

CICLO ANDINO

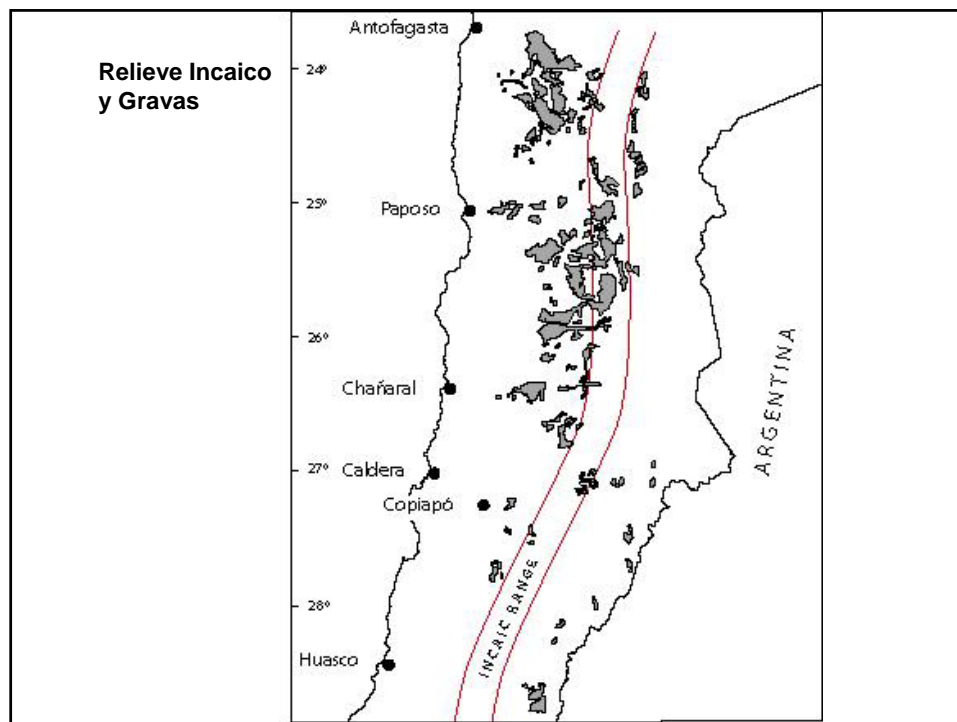
Tercera Etapa

Segunda Parte

Tercera Etapa de Ciclo Andino
Segunda parte

Chañaral - Lonquimay





Relieve Incaico 1 (Cordillera de Domeyko)

Flanco W

Flanco E

Arica:	Fms. Joracane, Huaylas, El Diablo	----
	Fm. Lupica	----
Iquique:	Fm. Altos de Pica	----
Valle Río Loa:	Fms. El Loa, Chiu-Chiu	Fm. Calama
Antofagasta:	Fm. Pampa Mulas	Gr. Paciencia (Fms. Tambores y San Pedro)
Chañaral:	Fm. Pampa Mulas	
Copiapó:	Gravas de Atacama	

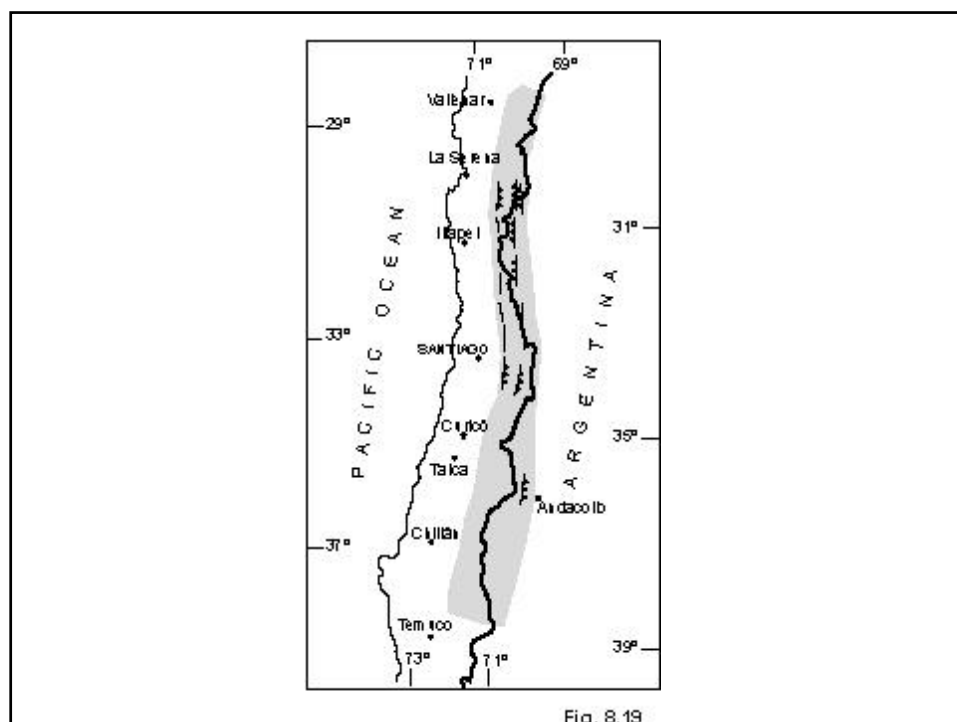
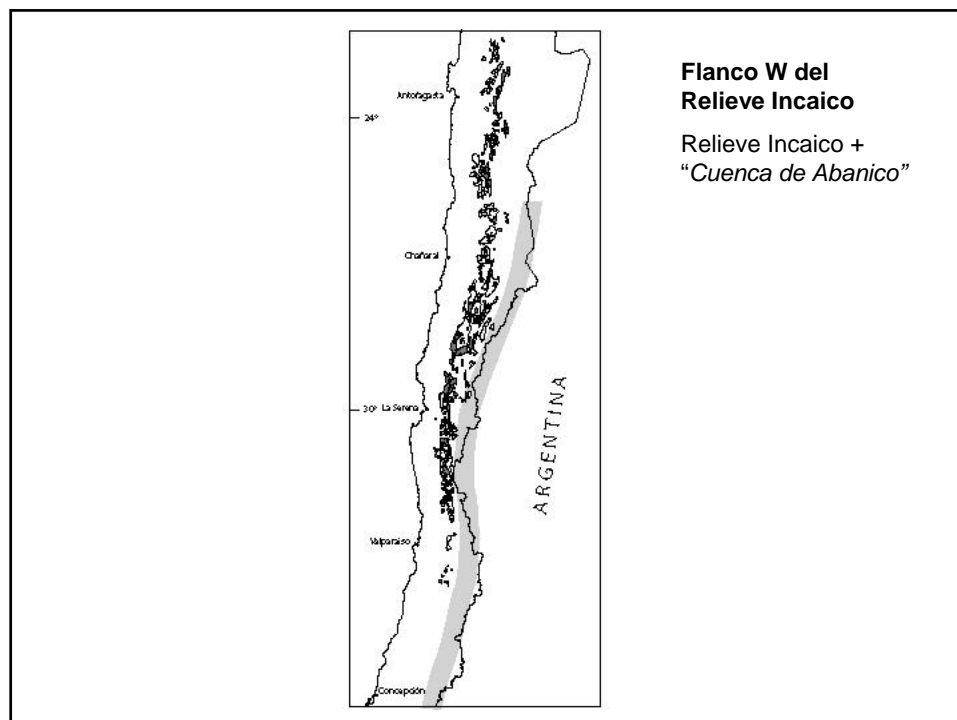
Relieve Incaico 2
(Cordillera de Domeyko)

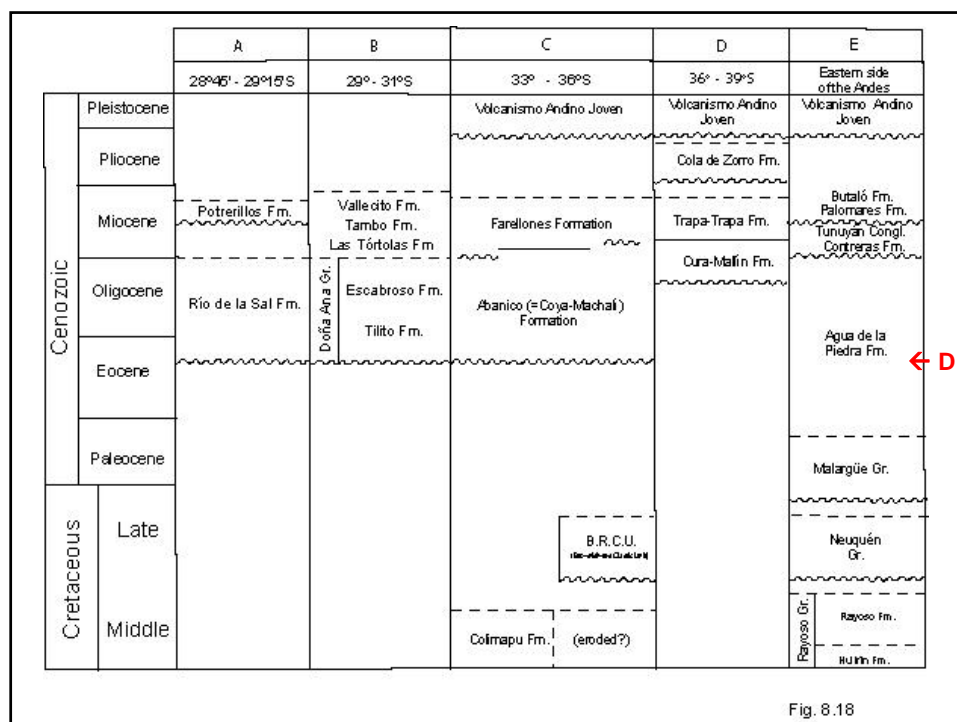
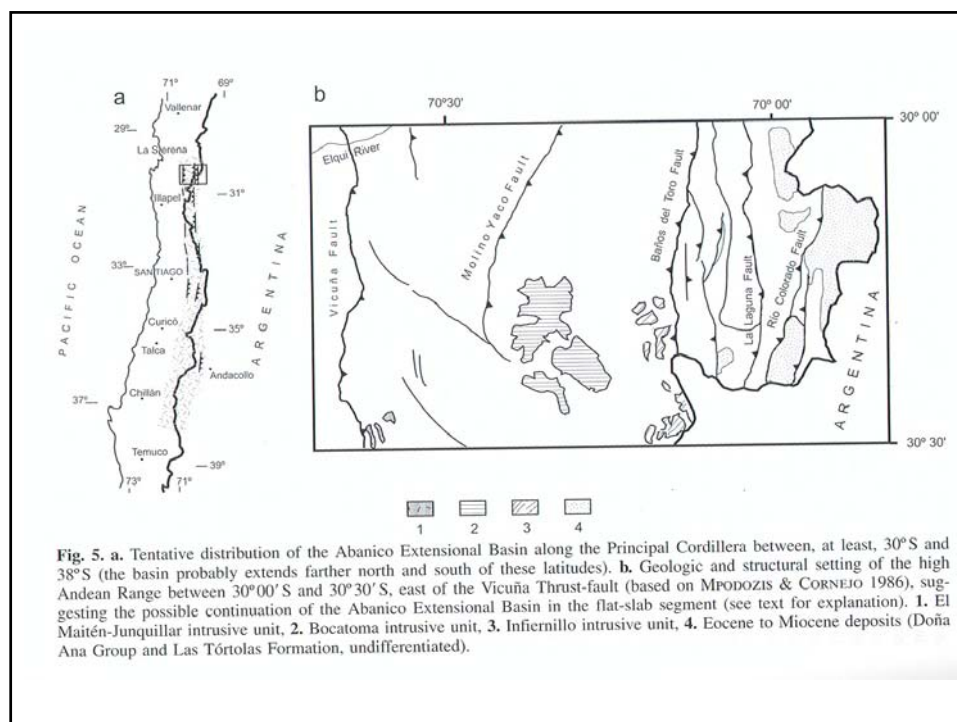
Flanco W

Flanco E

Vallenar:	Gravas de Atacama ----	Fm. Potrerillos Fm. Río de la Sal
La Serena:	----	Fms. Las Tótolas, Tambo y Vallecito Grupo Doña Ana (Fms. Tilito y Escabroso)
Santiago:	Fm. Navidad Fm. Algarrobo (Eoc.)	Fm. Farellones Fm. Abanico y Estr. Co. los Ratones
Curicó-Lonquimay:	Fm. Ranquil Gr. Concepción	Fm. Trapa-Trapa Fm. Cura-Mallín ----

Gravas de Atacama

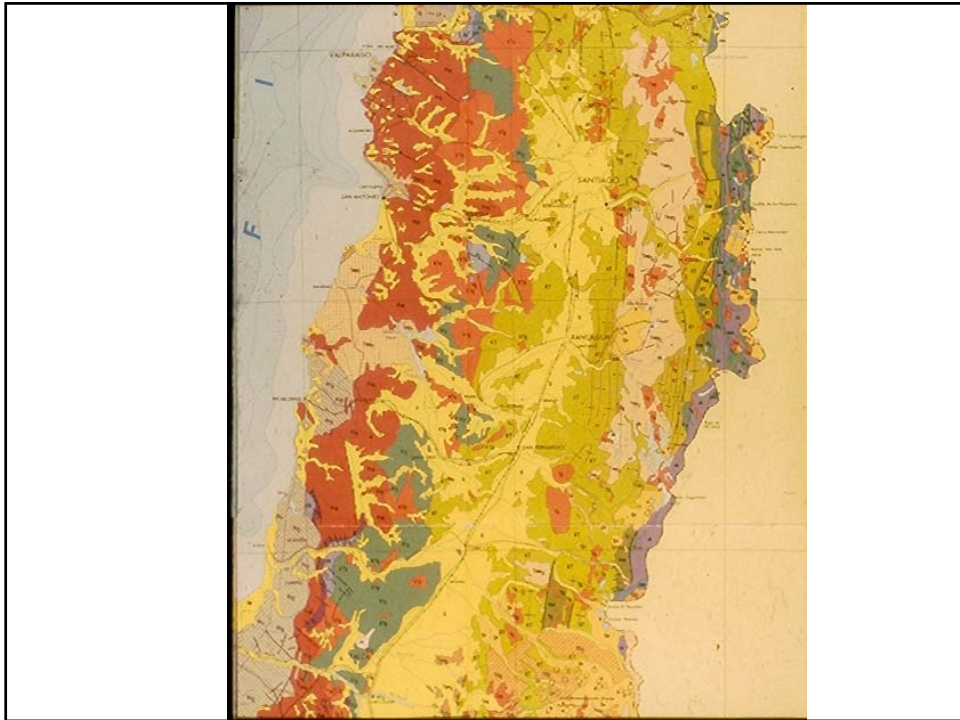




Región central (33°-36°S):

