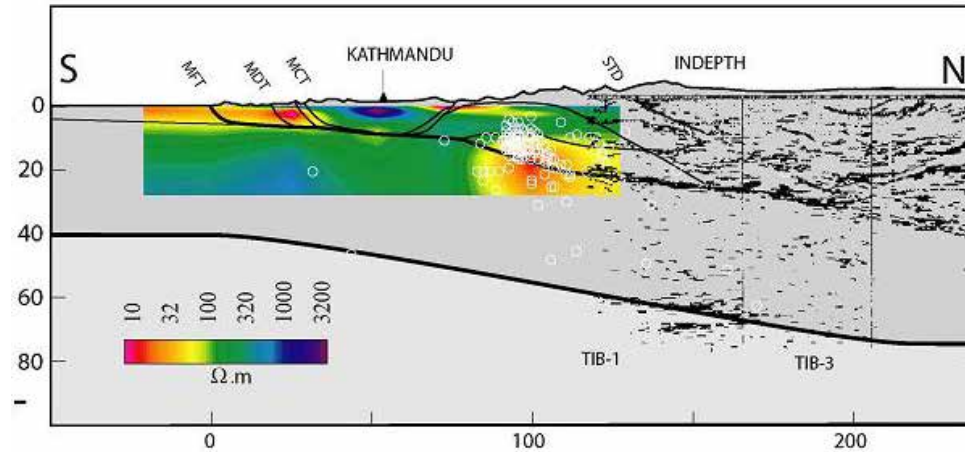


Magnetotelluric studies of the Nepal Himalaya

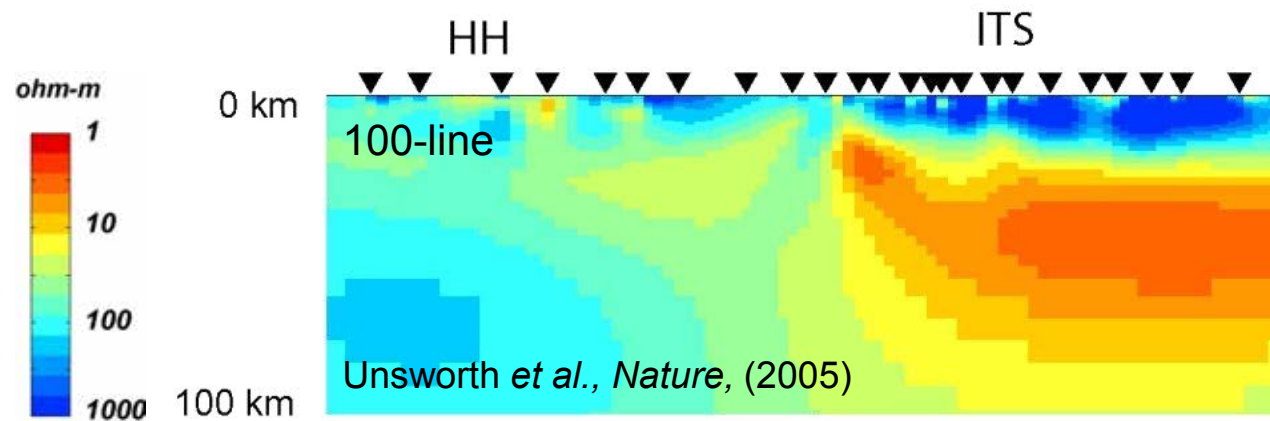
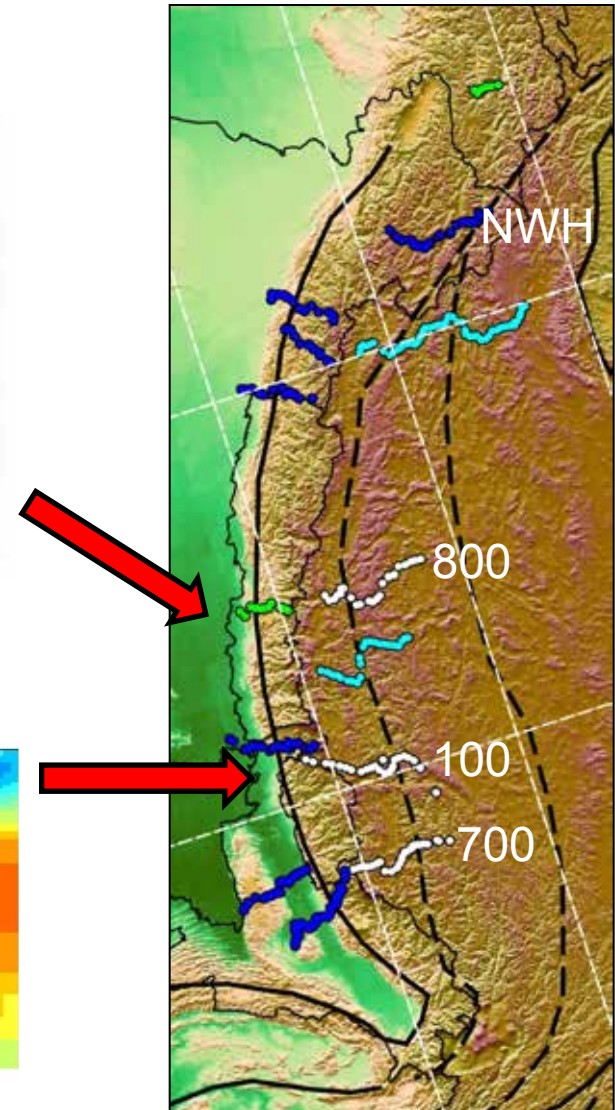
Martyn Unsworth, *University of Alberta*

