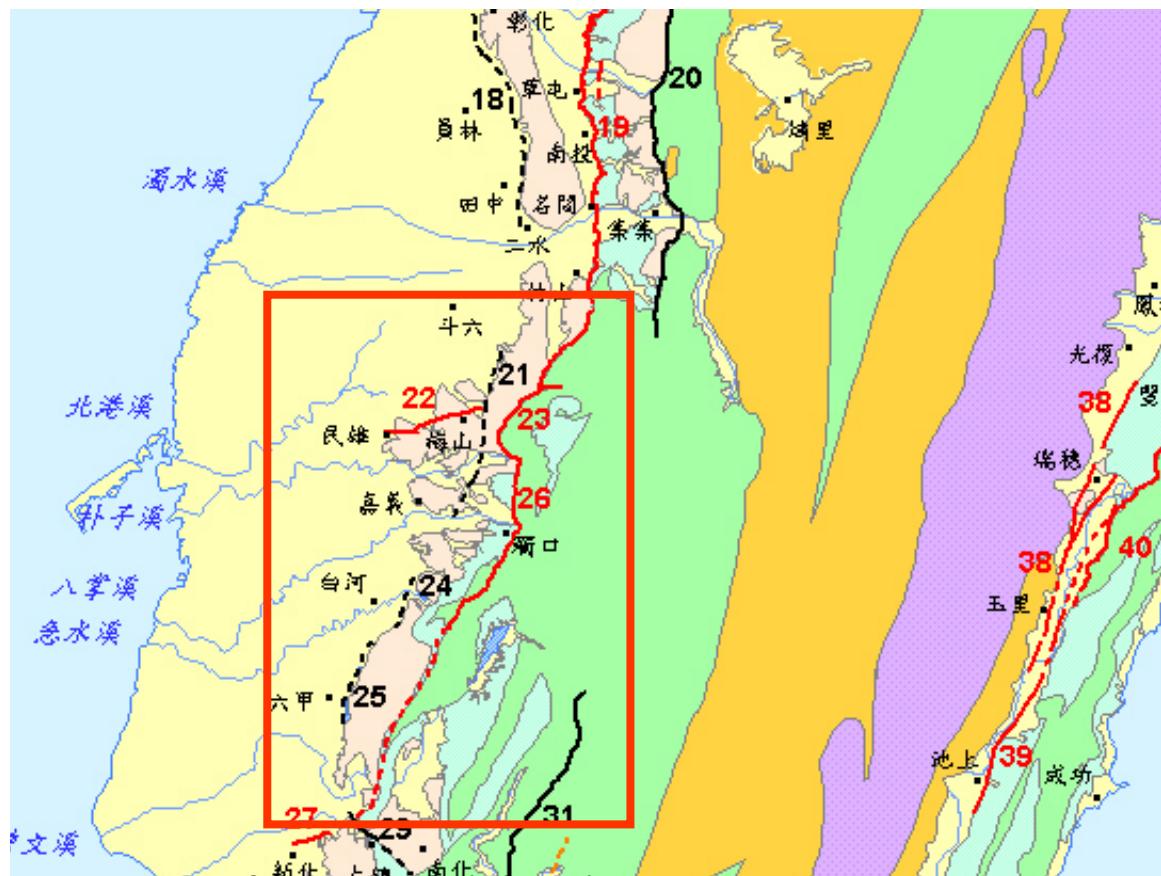


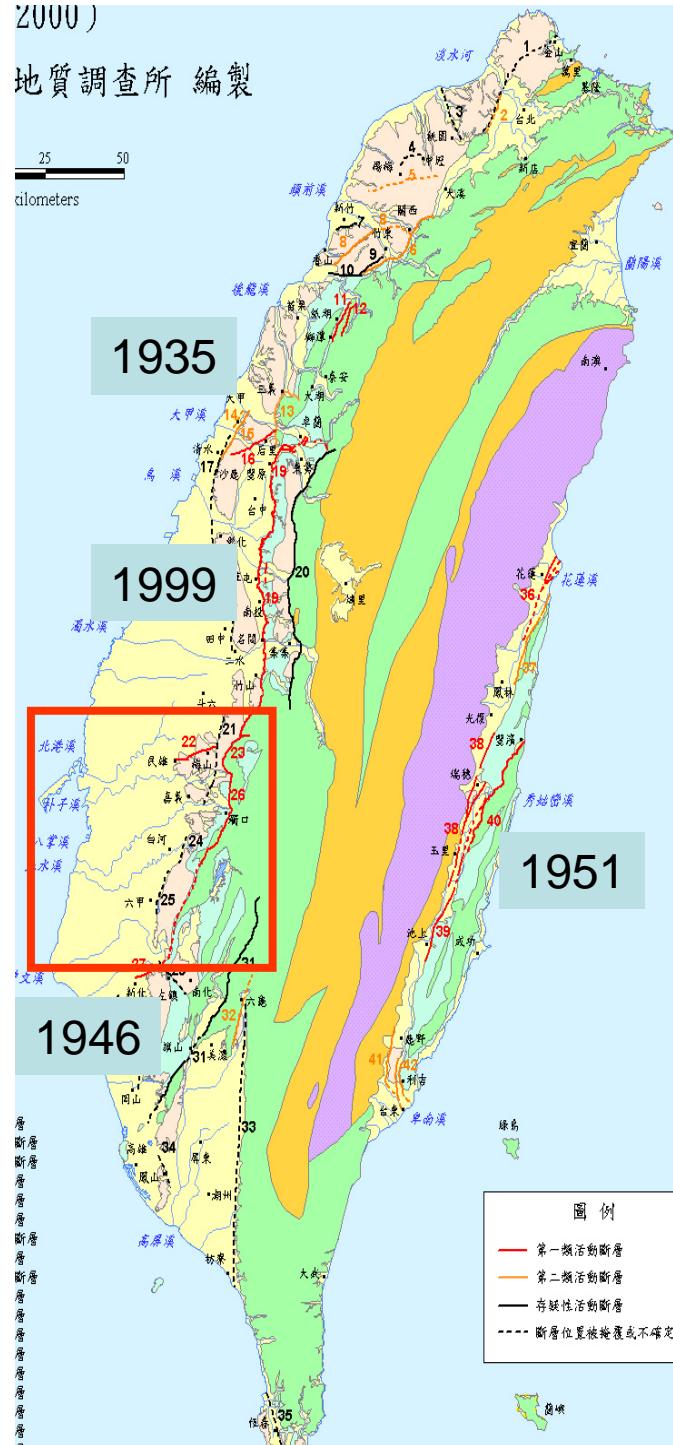
# Review the 1906 Meishan earthquake and active tectonics around Chiayi area

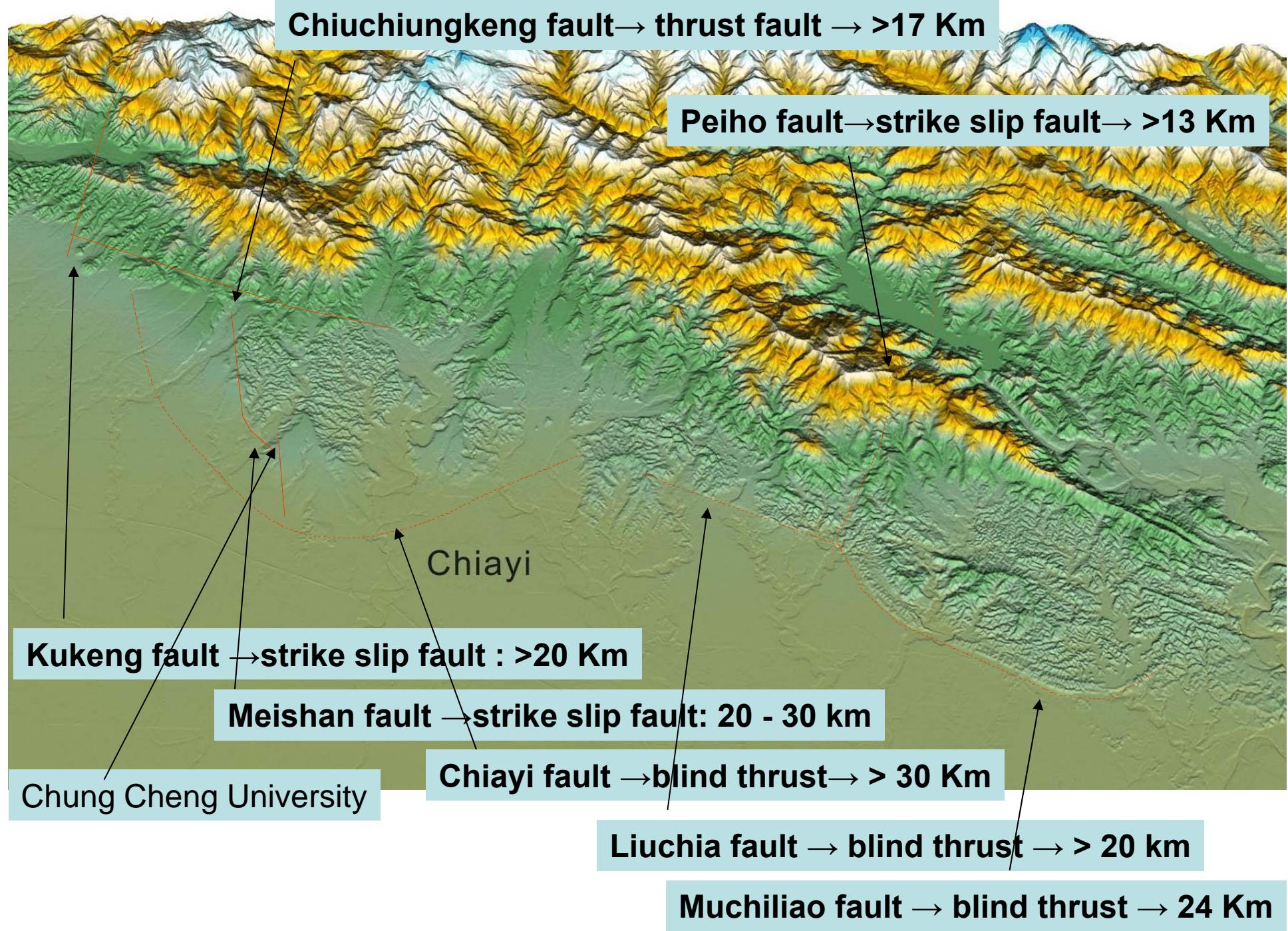
Yuan-Hsi Lee  
National Chung-Cheng University

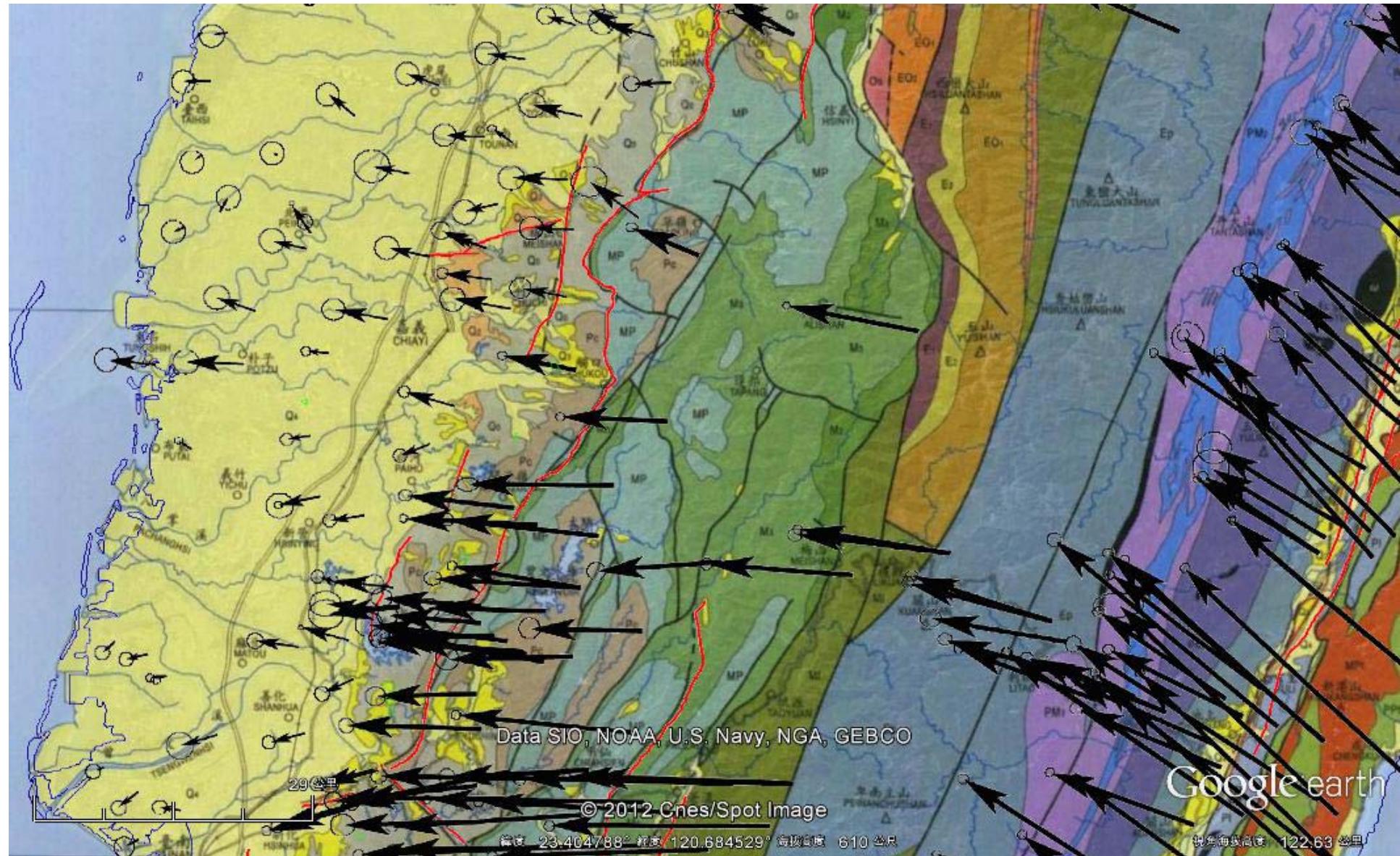


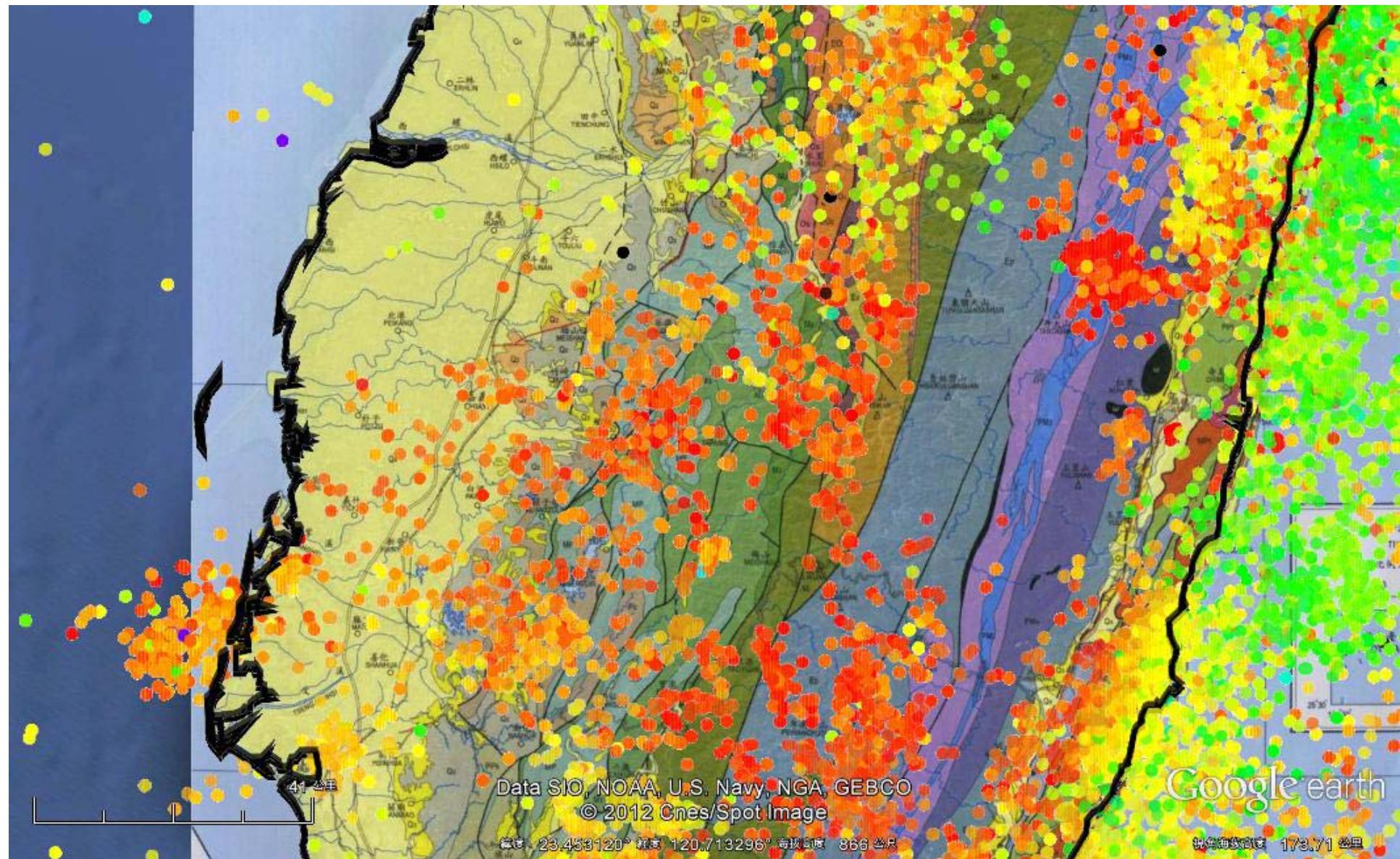
2000)