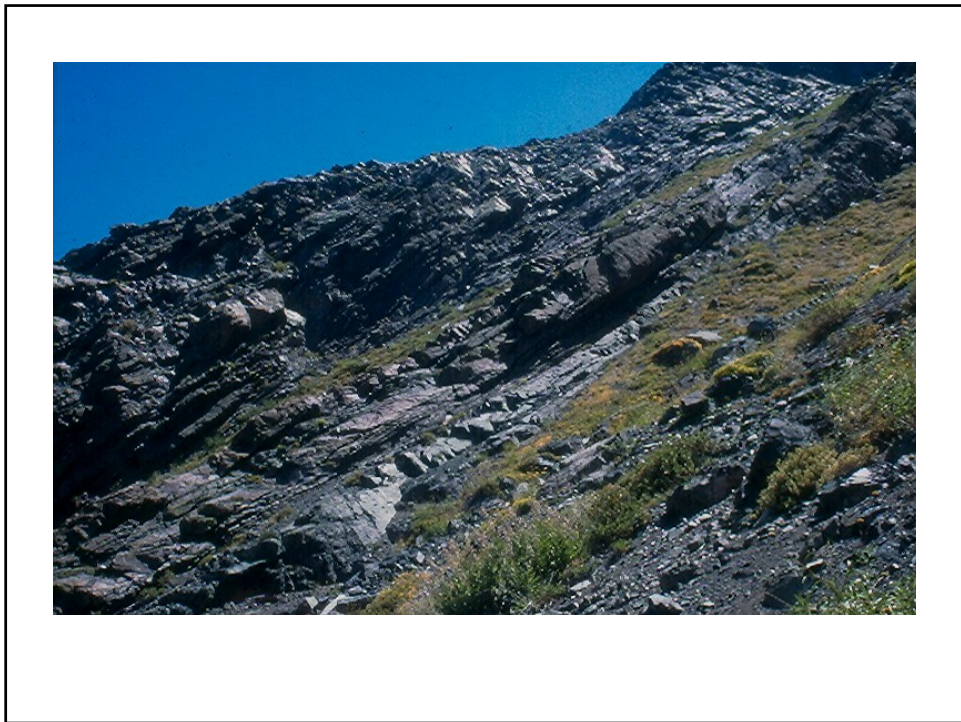
- Cuenca de Abanico (extensión e inversión)
- Fms. Abanico y Farellones

Fm. Abanico

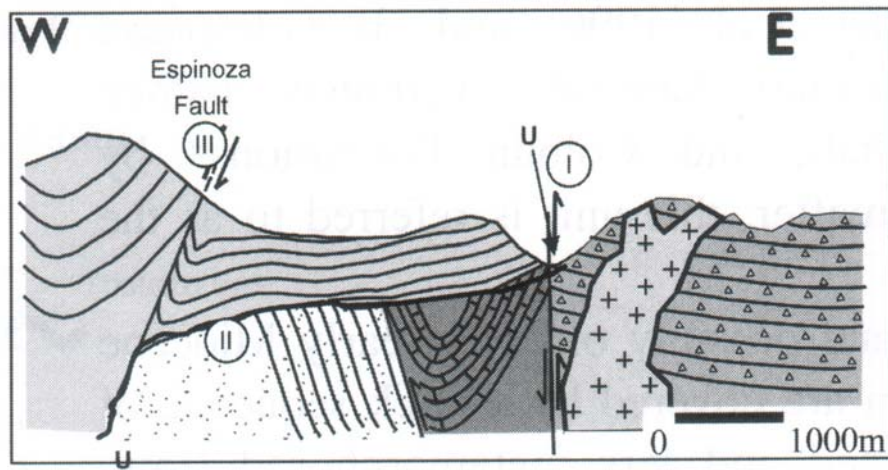
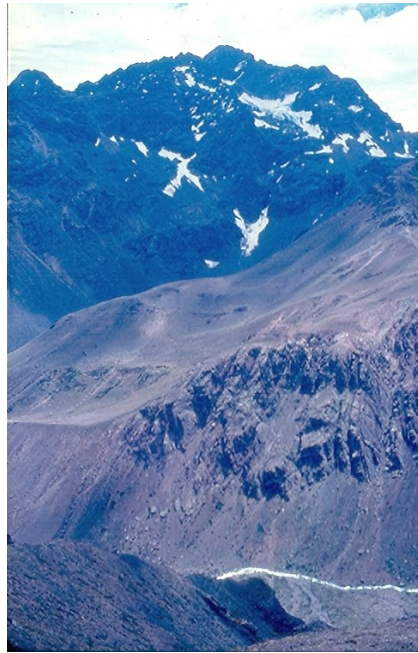


The Abanico deposits

- 2500-3000 m thick volcanoclastic succession and acidic to intermediate lavas with alluvial, fluvial and lacustrine (up to 500 m thick) intercalations.
- Sedimentary intercalations: coarse and fine-grained detrital deposits and micritic and rare oolitic limestones.
- Pervaded by low-grade metamorphic minerals (zeolite to prehnite-pumpellyite facies).



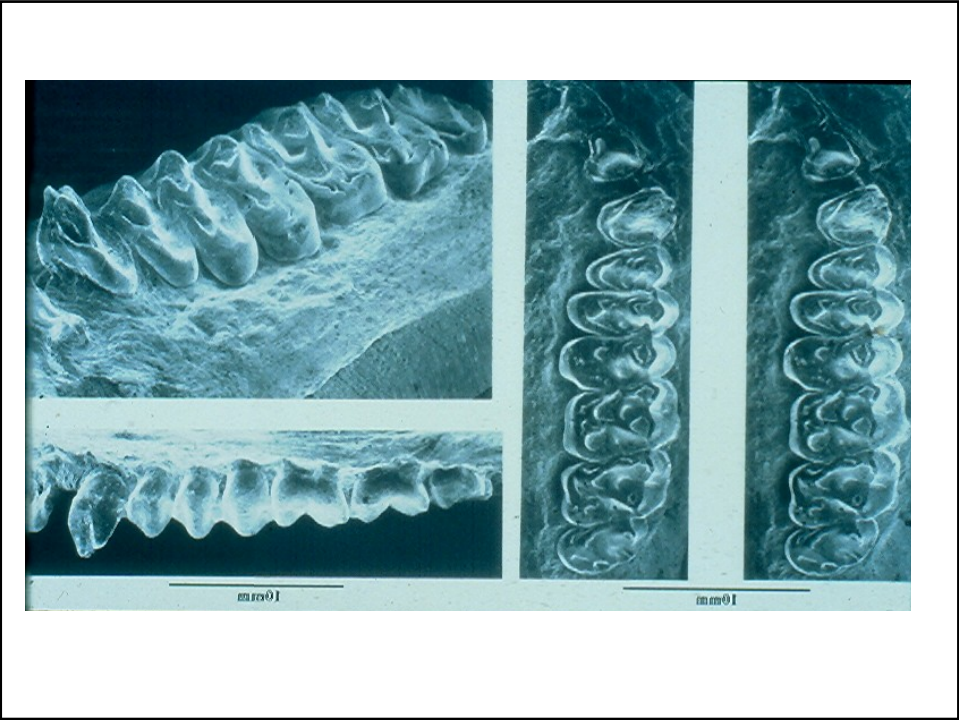


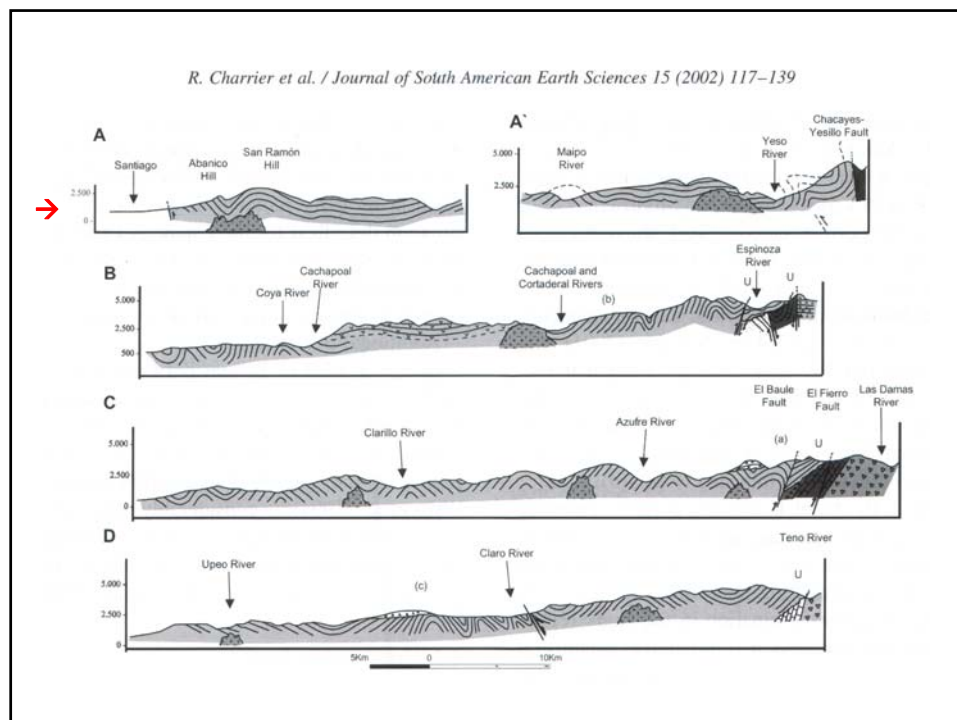
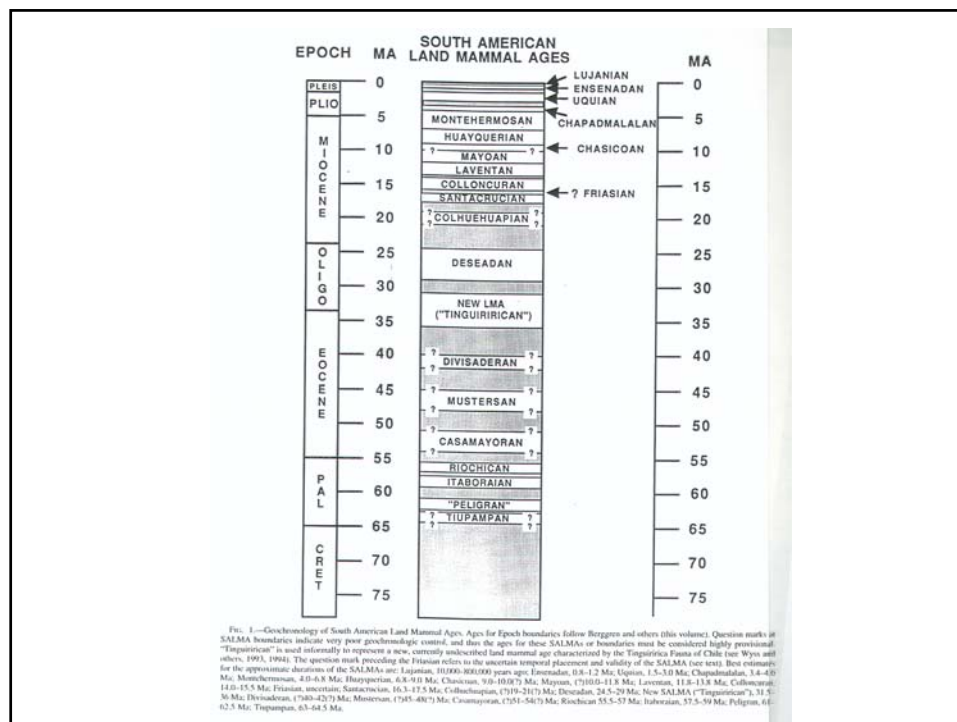




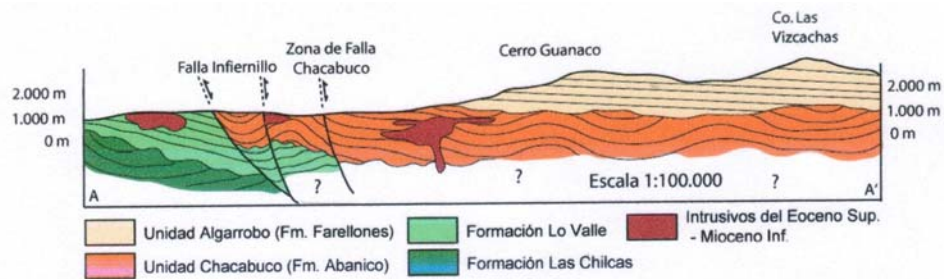








Cuesta de Chacabuco



Perfil San Ramón – Río Colorado

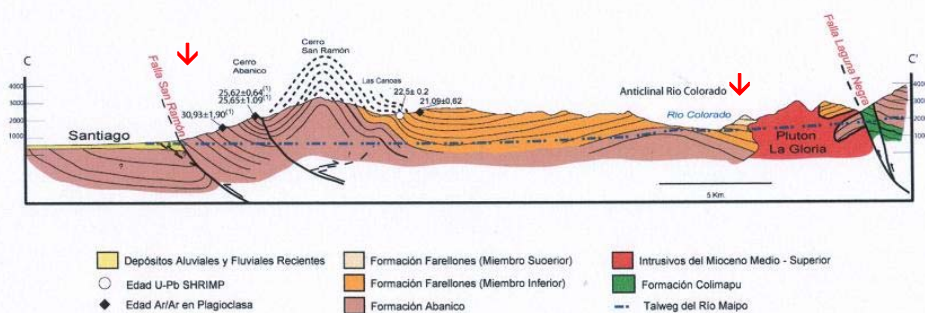


Figura 5.3 Sección geológica esquemática C-C interpretada. Ubicación en la Figura 4.5

