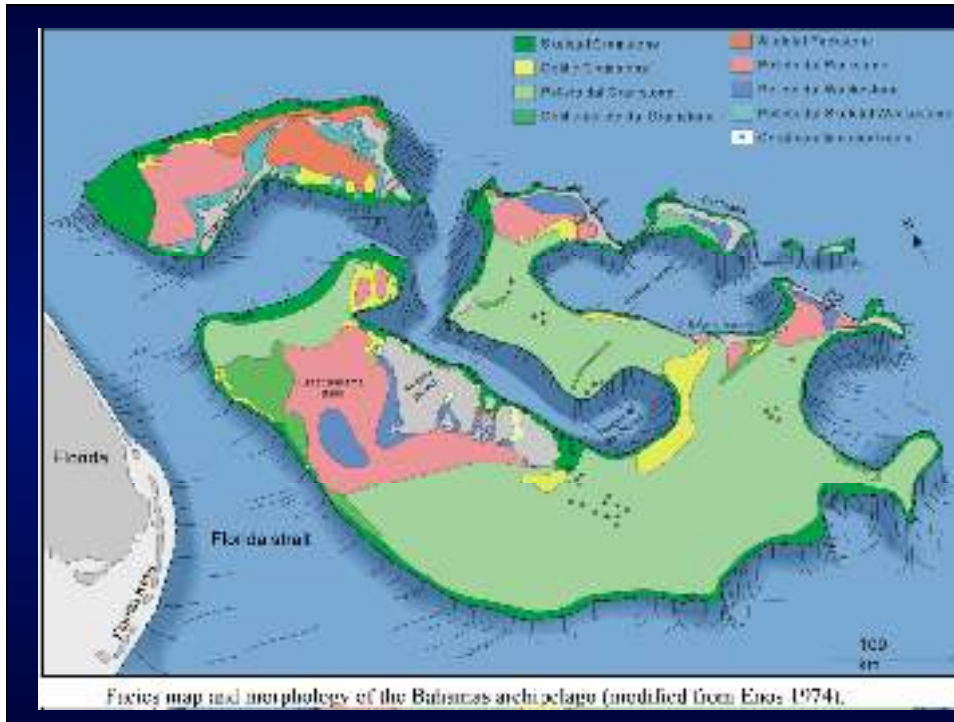
## DISTRIBUZIONE SEDIMENTI OCEANICI



## *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)***

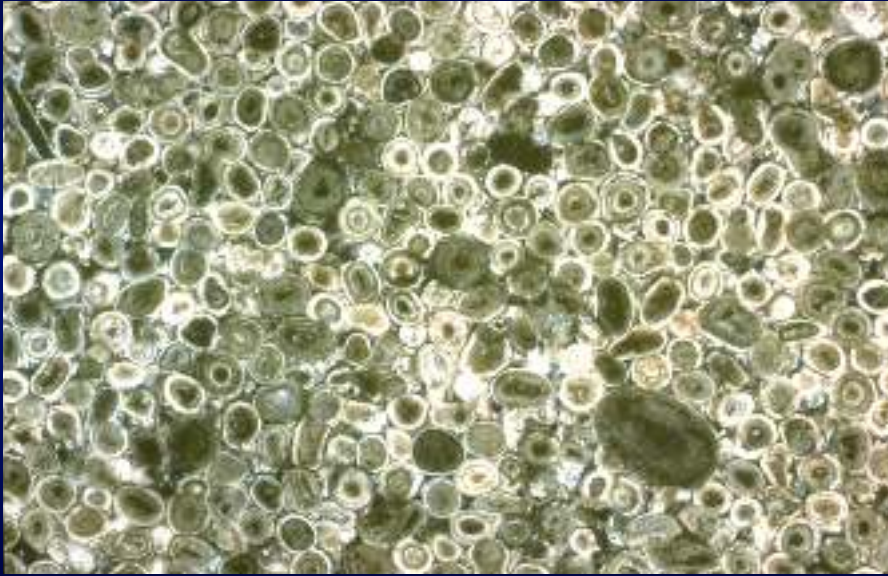
***Shoals oolitici***



***Lily Bank – Little Bahama Bank***



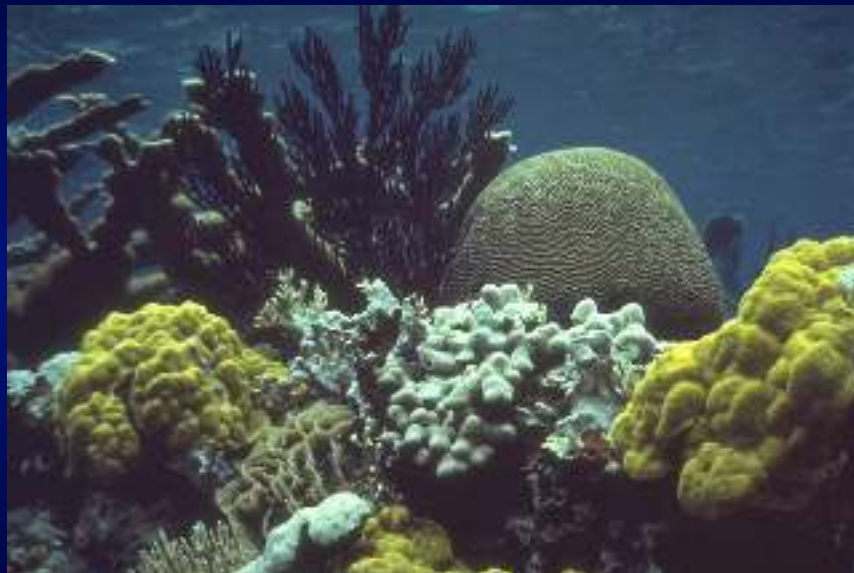
*Ooliti*





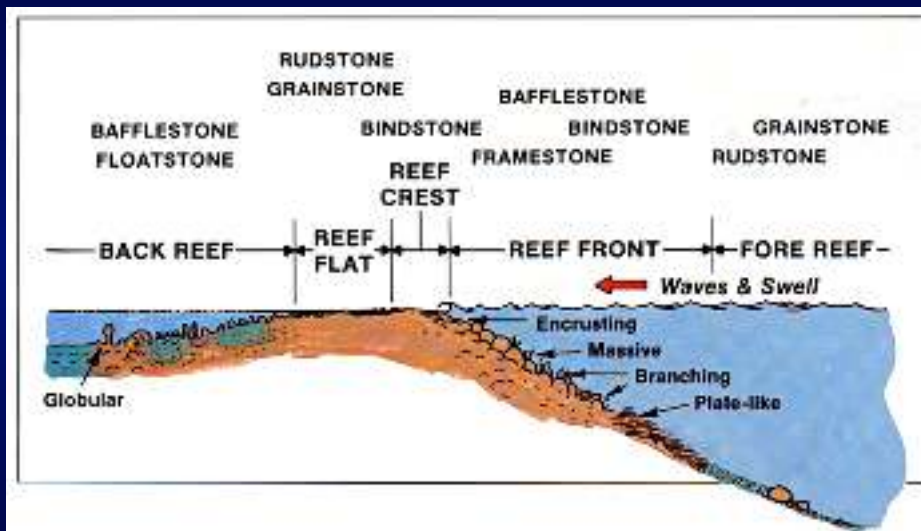
