

GEOLOGICAL SOCIETY SPECIAL PUBLICATION NO. 316

**Palaeoseismology: Historical and Prehistorical
Records of Earthquake Ground Effects
for Seismic Hazard Assessment**

EDITED BY

K. REICHERTER

RWTH Aachen University, Germany

A. M. MICHETTI

Università dell'Insubria, Italy

AND

P. G. SILVA

Universidad de Salamanca, Spain

2009

Published by
The Geological Society
London

Contents

Foreword	vii
REICHERTER, K., MICHETTI, A. M. & SILVA, P. G. Palaeoseismology: historical and prehistorical records of earthquake ground effects for seismic hazard assessment	1
PAPANIKOLAOU, I. D., PAPANIKOLAOU, D. I. & LEKKAS, E. L. Advances and limitations of the Environmental Seismic Intensity scale (ESI 2007) regarding near-field and far-field effects from recent earthquakes in Greece: implications for the seismic hazard assessment	11
ROCKWELL, T., RAGONA, D., SEITZ, G., LANGRIDGE, R., AKSOY, M. E., UCARKUS, G., FERRY, M., MELTZNER, A. J., KLINGER, Y., MEGHRAOUI, M., SATIR, D., BARKA, A. & AKBALIK, B. Palaeoseismology of the North Anatolian Fault near the Marmara Sea: implications for fault segmentation and seismic hazard	31
OTA, Y., AZUMA, T. & LIN, Y.-N. N. Application of the INQUA Environmental Seismic Intensity Scale to recent earthquakes in Japan and Taiwan	55
TATEVOSSIAN, R. E., ROGOZHIN, E. A., AREFIEV, S. S. & OVSYUCHENKO, A. N. Earthquake intensity assessment based on environmental effects: principles and case studies	73
SILVA, P. G., REICHERTER, K., GRÜTZNER, C., BARDAJÍ, T., LARIO, J., GOY, J. L., ZAZO, C. & BECKER-HEIDMANN, P. Surface and subsurface palaeoseismic records at the ancient Roman city of <i>Baelo Claudia</i> and the Bolonia Bay area, Cádiz (south Spain)	93
MOSQUERA-MACHADO, S., LALINDE-PULIDO, C., SALCEDO-HURTADO, E. & MICHETTI, A. M. Ground effects of the 18 October 1992, Murindo earthquake (NW Colombia), using the Environmental Seismic Intensity Scale (ESI 2007) for the assessment of intensity	123
LIN, A. & GUO, J. Prehistoric seismicity-induced liquefaction along the western segment of the strike-slip Kunlun fault, northern Tibet	145
ALI, Z., QAISAR, M., MAHMOOD, T., SHAH, M. A., IQBAL, T., SERVA, L., MICHETTI, A. M. & BURTON, P. W. The Muzaffarabad, Pakistan, earthquake of 8 October 2005: surface faulting, environmental effects and macroseismic intensity	155
GREGERSEN, S. & VOSS, P. Stress change over short geological time: the case of Scandinavia over 9000 years since the Ice Age	173
MÖRNER, N.-A. Late Holocene earthquake geology in Sweden	179
HINZEN, K.-G. & WEINER, J. Testing a seismic scenario for the damage of the Neolithic wooden well of Erkelenz-Kückhoven, Germany	189
PÉREZ-LÓPEZ, R., RODRÍGUEZ-PASCUA, M. A., GINER-ROBLES, J. L., MARTÍNEZ-DÍAZ, J. J., MARCOS-NUEZ, A., SILVA, P. G., BEJAR, M. & CALVO, J. P. Speleoseismology and palaeoseismicity of Benis Cave (Murcia, SE Spain): coseismic effects of the 1999 Mula earthquake (m_b 4.8)	207
REICHERTER, K. & BECKER-HEIDMANN, P. Tsunami deposits in the western Mediterranean: remains of the 1522 Almería earthquake?	217
ROCKWELL, T., FONSECA, J., MADDEN, C., DAWSON, T., OWEN, L. A., VILANOVA, S. & FIGUEIREDO, P. Palaeoseismology of the Vilaríça Segment of the Manteigas-Bragança Fault in northeastern Portugal	237
MONALISA Recent seismic activity in the NW Himalayan Fold and Thrust Belt, Pakistan: focal mechanism solution and its tectonic implications	259

MOUSLOPOULOU, V., NICOL, A., LITTLE, T. A. & BEGG, J. G. Palaeoearthquake surface rupture in a transition zone from strike-slip to oblique-normal slip and its implications to seismic hazard, North Island Fault System, New Zealand	269
WHITE, S., STOLLHOFEN, H., STANISTREET, I. G. & LORENZ, V. Pleistocene to Recent rejuvenation of the Hebron Fault, SW Namibia	293
Index	319