

Curriculum Vitae

Dr Christoph Grützner
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Education and scientific career

- Since 2017-06: Researcher at Friedrich-Schiller-University Jena, DFG project: "Earth surface response to Quaternary faulting and shallow crustal structure in the eastern Adria-Alpine collision zone and the Friulian plain" within the SPP2017
- 2014-06 to 2017-05: Research Associate at Department of Earth Sciences, University of Cambridge, UK
- 2011-10 to 2014-05: PostDoc at Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany
- 2011-10: PhD thesis: The *Baelo Claudia* earthquake problem.
Day of defence: 2011-06-20
- 1999 to 2006: Studies and Diploma in Geophysics, Leipzig University, Germany. Diploma thesis: Georadarmessungen zur Untersuchung oberflächennaher aktiver Störungen in Südspanien
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Positions

- Since 2017-06: Researcher at Friedrich-Schiller-University Jena
- 2014-06 to 2017-05 Research Associate at Department of Earth Sciences, University of Cambridge, UK
- 2012-01 to 2014-05: Postdoc at Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany
- 2006-11 to 2011-12: Scientific staff member at Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany
- 2009-01 to 2010-12: Scientific staff member at E.ON Energy Research Centre, Applied Geophysics and Geothermal Energy, RWTH Aachen University, Germany
- 2006-06 to 2006-09: Scientific staff member at Neotectonics and Natural Hazards Group, RWTH Aachen University, Germany
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Publications

Gruetzner, C., & Wiatr, T., (2017). Non-invasive techniques in archaeoseismology. In: Jusseret, S., & Sintubin, M. (eds.) *Minoan Earthquakes: Breaking the Myth through Interdisciplinarity*. Studies in Archaeological Sciences, Leuven University Press, Leuven, 95-132.

Mackens, S., Klitzsch, N., **Gruetzner, C.**, & Klinger, R. (2017). Quaternary sediment architecture in the Orkhon Valley (central Mongolia) inferred from capacitive coupled resistivity and Georadar measurements. *Geomorphology*, doi:10.1016/j.geomorph.2017.05.002.

Blumetti, A. M., **Gruetzner, C.**, Guerrieri, L., & Livio, F. (in press). Quaternary earthquakes: Geology and palaeoseismology for seismic hazard assessment. *Quaternary International*, doi:10.1016/j.quaint.2017.04.002.

Gruetzner, C., Carson, E., Walker, R. T., Rhodes, E. J., Mukambayev, A., Mackenzie, D., Elliott, J. R., Campbell, G. E. & Abdrakhmatov, K. (2016). Assessing the activity of faults in continental interiors: palaeoseismic insights from SE Kazakhstan. *Earth and Planetary Science Letters*. doi:10.1016/j.epsl.2016.11.025.

Kettermann, M., von Hagke, C., van Gent, H. W., **Gruetzner, C.**, Urai, J. L. 2016. Dilatant normal faulting in jointed cohesive rocks: a physical model study. *Solid Earth*, 7, 843-856, 2016.

Gruetzner, C., Fischer, P., & Reicherter, K., 2016. Holocene surface ruptures of the Rurrand Fault, Germany—insights from palaeoseismology, remote sensing and shallow geophysics. *Geophys. J. Int.* 204, 1662–1677.

Gruetzner, C., Schneiderwind, S., Papanikolaou, I., Deligiannakis, G., Pallikarakis, A., & Reicherter, K., 2016. New constraints on extensional tectonics and seismic hazard in northern Attica, Greece - the case of the Milesi Fault. *Geophys. J. Int.* 204, 180–199.

Kettermann, M., **Gruetzner, C.**, van Gent, H., Urai, J., Reicherter, K. & Mertens, J., 2015. Evolution of a highly dilatant fault zone in the grabens of Canyonlands National Park, Utah, USA – integrating fieldwork, ground-penetrating radar and airborne imagery analysis. *Solid Earth*, 6, 839-855

Hoffmann, G., **Gruetzner, C.**, Reicherter, K., Preusser, F., 2014. Geo-archaeological evidence for a Holocene extreme flooding event within the Arabian Sea (Ras al Hadd, Oman). *Quaternary Science Reviews* 113, 123-133, 10.1016/j.quascirev.2014.09.033.

Hoffmann, G., Al-Yahyai, S., Naeem, G., Kociok, M., **Gruetzner, C.**, 2014. An Indian Ocean tsunami triggered remotely by an onshore earthquake in Balochistan, Pakistan. *Geology*, G35756-1.

Koster, B., Hoffmann, G., **Gruetzner, C.**, Reicherter, K., 2014. Ground penetrating radar facies of inferred tsunami deposits on the shores of the Arabian Sea (Northern Indian Ocean). *Marine Geology*, 351, 13-24, DOI: 10.1016/j.margeo.2014.03.002.

Gruetzner, C., Barba, S., Papanikolaou, I., Pérez-López, R., 2013. Earthquake geology: science, society and critical facilities. *Annals of Geophysics* 56, 6, S0683; doi:10.4401/ag-6503.

Gruetzner, C., Ruano, P., Jabaloy, A., Galindo-Zaldívar, J., Becker-Heidmann, P., Sanz de Galdeano, C., Rudersdorf, A., Reicherter, K., 2013. Late Holocene rupture history of the Ventas de Zafarraya Fault (Southern Spain). *Cuaternario y Geomorfología* 27(3-4), 52-61.

Hürtgen, J., Rudersdorf, A., **Gruetzner, C.**, Reicherter, K., 2013. Morphotectonics of the Padul-Nigüelas Fault Zone, Southern Spain. *Annals of Geophysics* 56, 6, S0679; doi:10.4401/ag-6208.