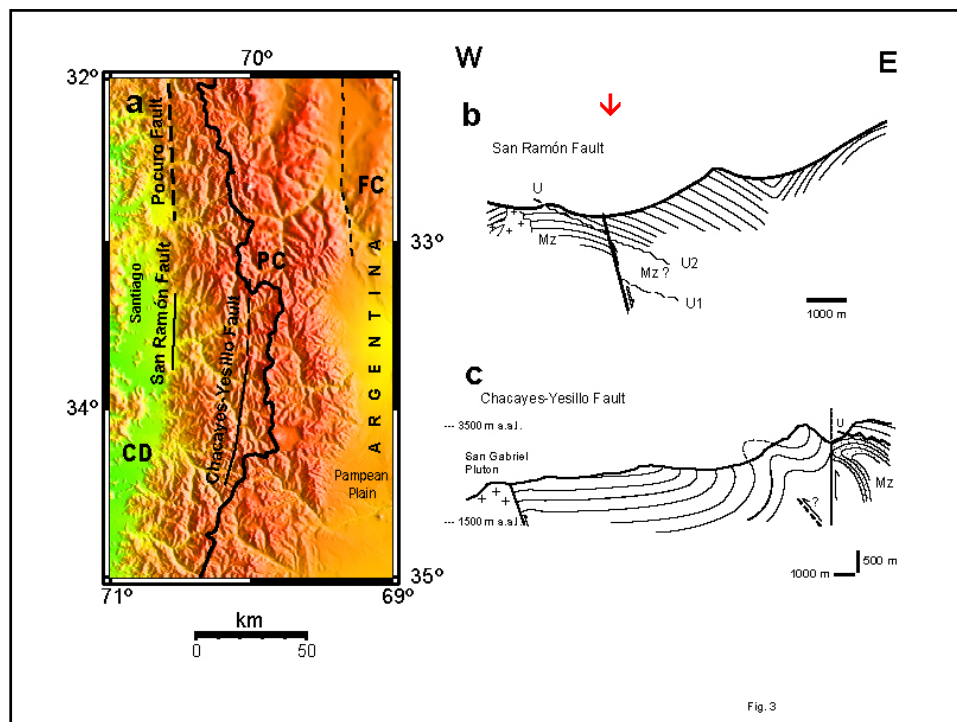
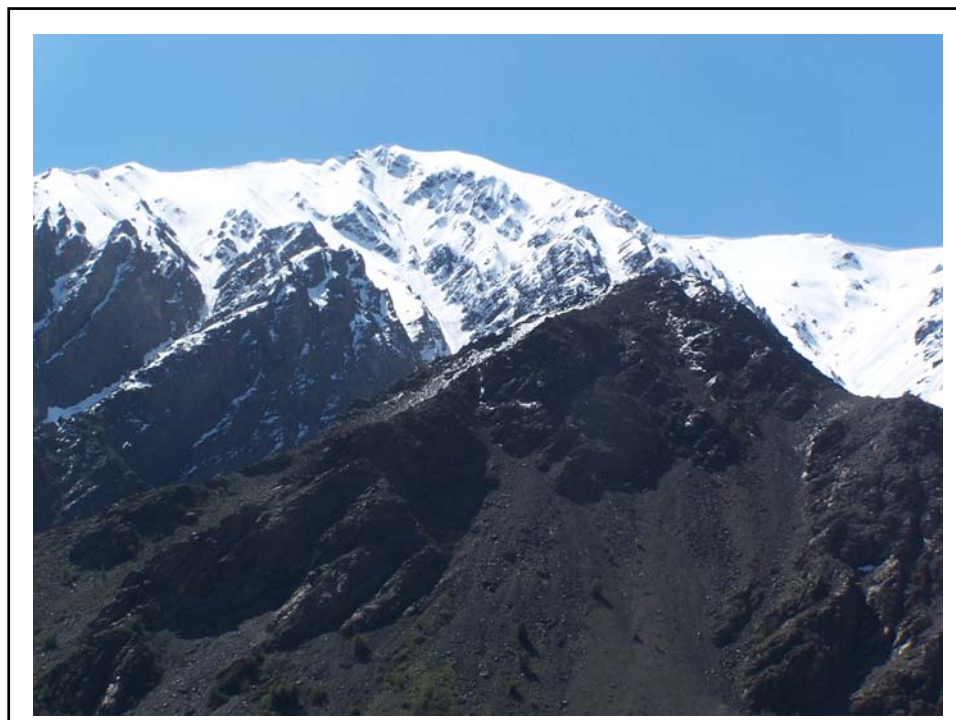
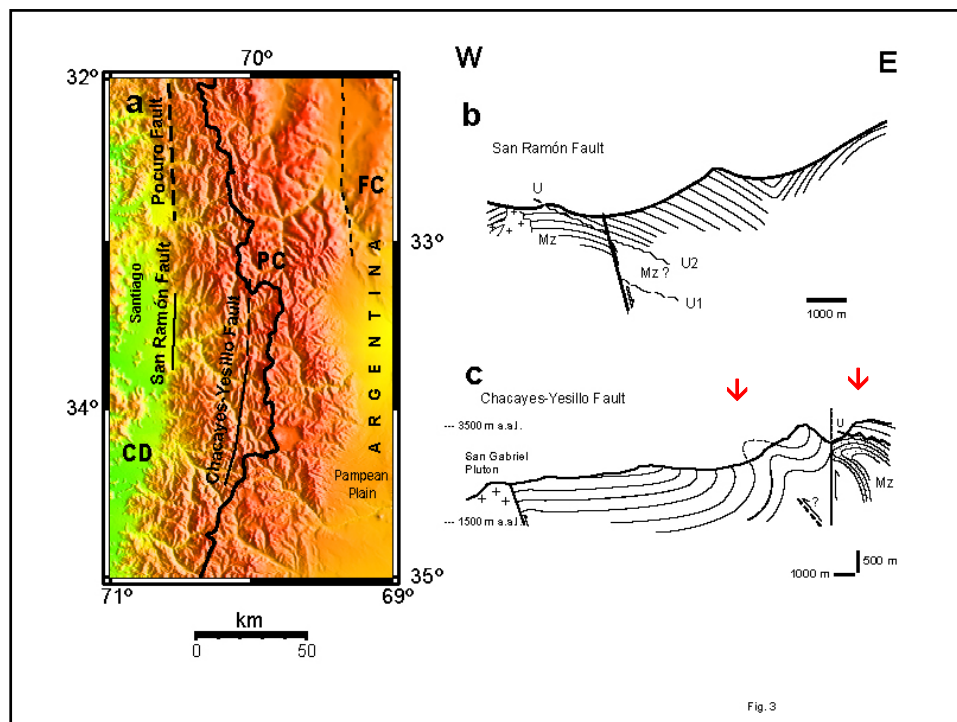
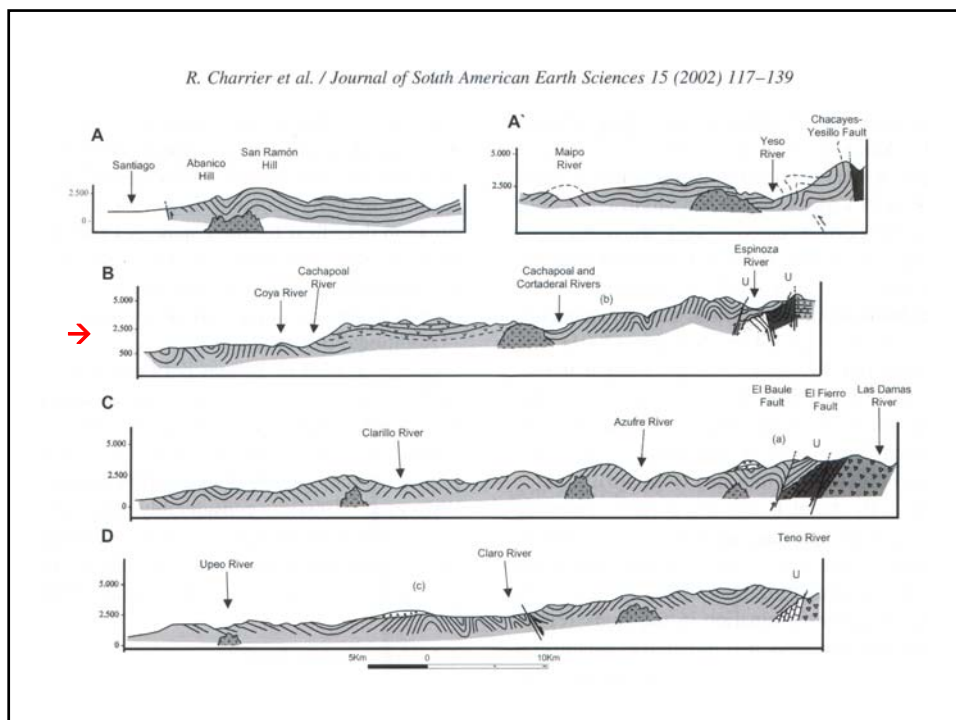
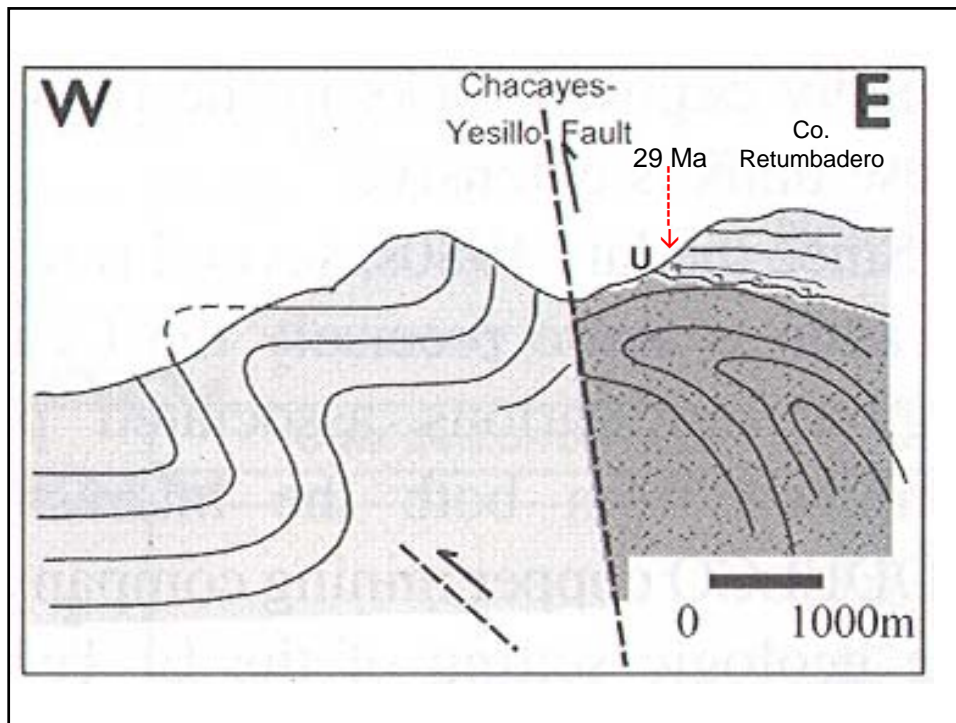
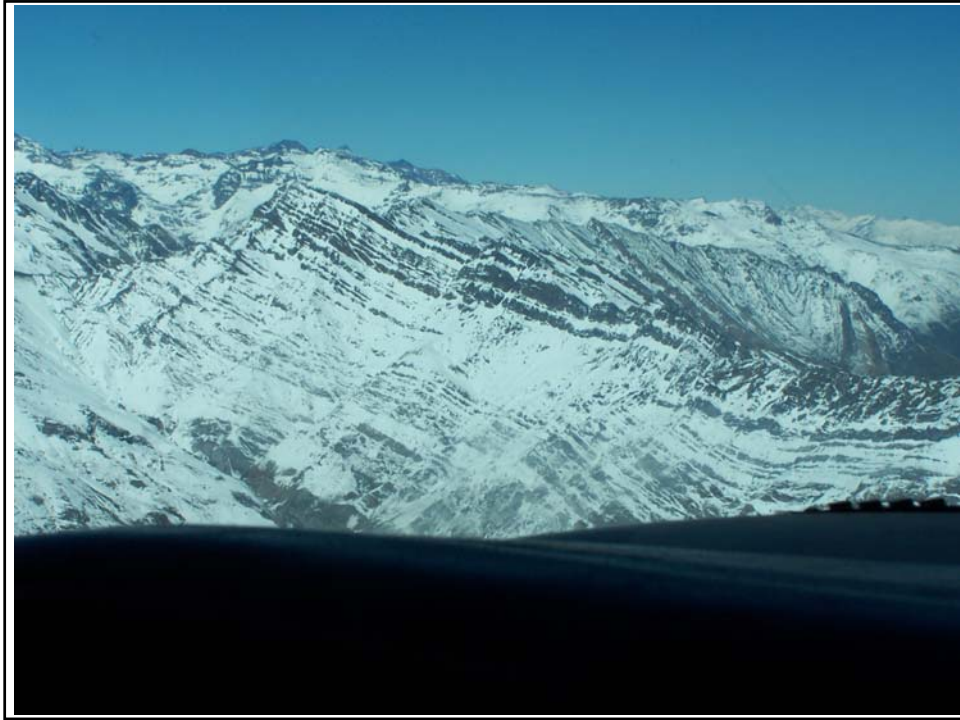