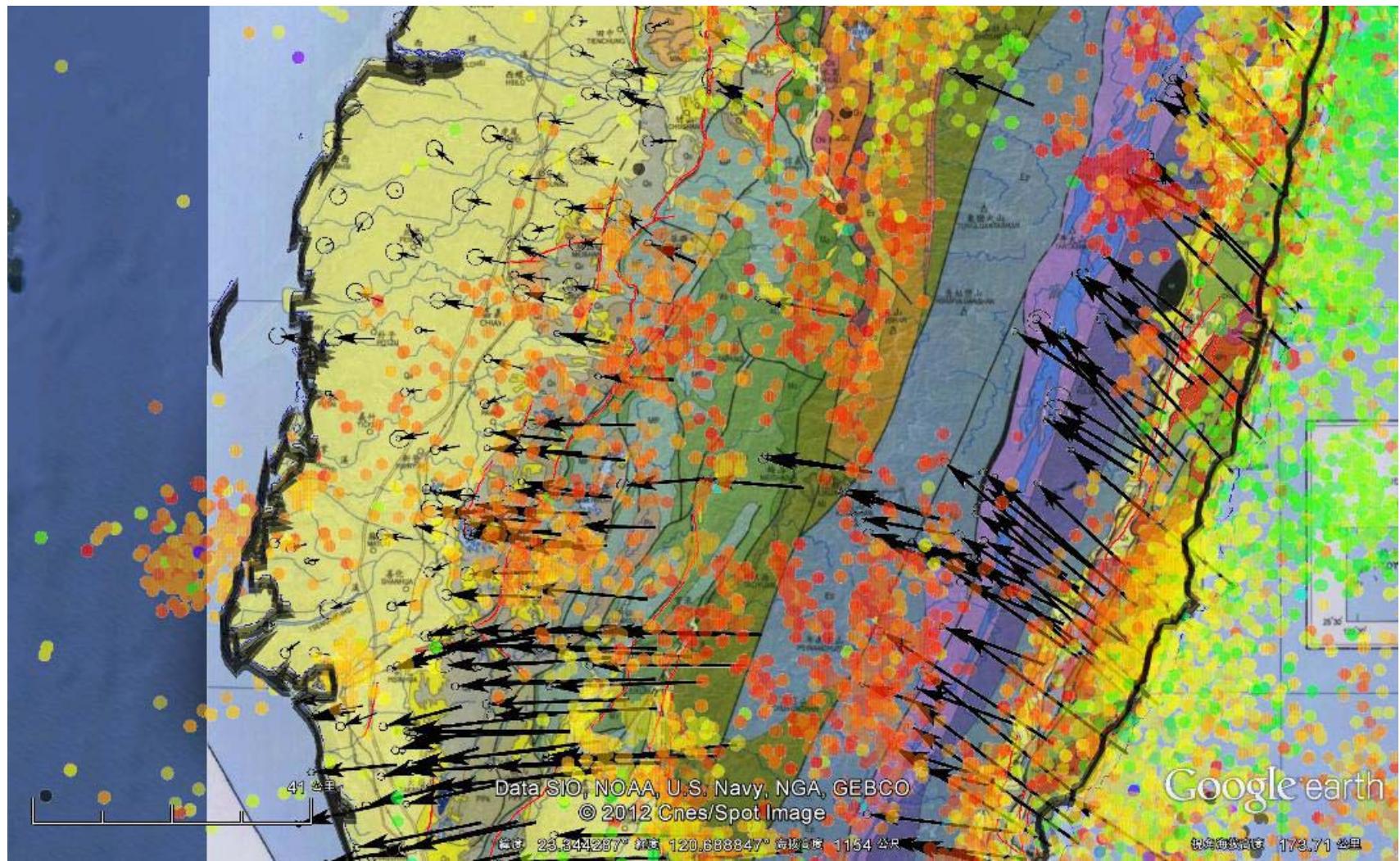
地質調查所 編製

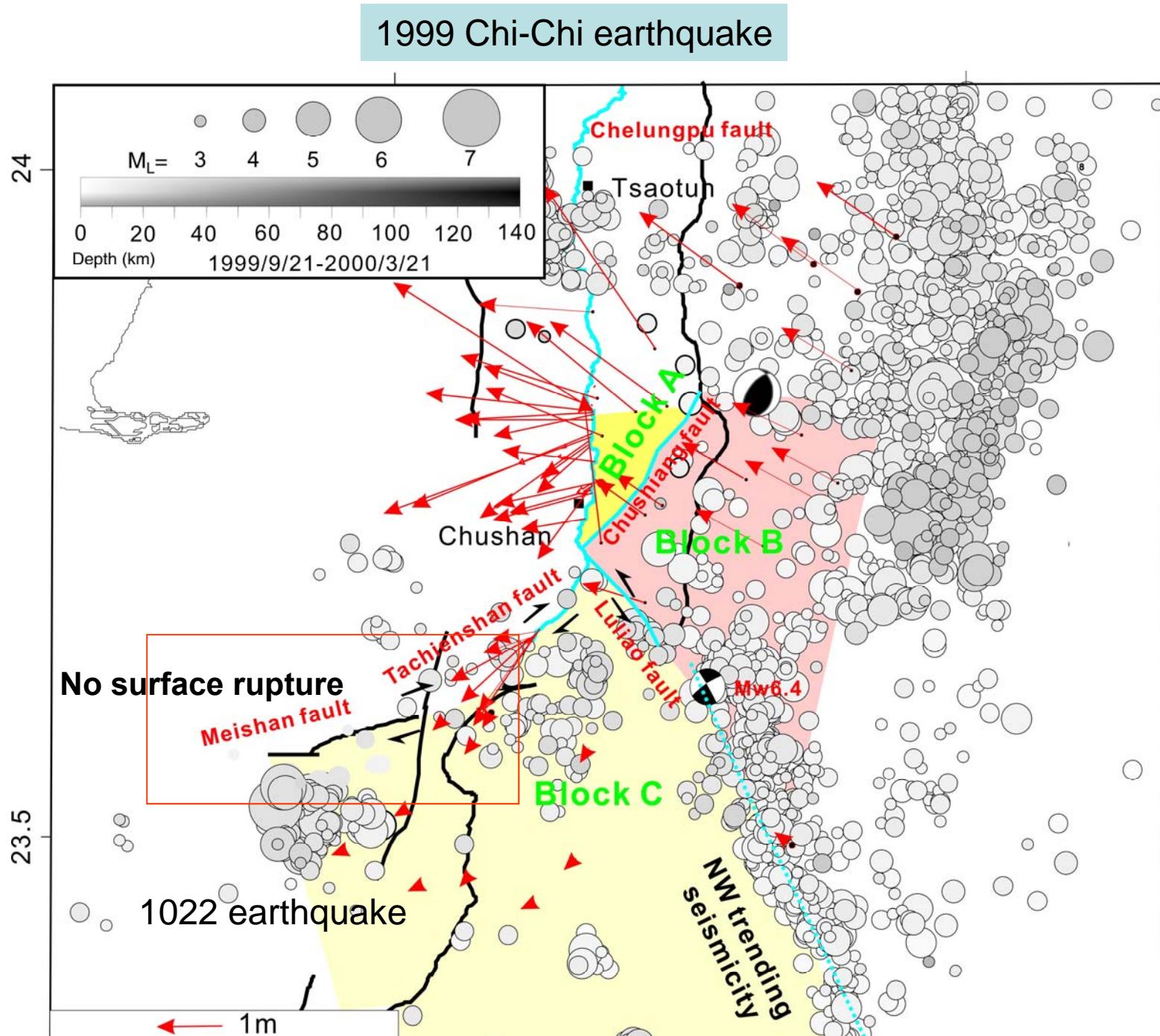












# Coseismic Displacement Field at the Southern End of the Chi-Chi Earthquake Rupture

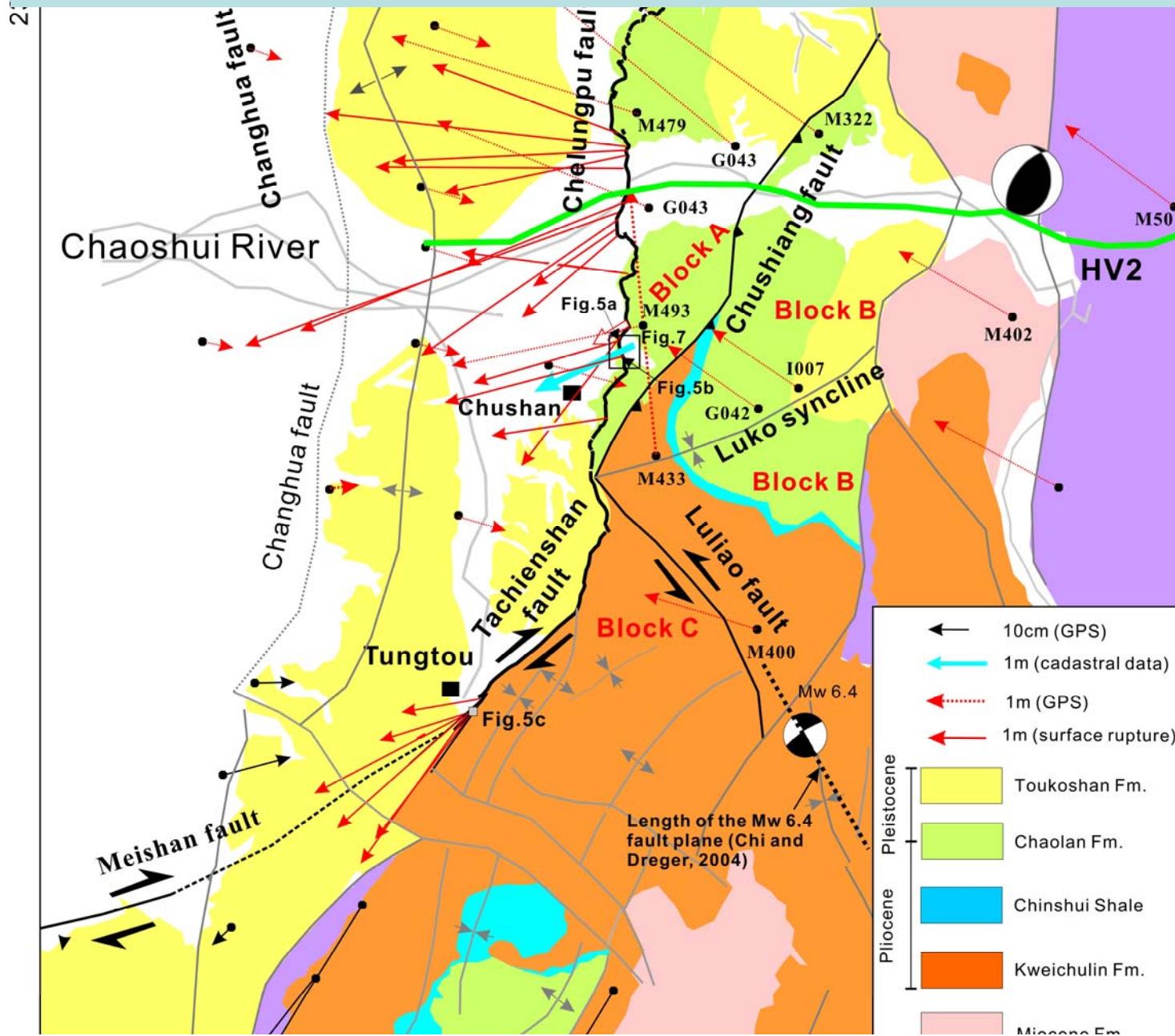
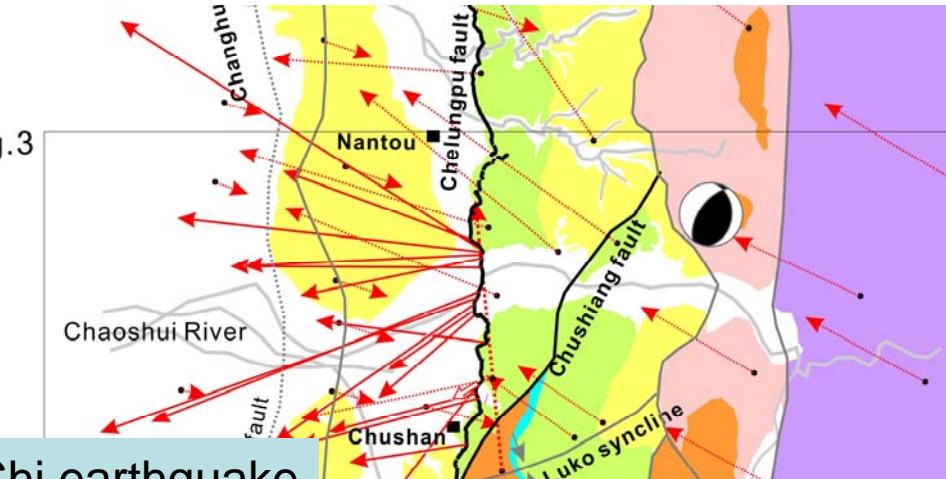
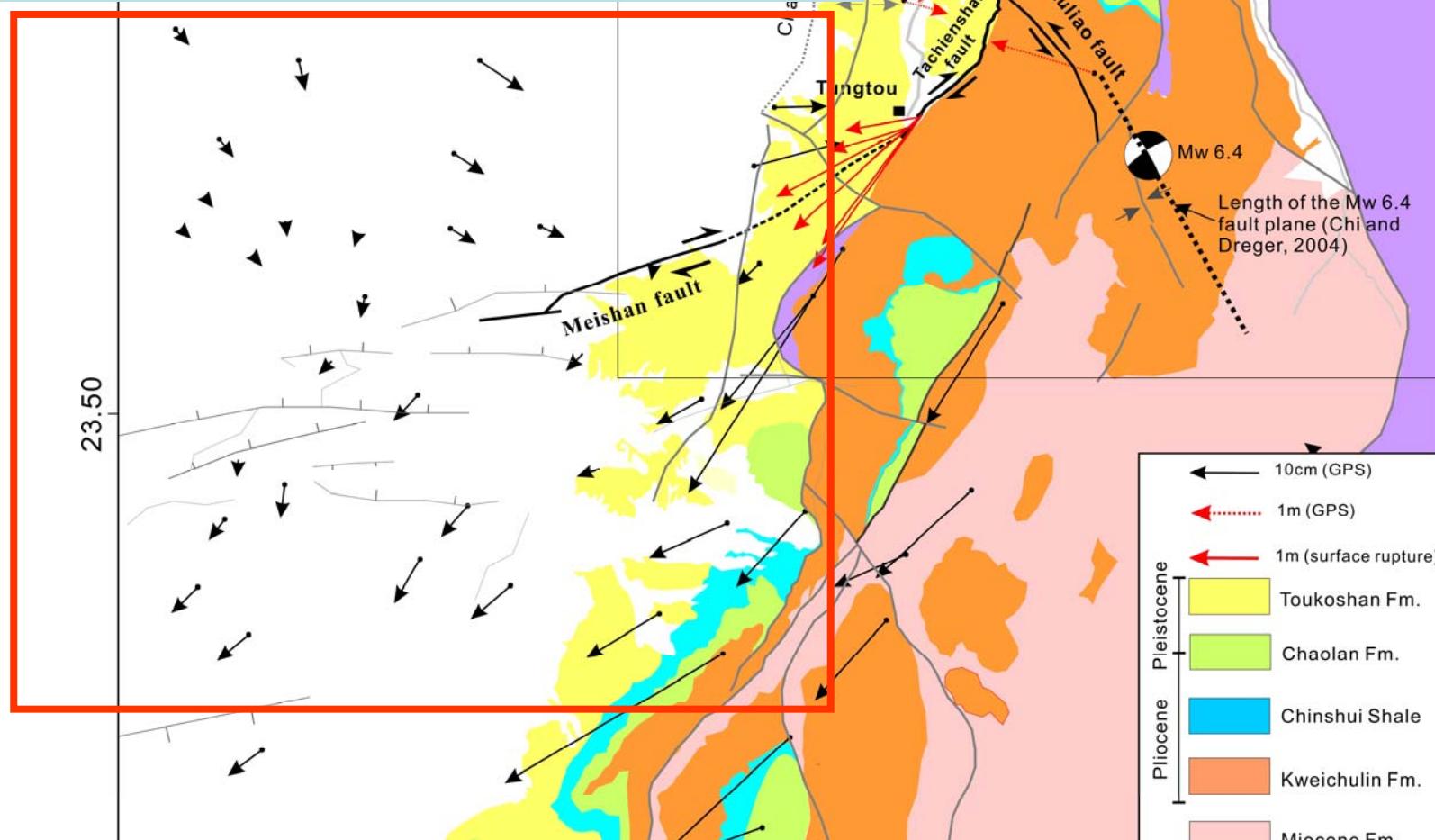


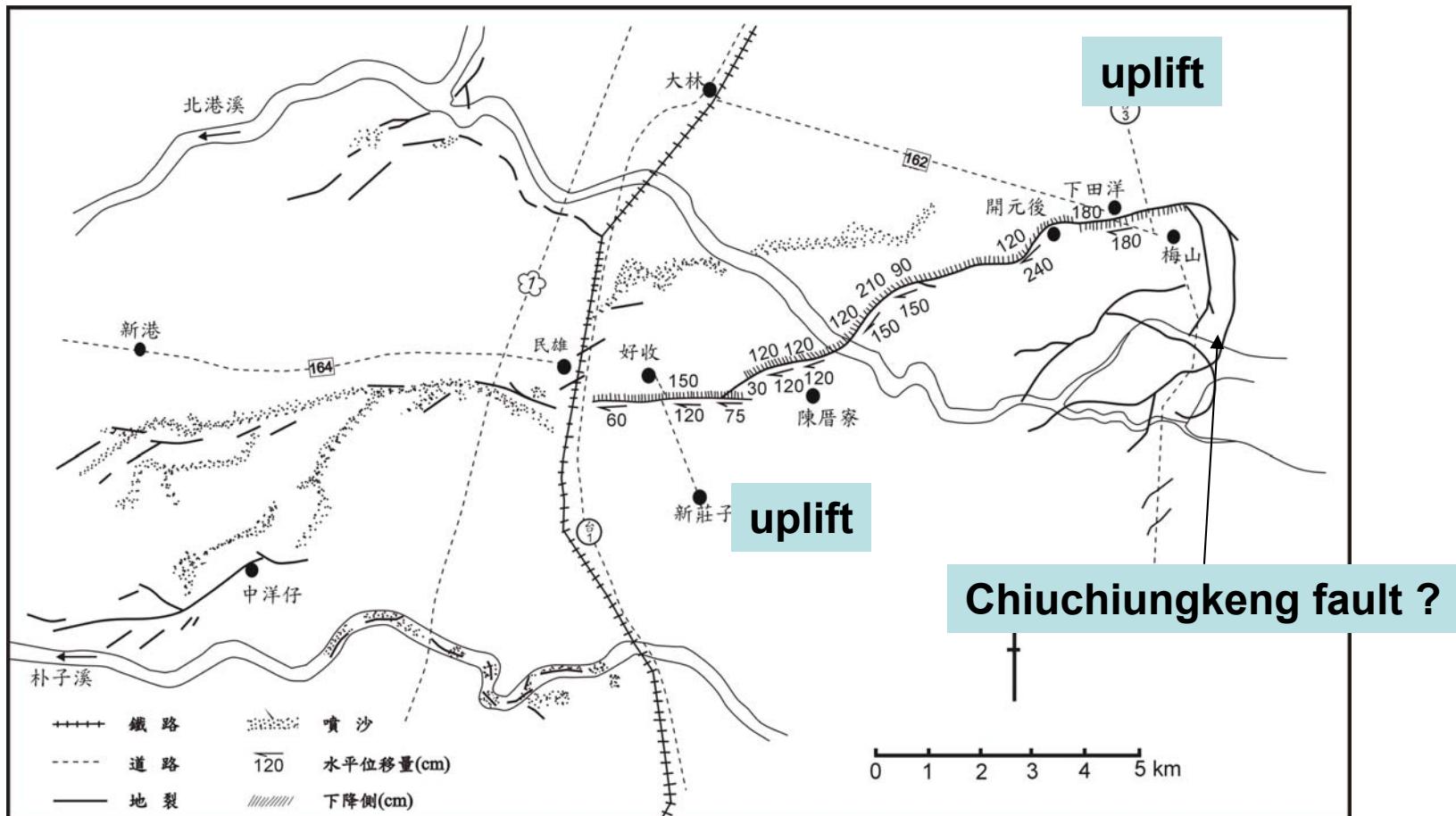
Fig.3



## Accumulate strain during the Chi-Chi earthquake



# Coseismic displacement of the 1906 Meishan earthquake (Omori, 1907)



圖三 1906年梅山斷層分佈圖(整理重繪自台灣總督府, 1907; Omori, 1907)



# Outcrop of the 1906 Meishan earthquake



梅山地震

1906/03/17

1904/11/06

斗六地震

M<sub>L</sub>:6.1

1941/12/17

中埔地震

1964/01/18

白河地震



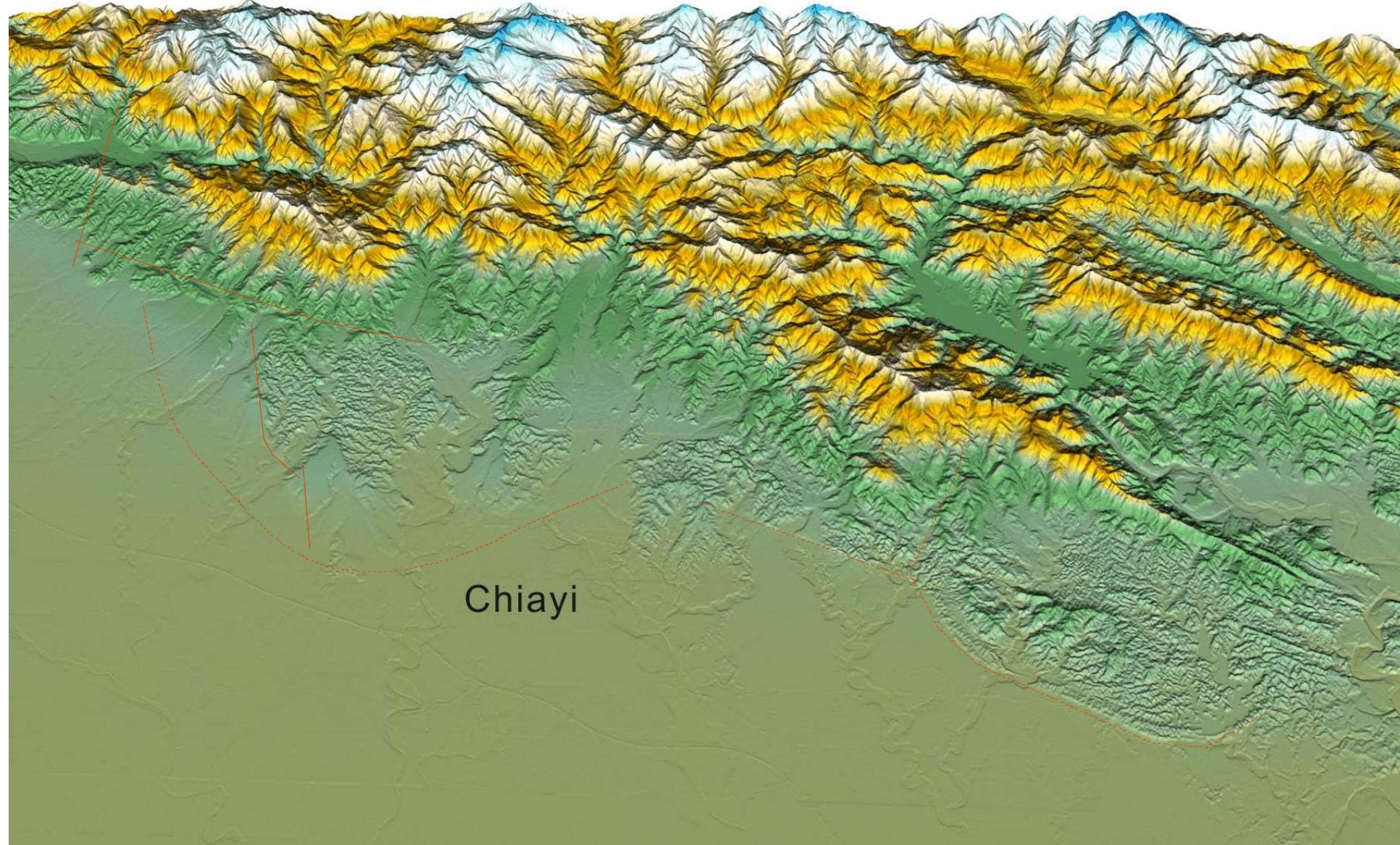


嘉義廳(嘉義市內)前大馬路二側潰倒的民宅與散落一地的殘磚礫瓦。

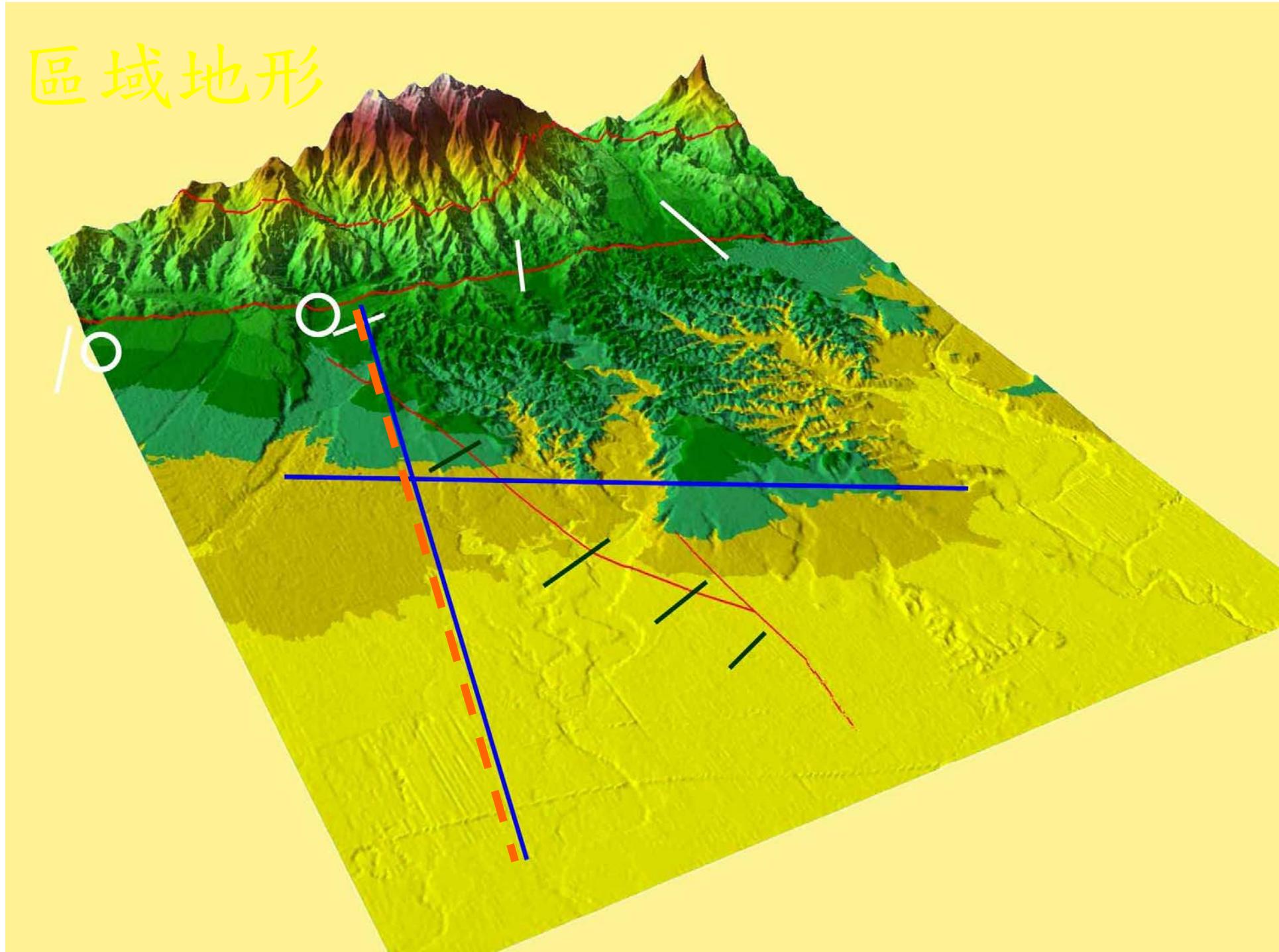


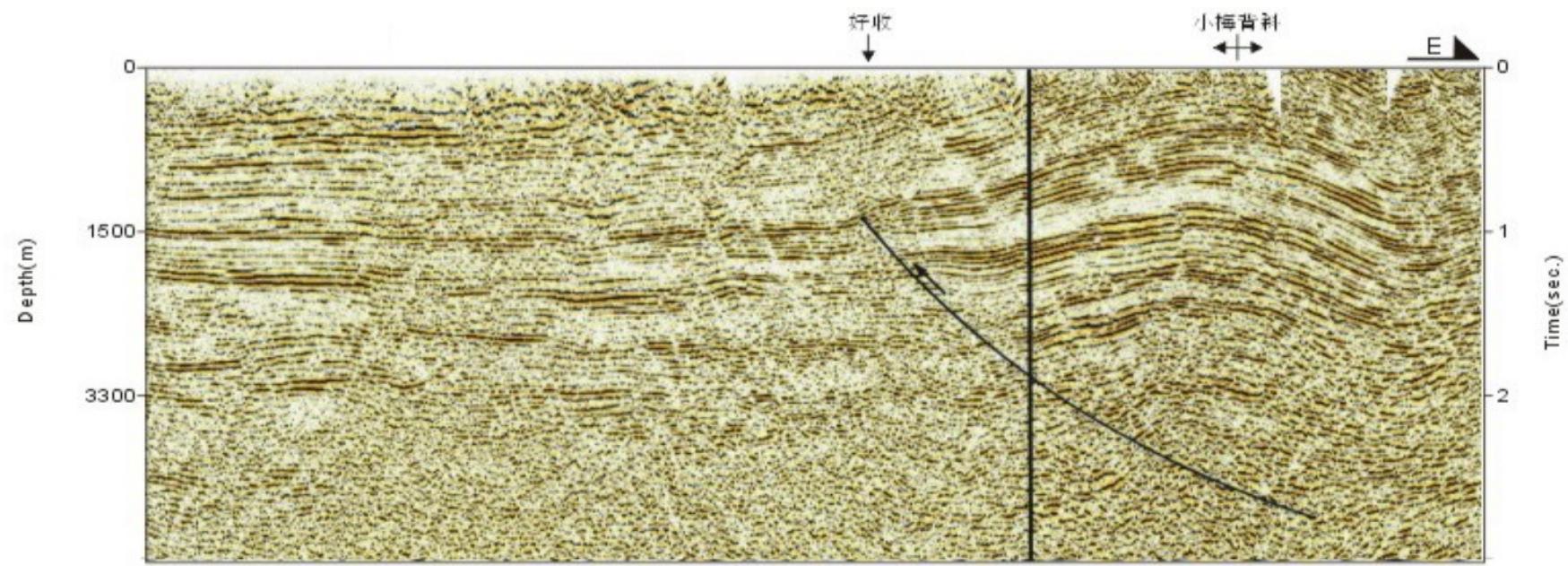
嘉義廳大蒲林街(嘉義縣大林鎮)的慘狀，擔架是當時運送傷患的主要工具。大蒲林街民房全倒124戶、半倒12戶、大破10戶，35人死亡、10人重傷、24人輕傷。