*San Salvador*

***Margine biocostruito***



*Bahamas*

## Zonazione sedimentologica e biologica



James, 1979







*Acropora palmata*

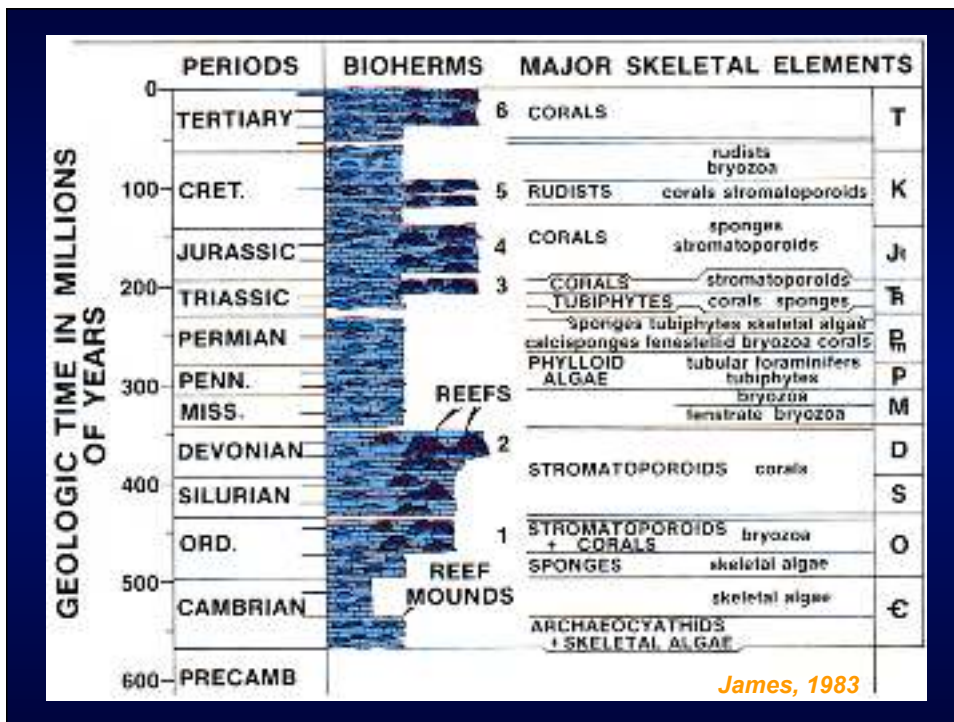


*Montastrea annularis*





*Coralli fossili*



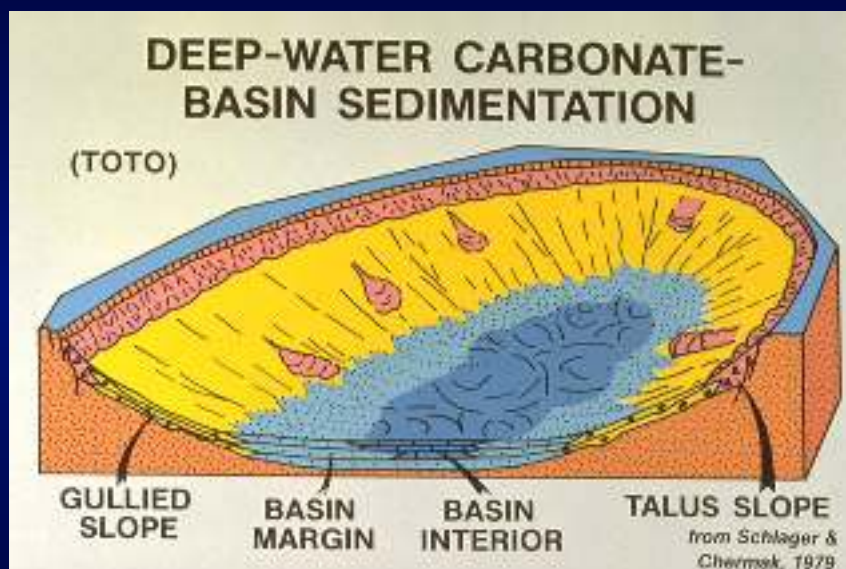


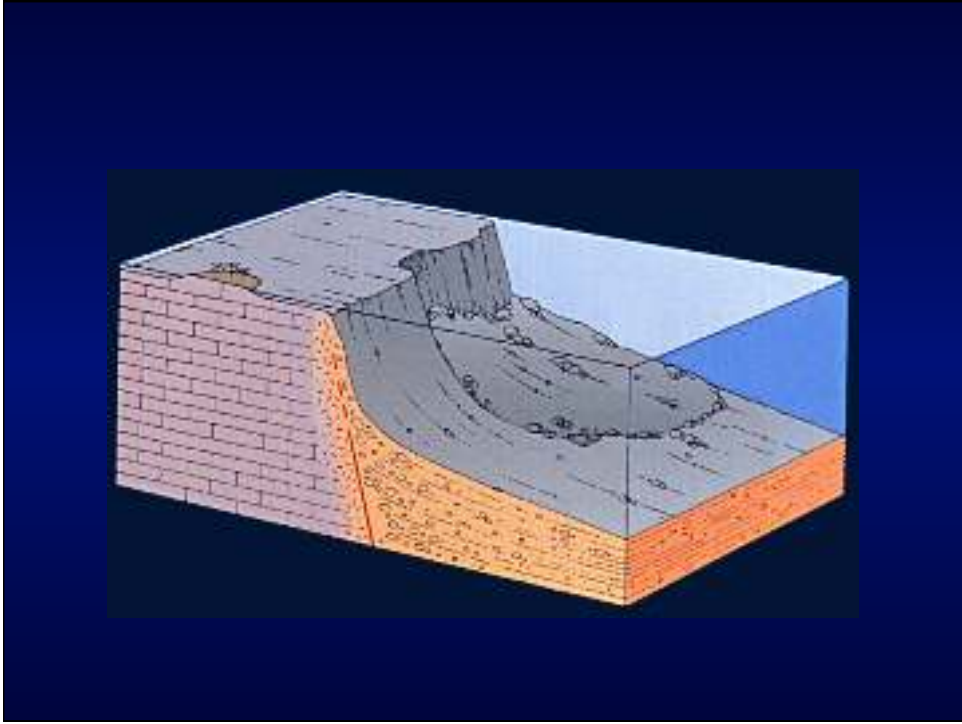
## *Gli ambienti deposizionali carbonatici*