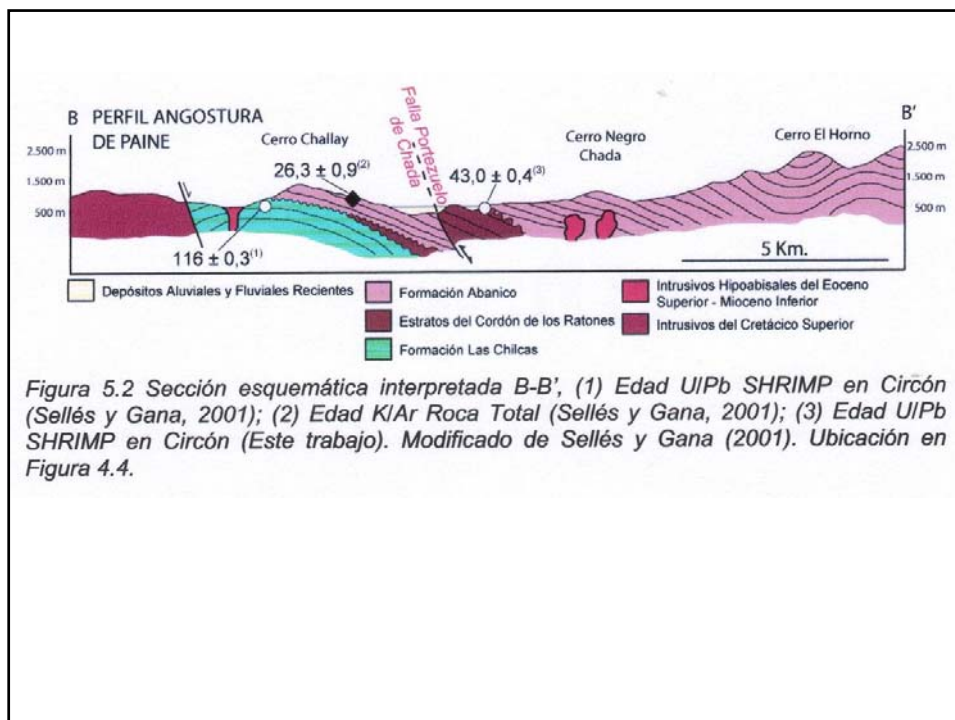
Fig. 3

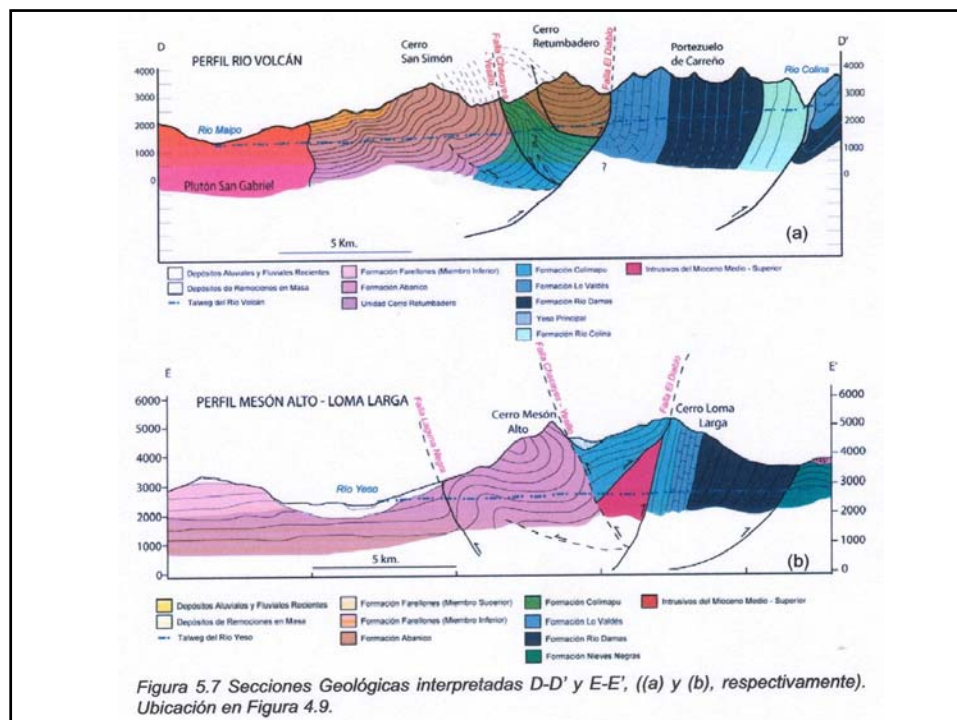
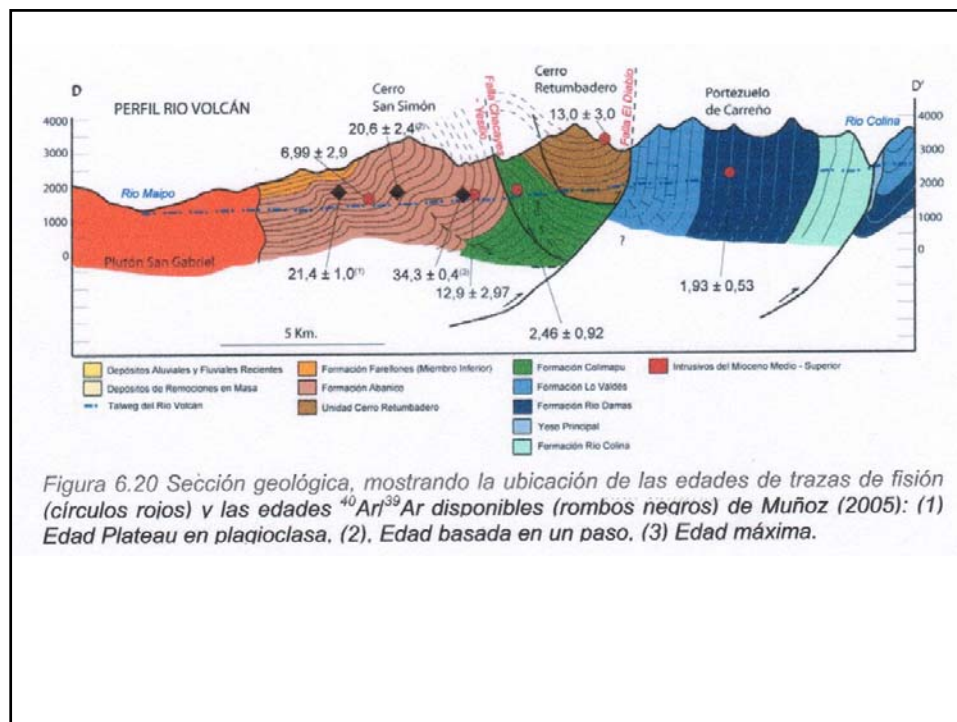


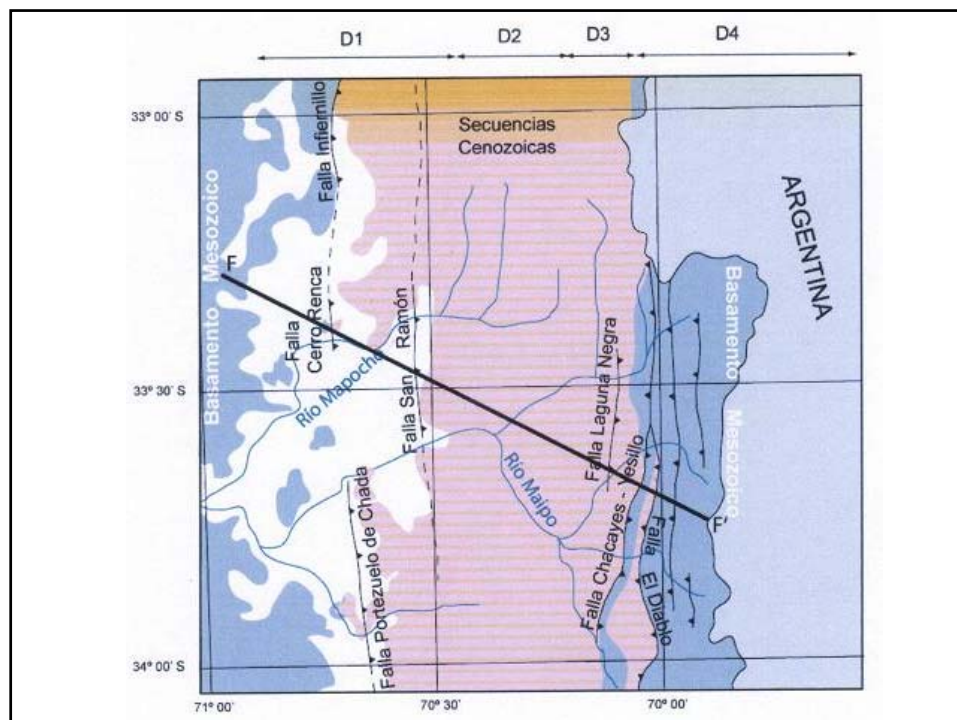
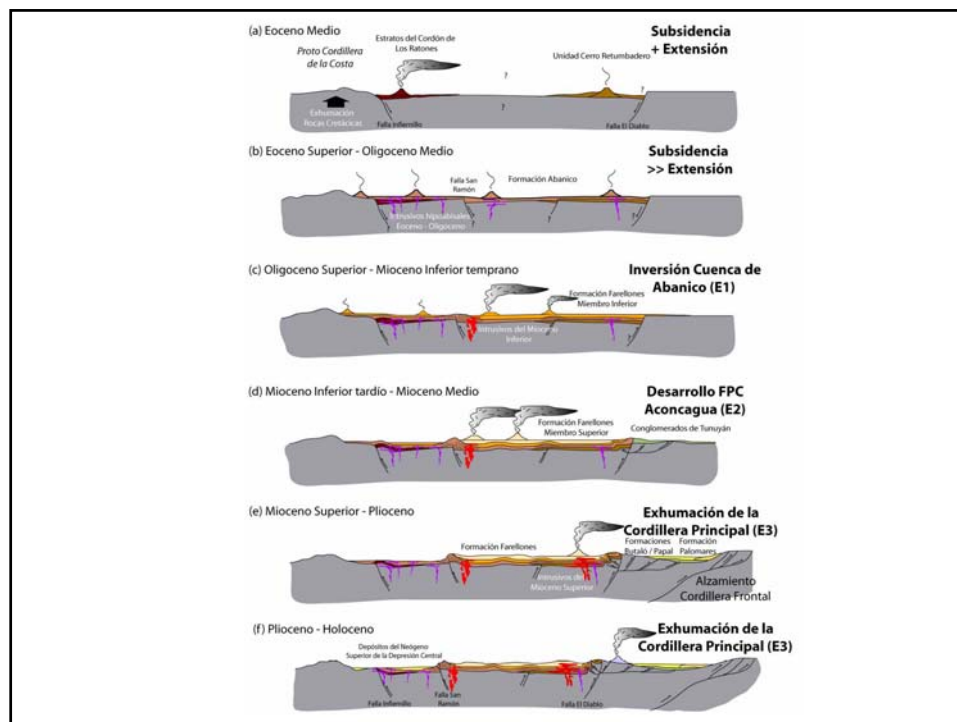


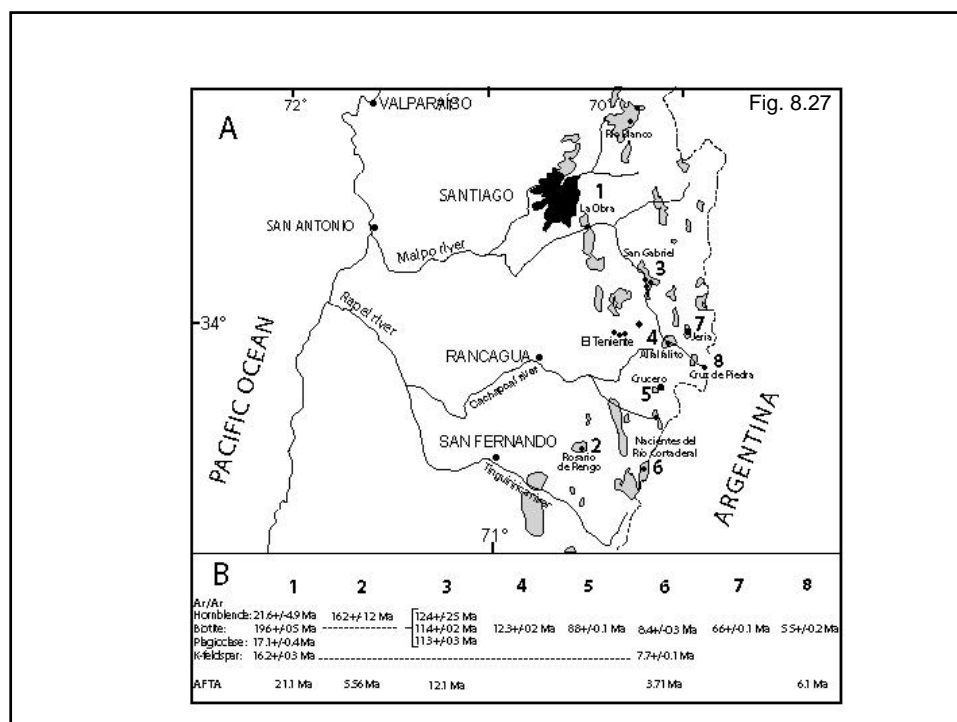
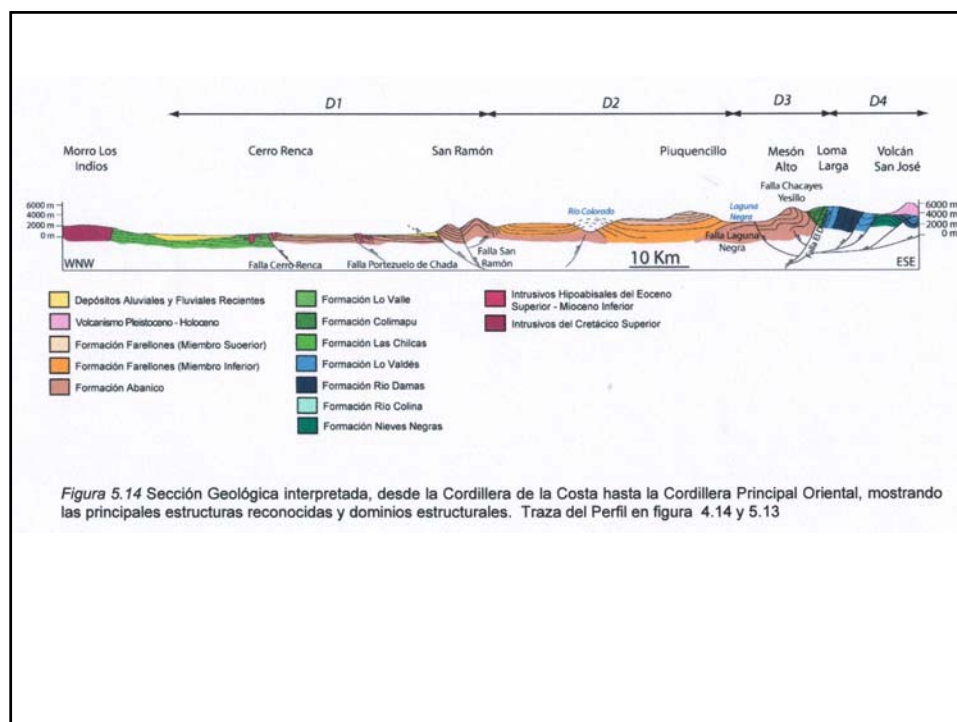