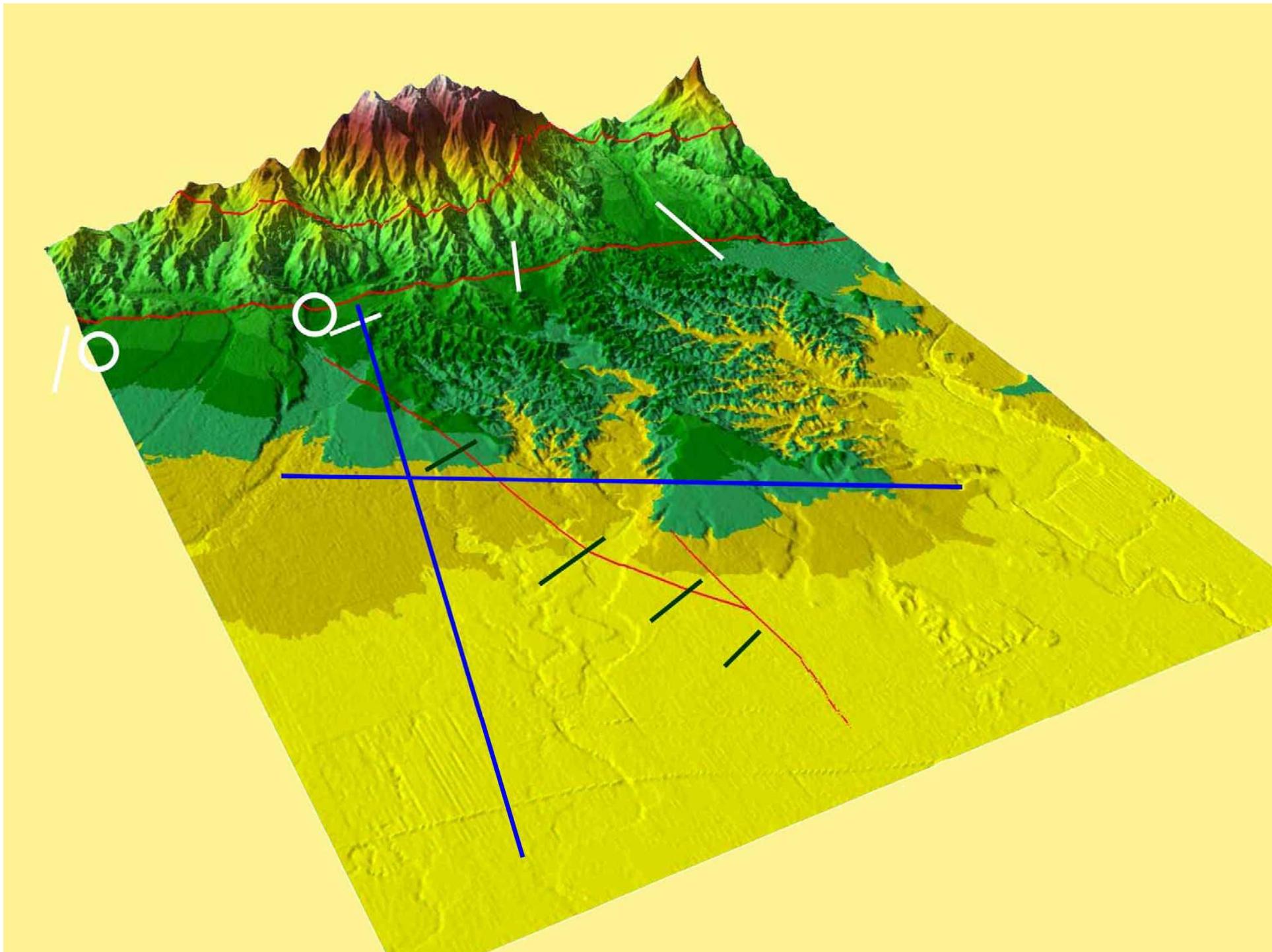


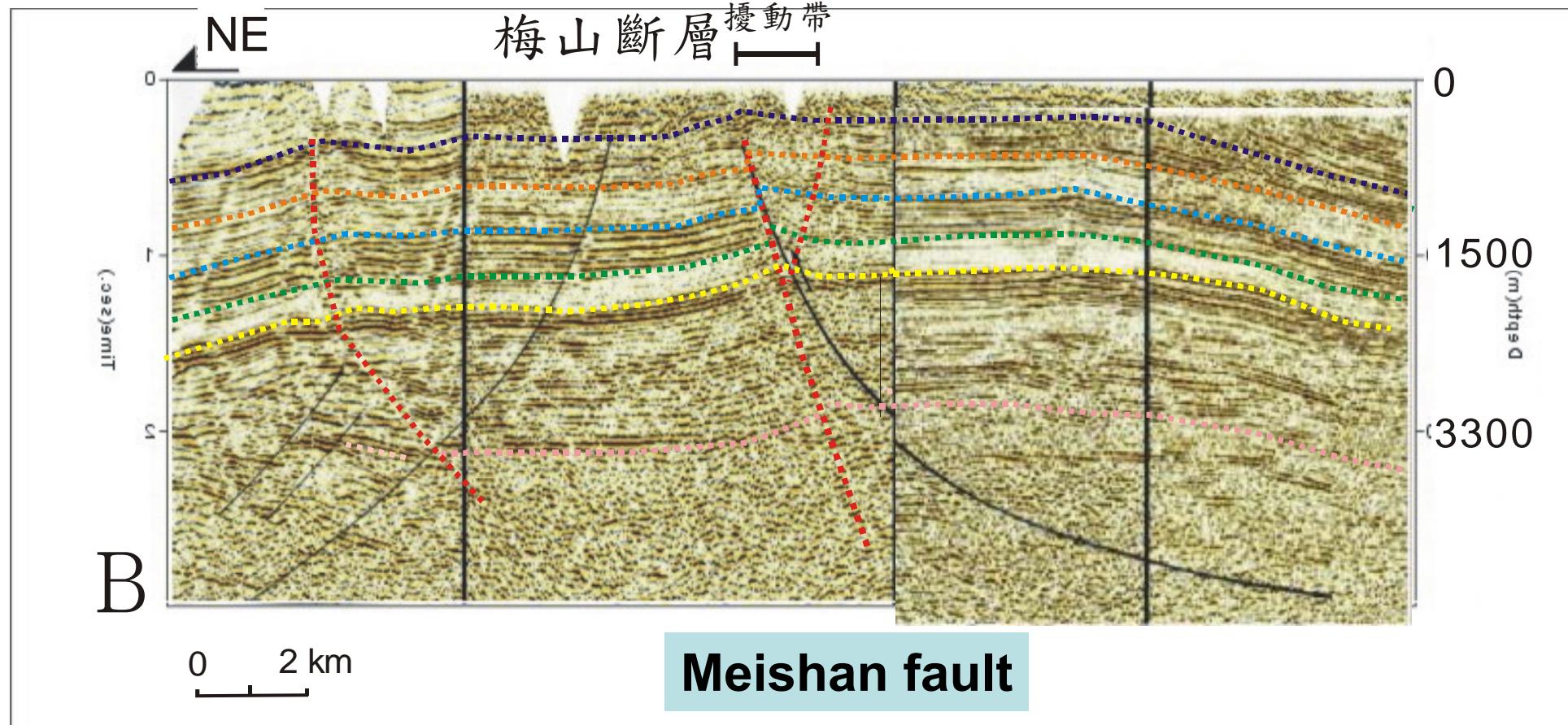
# 區域地形

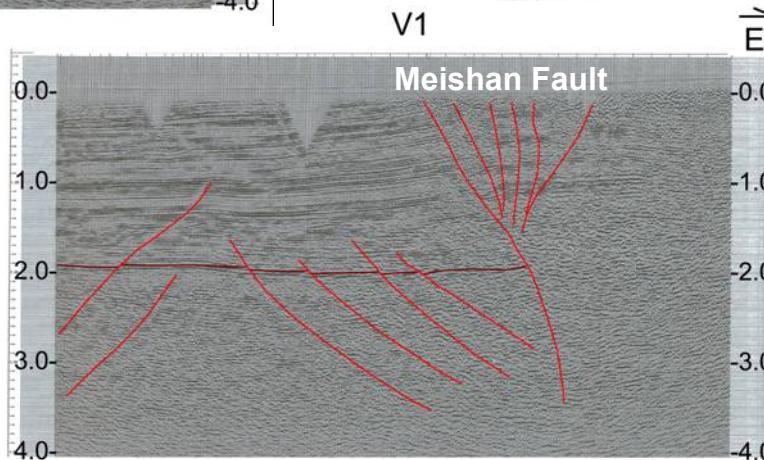
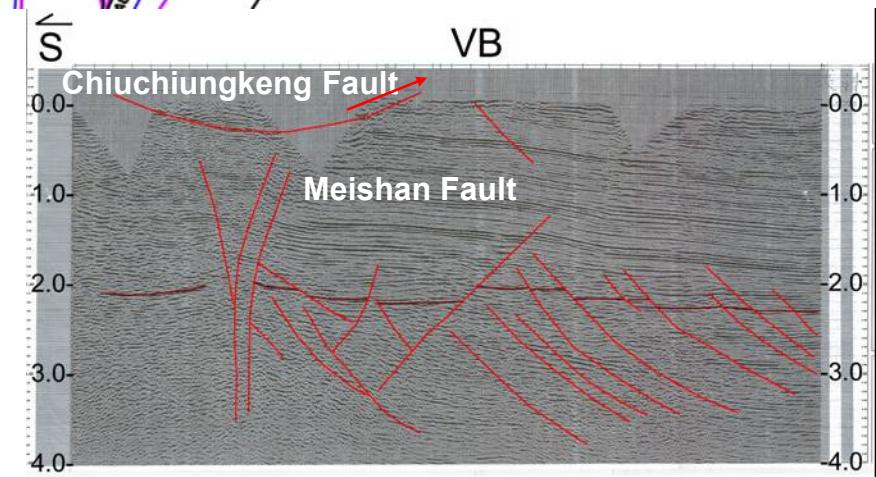
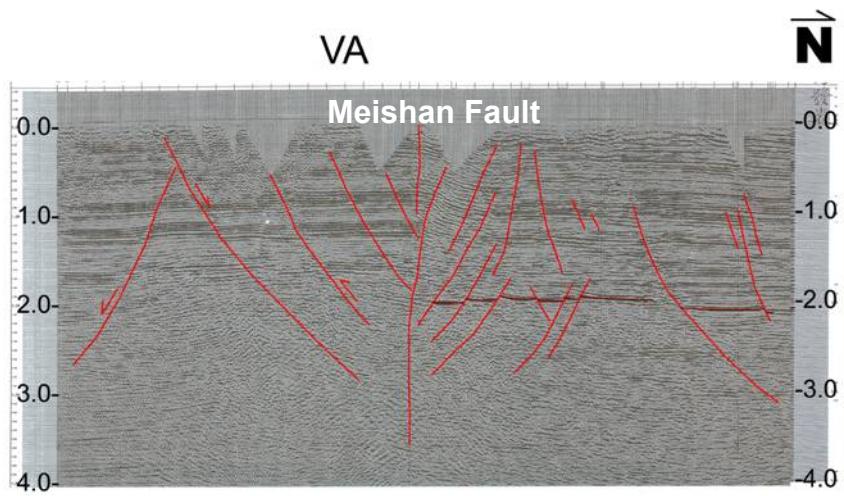
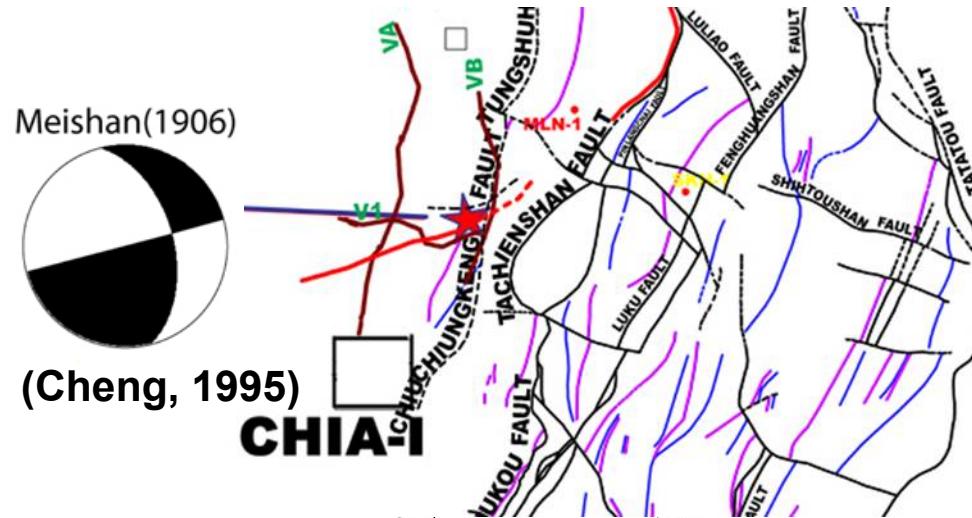


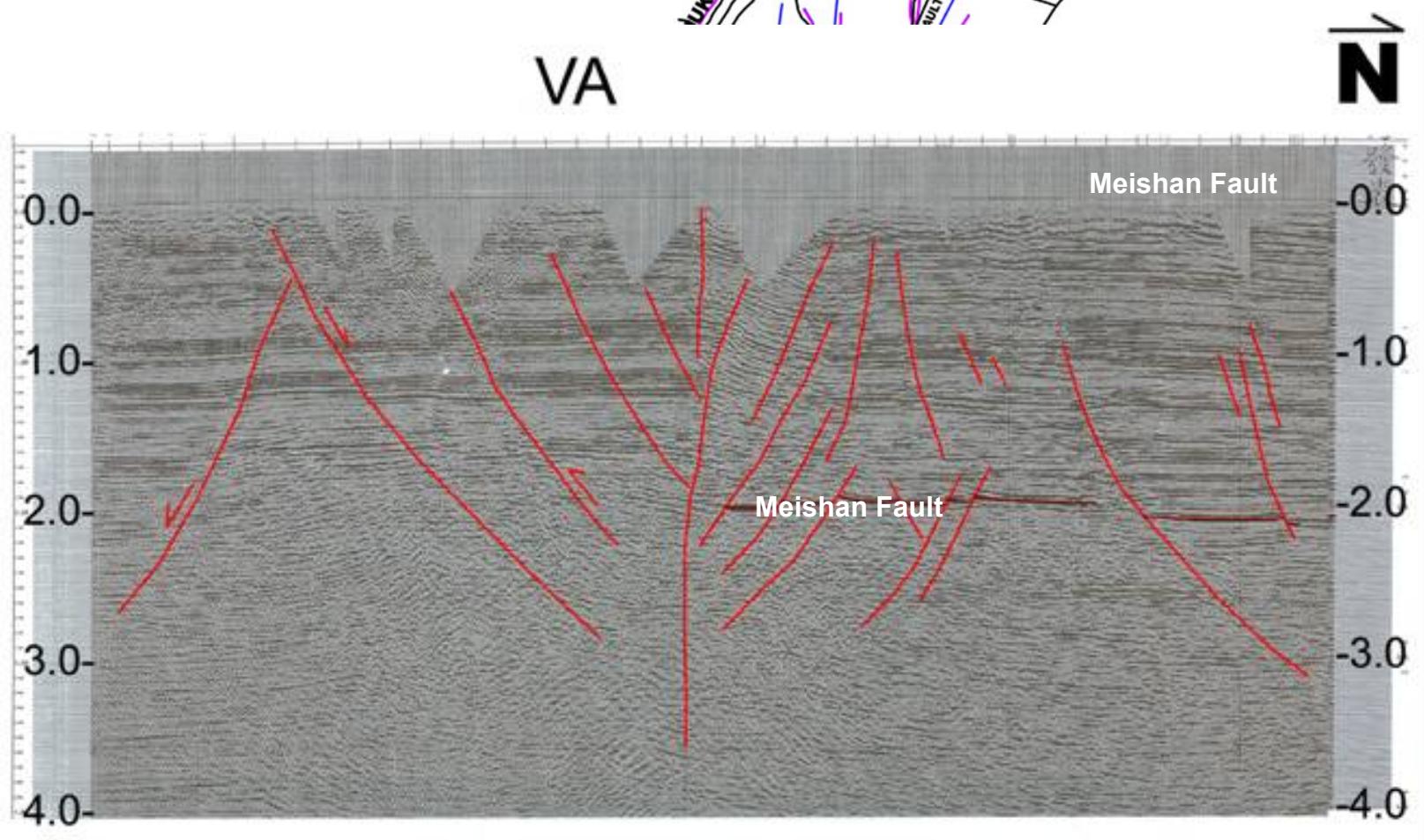
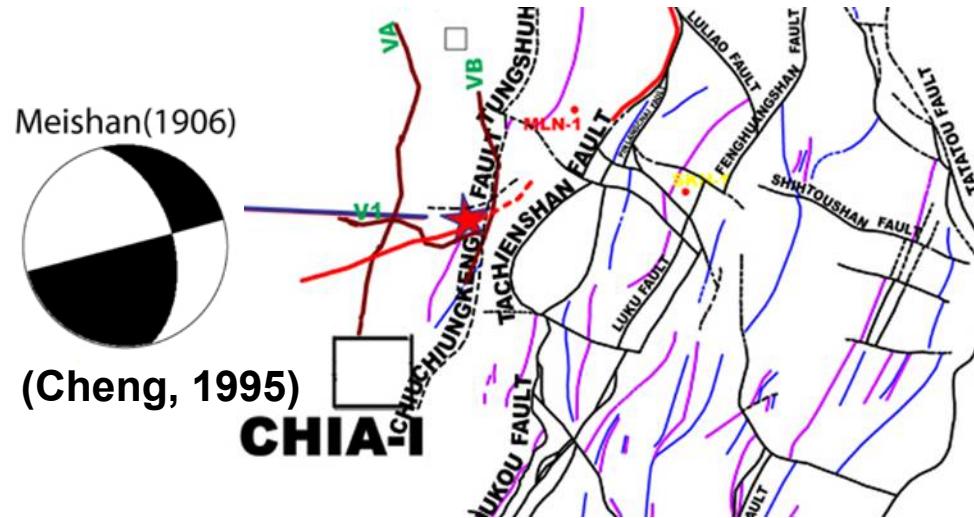


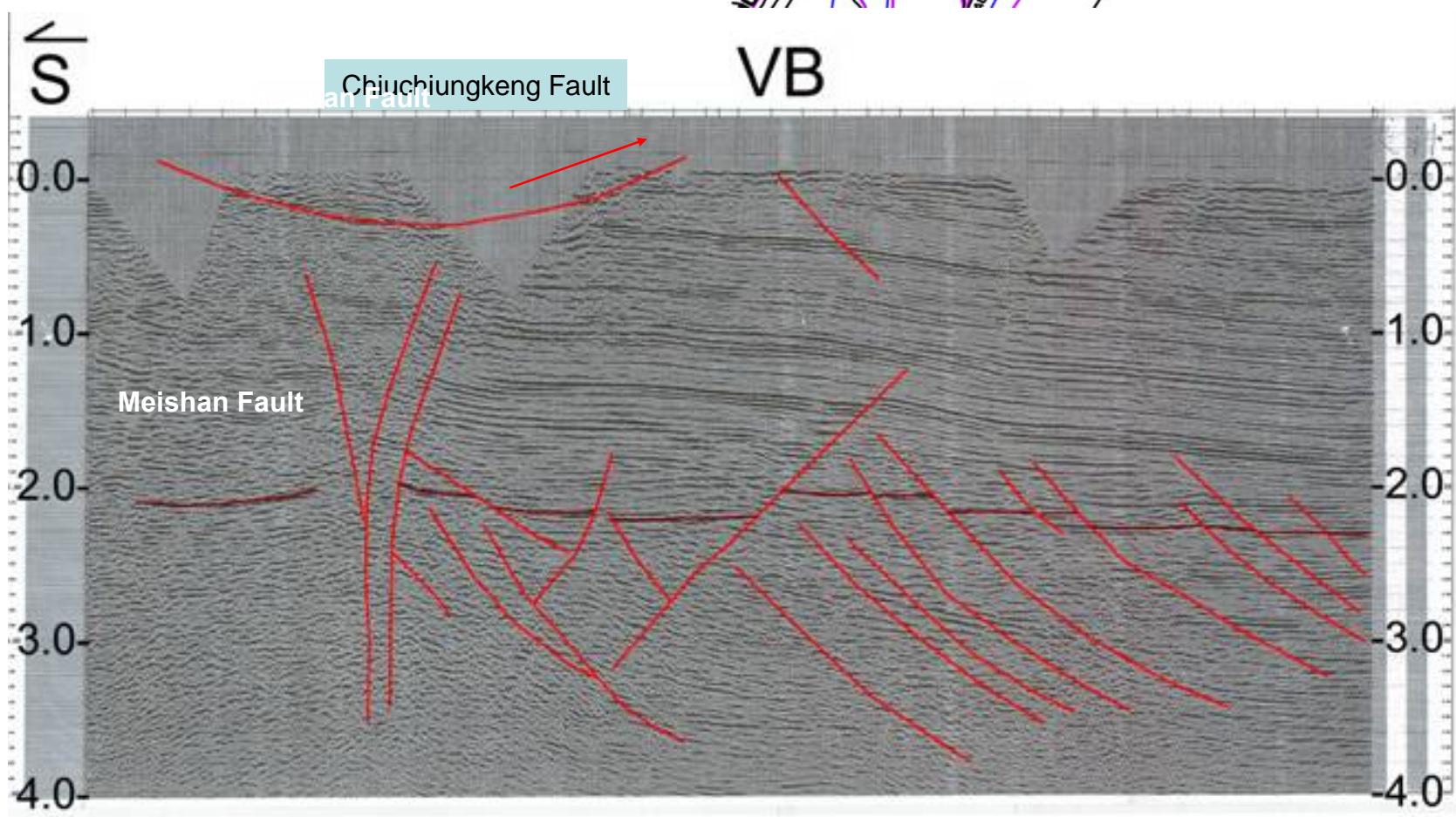
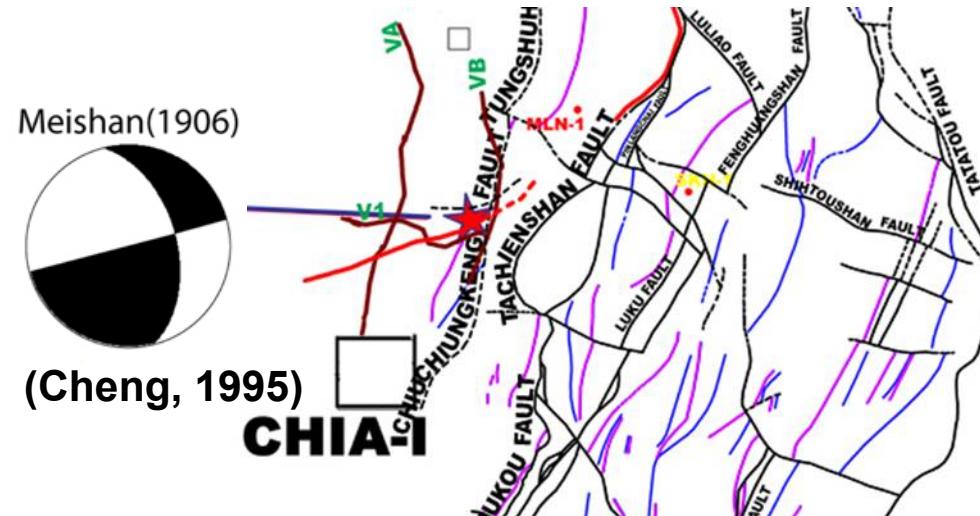
Chiayi blind fault <sup>KM</sup>

