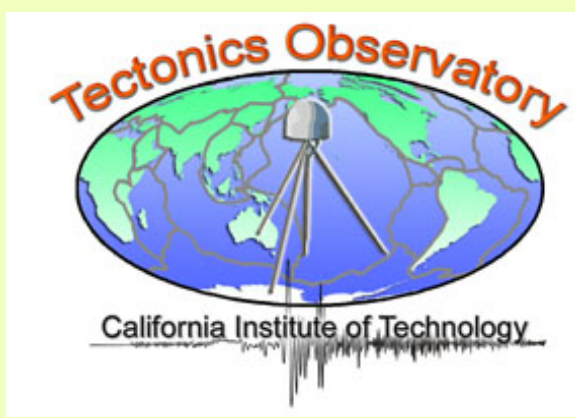


# MASE: Middle America Subduction Experiment



## Partners

Tectonics Observatory, Caltech  
 Instituto de Geofísica, UNAM  
 CENS Project, UCLA  
 Centro de Geociencias, Jurquilla, UNAM

## Goals

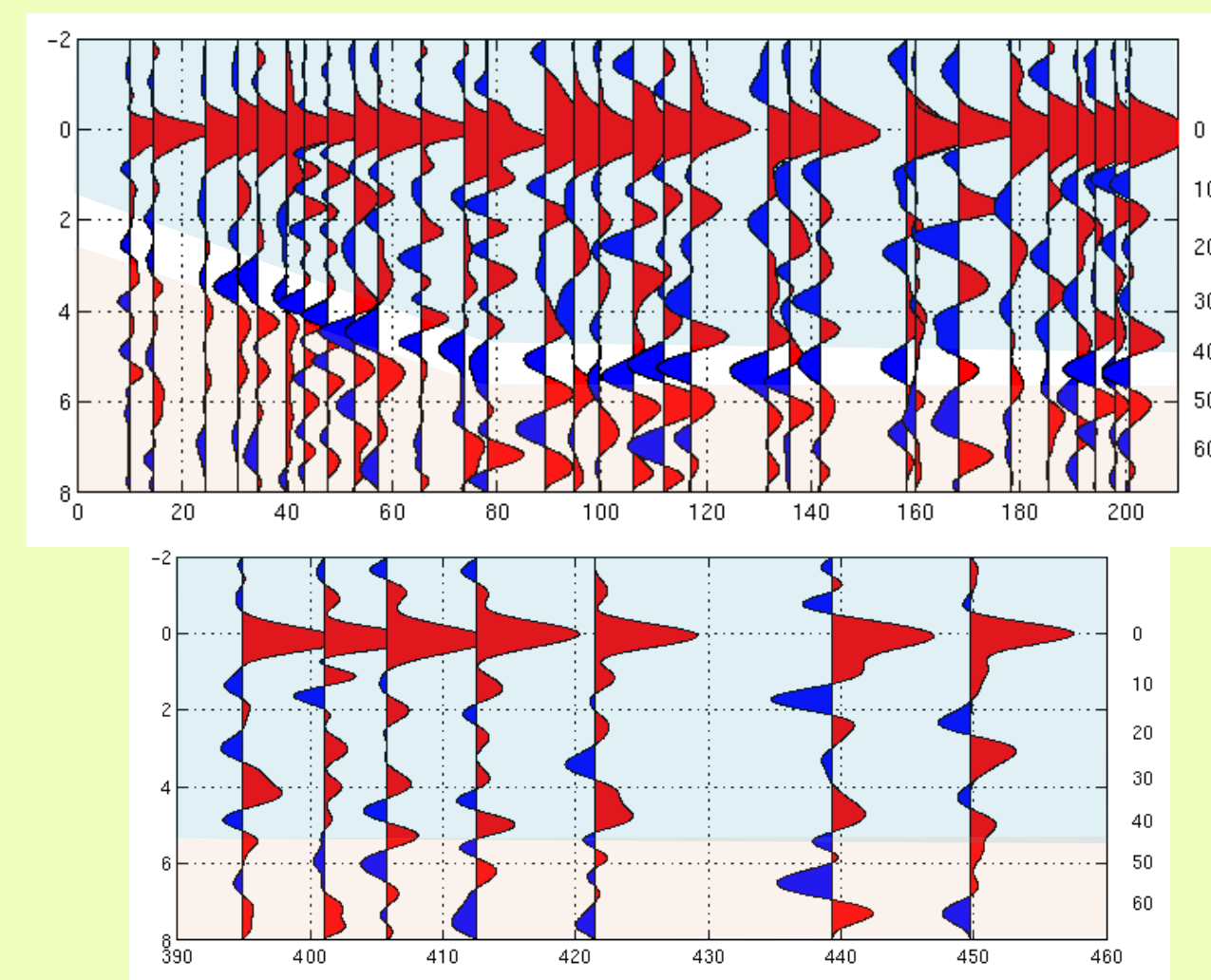
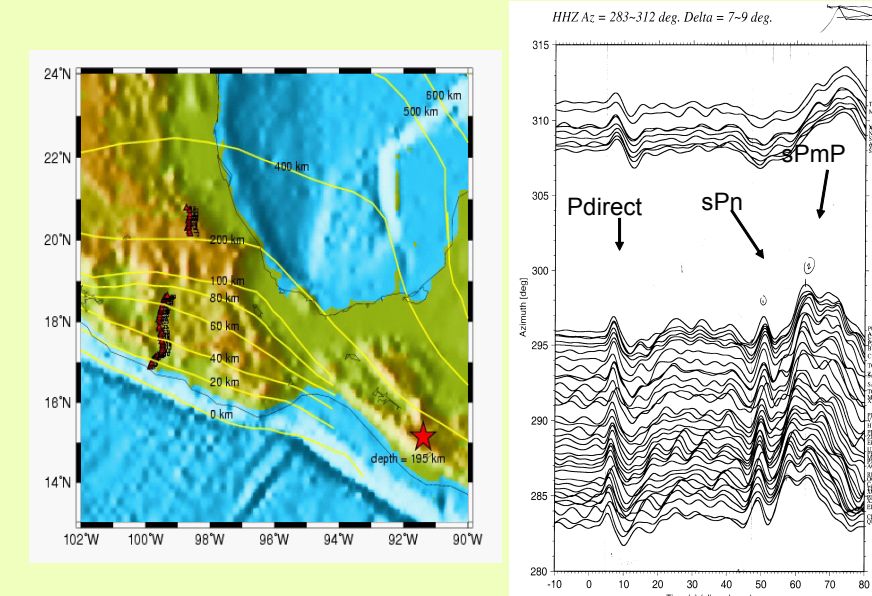
- 1) Understand the subduction process, with the Middle America Trench as a prime example
- 2) Build a geodynamical model of the subduction process