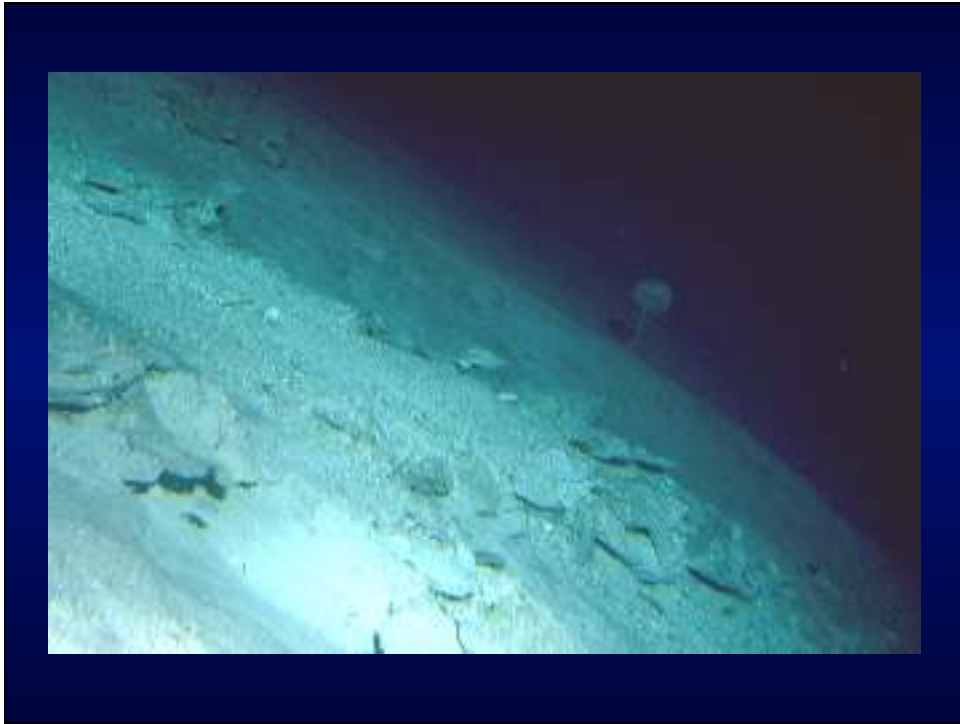


**Scarpata**

**(slope)**





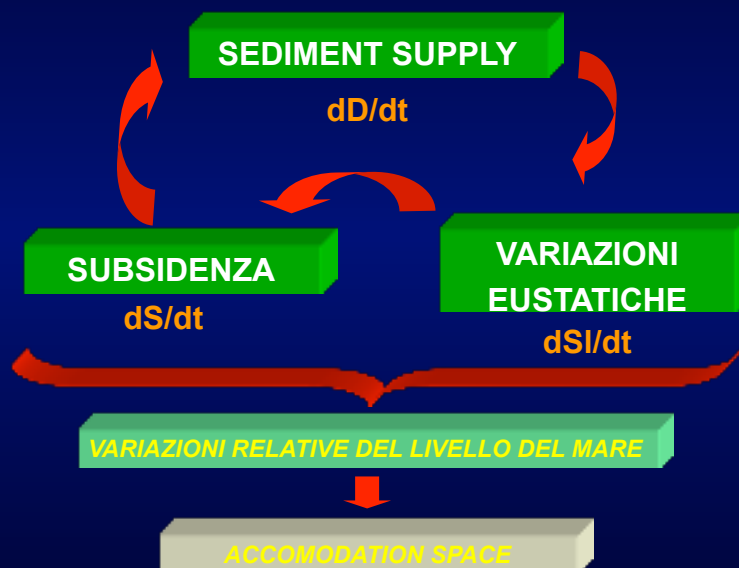




## Le rocce bacinali



## I FATTORI DI CONTROLLO DELLA SEDIMENTAZIONE



## TASSO VARIAZIONI EUSTATICHE



## STRATIGRAFIA SEQUENZIALE

CHRONOMOVIE

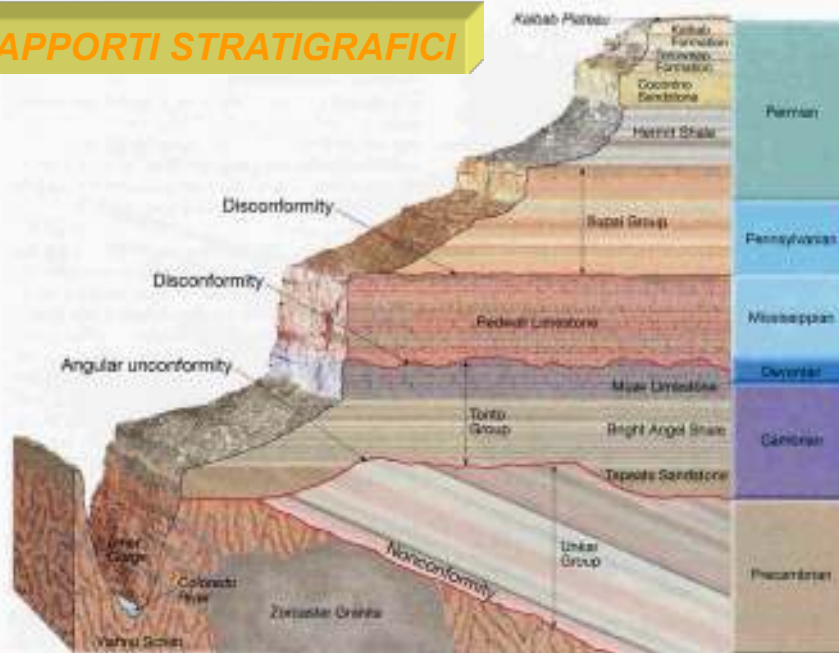
# **STRATIGRAFIA**

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