Pascal Sailhac, Frederic Perrier, *France*

Bai Denghai, *Chinese Academy of Sciences*



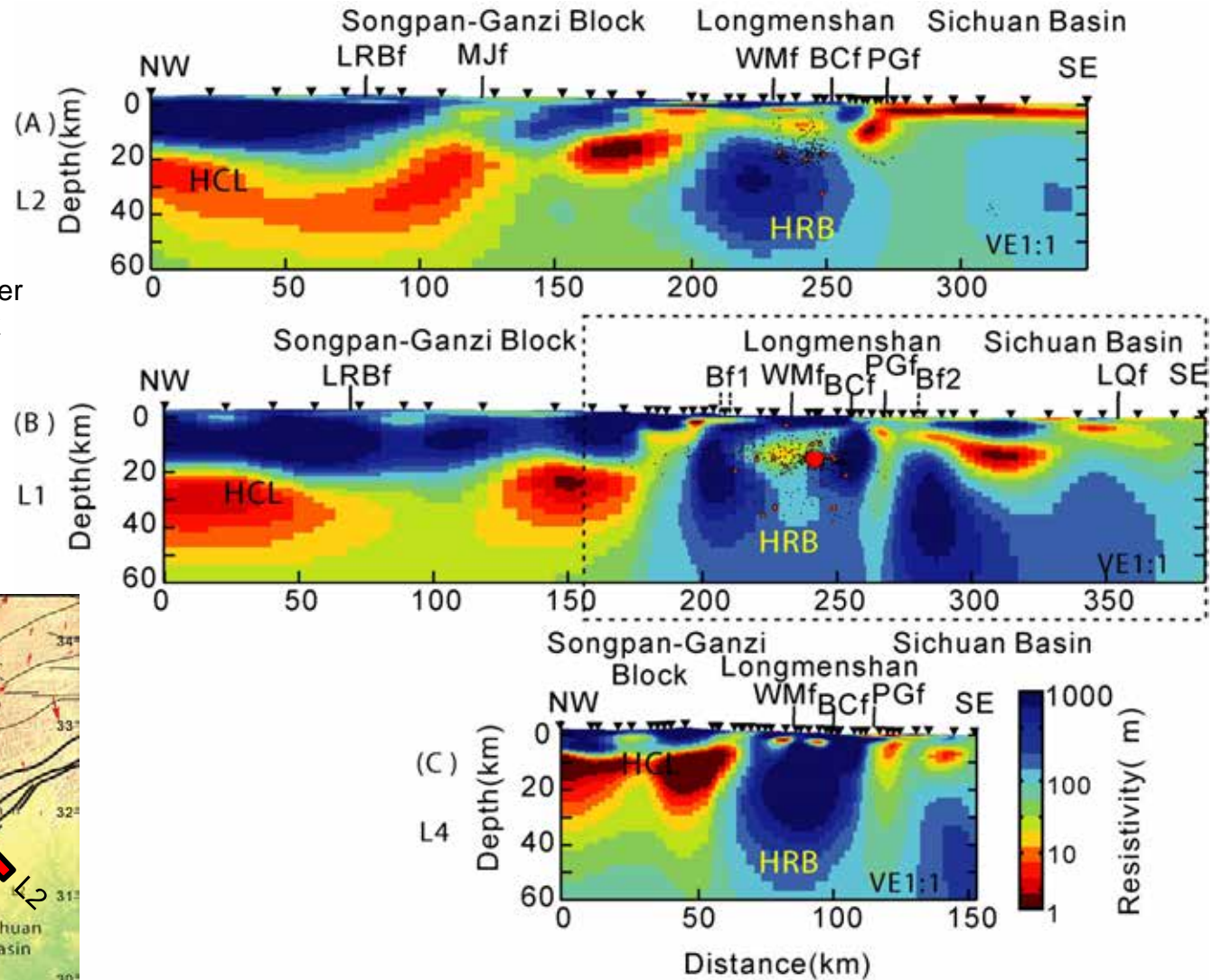
Lemonnier et al., GRL, 1999



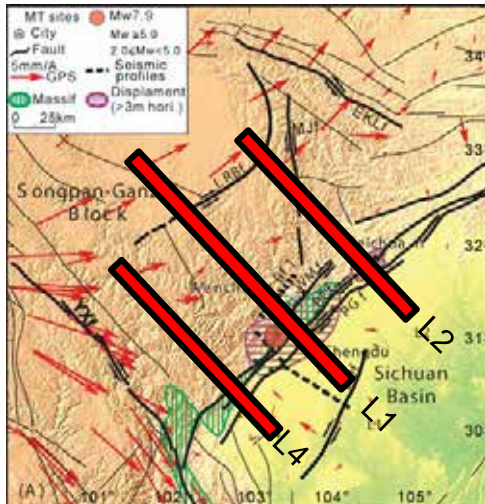
ITS = Indus Tsangpo Suture

HH = High Himalaya

MT studies of Wenchuan earthquake hypocenter – example of 3D MT



HCL = High conductivity layer
 HRB = High resistivity block



Zhao, Unsworth, Zhan et al., Geology, 2012

Magnetotelluric studies of the Nepal Himalaya

Major MT study of Nepal

- 3-D MT study to map crustal resistivity
- Define relationship of low resistivity, seismicity and locked regions of MHT
- Use other data to distinguish between aqueous fluids and other causes of low resistivity
- Temporal variations in resistivity through the earthquake cycle

Research partners

- Martyn Unsworth, *University of Alberta*
- Pascal Sailhac, Frederic Perrier, *France*
- Bai Denghai, *Chinese Academy of Sciences*
- other partners

Current plans

- MT data collected on Chinese side of area by Bai Denghai in summer 2015
- Repeat of French Nepal profile in spring 2016 by Pascal Sailhac