## 1) Seismicity

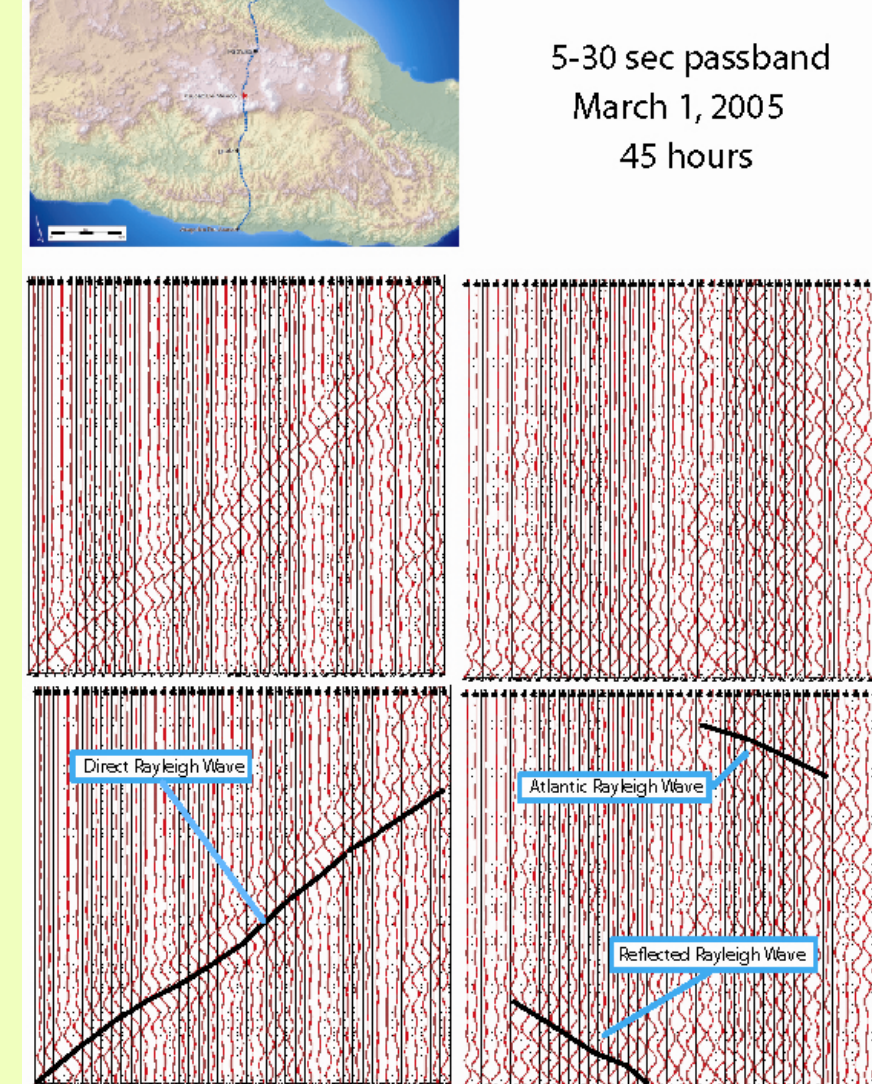
### Data Archive

- Data are available on a restricted basis from a central data archive through a network interface. Data are available to all participants at the same time.  
 - As of Oct 25, 2005, the archive has 11,000 station-days of data.