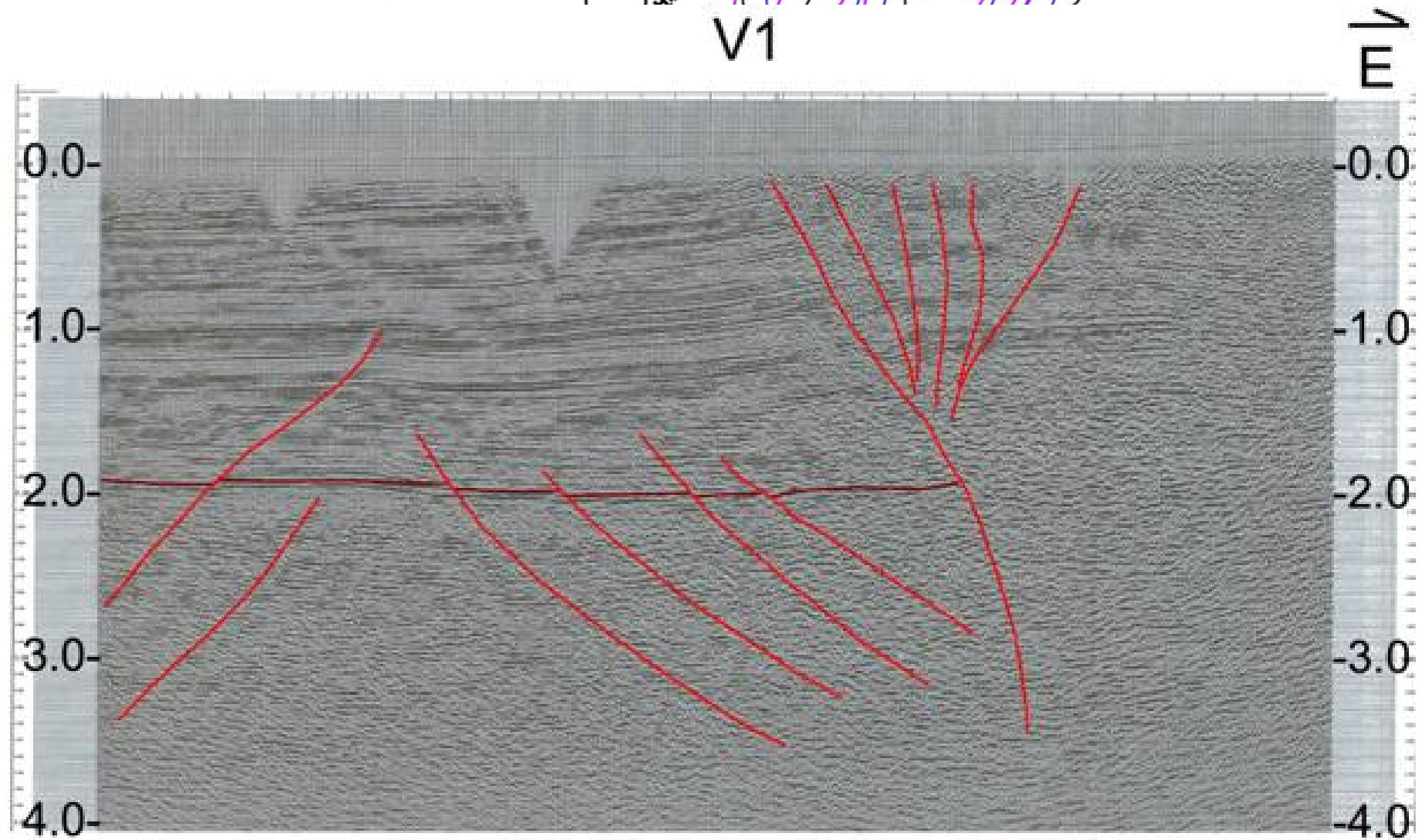
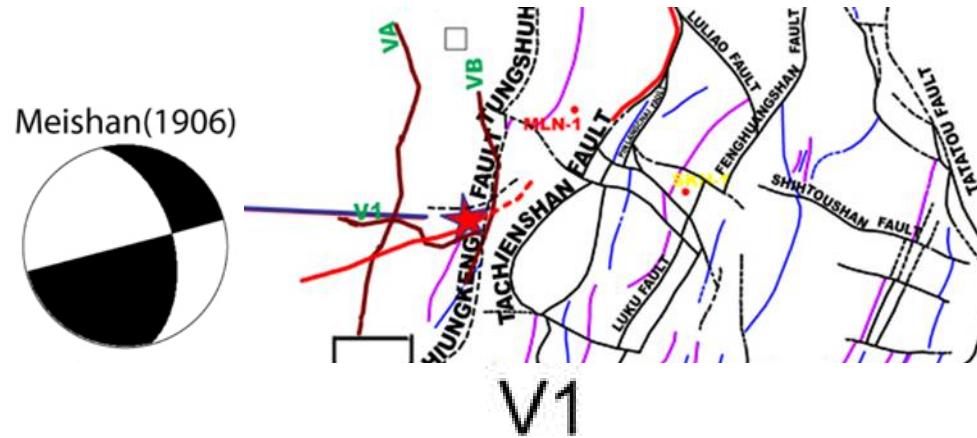




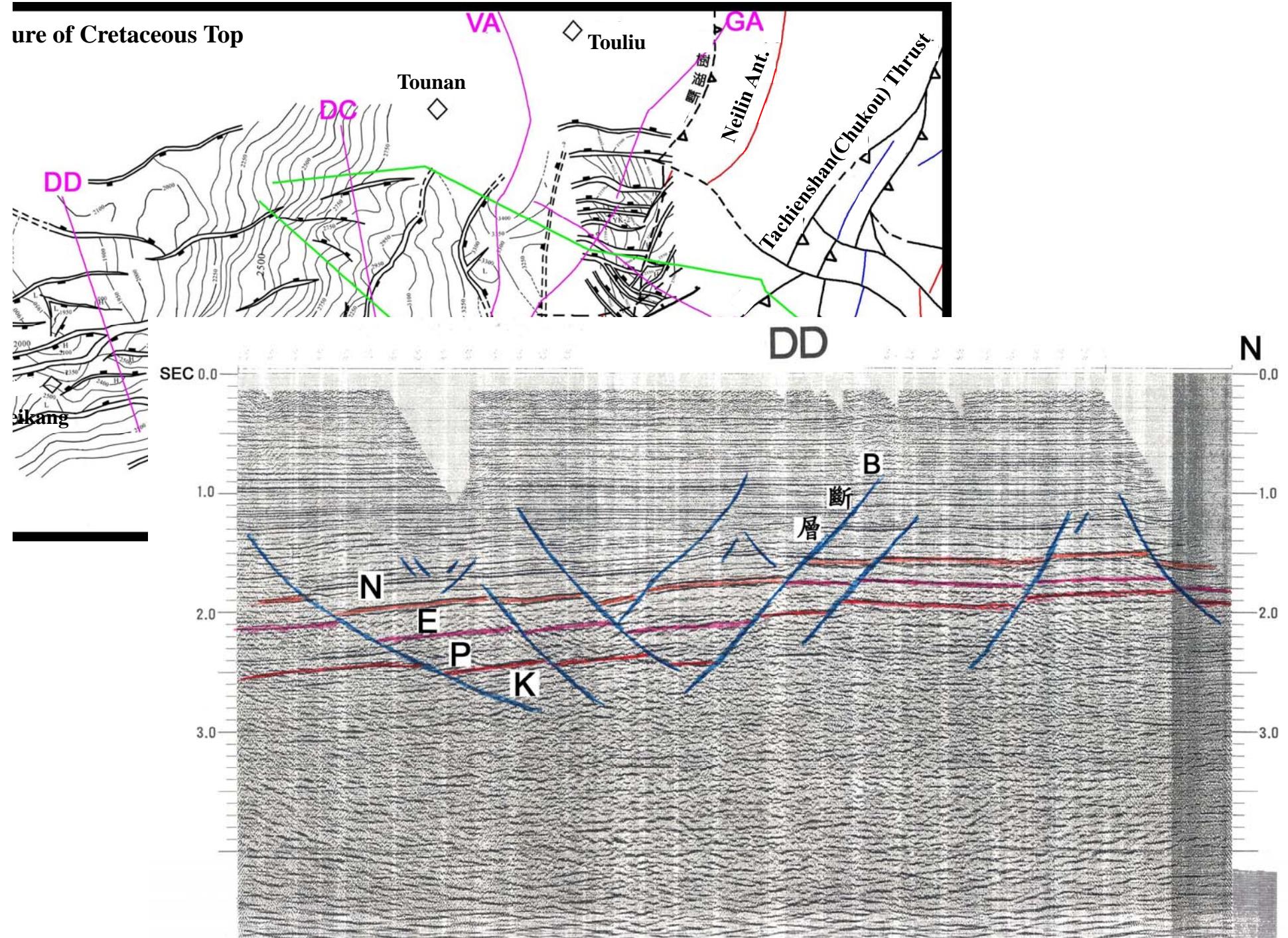


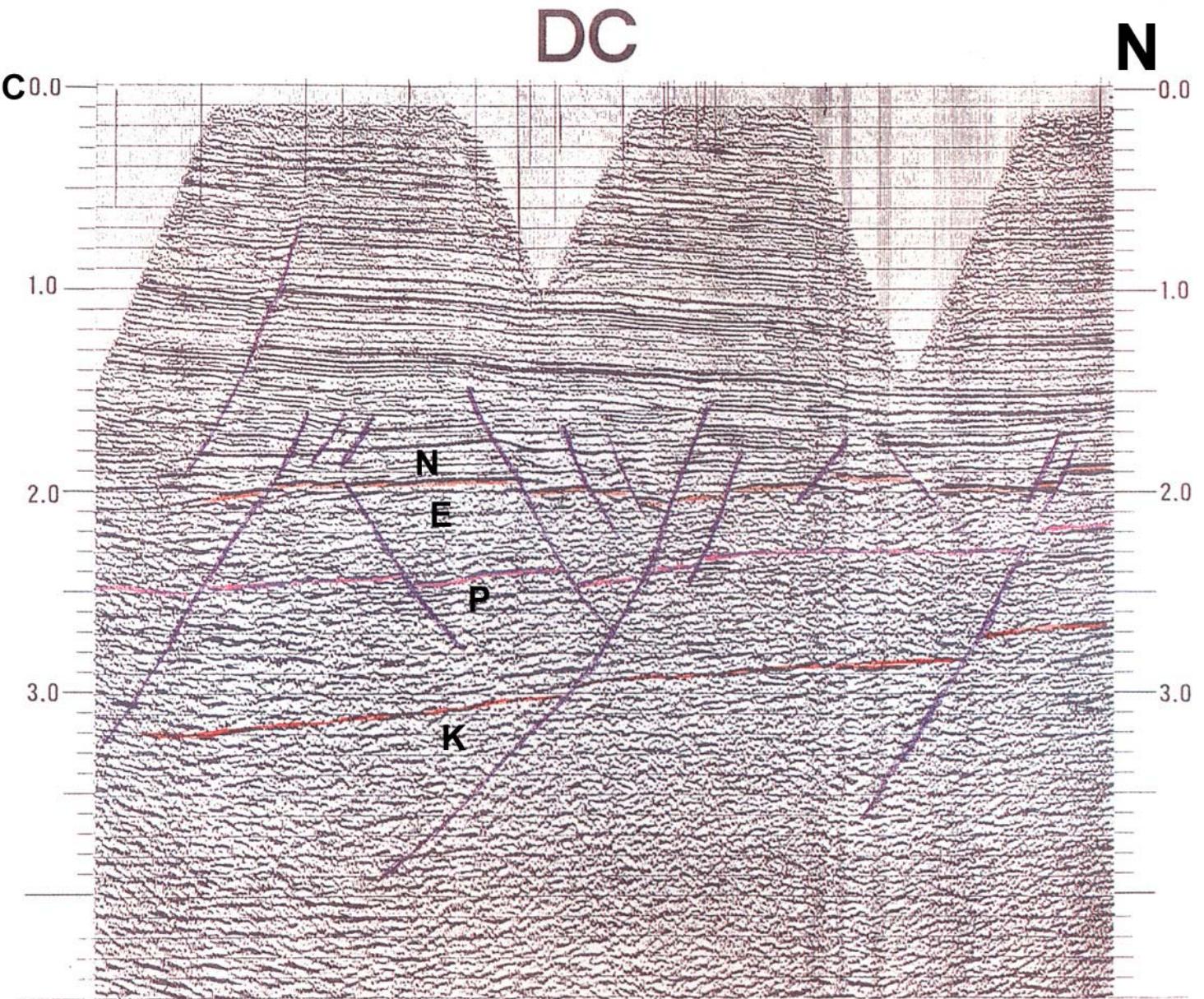
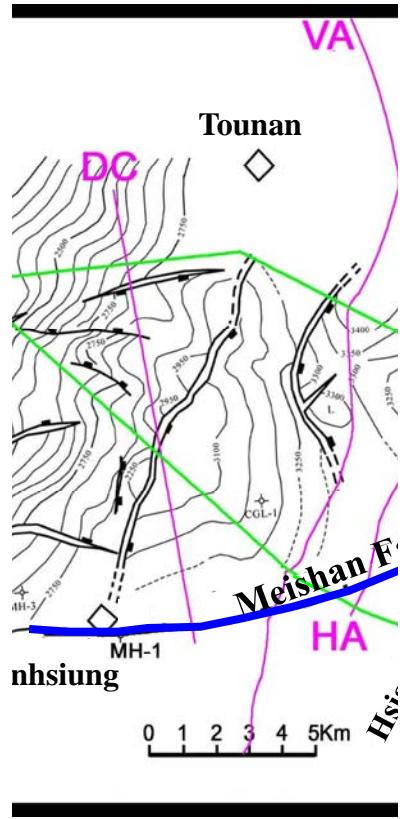


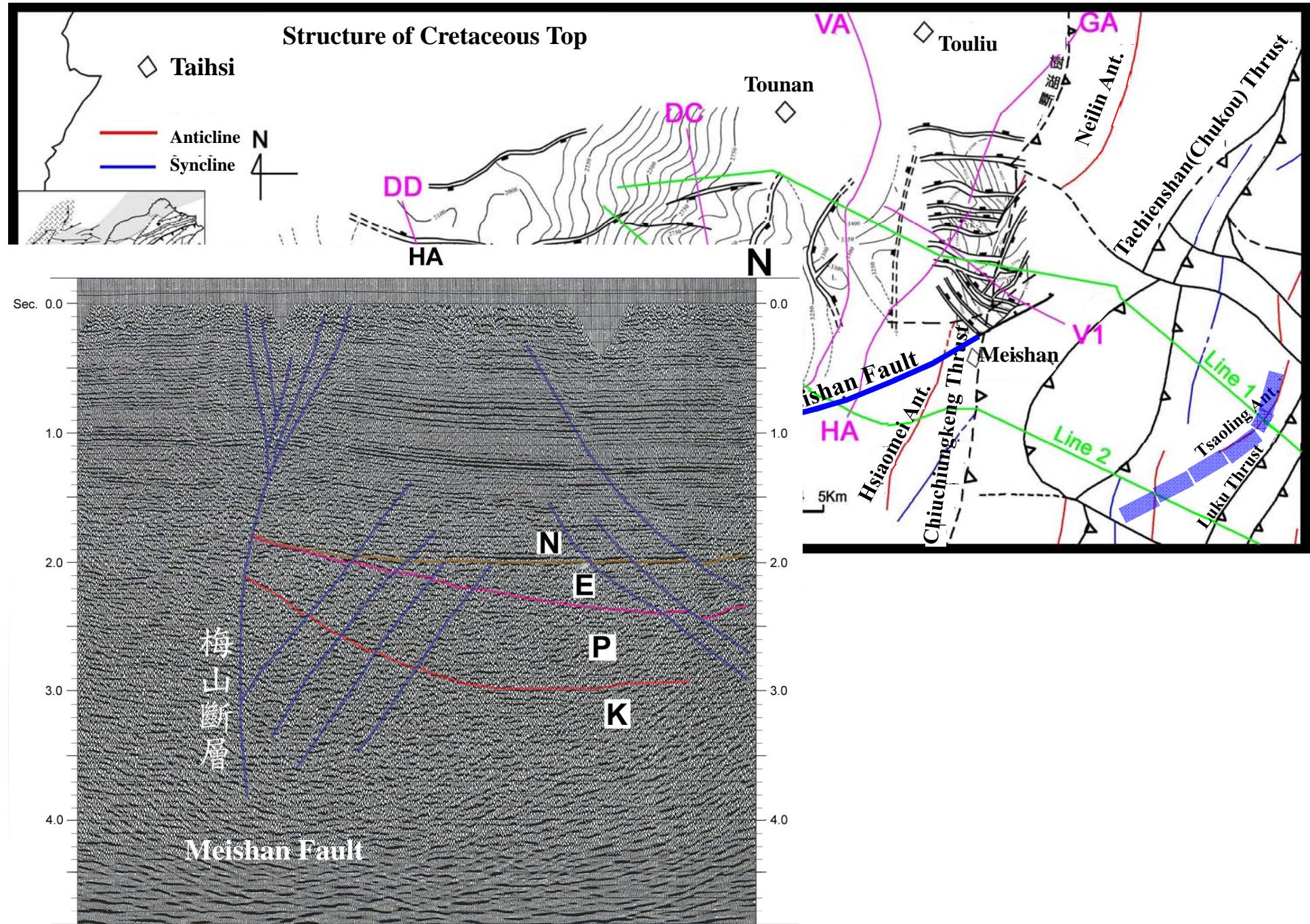


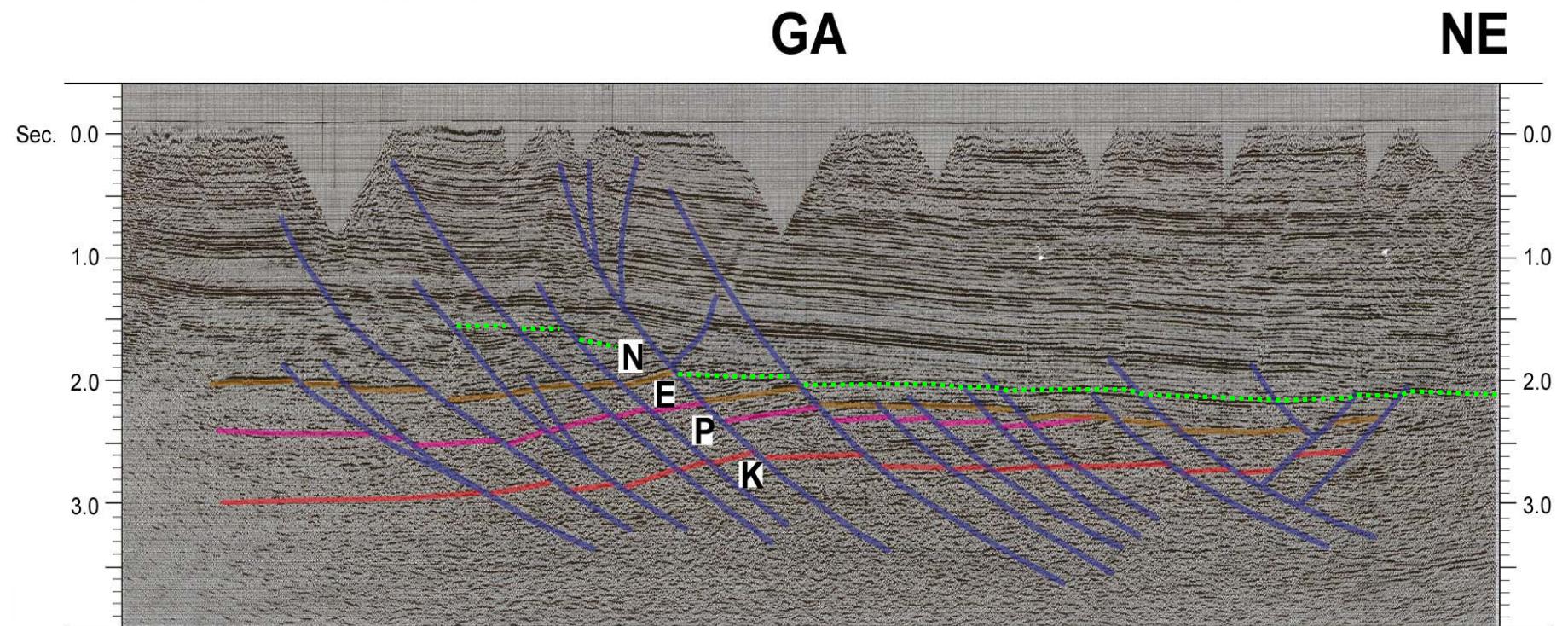
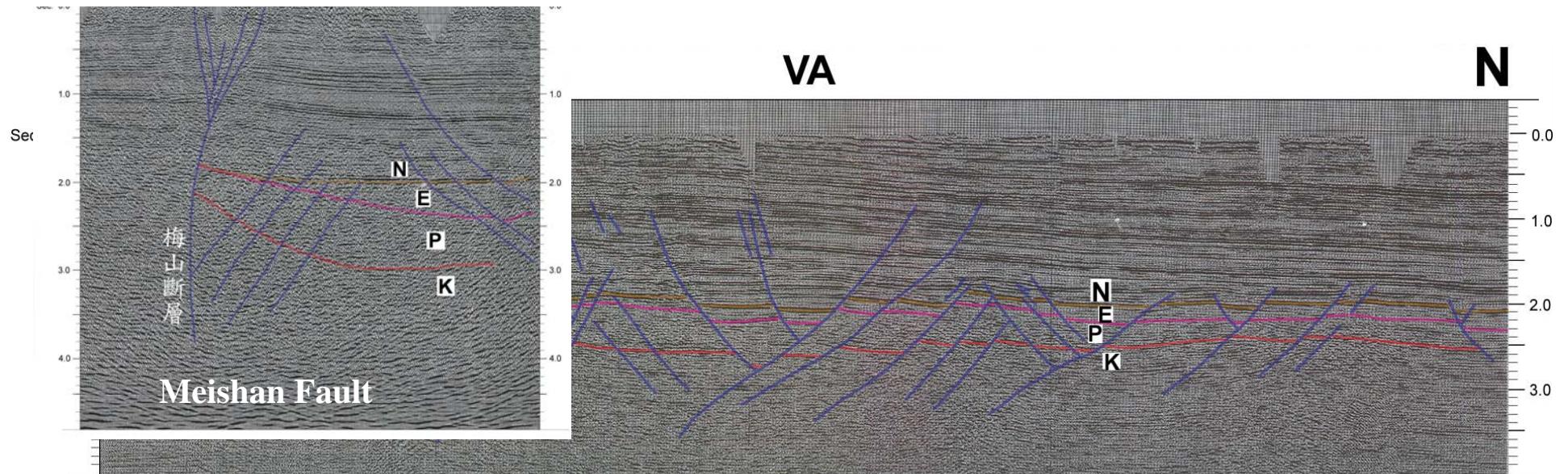