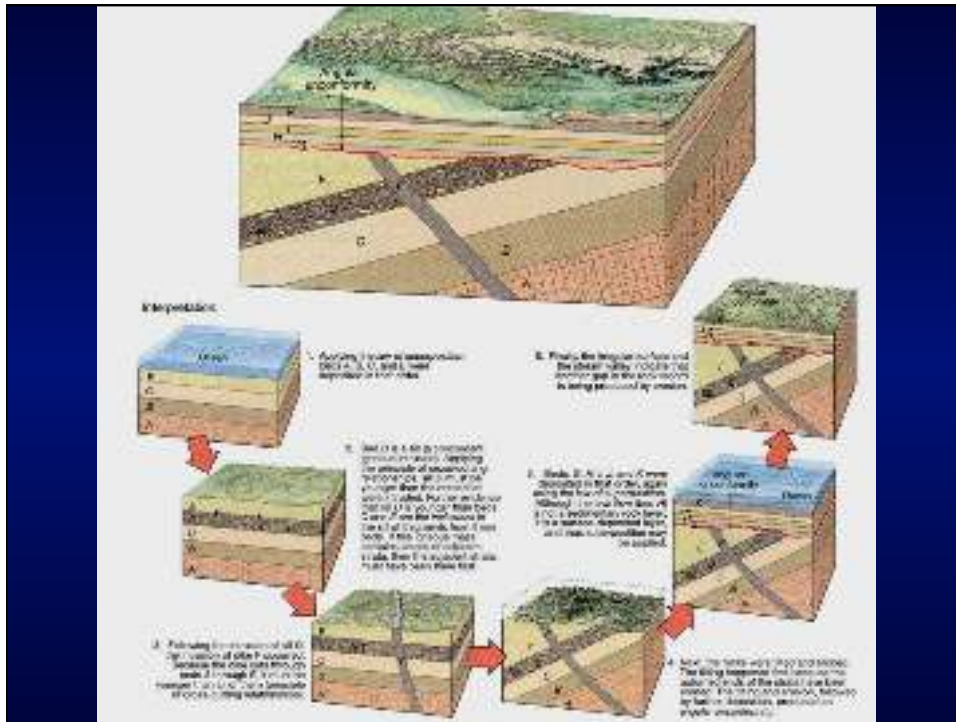
**Forma, distribuzione, ordinamento, successione e relazioni geometriche e temporali delle rocce**

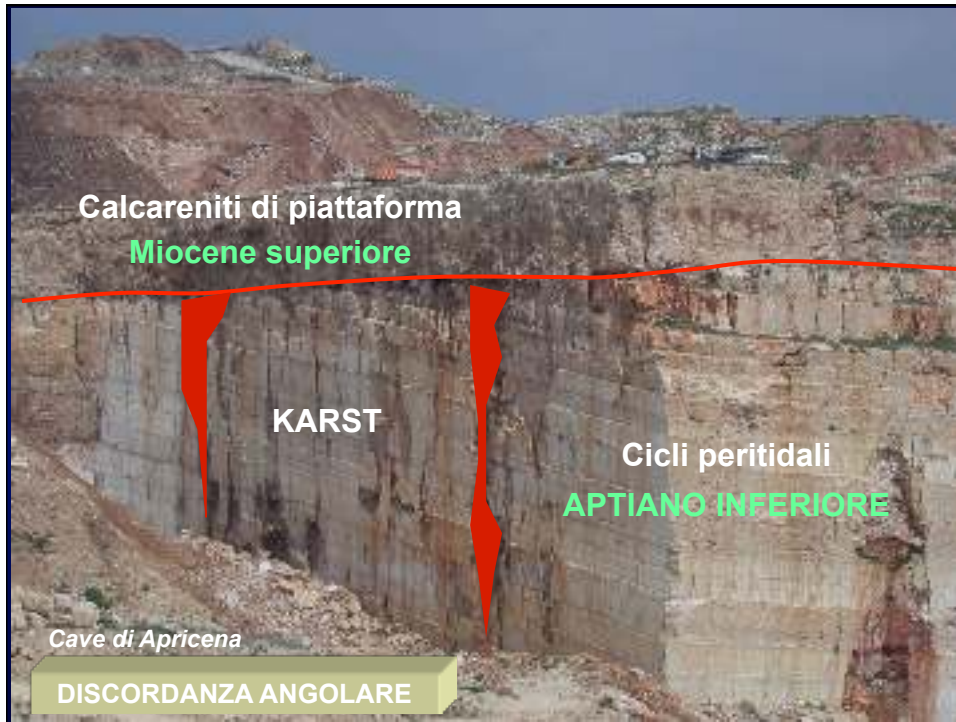
**Unità di tempo in cui è divisa la storia della Terra**

## **RAPPORTI STRATIGRAFICI**









# STRATIGRAFIA

## TEMPO GEOLOGICO

UNITA' GEOCRONOLOGICHE

PERIODO CRETACEO  
(144-65 Ma)