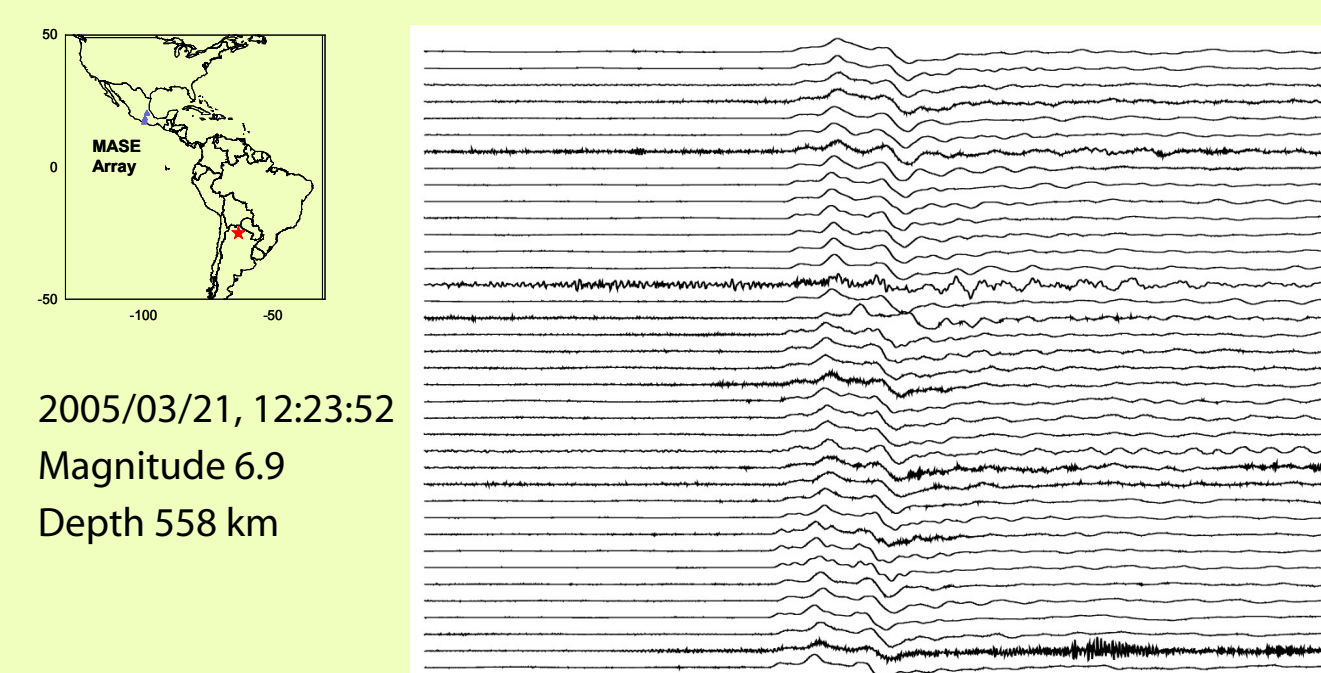
### Crustal Phases



### Microseism Correlations



### Data Example

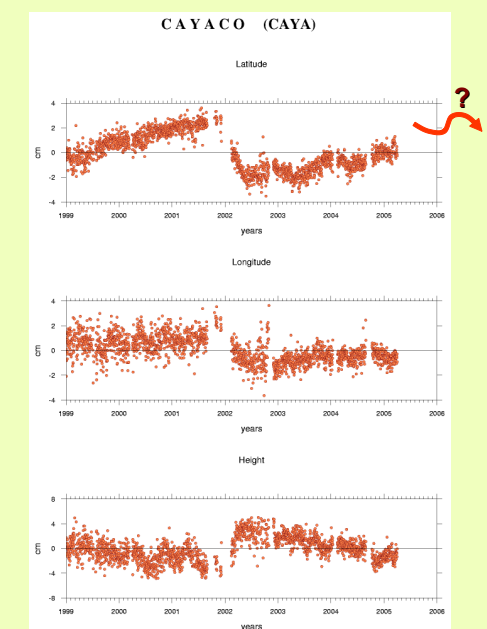
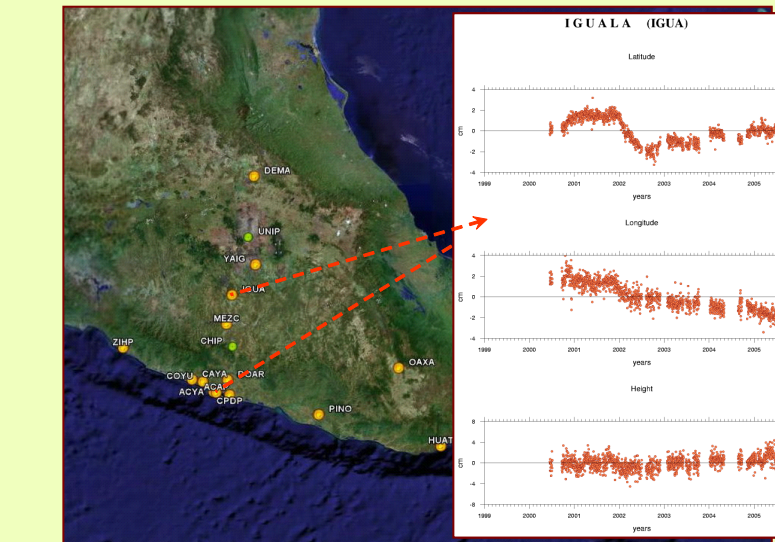