ure of Cretaceous Top



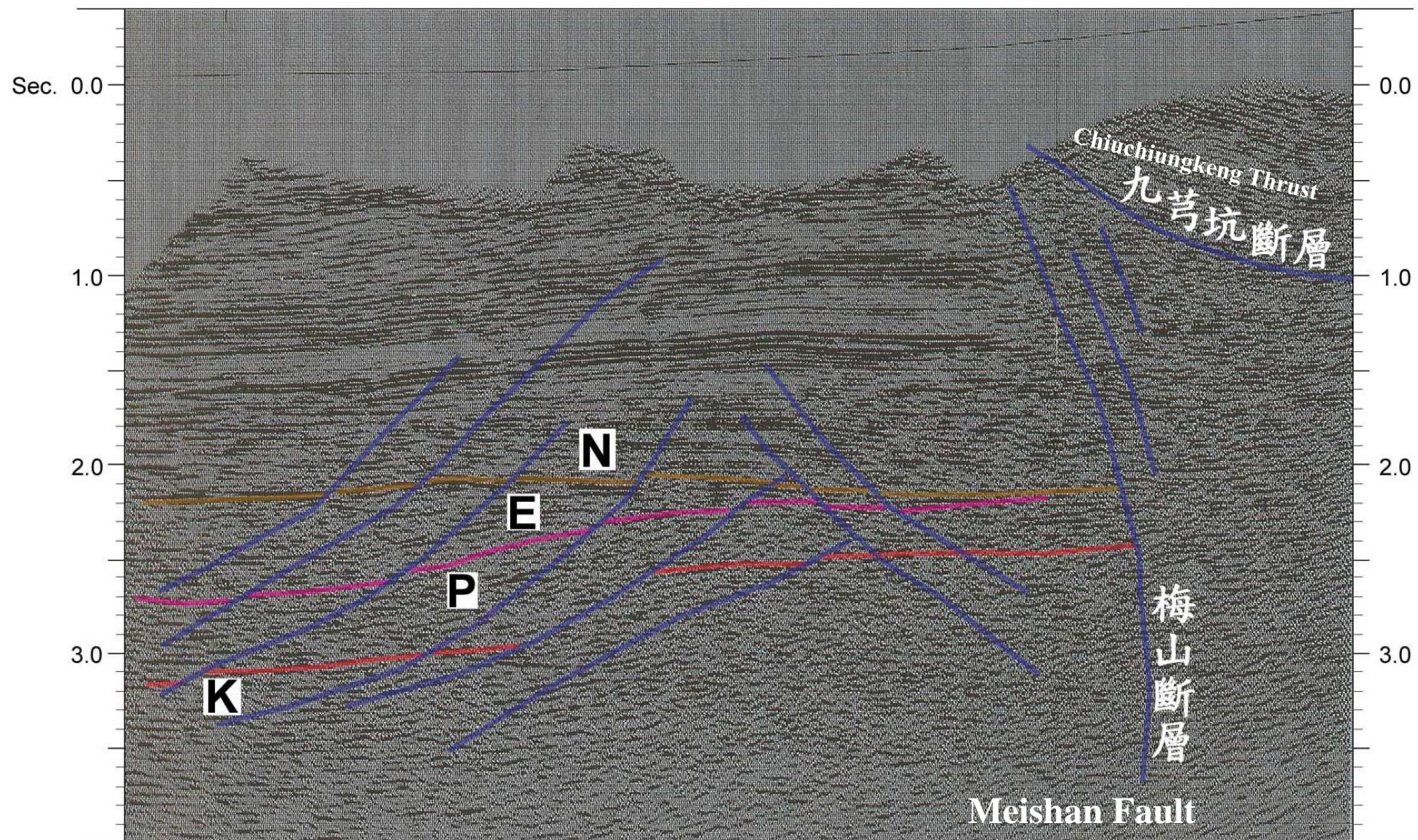


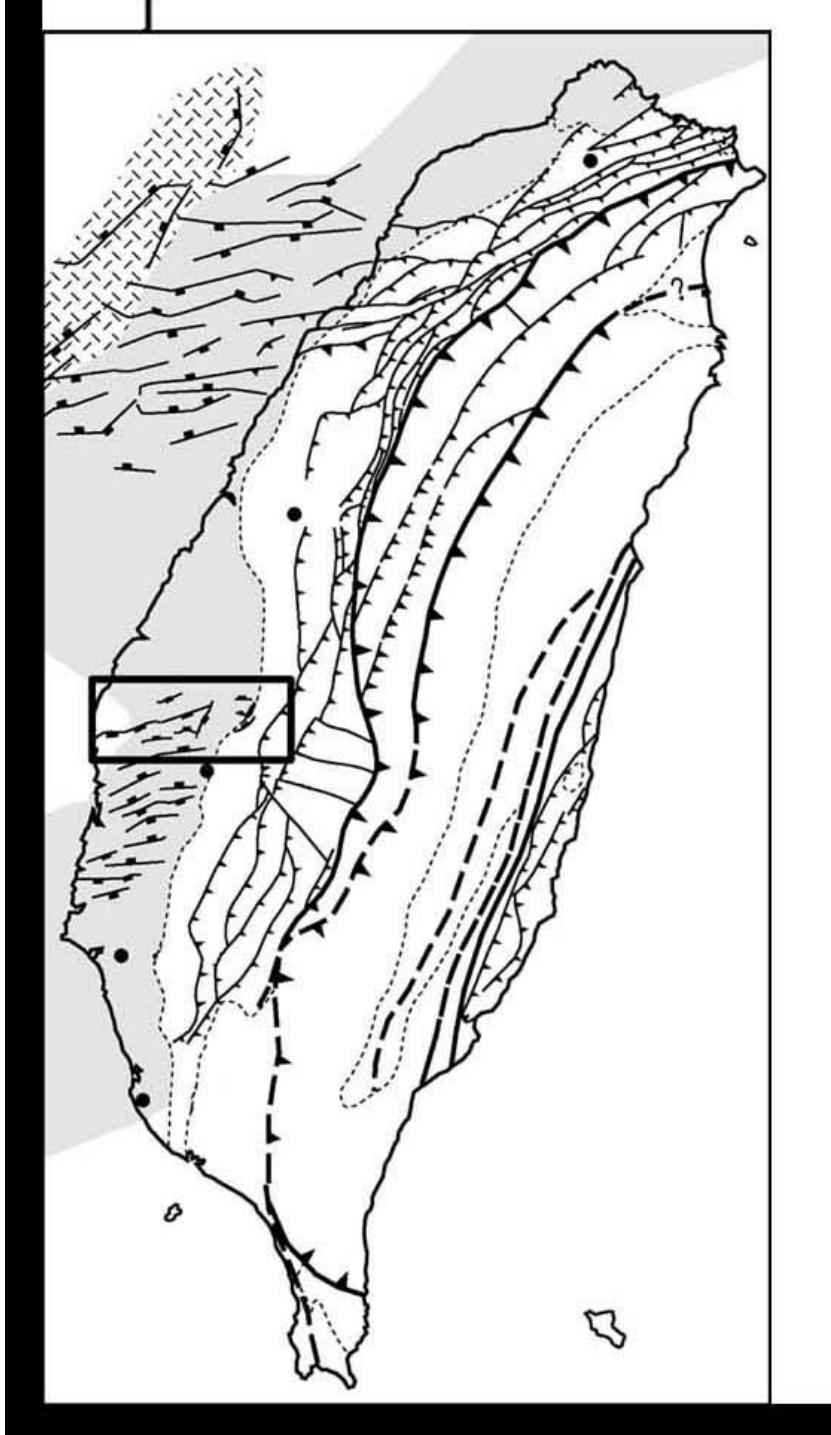




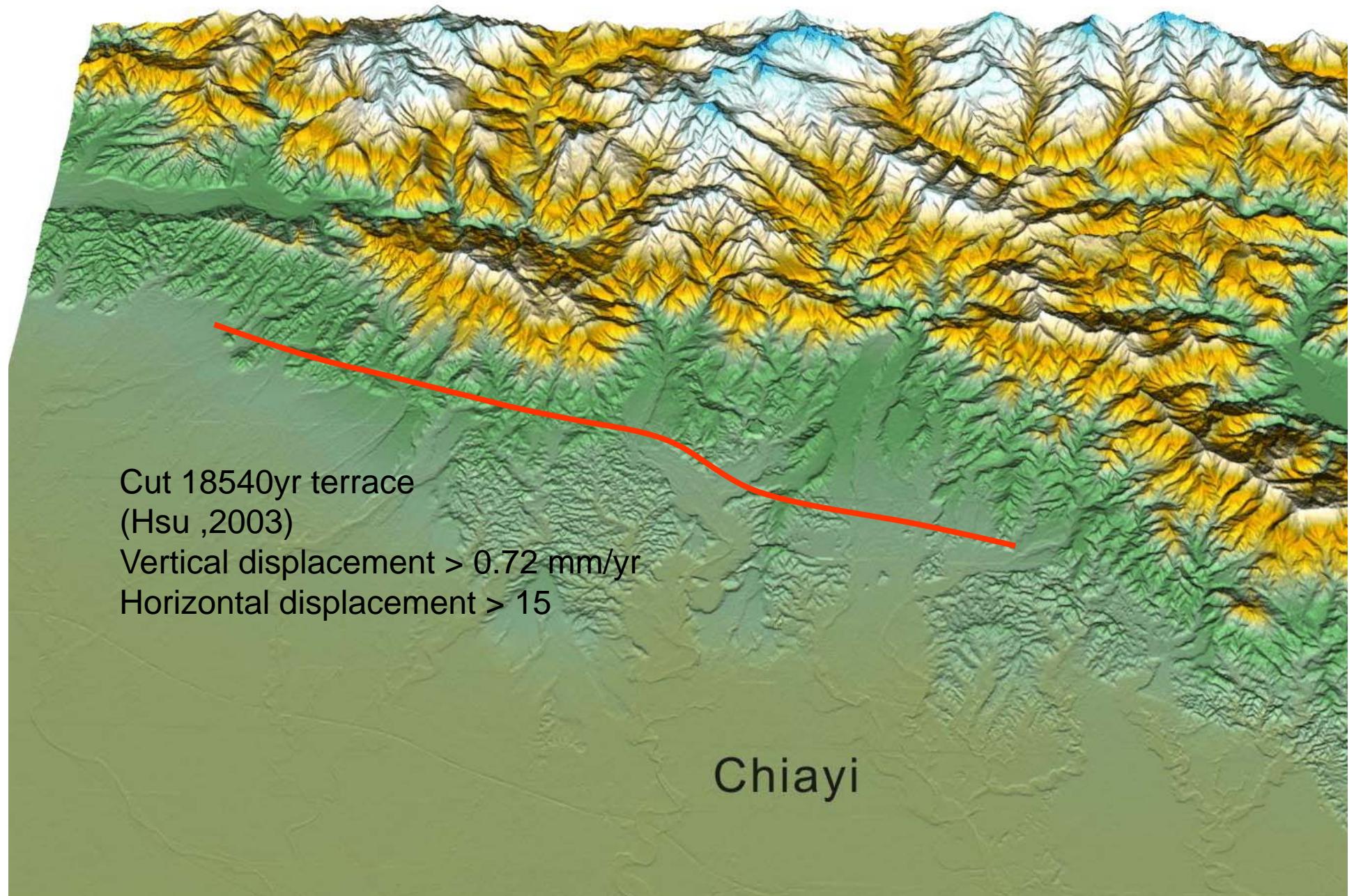
V1

SE





**Meishan fault →  
along the preexisting normal fault**

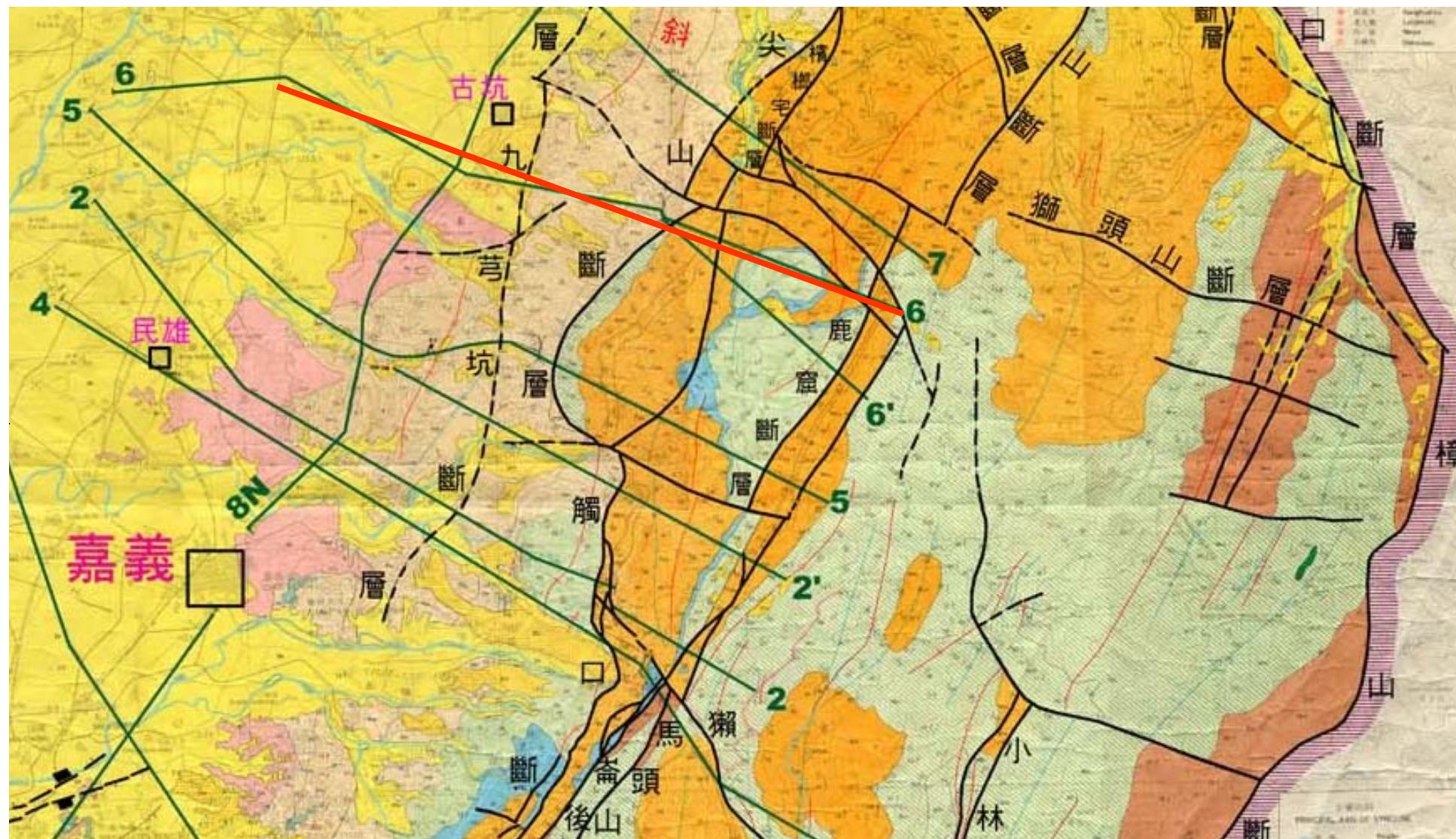


## Chiuchiungkeng fault



18540 BP  
(Hsu, 2003)





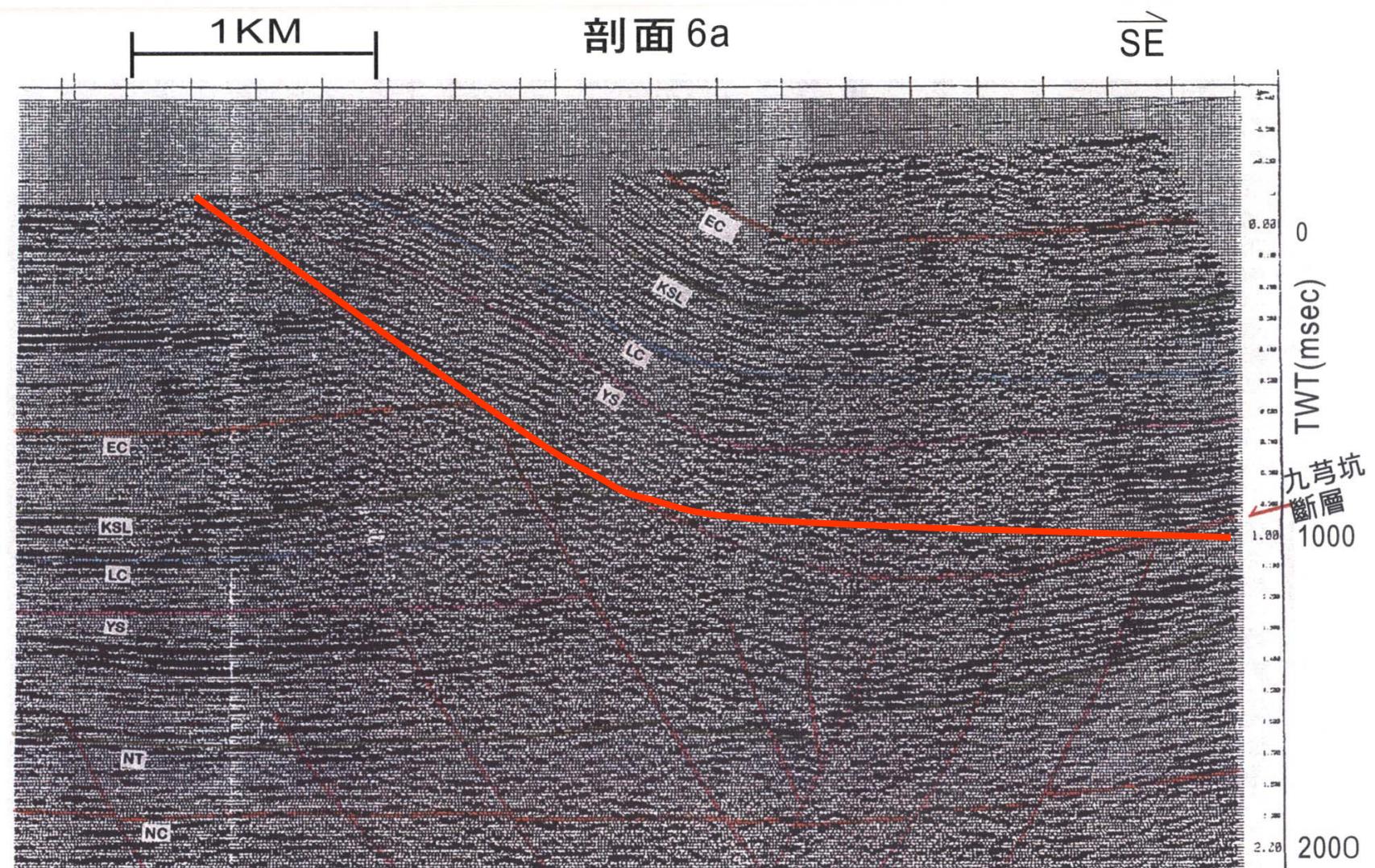
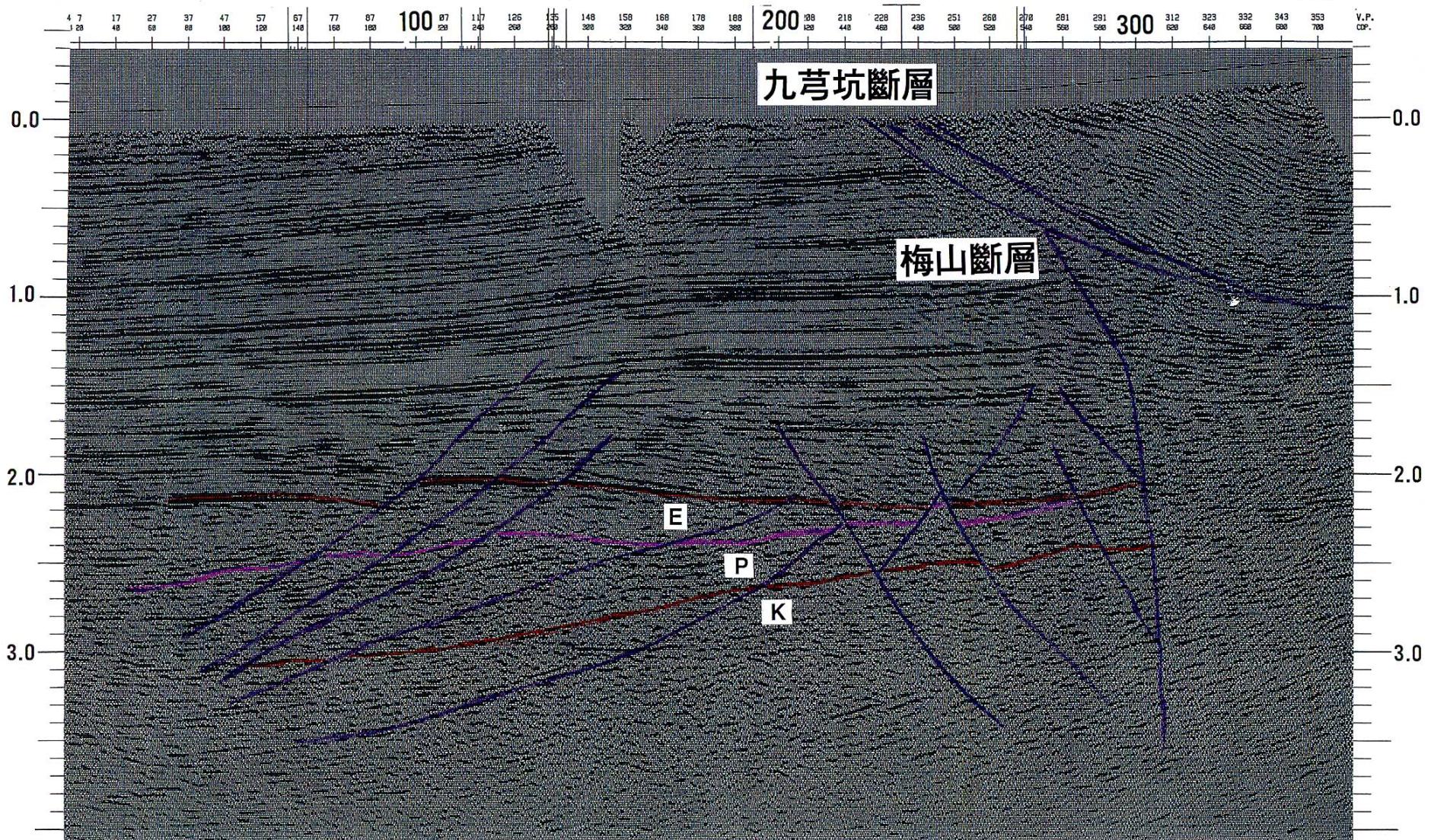