EONI

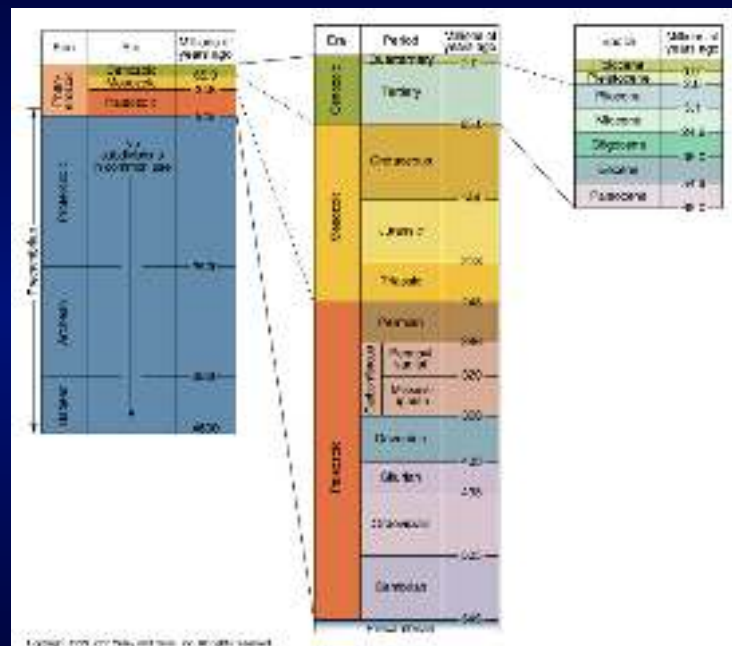
PERIODO VITTORIANO  
(1837-1901)

ERE

PERIODI

EPOCHE

ETA'

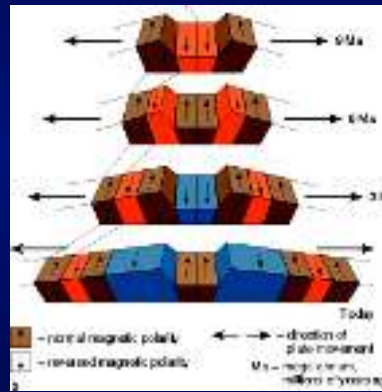
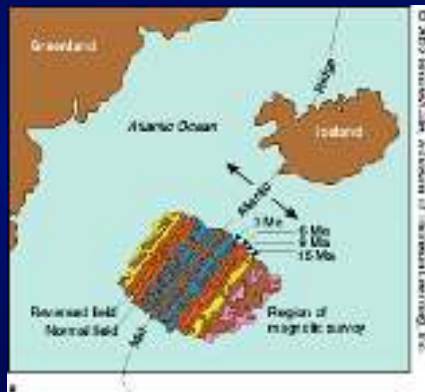






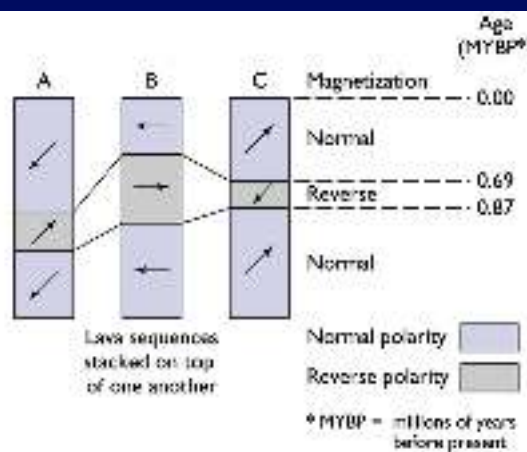
# STRATIGRAFIA

## MAGNETOSTRATIGRAFIA



# STRATIGRAFIA

## MAGNETOSTRATIGRAFIA



(3) MAGNETIZATION OF LAVAS

## ***Tecniche di datazione assoluta***

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

## ***Radiocarbonio (C-14)***







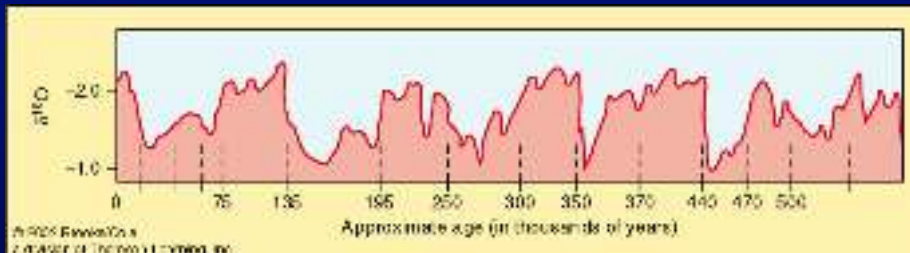
## ***STRATIGRAFIA ISOTOPICA***

### **Variazioni temporali**

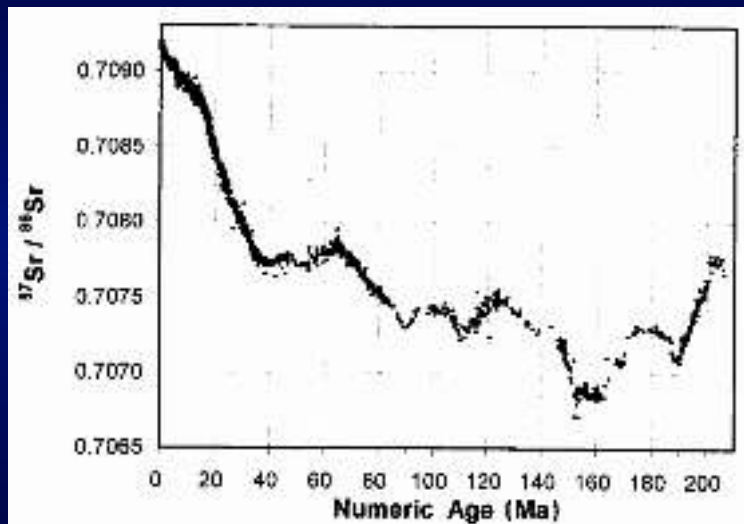
- Ossigeno
- Carbonio
- Stronzio
- Zolfo