## 2) GPS

### Istmo de Tehuantepec profile

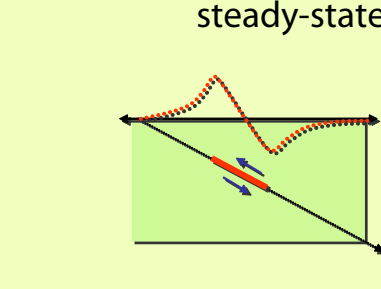


### Next SQ?

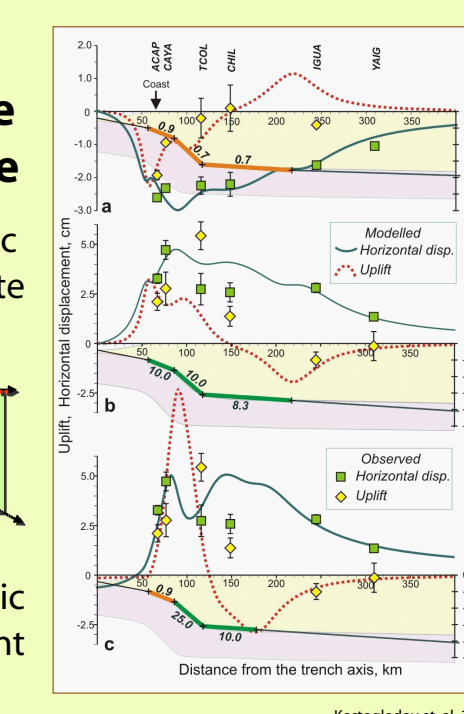


### 2D models of dislocation in the elastic half-space

(a) Interseismic steady-state