圖3.6 長剖面 6 內的九芎坑斷層附近之震測剖面 6 a，顯示九芎坑斷層之震測地層證據。

# 77-GK-V3

E



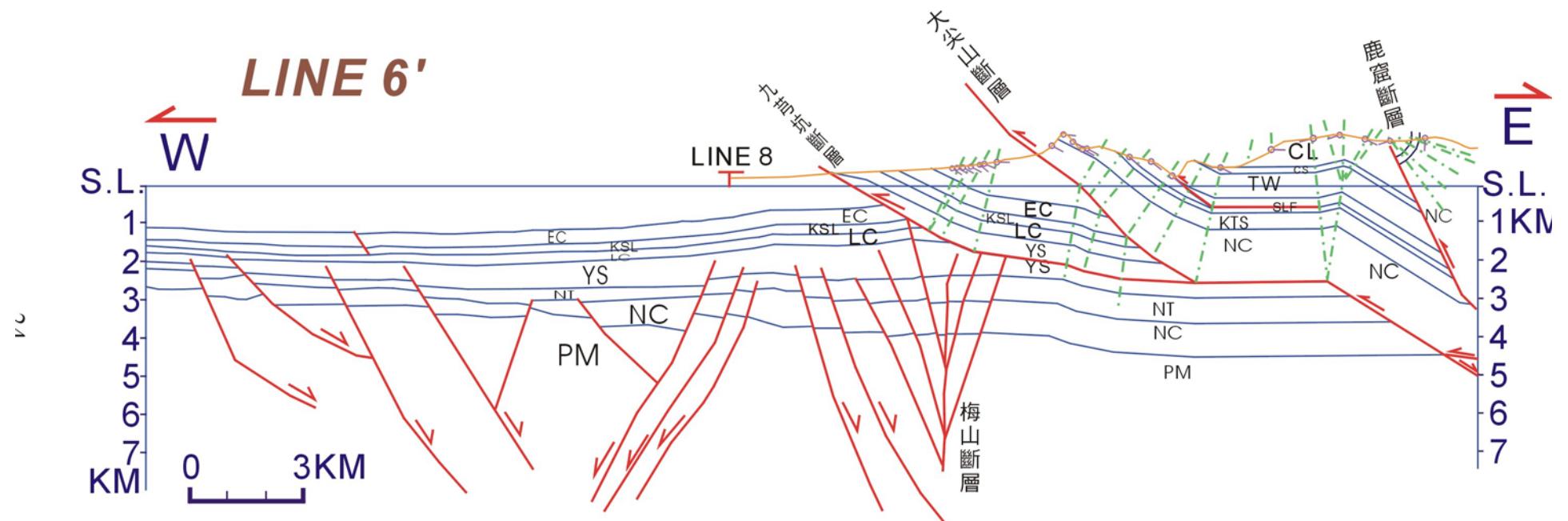
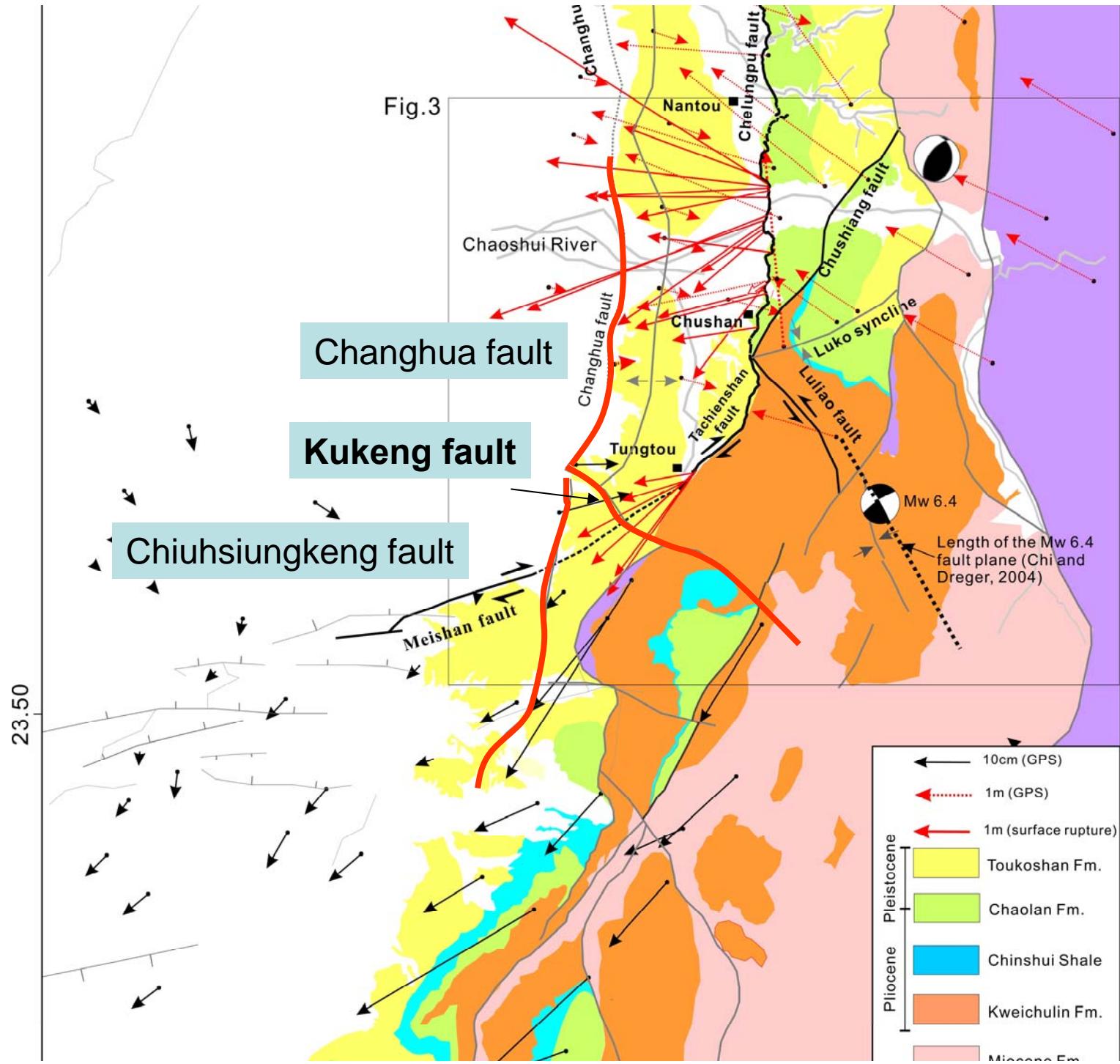
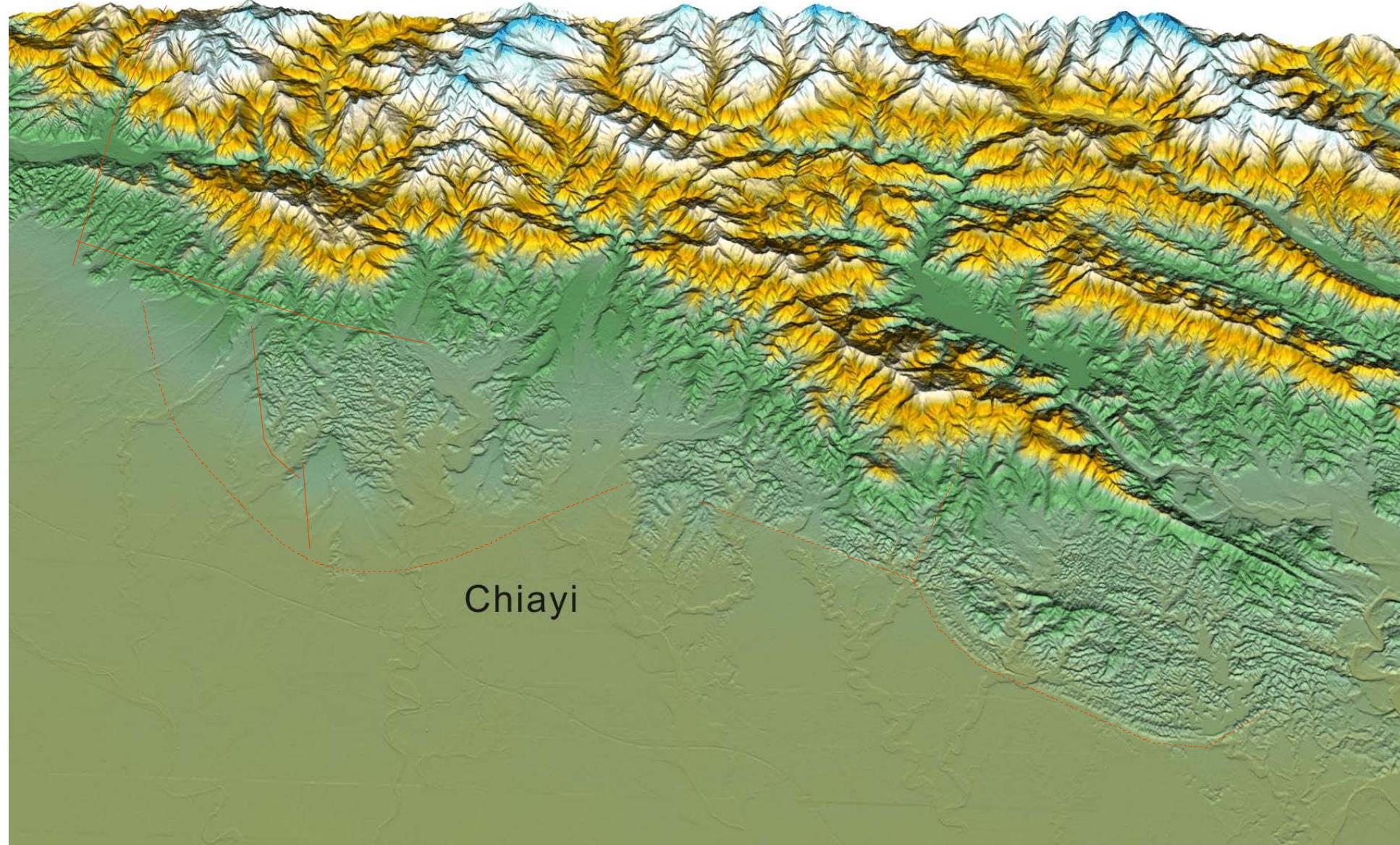
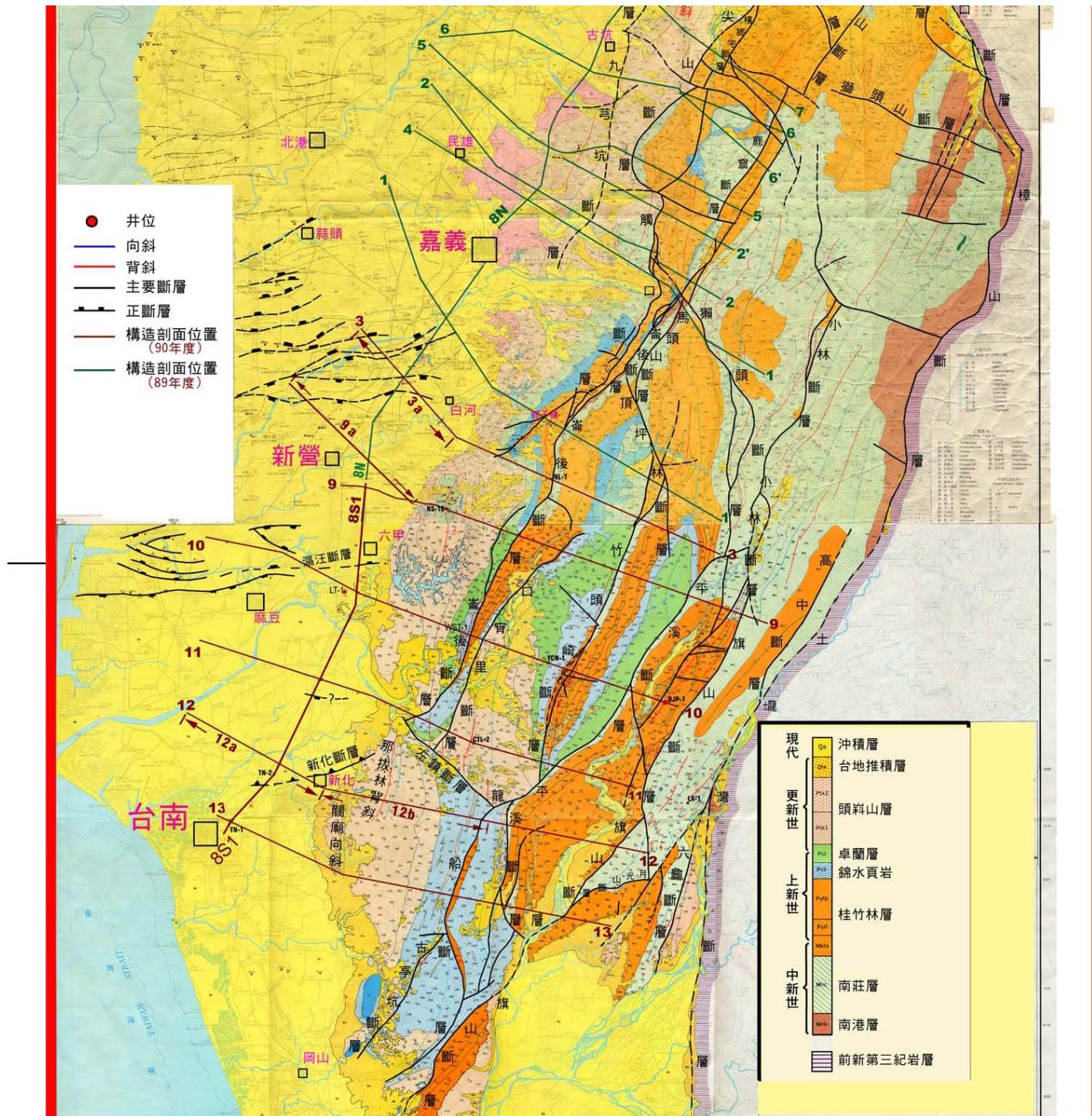
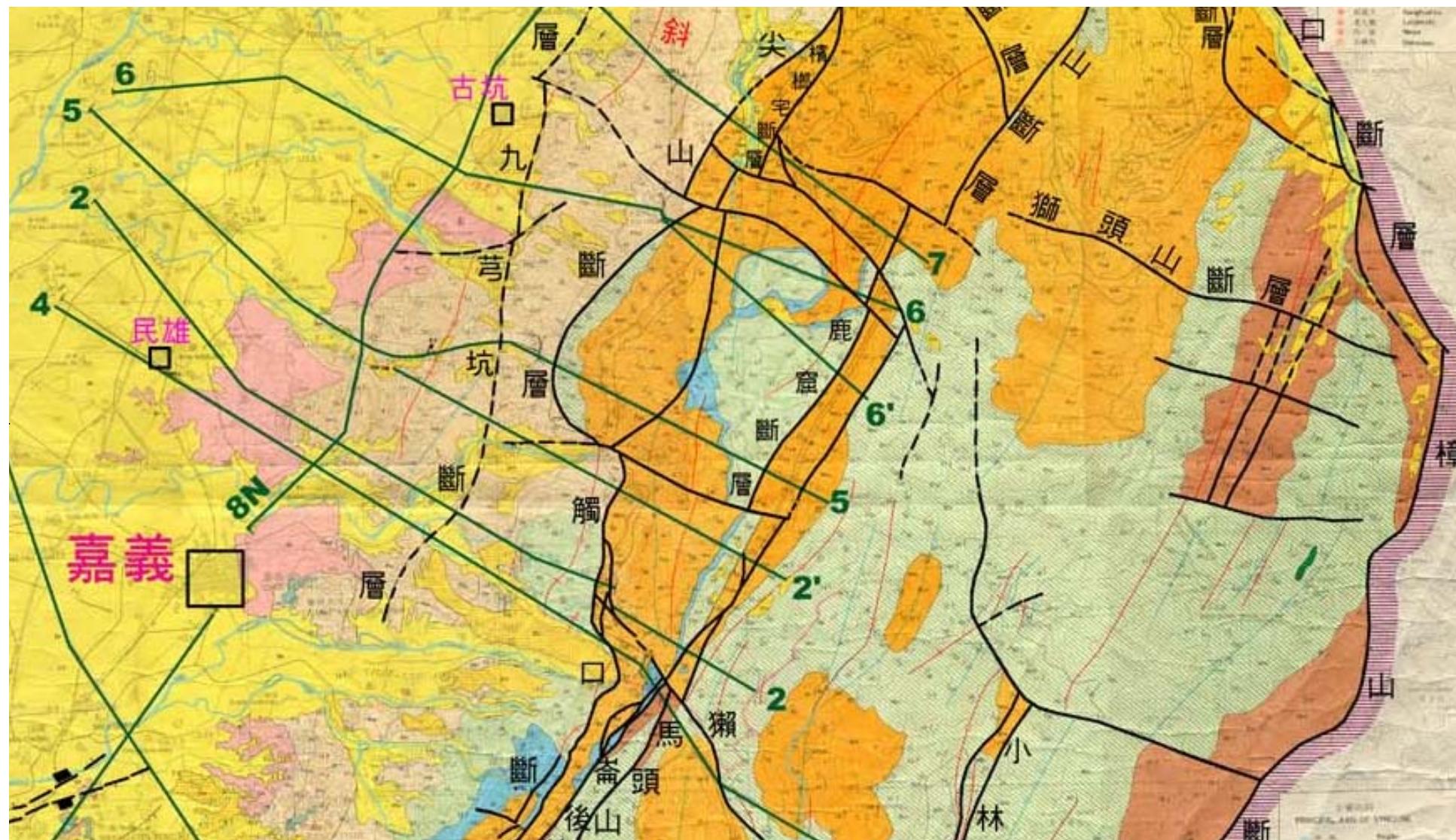


圖4.3. Line 6'剖面地下構造形貌。地層代號見圖4.1說明。



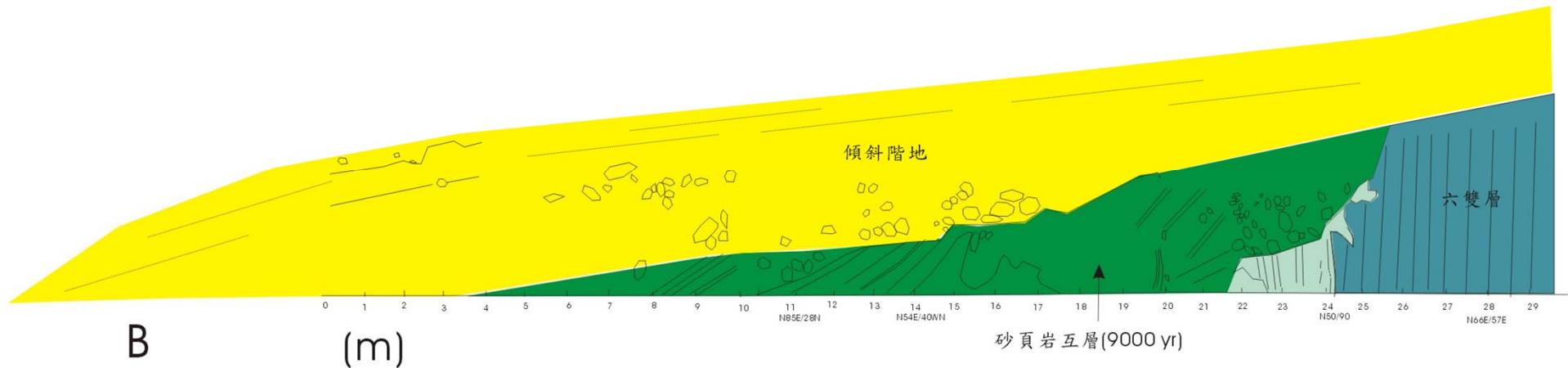








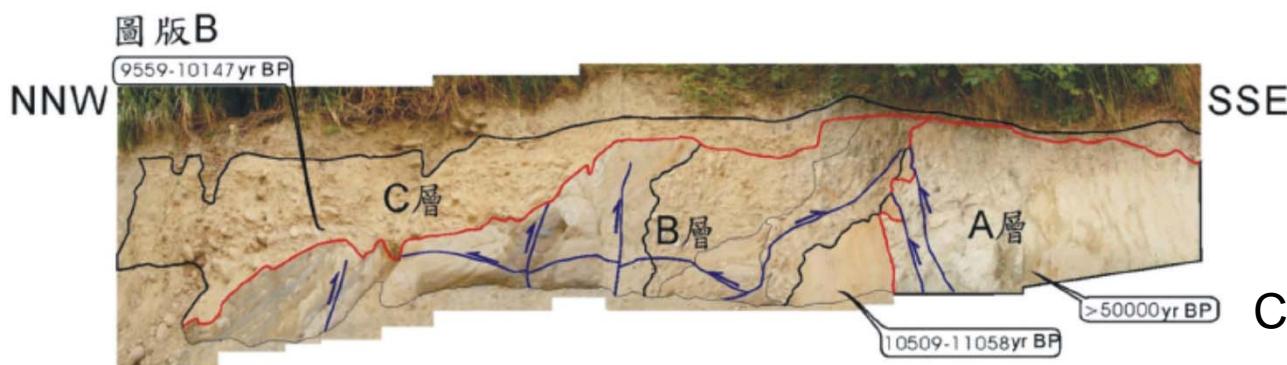
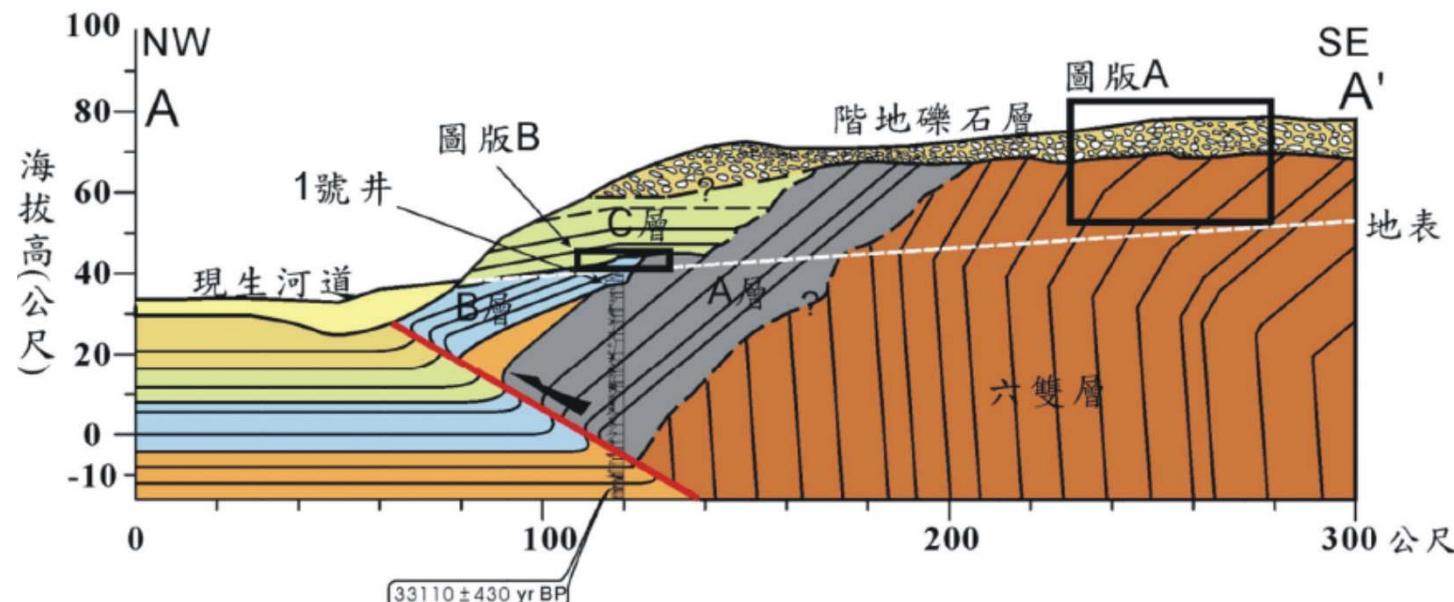
A