## ***Isotopi dell'ossigeno***

**aumento rapporto isotopico =  
diminuzione della temperatura**

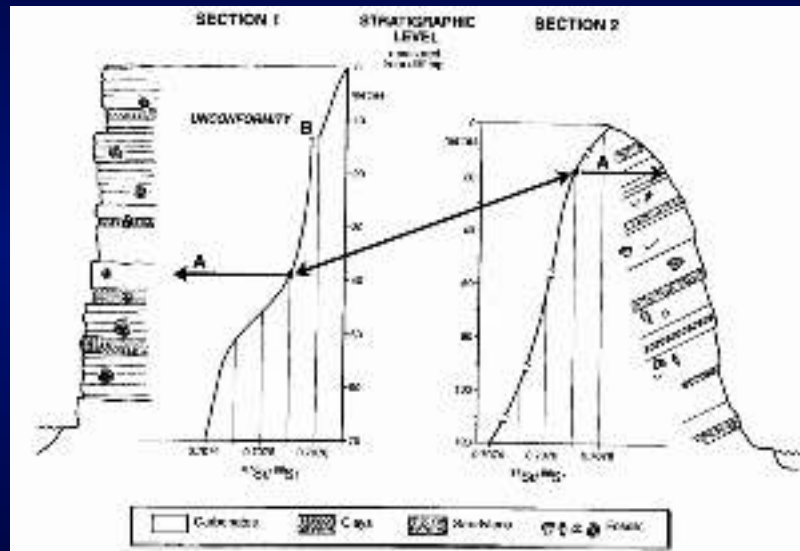


## ***Stratigrafia isotopi Stronzio***



*McArthur, 1998*

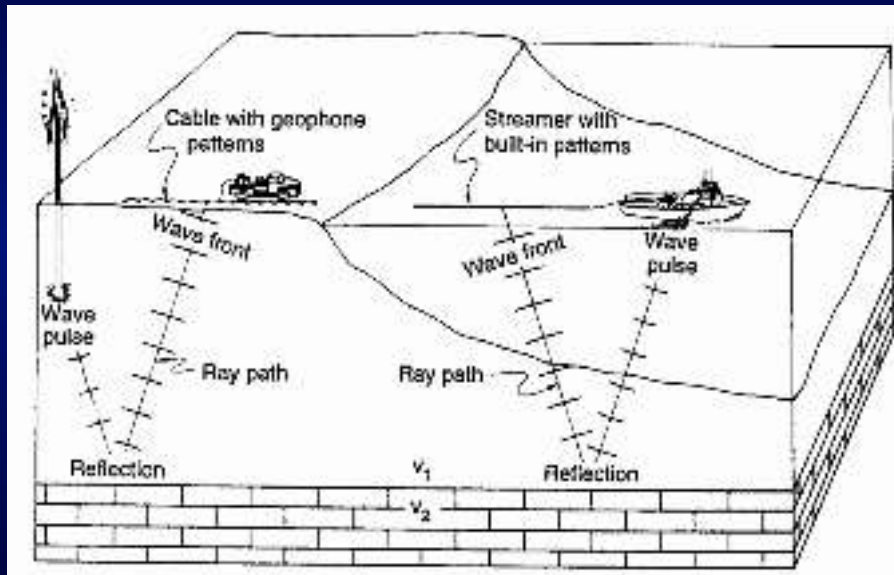
## Stratigrafia isotopi Stronzio



McArthur, 1998



## Rilevamenti sismici



## Rilevamenti sismici



## Rilevamenti sismici

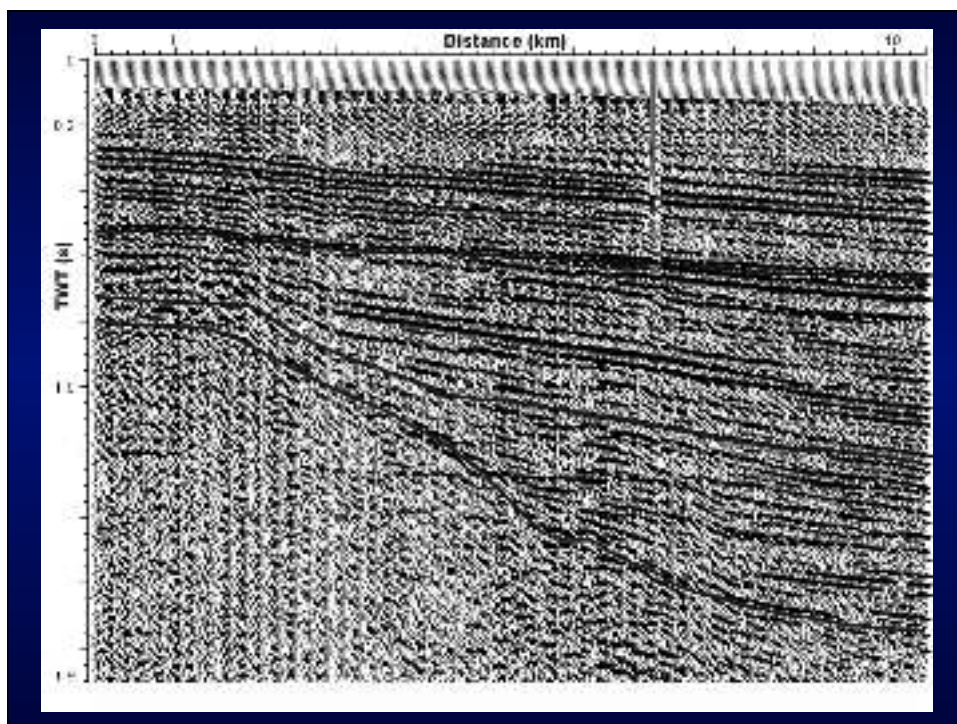
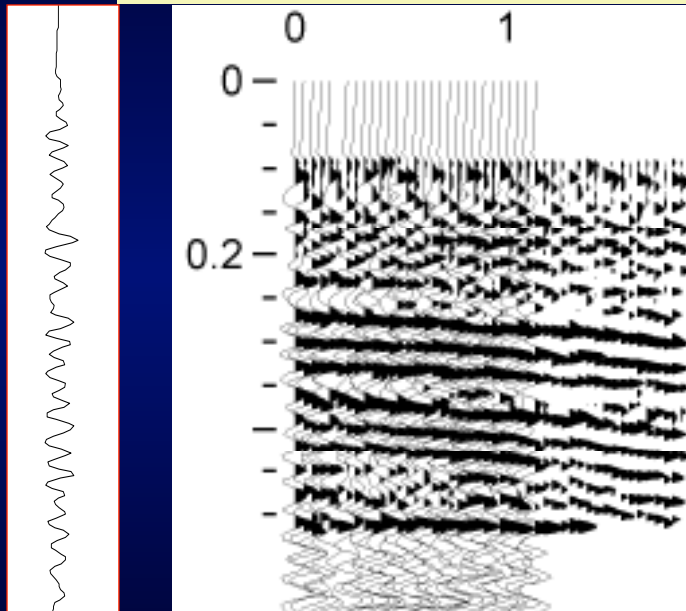