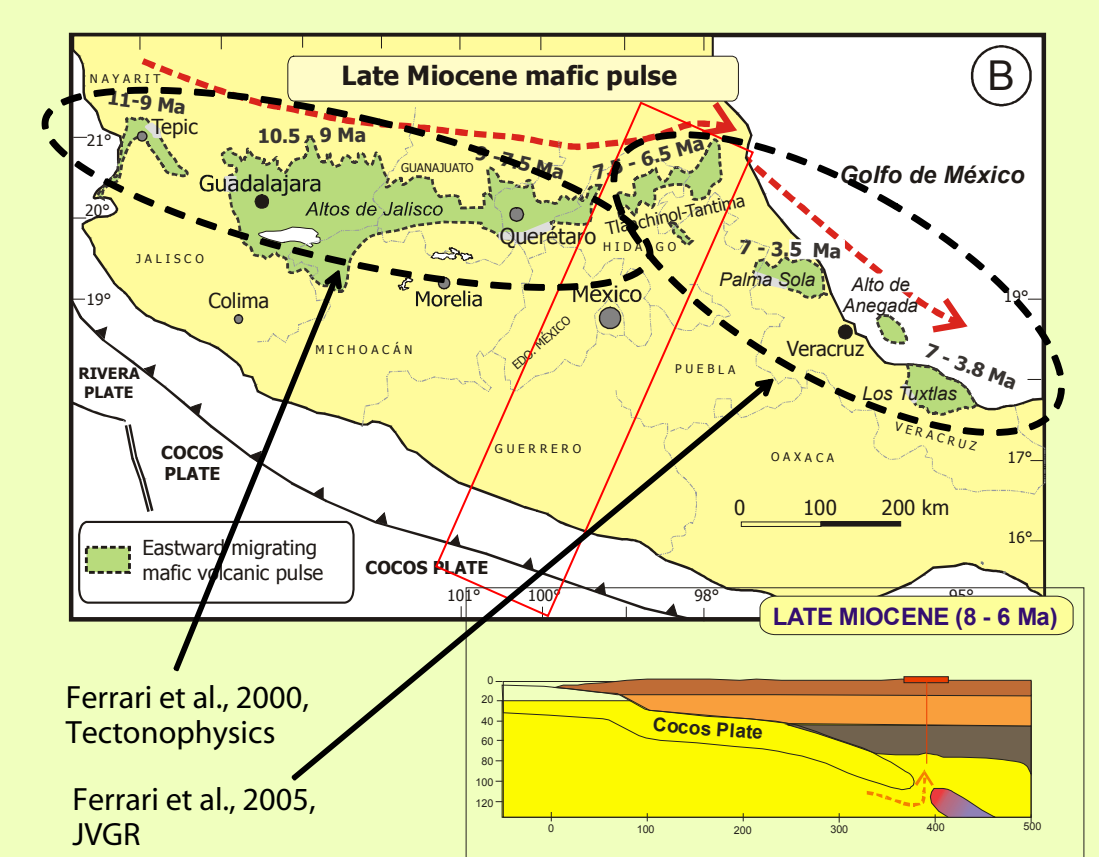
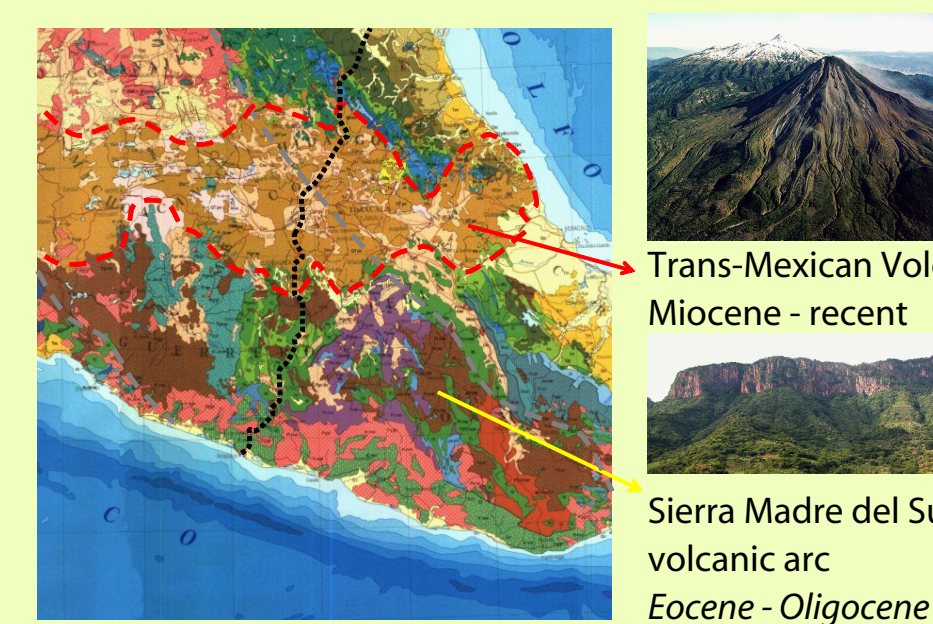
(b, c) Slow aseismic slip event



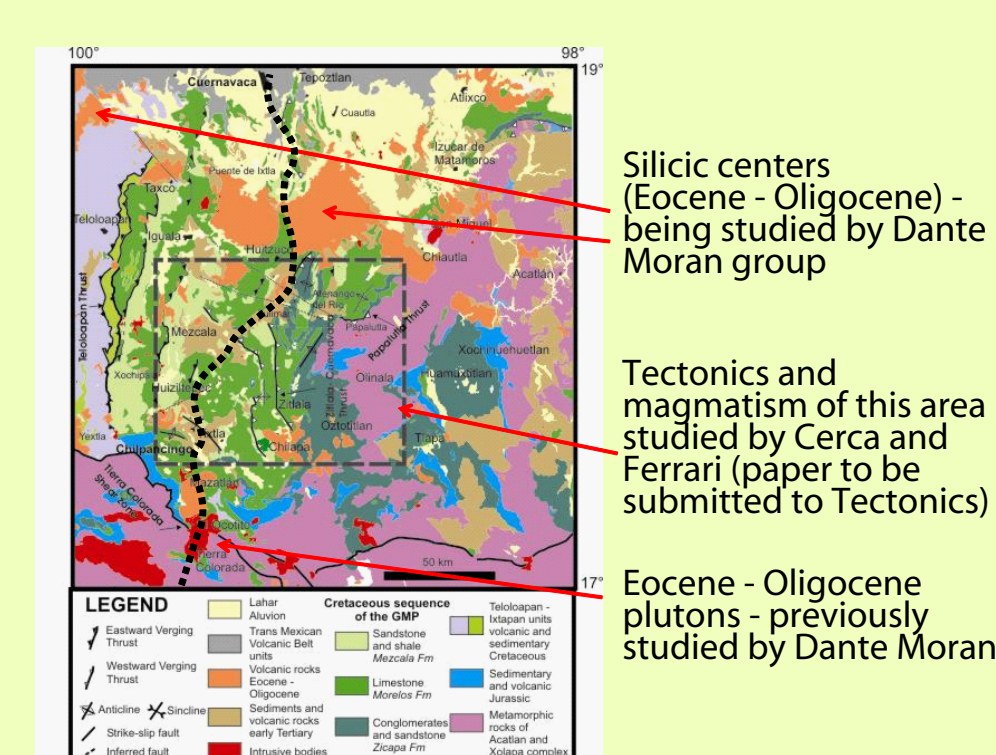
Next SQ?  
 Large - small?  
 Location?  
 Propagation?  
 Tremors? LFT location?  
 Slip on the seismogenic zone?