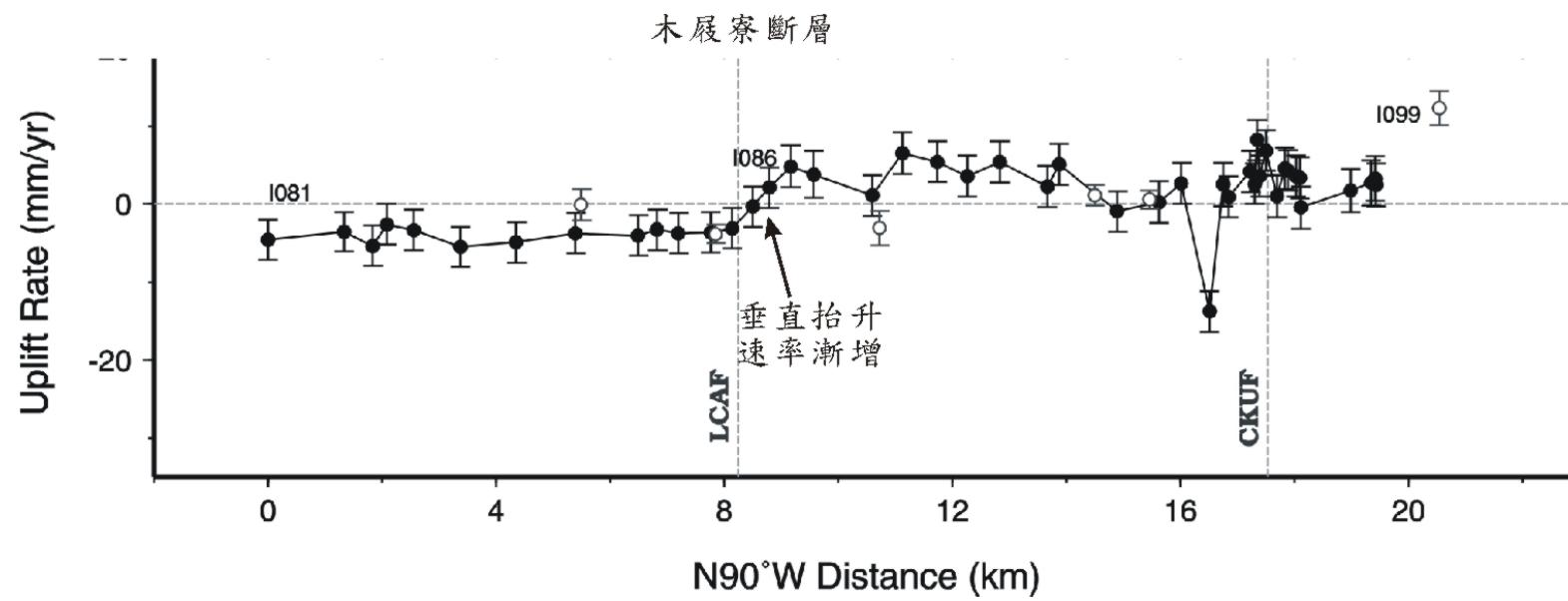
圖三A 為木屐寮斷層與六甲斷層交界處的剖面。圖三B為剖面解釋，9000年的地層已被傾斜，此地層中並發育許多小斷層，此地層之上的階地已被抬升超過40公尺。



**Vertical displacement:**  
 $3\text{mm/yr} + 3\text{mm/yr}$   
 $6\text{mm/yr}$



Chen et al., 2006

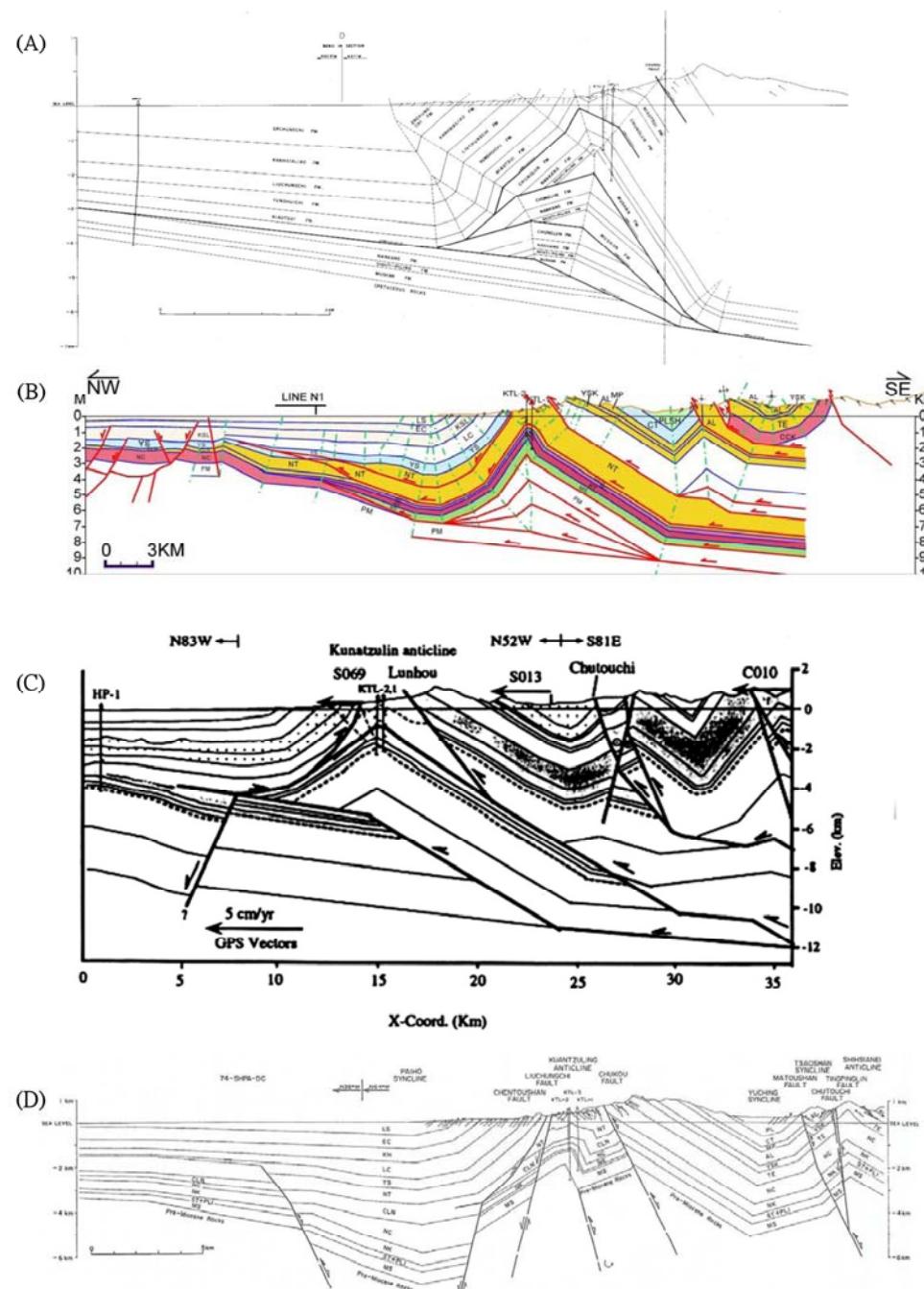


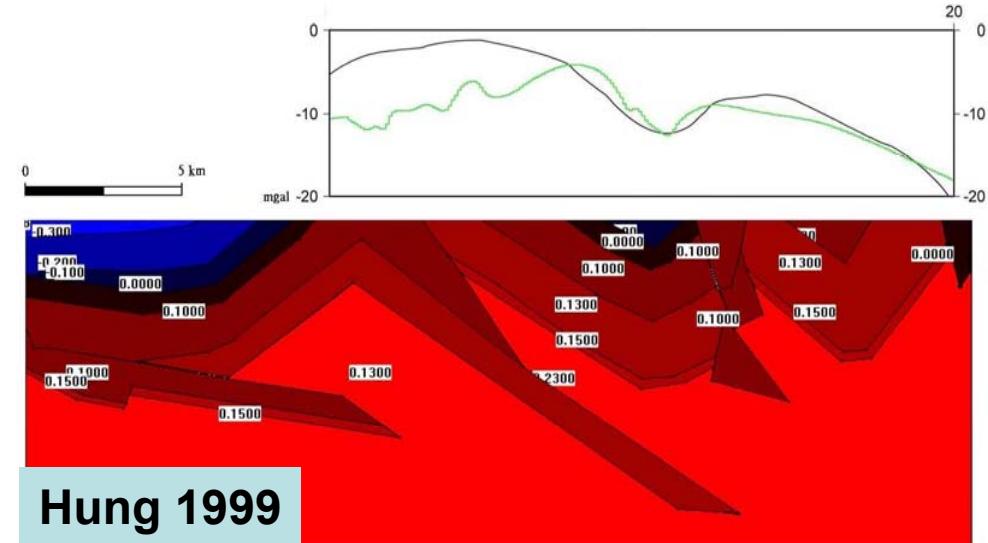
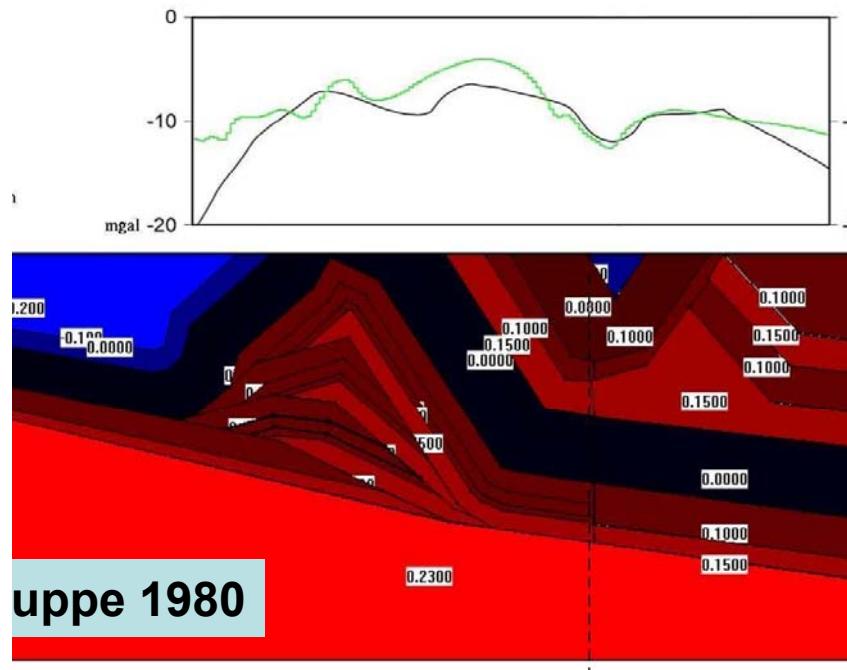
leveling survey along the Muchiliao fault

# 木屐寮至關子嶺 地區地下構造

分別根據：

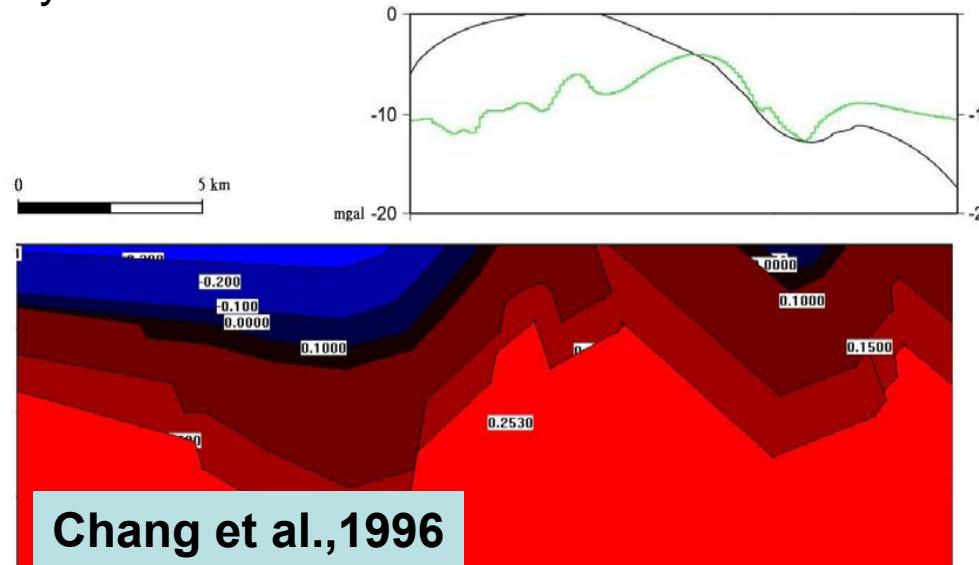
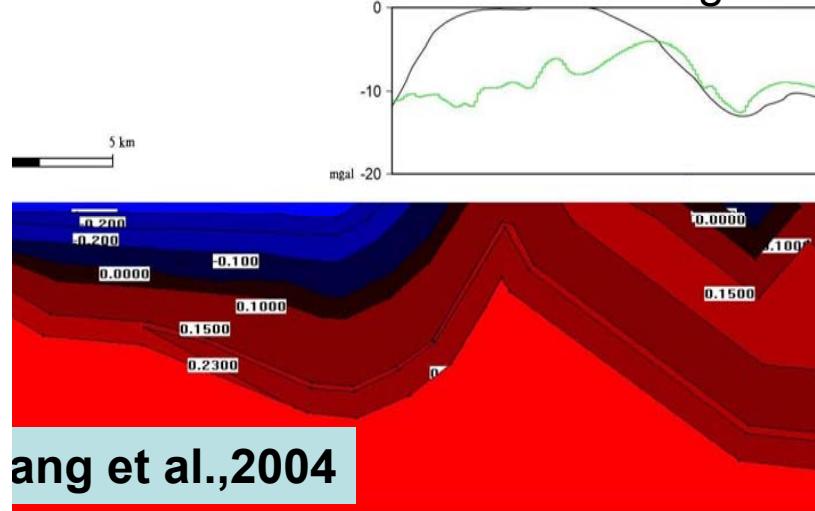
- (A) Suppe (1980) ,
- (B) 黃旭燦等 (2004) ,
- (C) Hung et al. (1999) ,
- (D) Chang et al. (1996) 。

