

2.3. 2007 Pisco Earthquake, Peru -Field survey report- (Paola Mayorca)

ペルー太平洋岸地震被害現地調査結果の報告(パオラ・マヨルカ)

2007 Pisco Earthquake, Peru – Field survey report¹ –

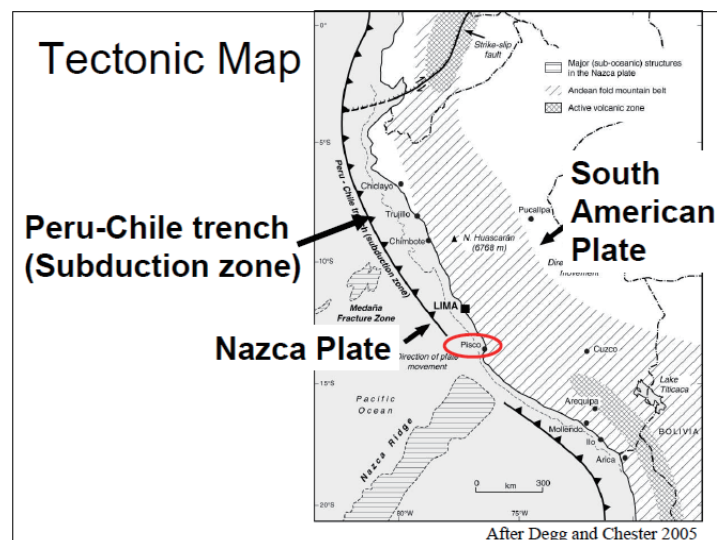
Paola Mayorca, Jörgen Johansson,
Tatiana Torres and Edwin Leon

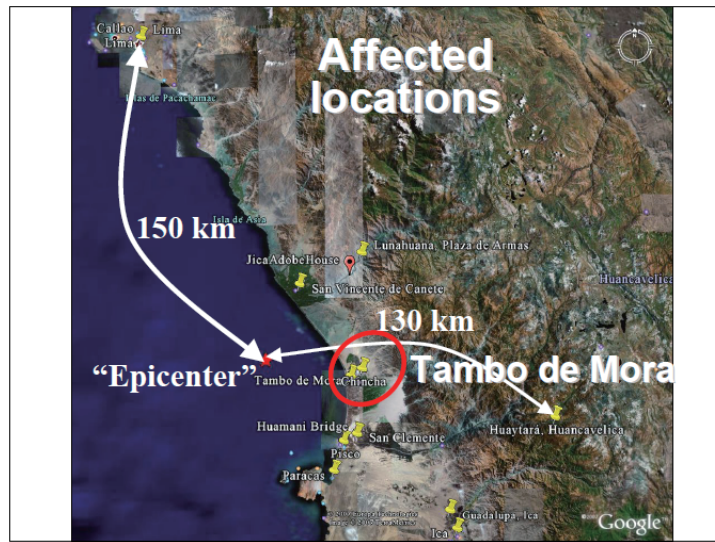
¹ The authors were members of the JSCE/JAEE/UT investigation team sent to survey the regions affected by the earthquake. The full report is available at:
http://shake.iis.u-tokyo.ac.jp/Peru2007/JSCE_JAEE_Report/Index.htm

Pisco Earthquake (Aug. 15, 2007) General information

- Local time: 18:41 (Wednesday)
- Magnitude: Mw 8.0
- Death toll: 519 (65% in one city: Pisco; 30% at one place: San Clemente Church)
- Injured people: ~1,290
- Affected people: ~430,000
- Destroyed houses: ~50,000
- Affected houses: ~90,000
- Educational facilities: Heavy damage: 643 classrooms, Moderate damage: 635 classrooms
- Health related facilities: Destroyed: 14, Affected: 112
- Bridges: Destroyed: 2, Affected: 4

(Peru Civil Defense Institute, as of October 17, 2007)

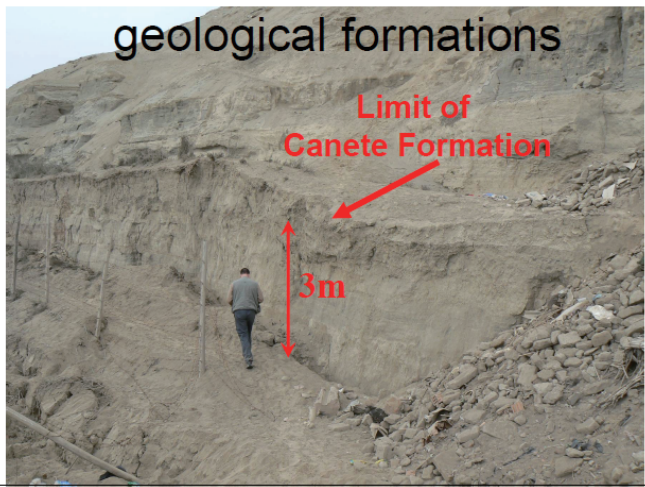




Road damage (Panamerican Highway)



Border between geological formations



Public buildings



(Tambo de Mora)

Extended liquefaction at Tambo de Mora



Severe settlement of houses



Damage at prison



(Tambo de Mora)

Concluding remarks

- Buildings following Peruvian building codes performed well → It is desirable to strengthen the system of code enforcement
- Buildings located in previously identified hazardous zones suffered damage → It is desirable to integrate hazard mapping into urban development
- Self construction is widespread in Peru → It is desirable to train masons on good construction practices
- It is necessary to strengthen existing low earthquake resistant structures

It is cheaper to mitigate than to reconstruct!