## 3) Geology & Geochemistry

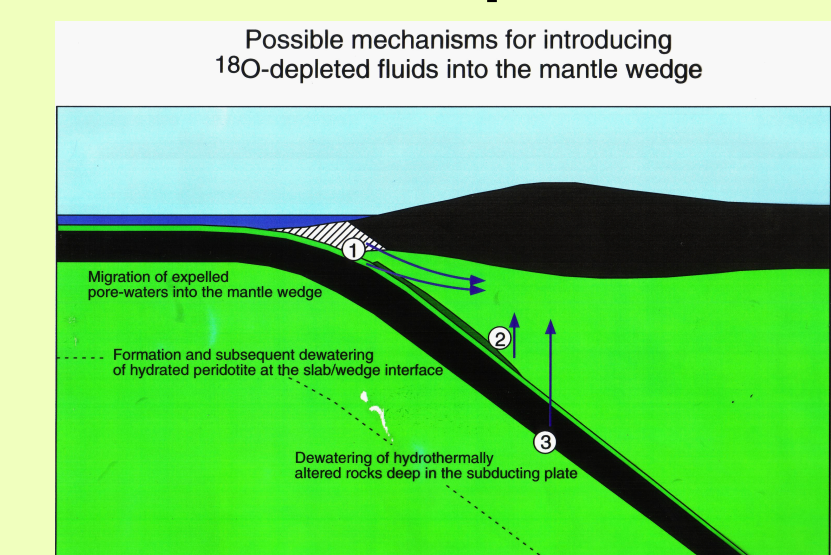
### Cenozoic arc volcanism along the MASE transect