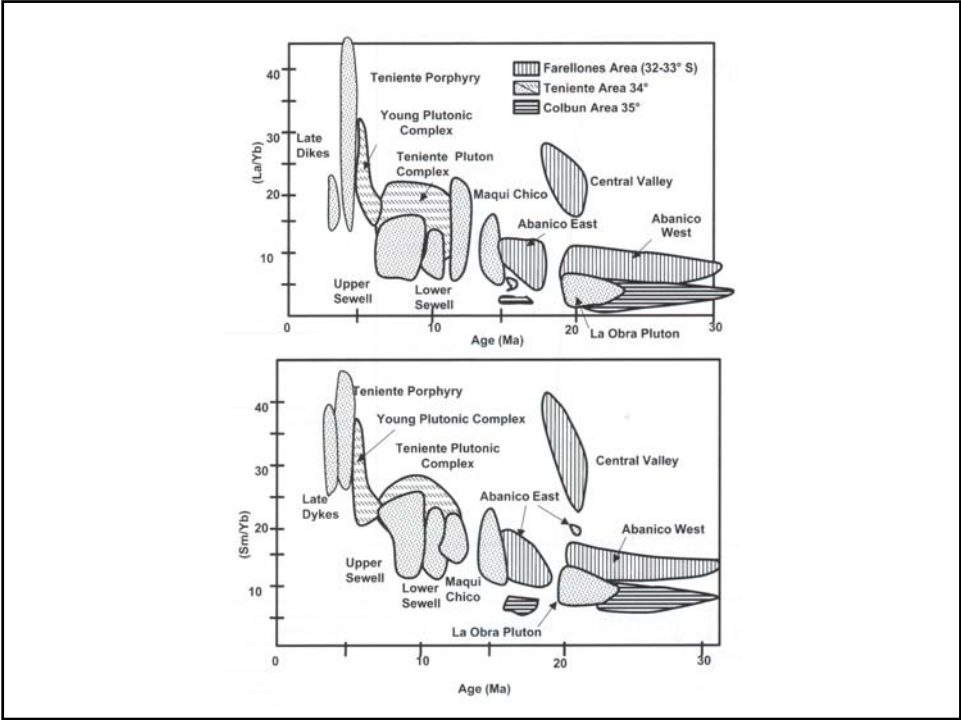
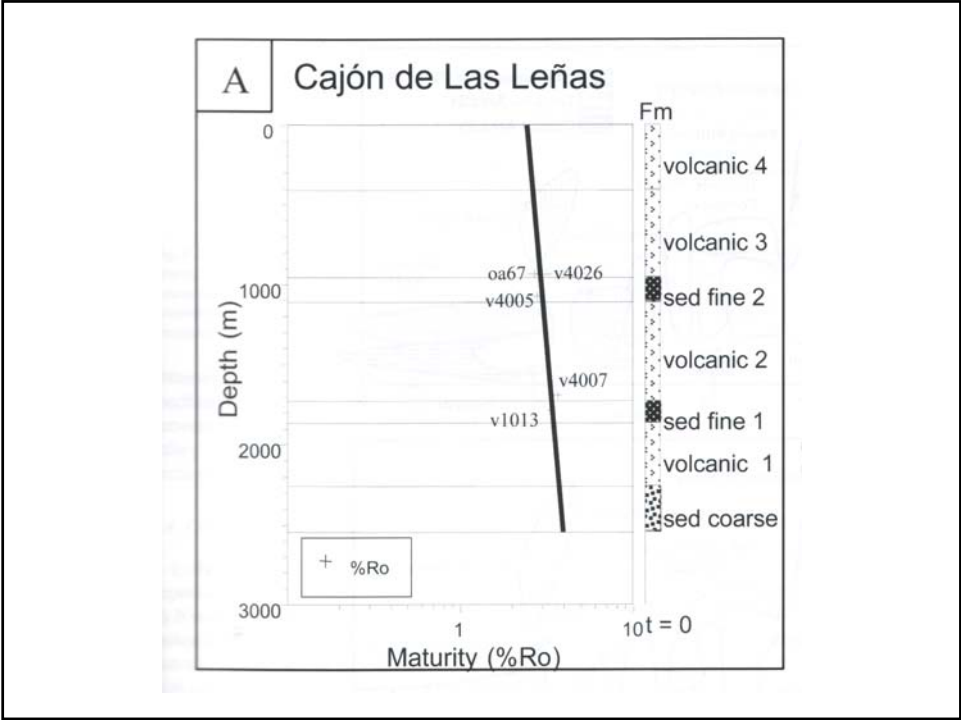








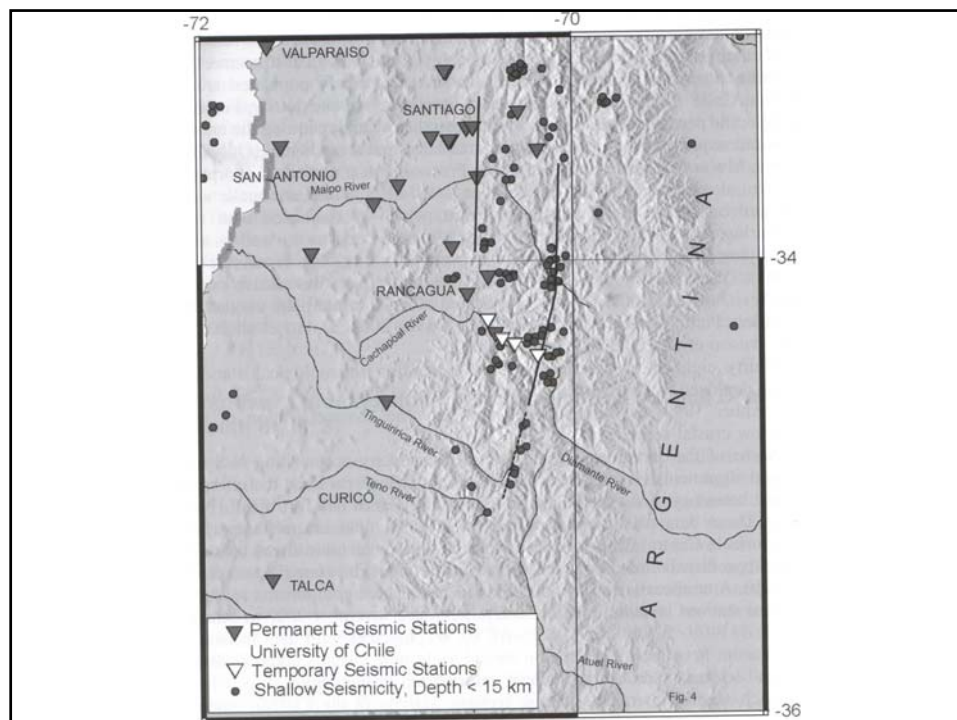


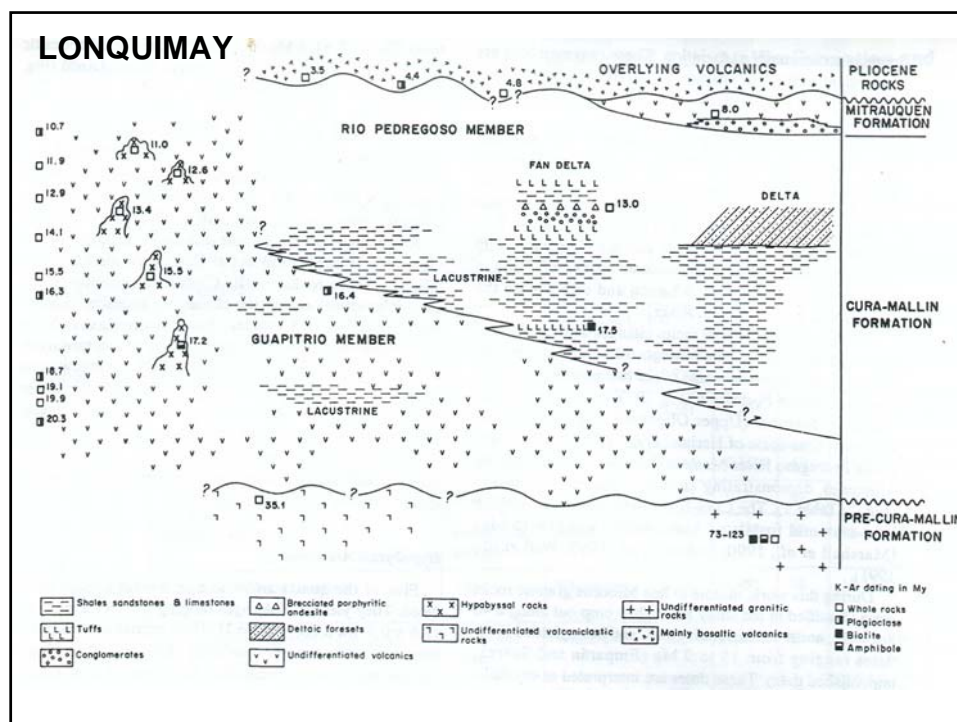
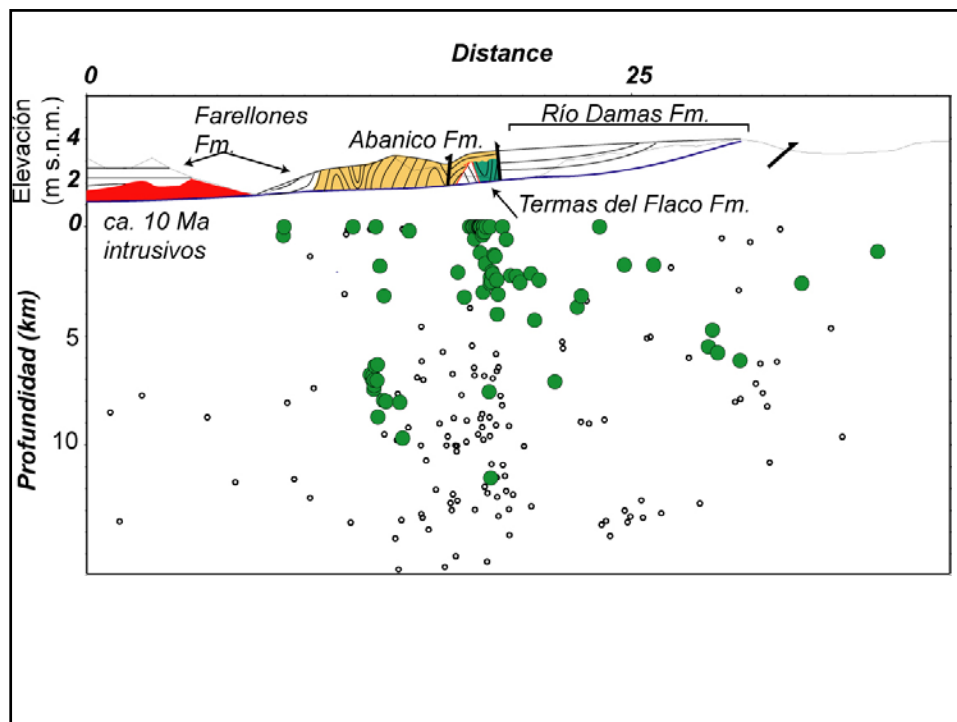


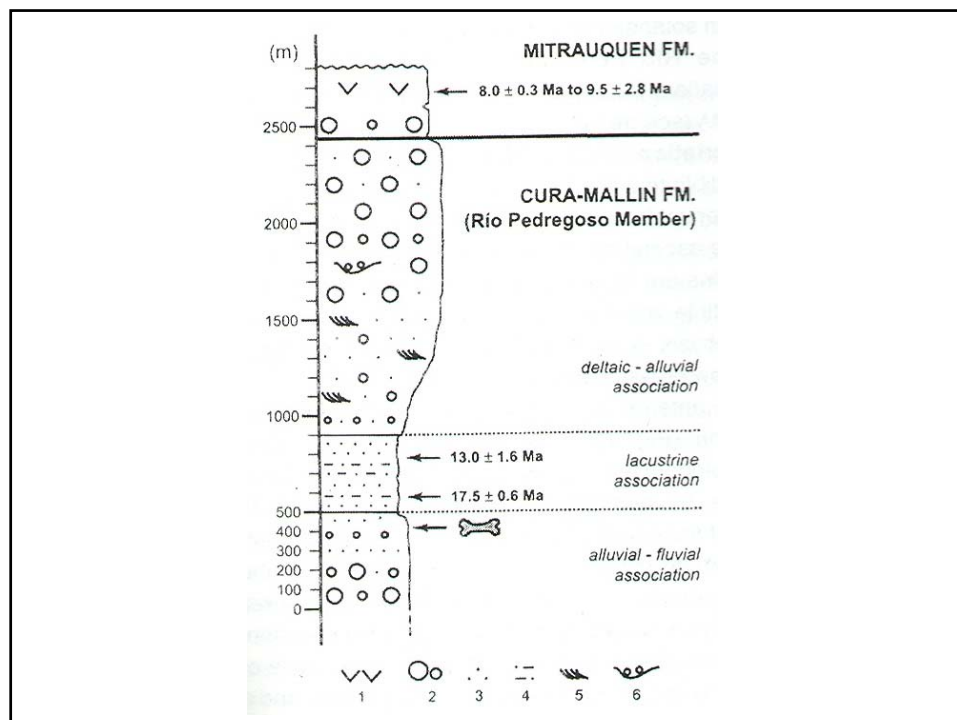
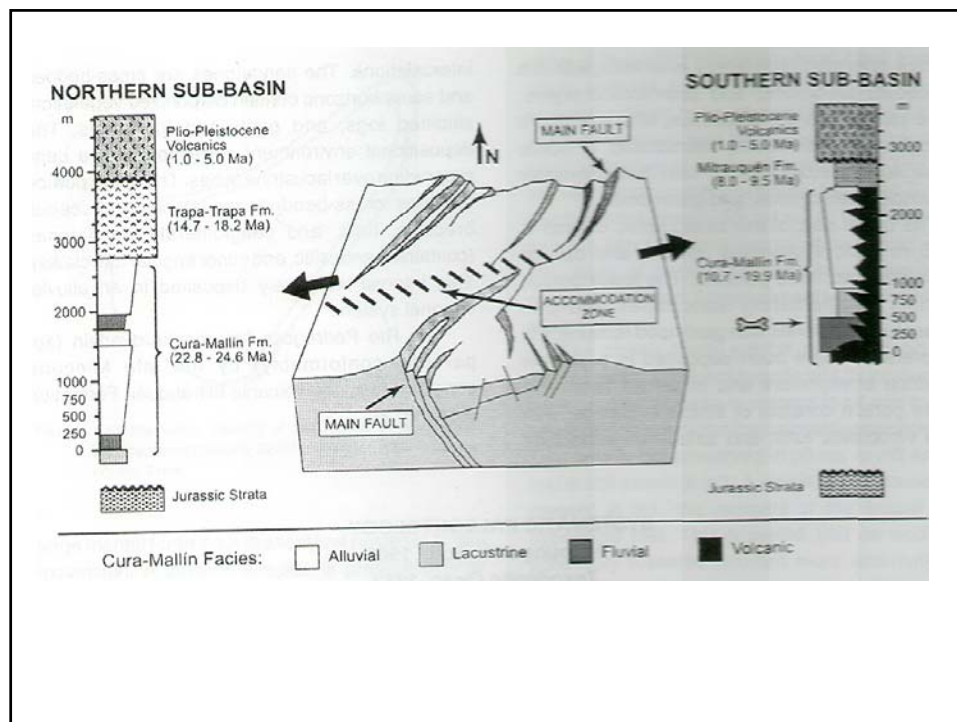
Shallow seismicity:

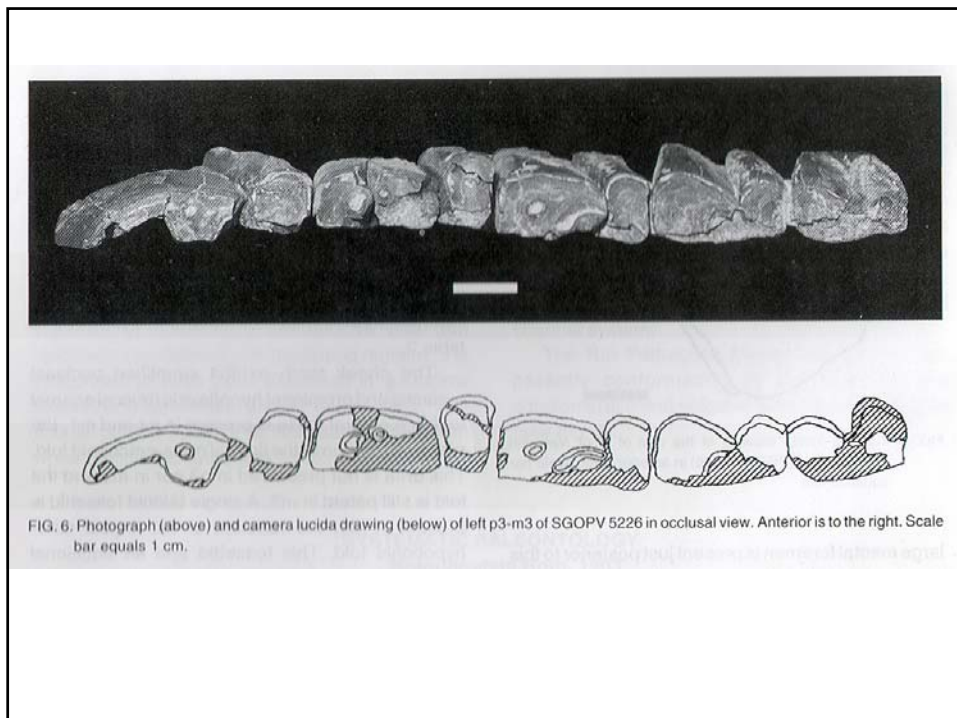
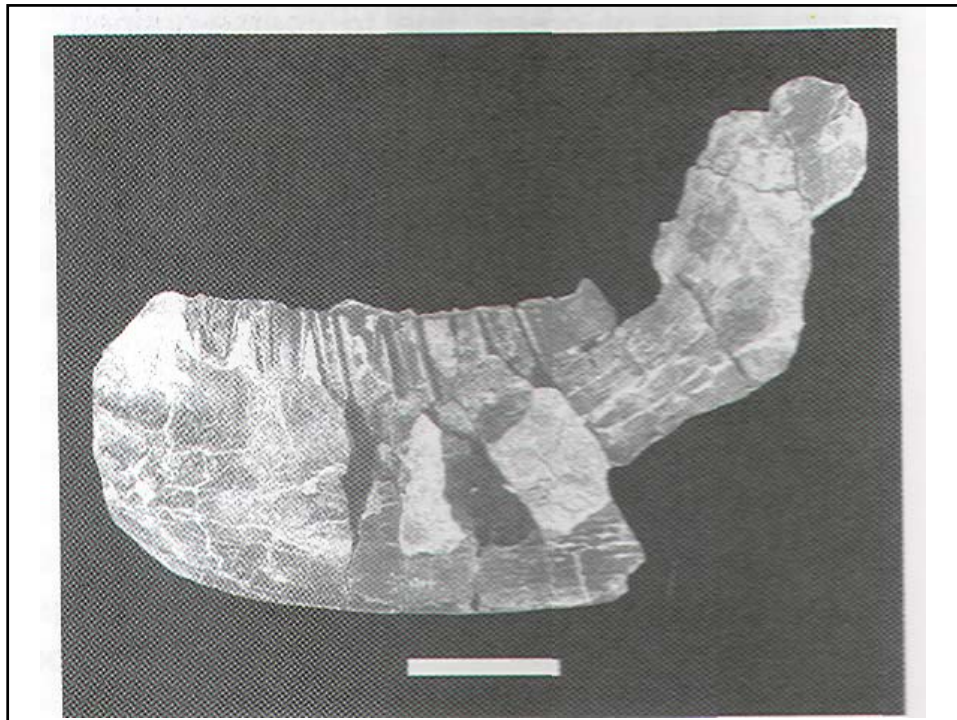
Present-day shallow seismic seismicity is associated with the eastern major fault(s) that bound the Abanico outcrops with Mesozoic deposits.

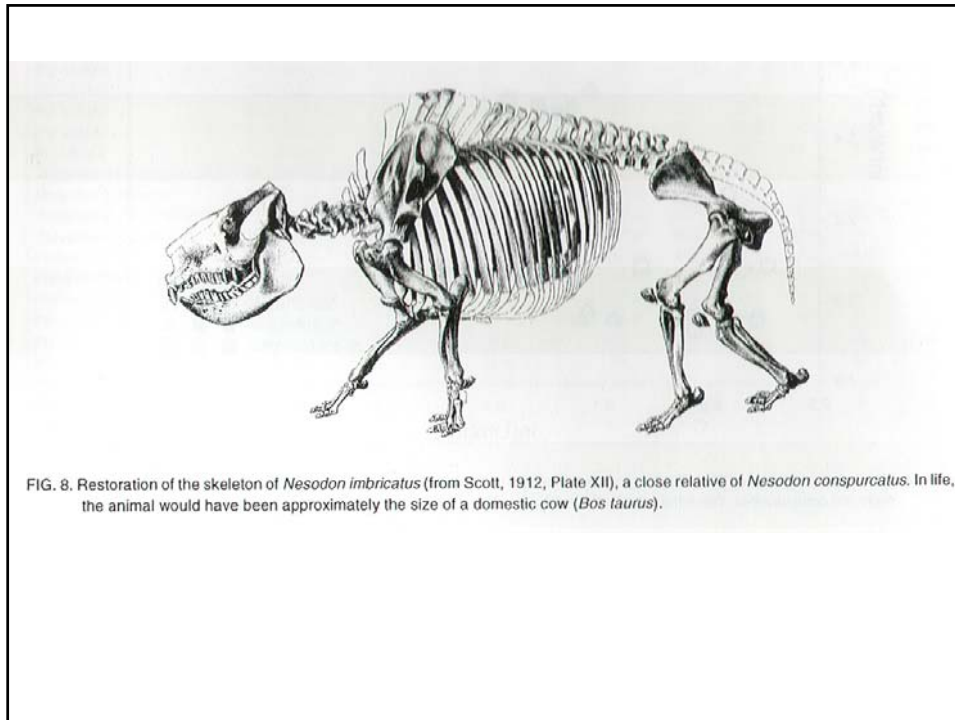
Focal mechanisms indicate dextral strike-slip movement.







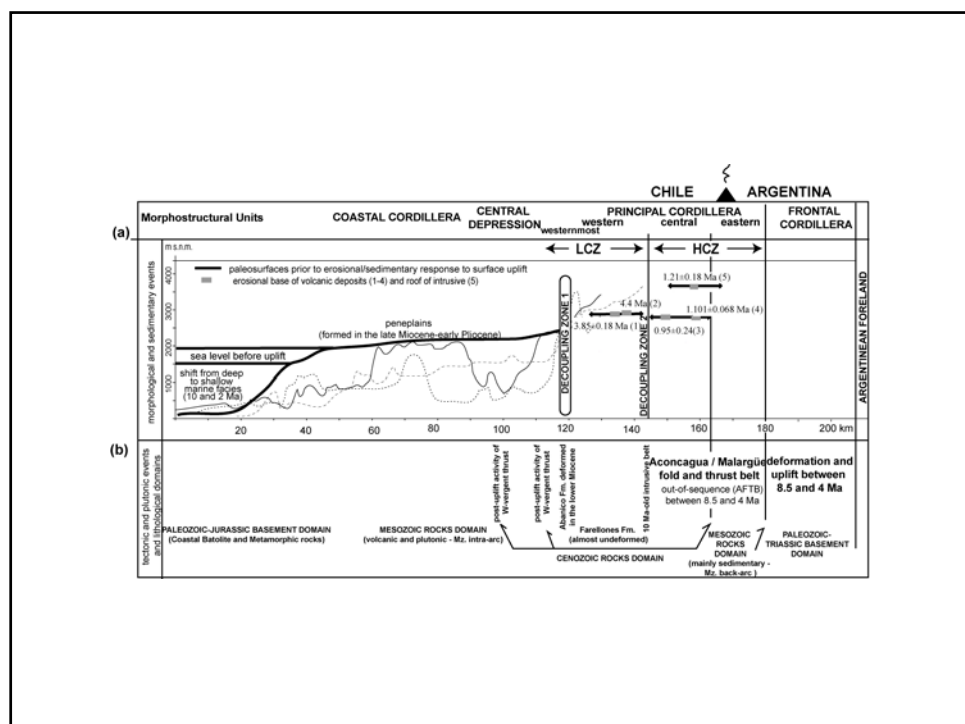
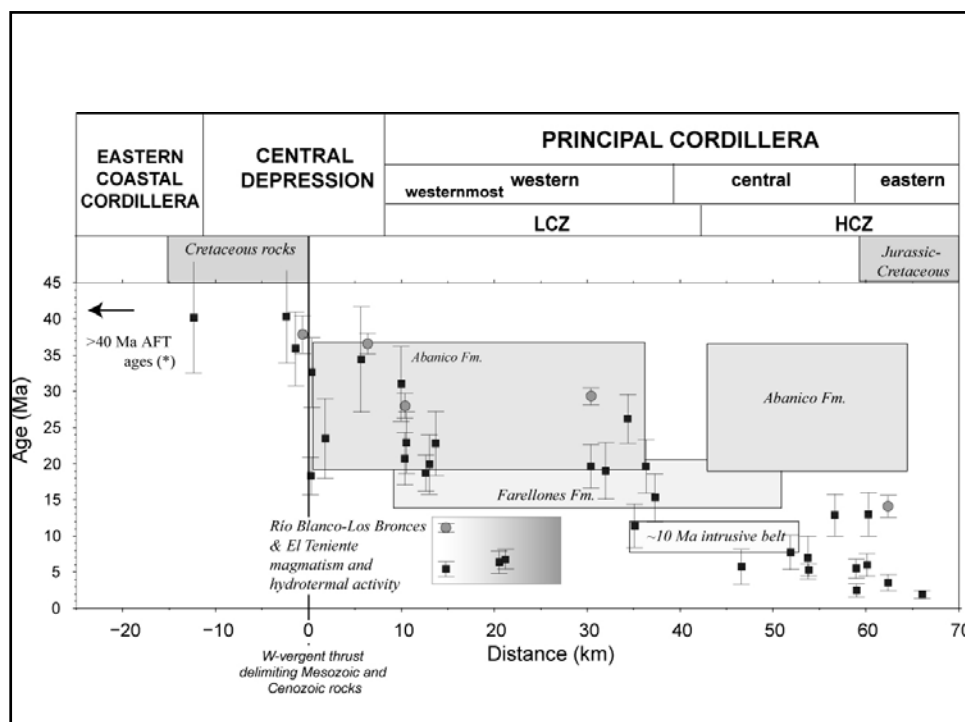