## Rilevamenti sismici

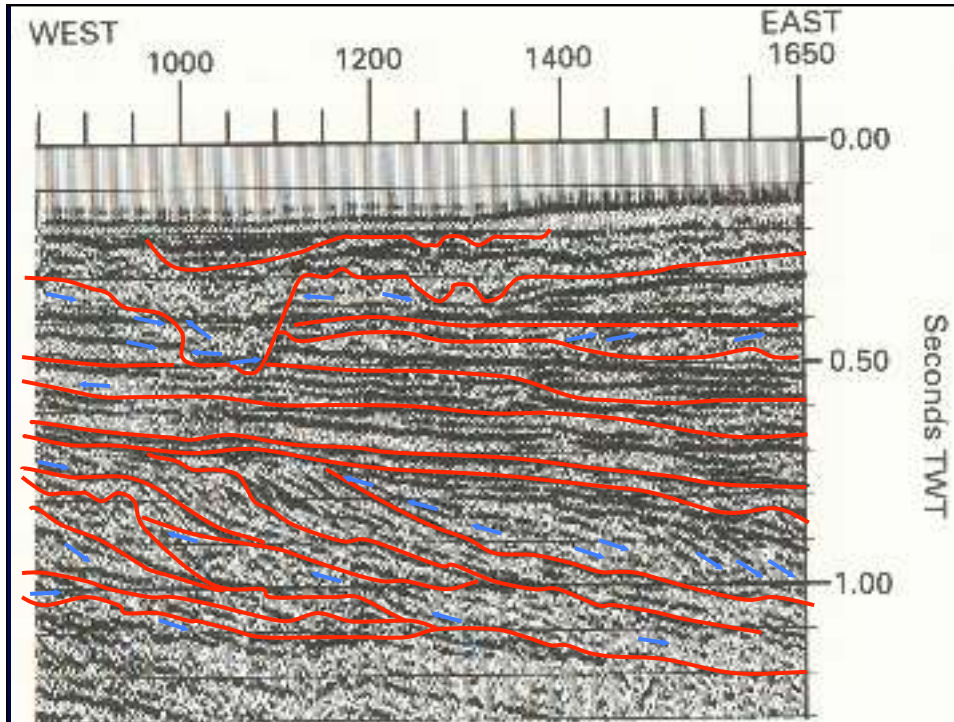
An array of closely spaced sensors tracks the propagation path of an earthquake, providing the location, depth, magnitude, and direction of the rupture on the surface.