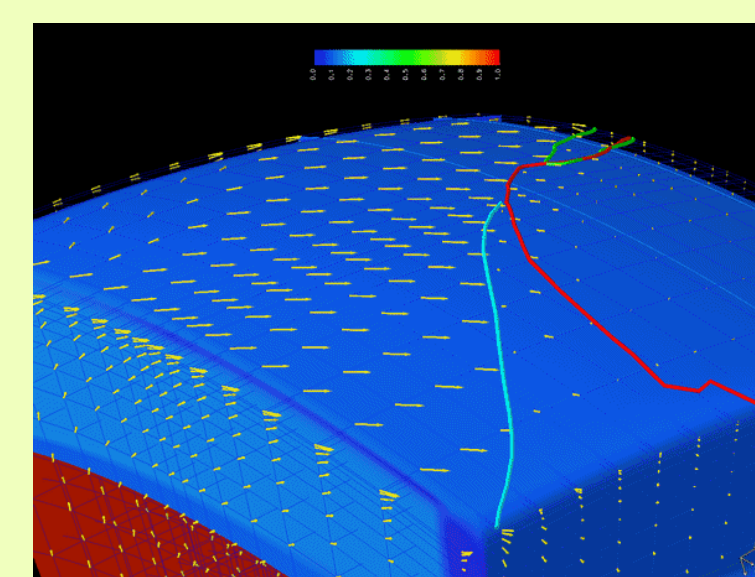
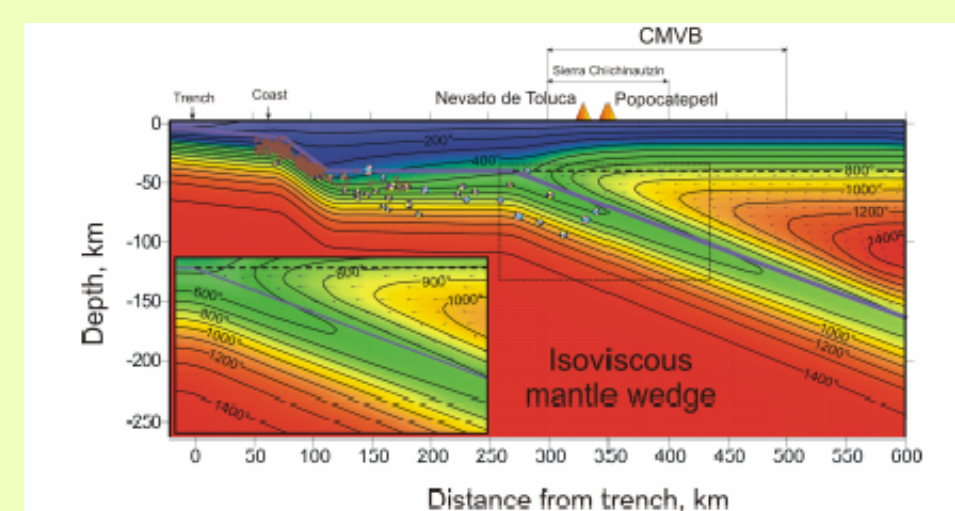
### Sierra Madre del Sur volcanic arc



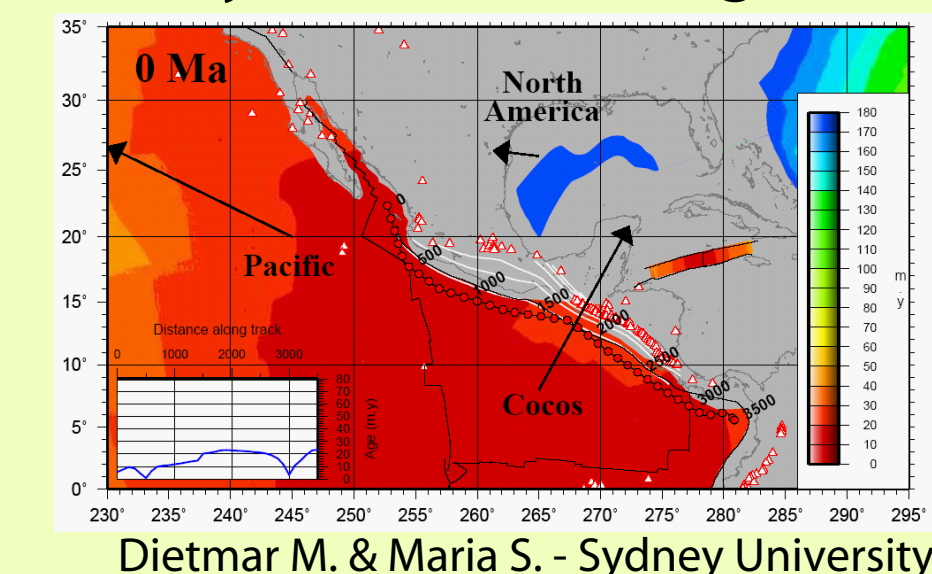
### Stable Isotopes, Eiler



## 4) Geodynamics



### Geodynamic Models: Age files



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