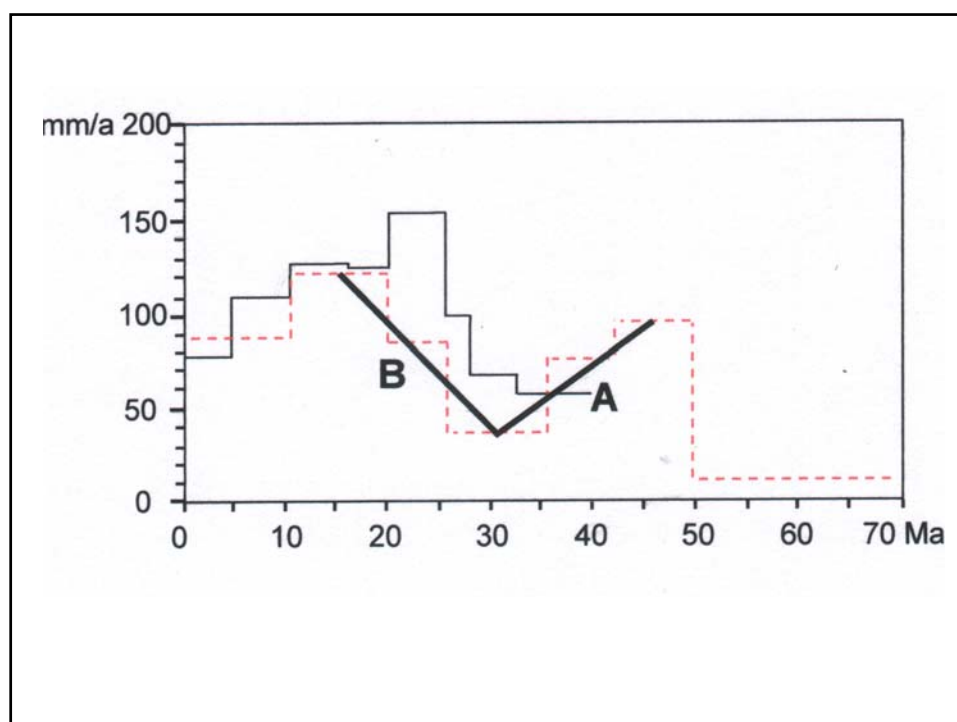
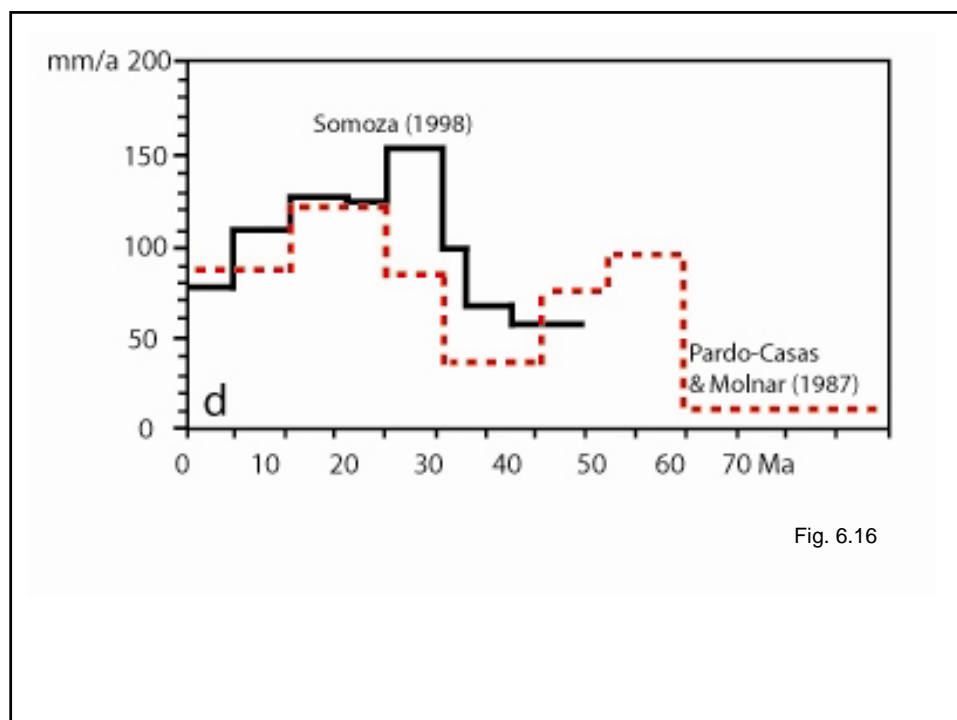


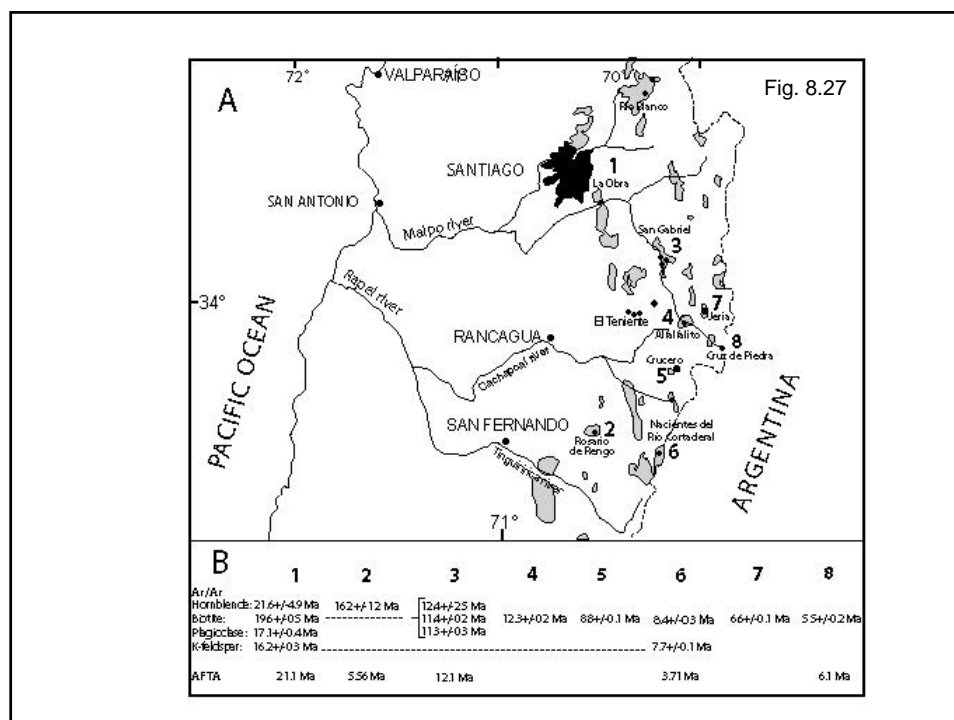
Comentarios generales sobre el alzamiento andino

- En:
 - N de Chile (Arica):
 - Plantas de Chucal y Jakkakota
 - Deformación en Chucal (4 Ma) + Qda. Macusa
 - La región central (alzamiento y erosión)
 - Magallanes

Comentario general

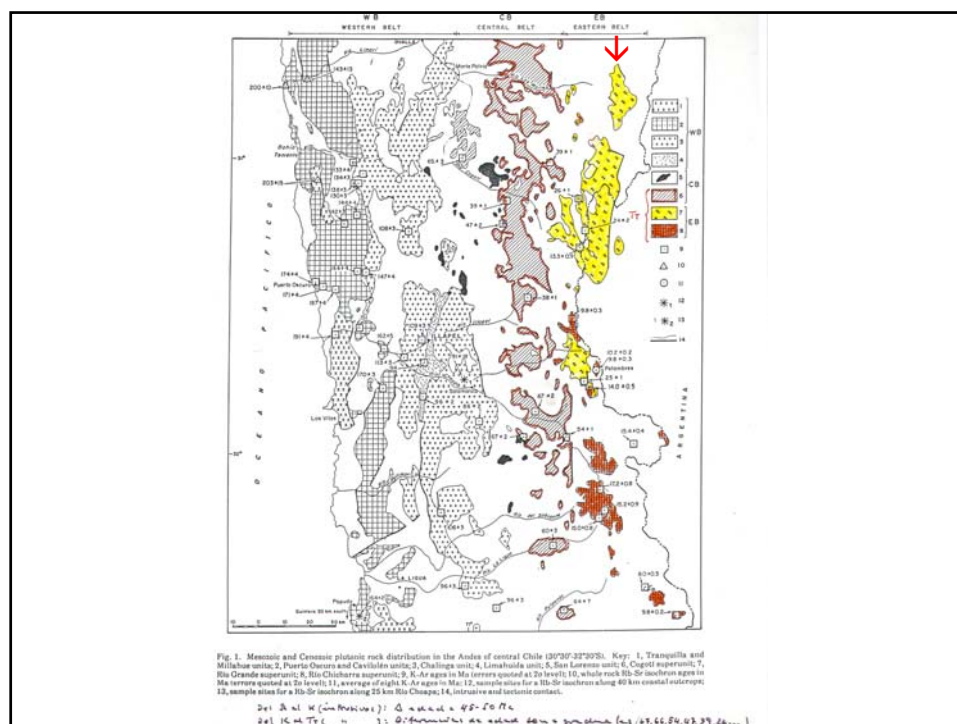
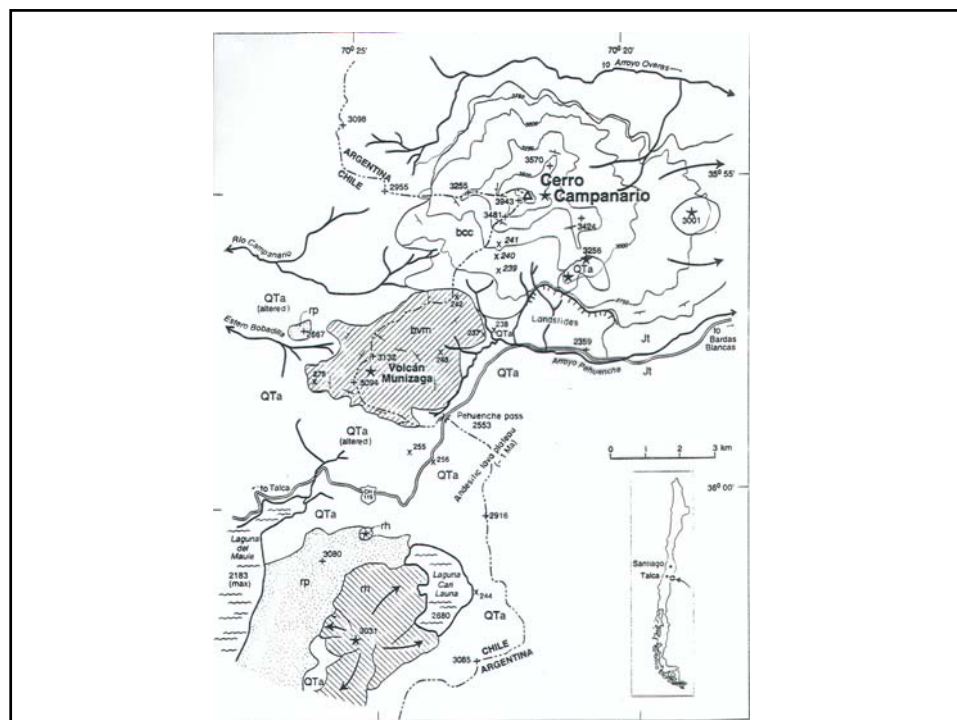






Ar/Ar and AFT ages for cenozoic plutons in central Chile

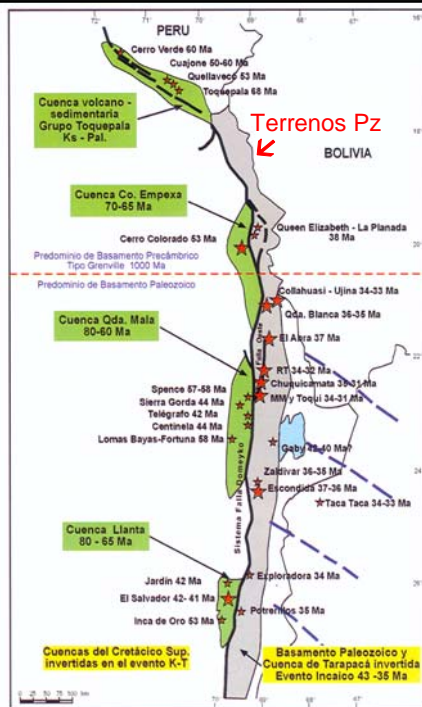
B	1	2	3	4	5	6
Ar/Ar						
Hornblende:	21.6 \pm 4.9 Ma	16.2 \pm 1.2 Ma	12.4 \pm 2.5 Ma	12.3 \pm 0.2 Ma	8.8 \pm 0.1 Ma	8.4 \pm 0.3 Ma
Biotite:	19.6 \pm 0.5 Ma		11.4 \pm 0.2 Ma			
Plagioclase:	17.1 \pm 0.4 Ma		11.3 \pm 0.3 Ma			
K-feldspar:	16.2 \pm 0.3 Ma					7.7 \pm 0.1 Ma
AFTA	21.1 Ma	5.56 Ma	12.1 Ma			3.71 Ma
	7	8				
Ar/Ar						
Hornblende:						
Biotite:	6.6 \pm 0.1 Ma	5.5 \pm 0.2 Ma				
Plagioclase:						
K-feldspar:						
AFTA		6.1 Ma				



Tercera Etapa

Zona de Falla de Domeyko

Ubicación de los yacimientos de pórfidos



Tercera Etapa:

Zona de Falla de Domeyko

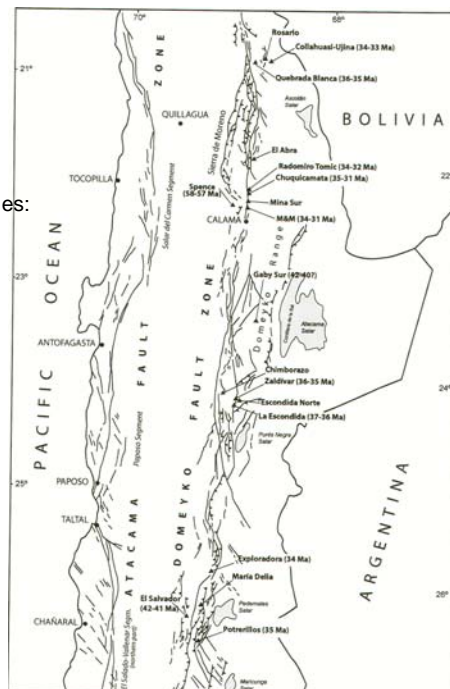
Yacimientos de pórfidos

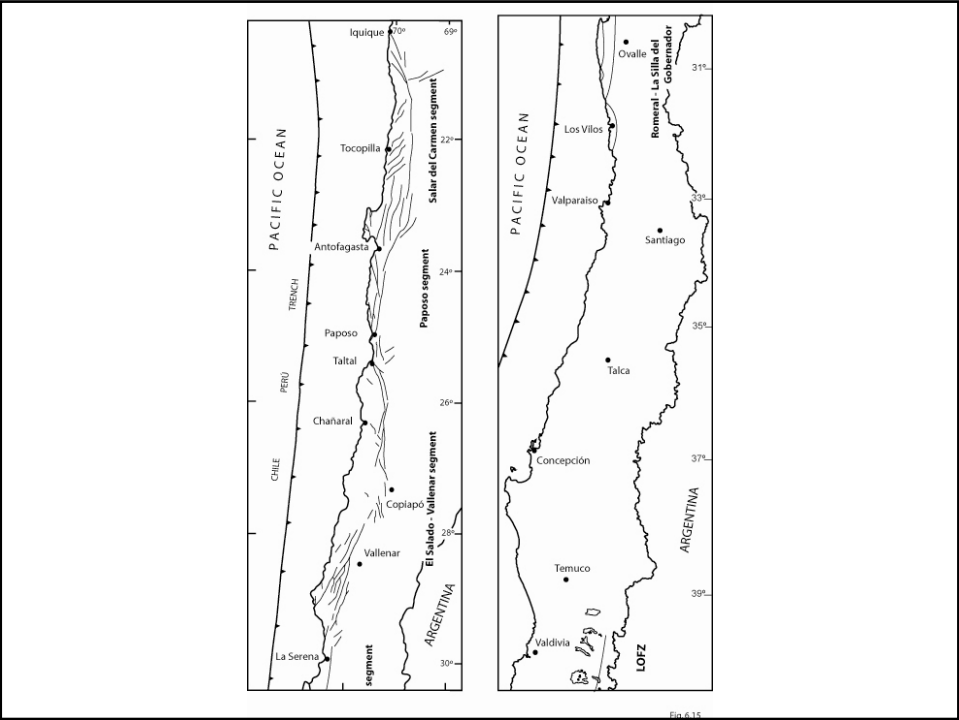
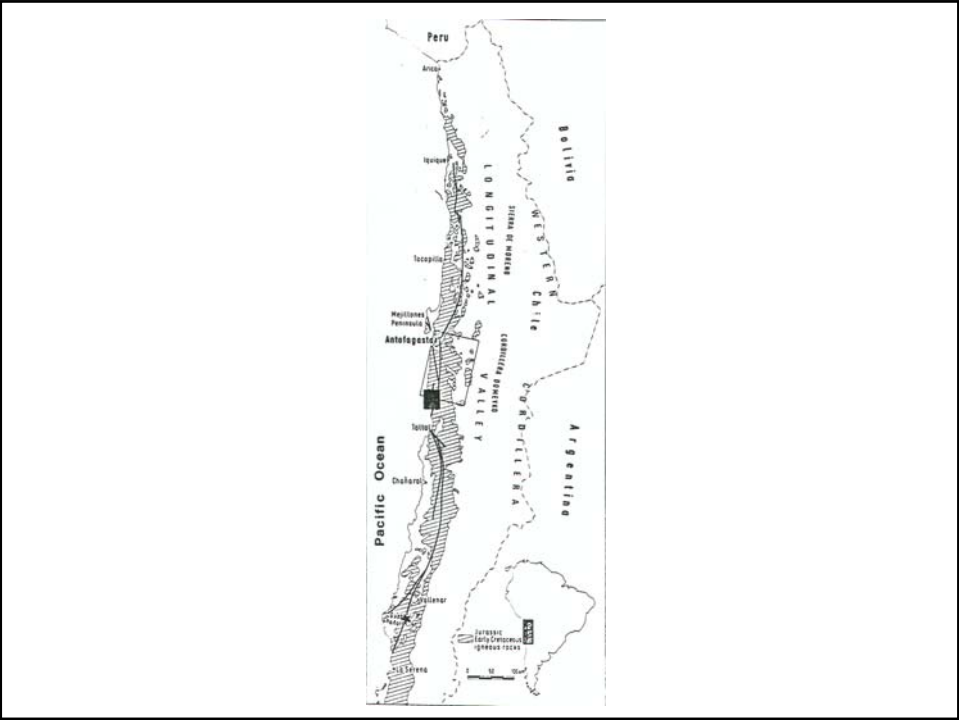
- Al W falla en cuencas extensionales:

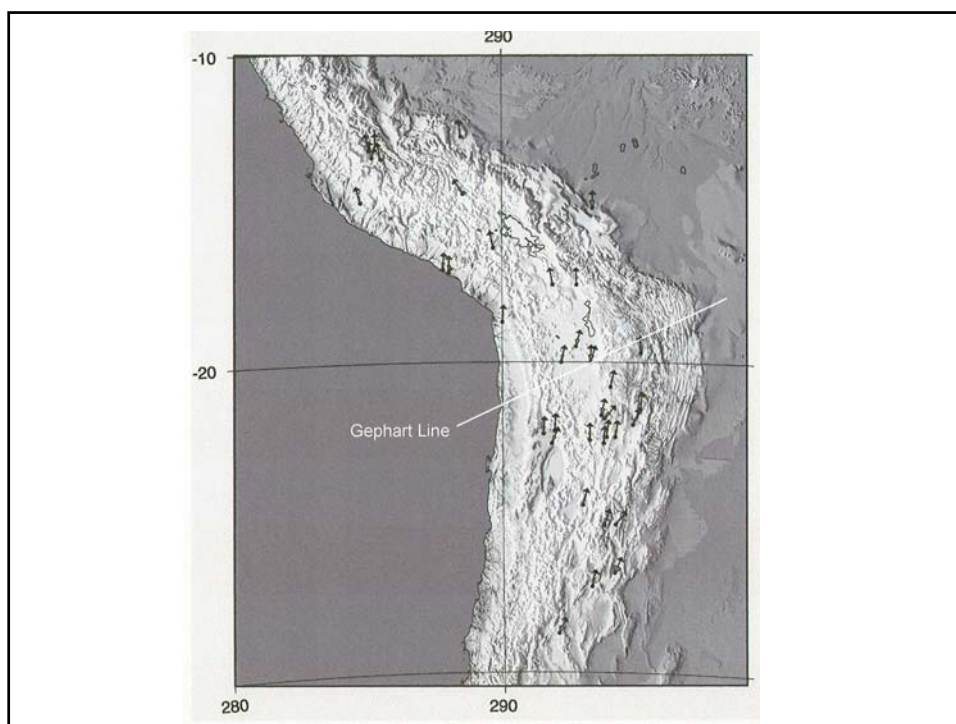
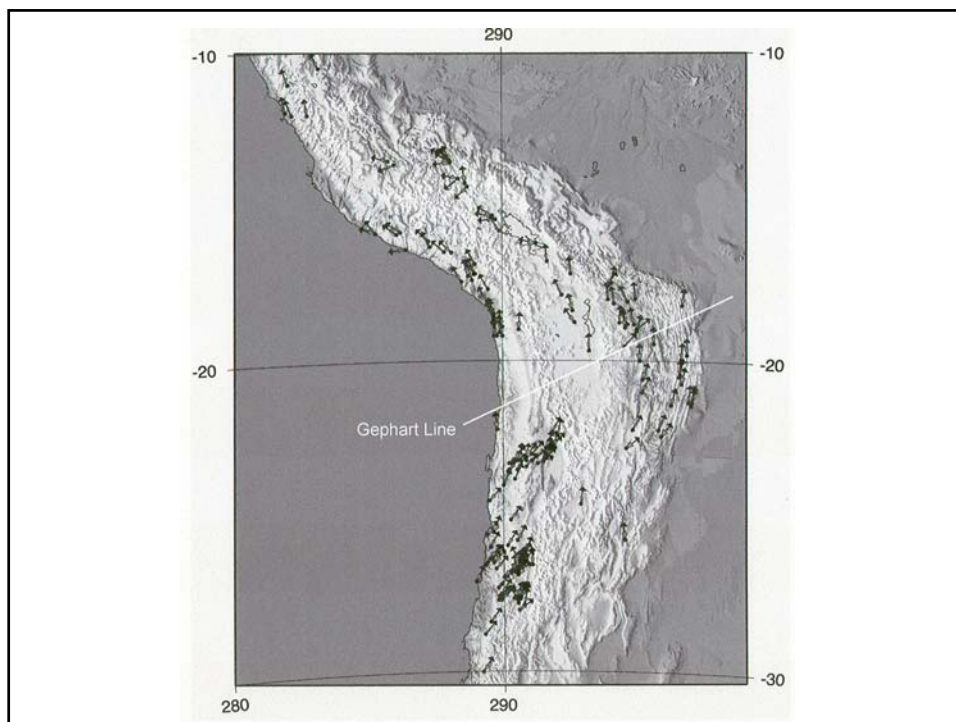
Panjuacha - Empexa y

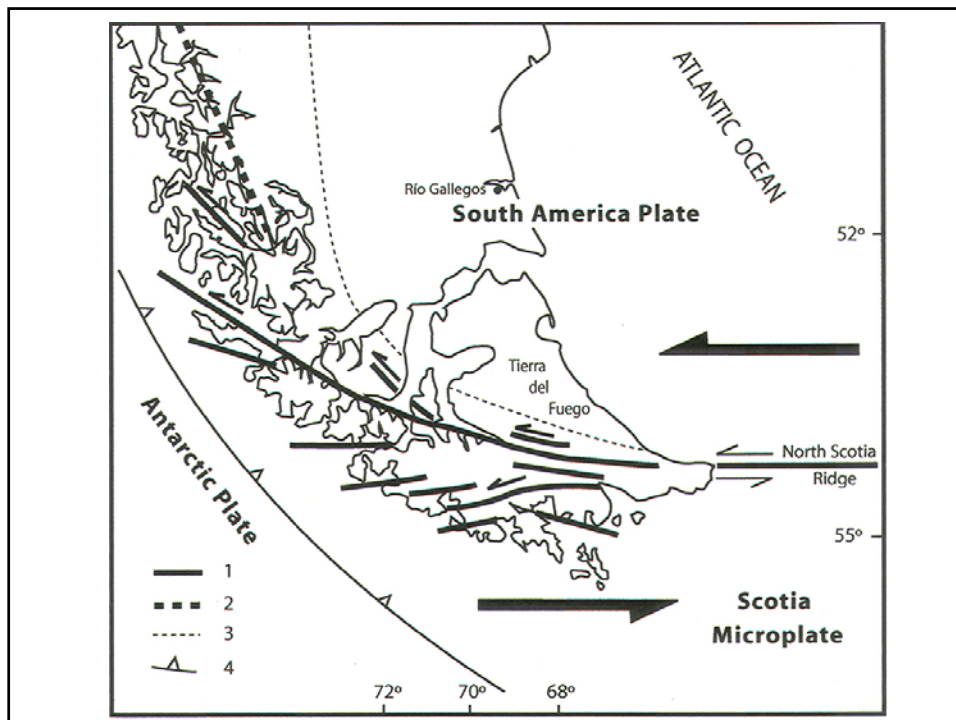
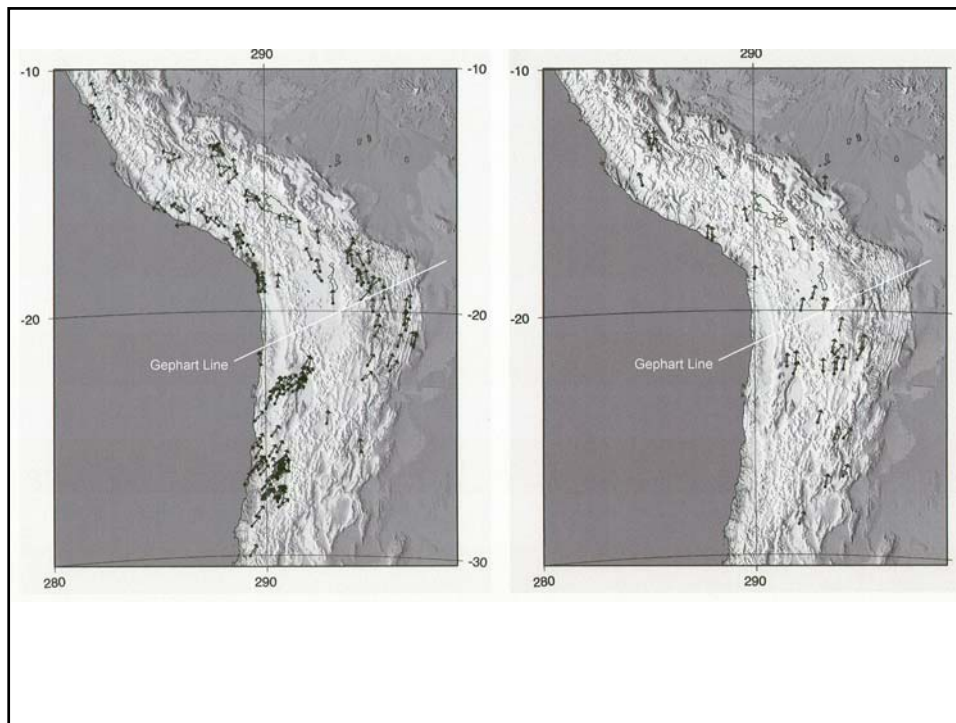
Quebrada Mala - Llanta).

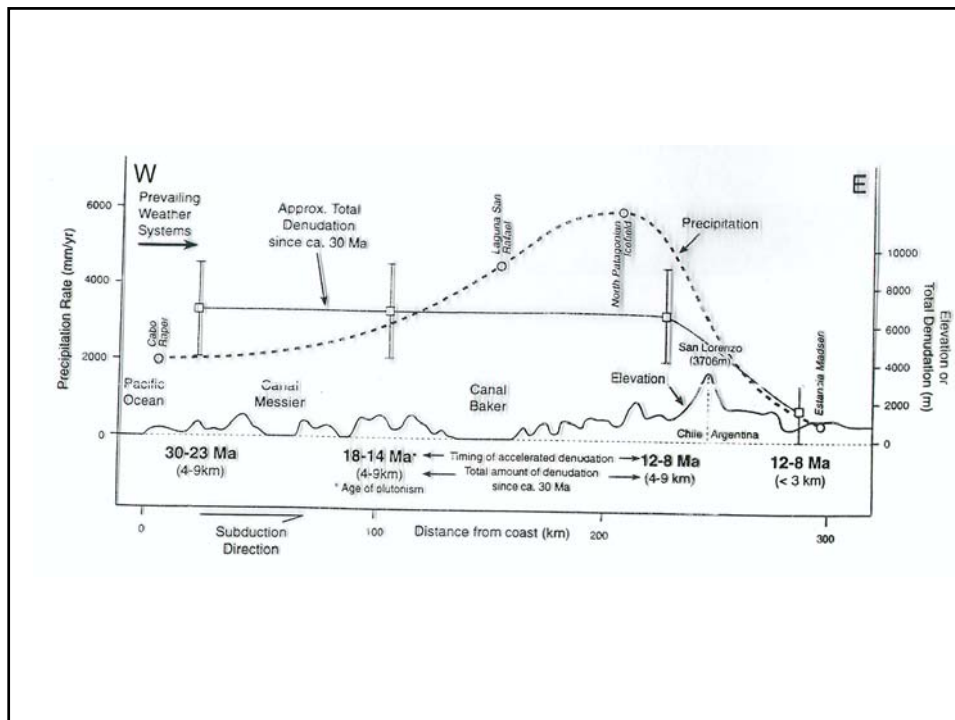
- Al E: Tercera Etapa











Comentarios generales sobre el alzamiento andino

- En:
 - N de Chile (Arica):
 - Plantas de Chucal y Jakkakota
 - Deformación en Chucal (4 Ma) + Qda. Macusa
 - La región central
 - Magallanes

Comentario general