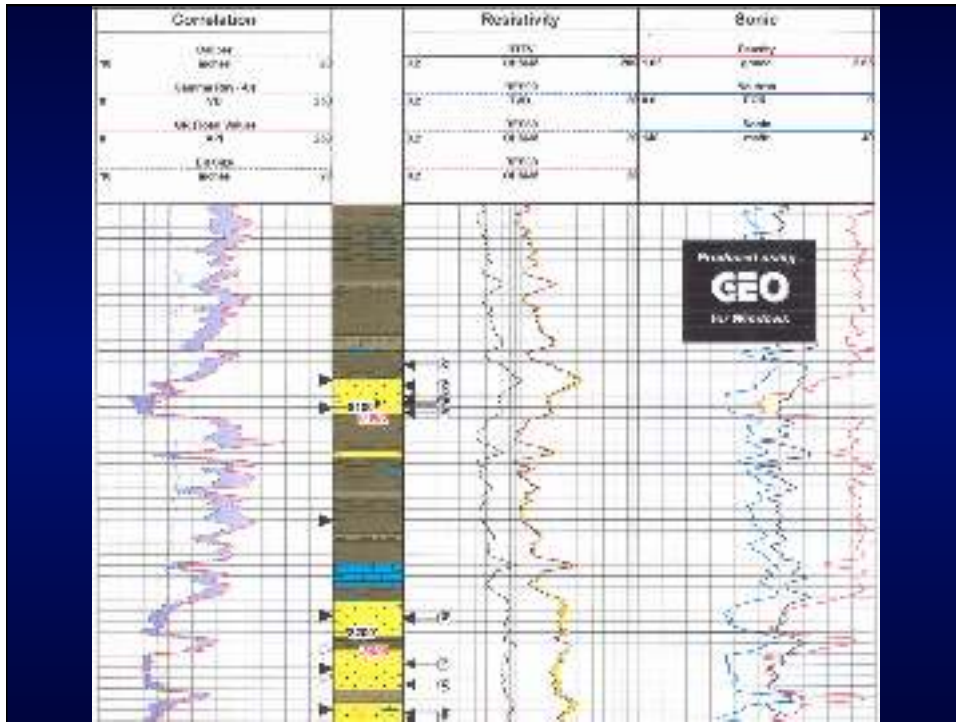


### Profili sismici a riflessione





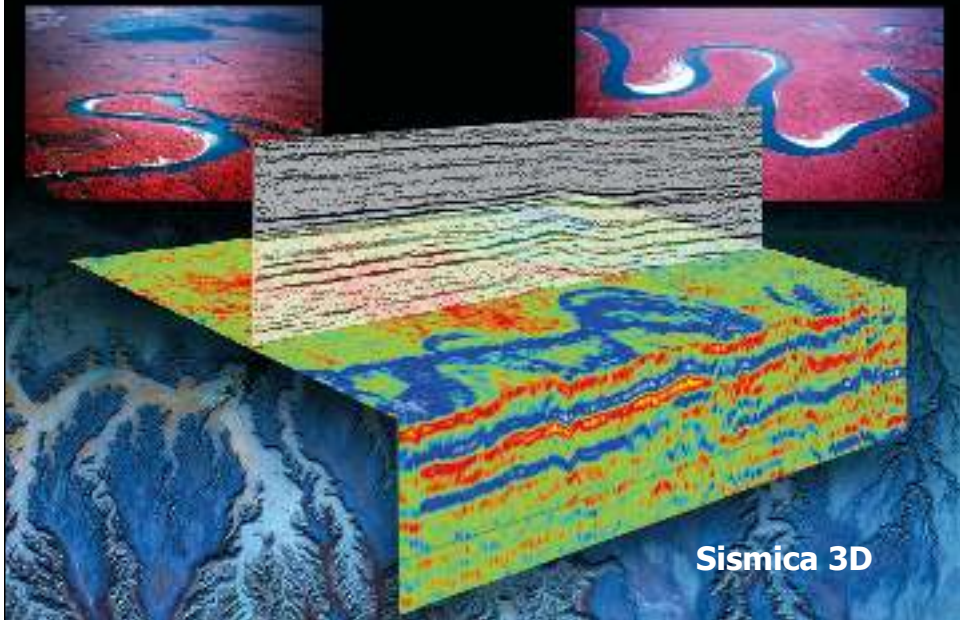




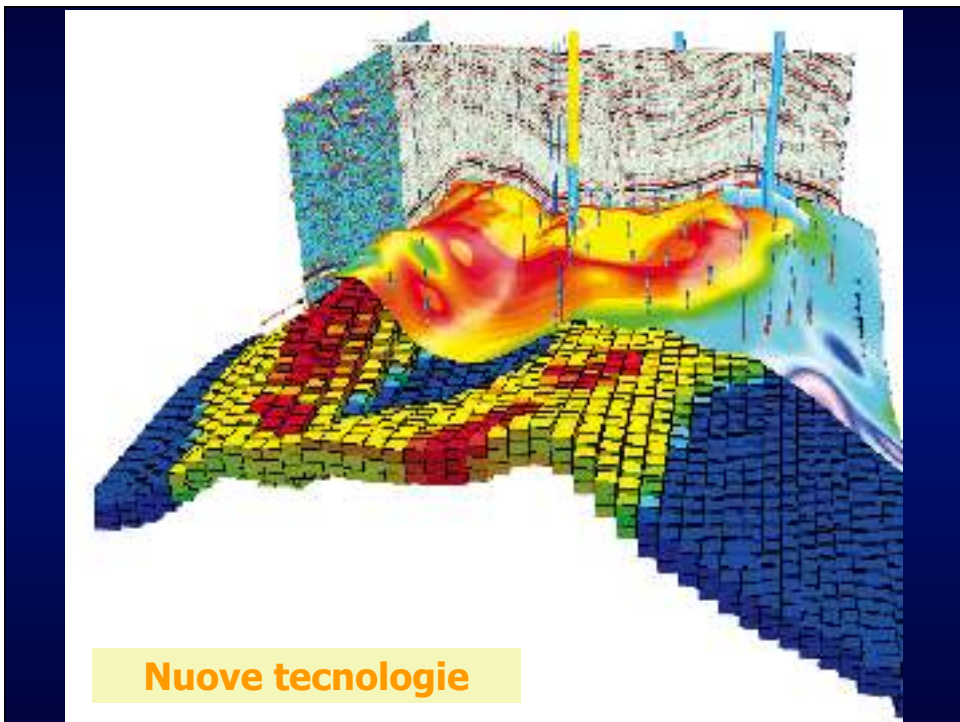
## Nuove tecnologie



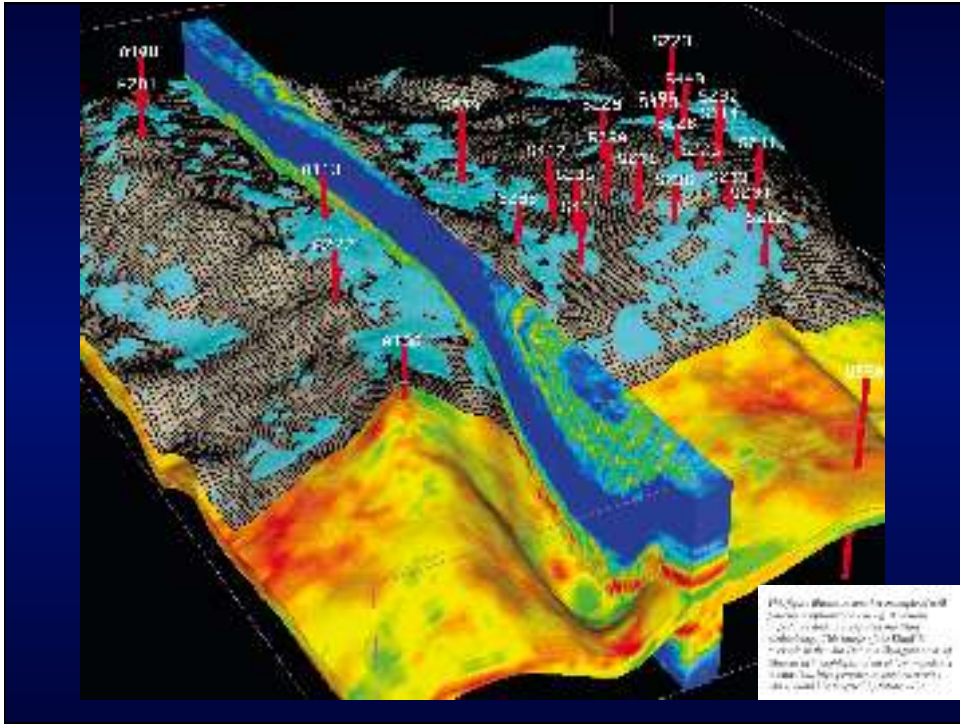
**Nuove tecnologie**



**Nuove tecnologie**







**Nuove tecnologie**

**Pozzi orizzontali**