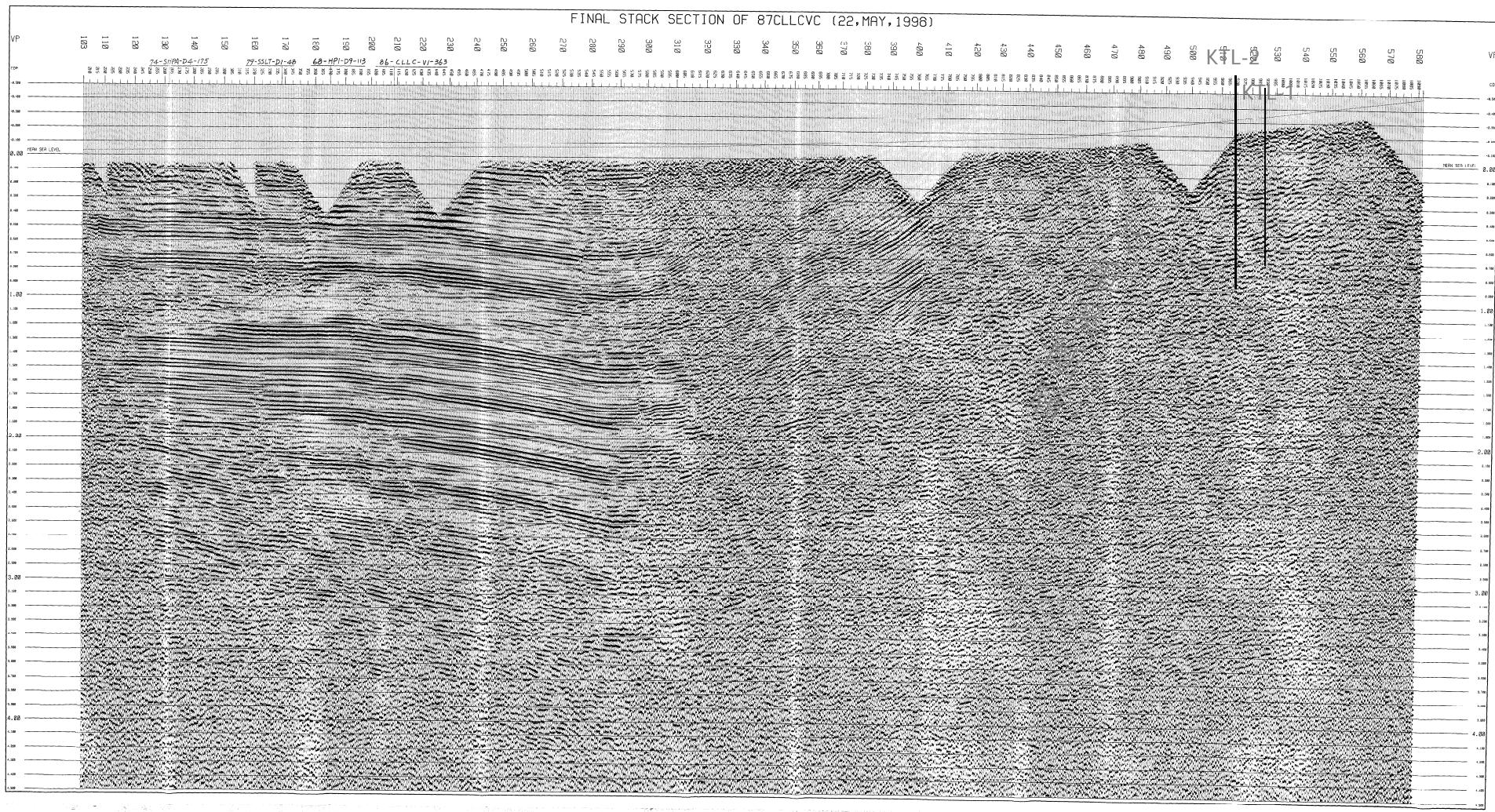




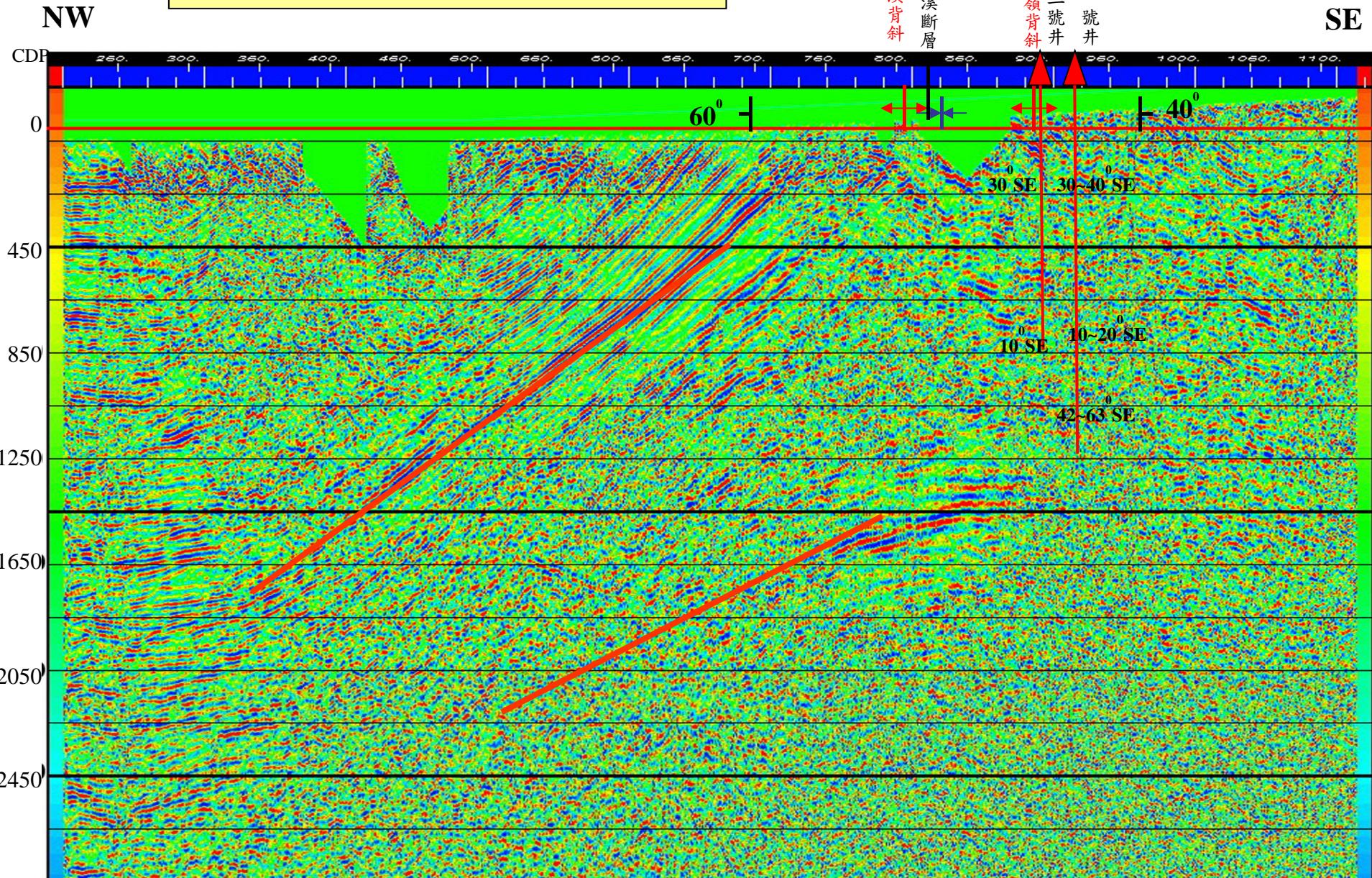
Green line: observation gravity anomaly

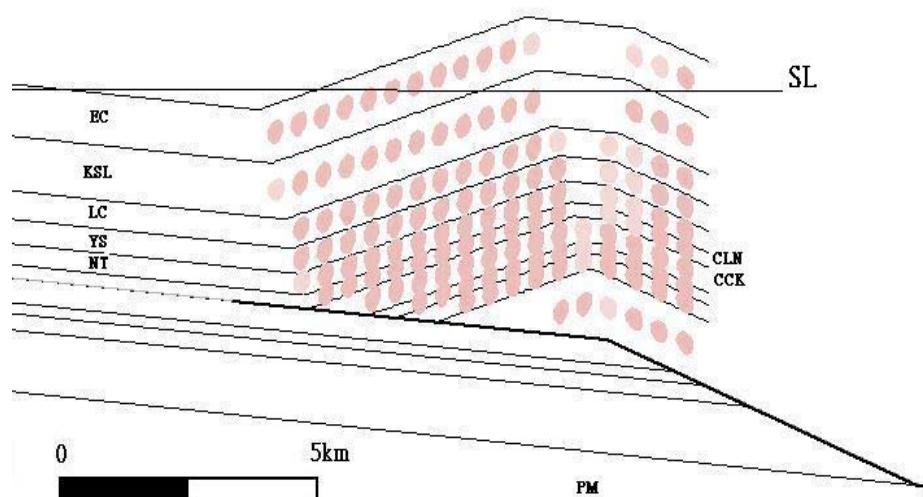
Black line: forward gravity anomaly



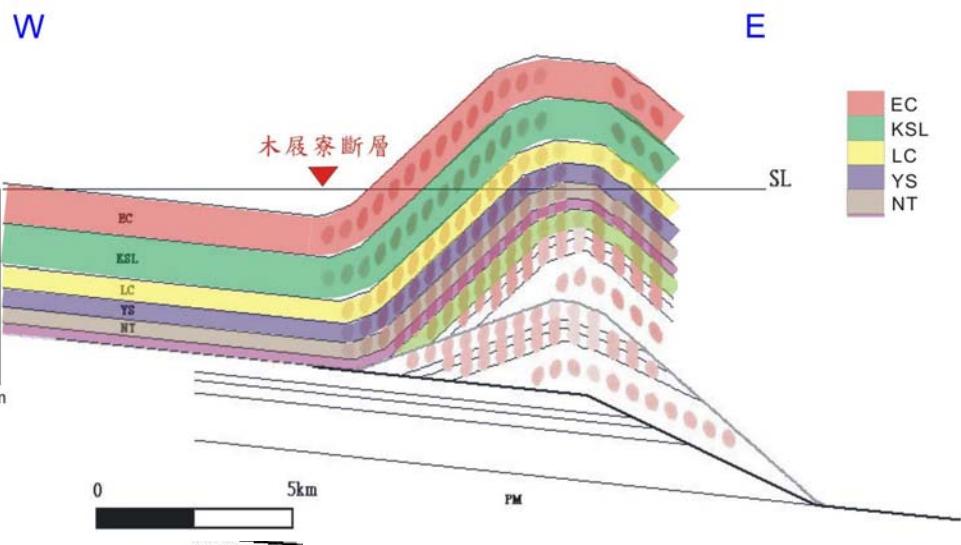


## FIN SECTION OF 93-DGL-HVA

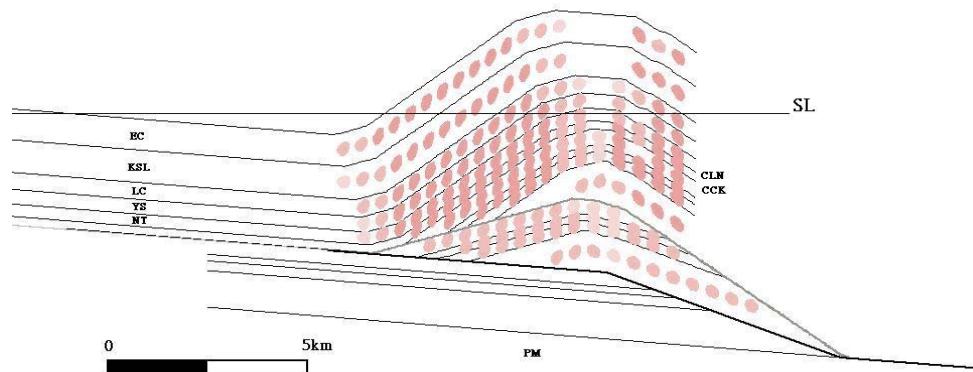




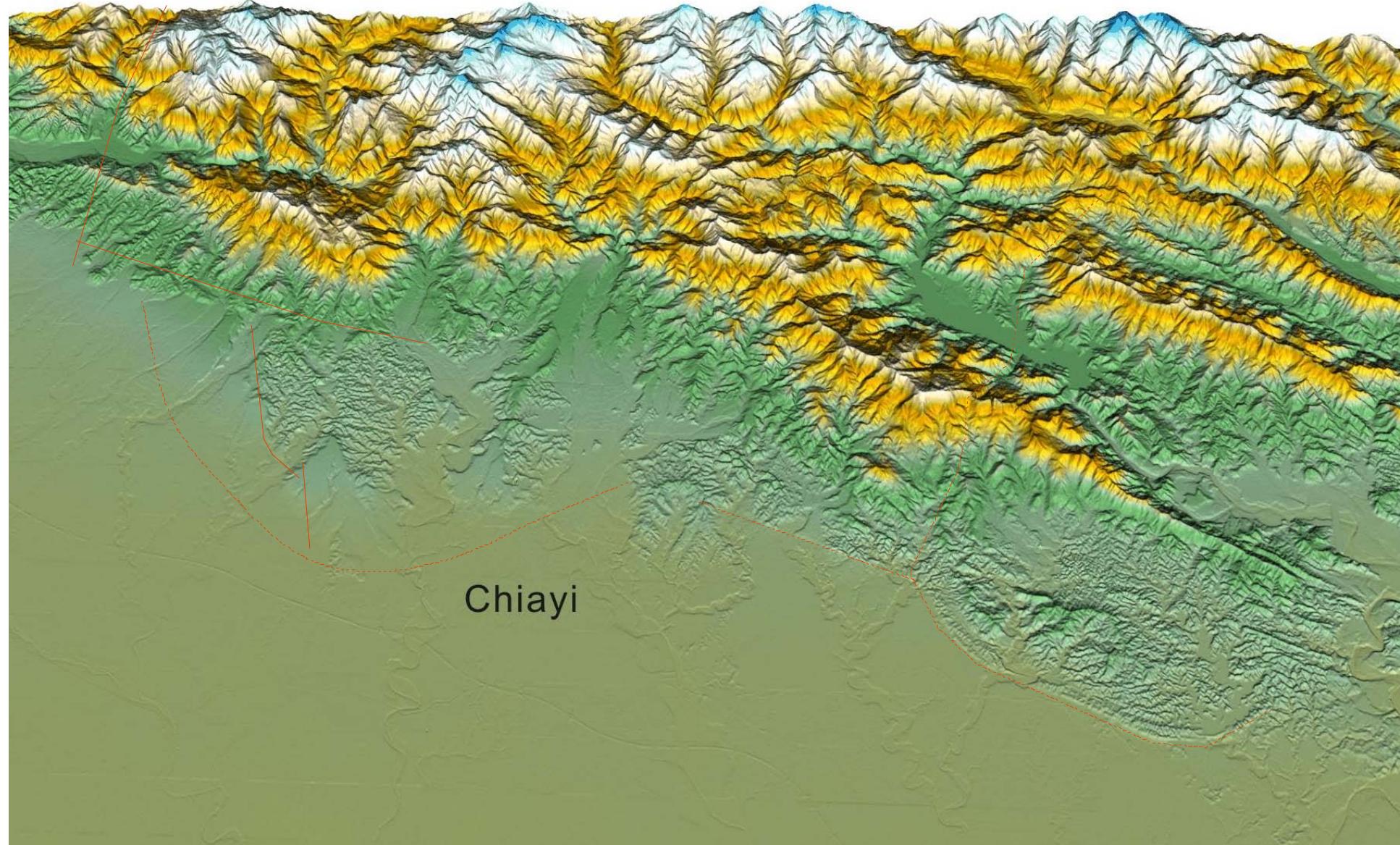
A



C

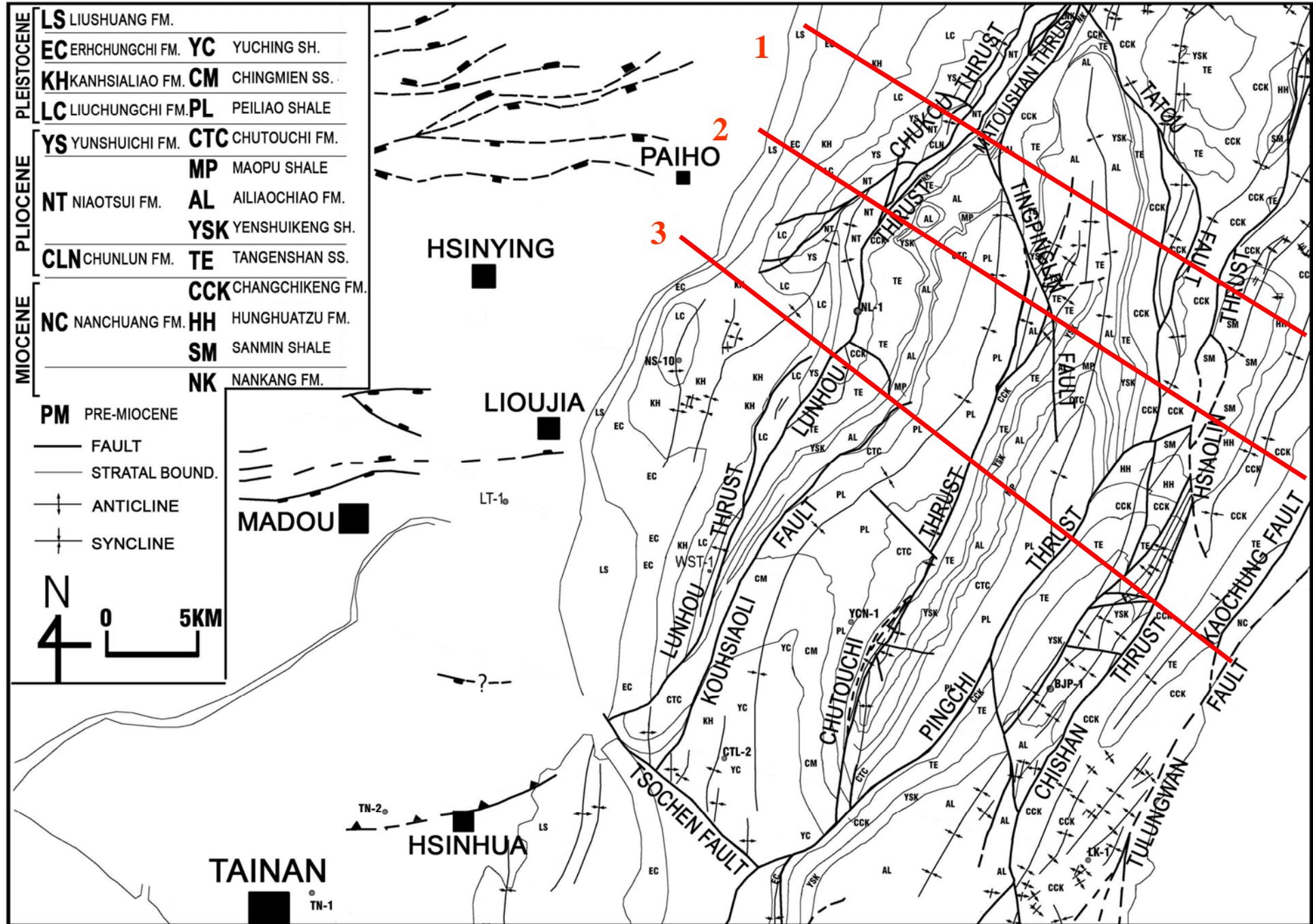


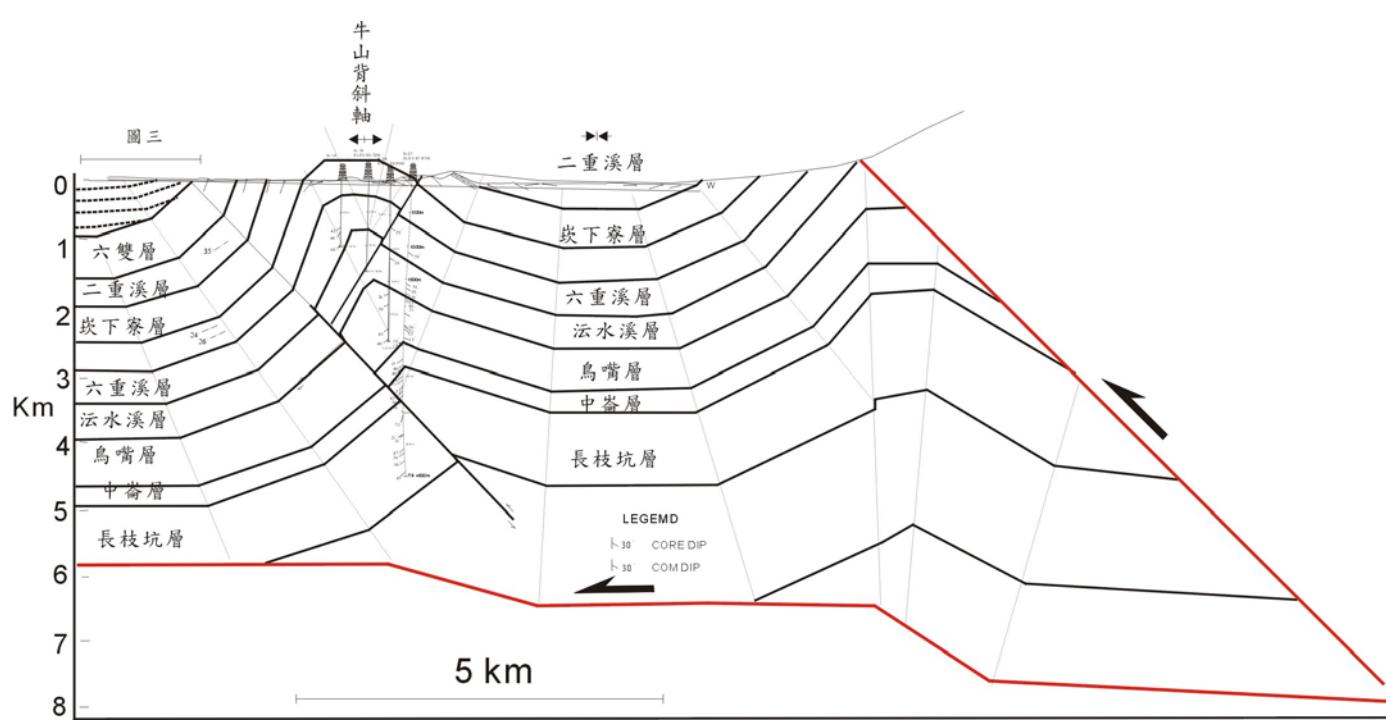
B



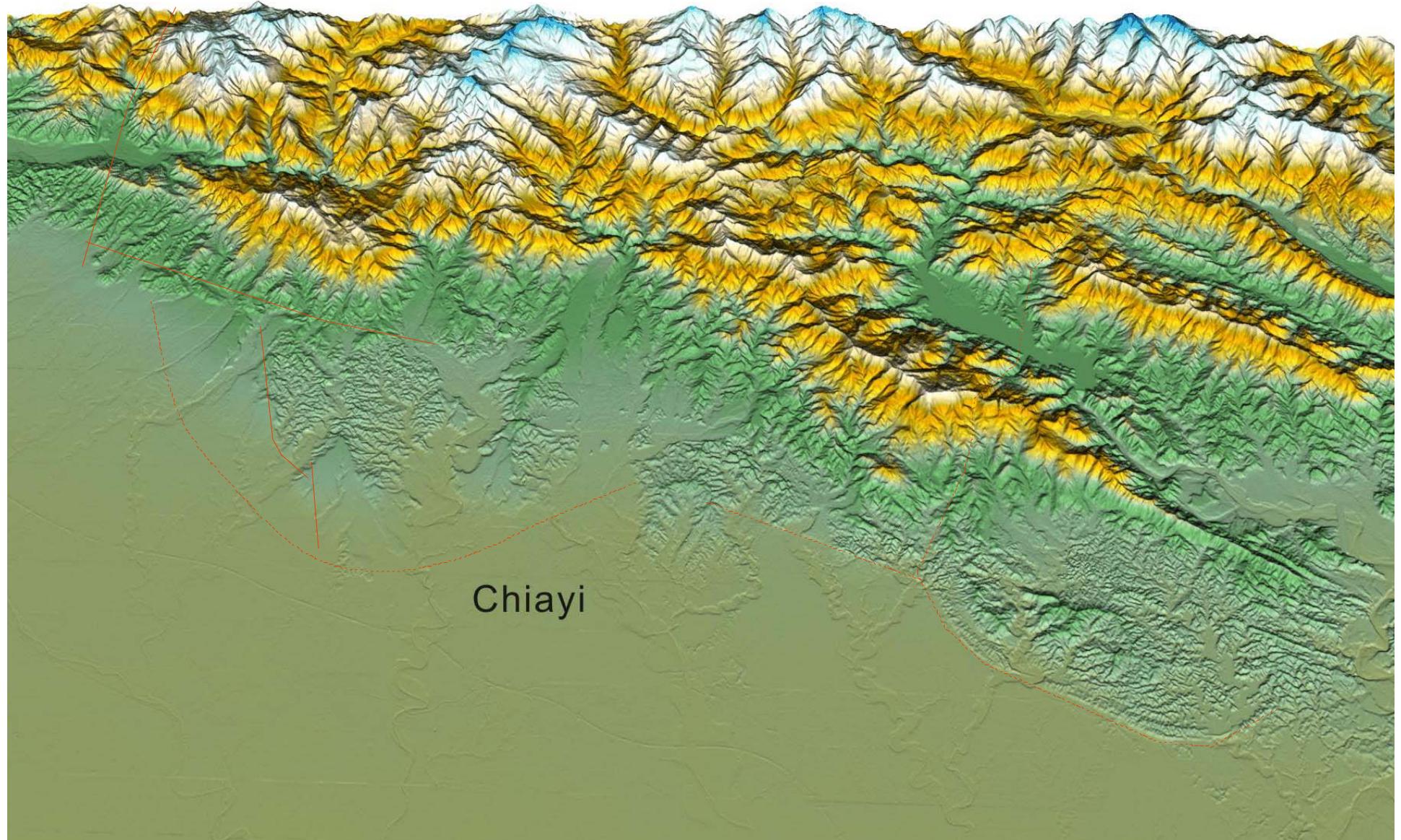
## Muchilaio structrue

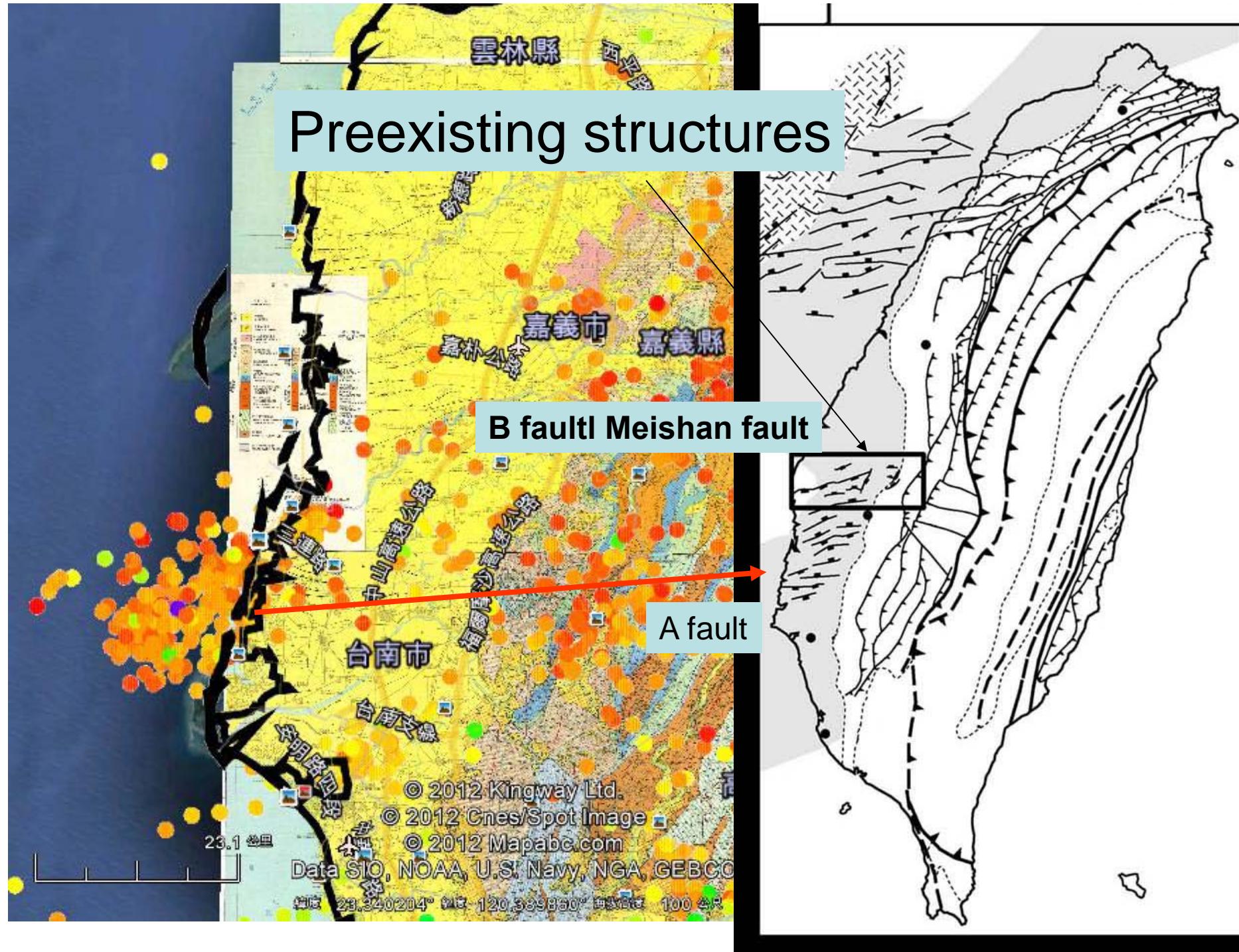
- (A) Suppe (1980)
- (B) Huang et al., (2004)
- (C) Chang et al. (1996)
- (D) Hung et al. (1999),
- (E) Mouthereau et al. (2001)。





# What are the factors of controlling fault segments?

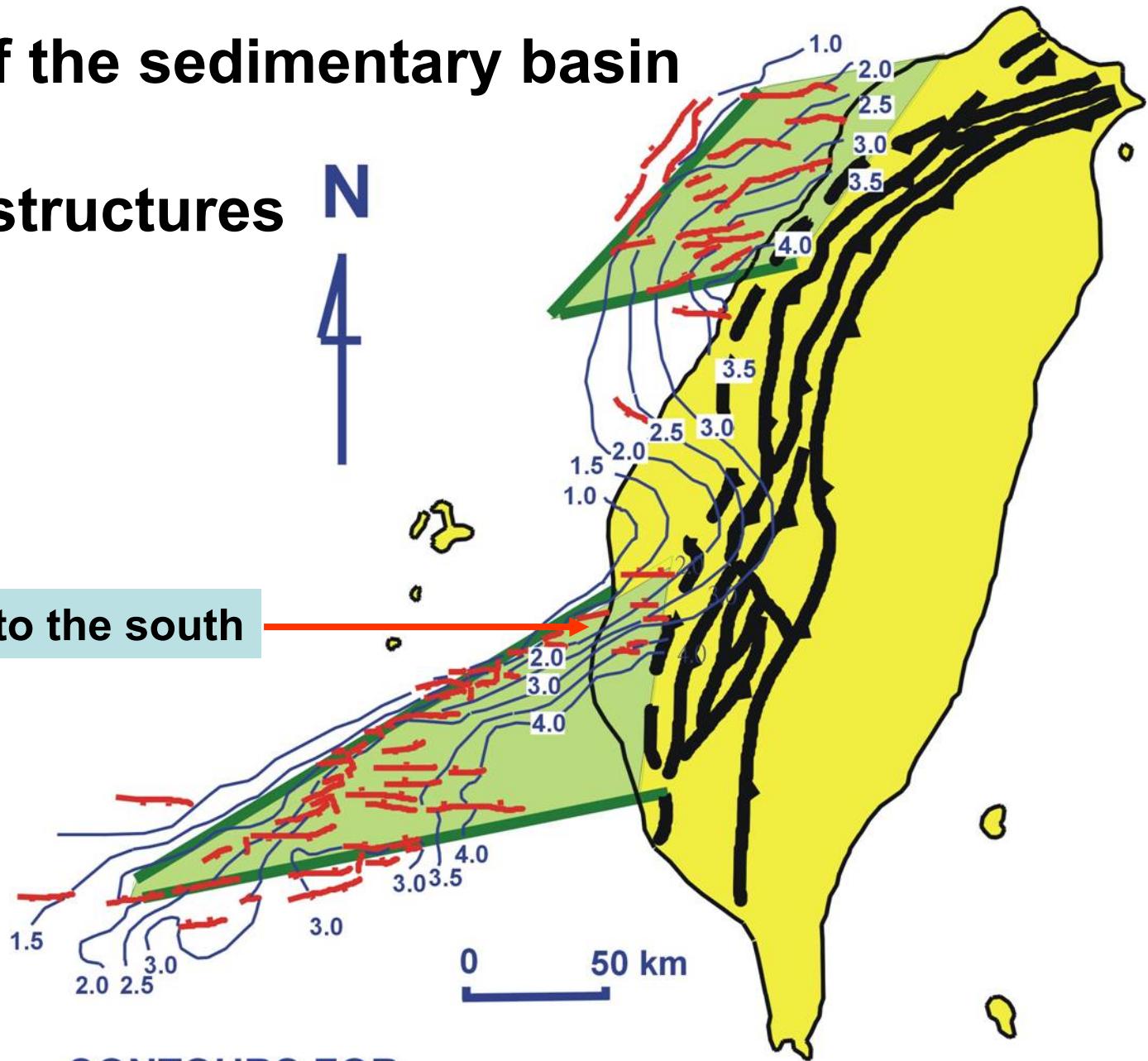




# 1. Thickness of the sedimentary basin

## 2. Preexisting structures

Basin is deeper to the south



CONTOURS FOR  
PRE-MIOCENE UNCONFORMITY  
2.0: SEC., TWT