Hoffmann, G., Rupprechter, M., Al Balushi, N., **Gruetzner, C.**, Reicherter, K., 2013: The impact of the 1945 Makran tsunami along the coastlines of the Arabian Sea (Northern Indian Ocean) - a review. *Zeitschrift fuer Geomorphologie Supplementary Issues*, 57 (4), 257-277. DOI:10.1127/0372-8854/2013/S-00134

Hoffmann, G., Reicherter, K., Wiatr, T., **Gruetzner, C.**, Rausch, T., 2013. Block and boulder accumulations along the coastline between Fins and Sur (Sultanate of Oman): tsunamigenic remains? *Natural Hazards*, 65, 851-873, DOI:10.1007/s11069-012-0399-7.

Gruetzner, C., Bemmann, J., Berking, J., Frechen, M., Klinger, R., Klitzsch, N., Linzen, S., Mackens, S., Oczipka, M., Piezonka, H., Reichert, S., Schneider, M., Schuett, B., 2012. Improving archaeological site analysis: a rampart in the middle Orkhon Valley investigated with combined geoscience techniques. *J. Geophys. Eng.*, 9, S70-S80.

Gruetzner, C., Reicherter, K., Huebscher, C., Silva, P.G., 2012: Active faulting and neotectonics in the Baelo Claudia area, Campo de Gibraltar (southern Spain). *Tectonophysics*, 554-557, 127-142.

Hoffmann, N., Reicherter, K., **Gruetzner, C.**, Huertgen, J., Rudersdorf, A., Viehberg, F.A., Wessels, M., 2012. Quaternary coastline evolution of Lake Ohrid (Macedonia/Albania). *Cent. Eur. J. Geosci.* 4(1), 94-110, DOI: 10.2478/s13533-011-0063-x

Vadillo, I., Benavente, J., Neukum, C., **Gruetzner, C.**, Carrasco, F., Azzam, R., Linan, C., Reicherter, K., 2012. Surface Geophysics and borehole inspection as an aid to characterizing karst voids and vadose ventilation patterns (Nerja research site, S. Spain). *Journal of Applied Geophysics* 82, 153-162. DOI: 10.1016/j.jappgeo.2012.03.006

Reicherter, K., Hoffmann, N., Lindhorst, K., Krastel, S., Fernandez-Steeger, T.M., **Gruetzner, C.**, Wiatr, T., 2011. Active basins and neotectonics: morphotectonics of the Lake Ohrid Basin (FYROM and Albania). *Z. dt. Ges. Geowiss* 162 (2), 217 -234.

Fernandez-Steeger, T., **Gruetzner, C.**, Reicherter, K., Schaub, A., 2011. Aquisgrani terrae motus factus est (part 1): The Aachen cathedral (Germany) built on weak ground? *Quaternary International*, 242-1, 138-148, doi:10.1016/j.quaint.2011.05.004.

Reicherter, K., Schaub, A., Fernandez-Steeger, T., **Gruetzner, C.**, Kohlberger-Schaub, T., 2011. Aquisgrani terrae motus factus est (part 2): Evidence for medieval earthquake

damage in the Aachen Cathedral (Germany). *Quaternary International*, 242-1, 149-157, doi:10.1016/j.quaint.2011.05.006.

Hoffmann, N., Reicherter, K., Fernandez-Steeger, T., **Gruetzner, C.**, 2010. Evolution of ancient Lake Ohrid: a tectonic perspective. *Biogeosciences*, 7, 3377-3386. doi:10.5194/bg-7-3377-2010

Gruetzner, C., Reicherter, K., Silva, P.G., 2010. Comparing semiquantitative logic trees for archaeoseismology and palaeoseismology: The Baelo Claudia (southern Spain) case study. *GSA Spec. Vol.*, 471: 129-143

Reicherter, K., Vonberg, D., Koster B., Fernandez-Steeger T., **Gruetzner C.**, Mathes-Schmidt, M., 2010. The sedimentary inventory of the 1755 Lisbon tsunami along the southern Gulf of Cádiz (southwestern Spain). *Zeitschrift fuer Geomorphologie Vol. 54, Suppl. 3*, 147-173

Reicherter, K., Papanikolaou, I., Roger, J., Mathes-Schmidt, M., Papanikolaou, D., Roessler, S., **Gruetzner, C.**, Stamatis, G., 2010. Holocene tsunamigenic sediments and tsunami modelling in the Thermaikos Gulf area (northern Greece). *Zeitschrift fuer Geomorphologie Vol. 54, Suppl. 3*, 99-126

Silva P.G., Reicherter K., **Gruetzner C.**, Bardaji T., Lario J., Goy J.L., Zazo C., Becker-Heidmann P., 2009. Surface and subsurface paleoseismic records at the ancient Roman city of Baelo Claudia and the Bolonia Bay area, Cadiz (South Spain). In: Reicherter, K., Michetti, A.M. & Silva, P. G. (eds) *Palaeoseismology: Historical and Prehistorical Records of Earthquake Ground Effects for Seismic Hazard Assessment*. The Geological Society, London, Special Publications, 316, 93-121. DOI: 10.1144/SP316.6

Scientific activities

- Co-Leader of the INQUA Focus Group "Earthquake Geology & Seismic Hazards [EGSHaz](#)"
- Organiser/co-organiser of the PATA Days meeting series - Paleoseismology, Active Tectonics and Archaeoseismology
- Associate Editor for *Annals of Geophysics* since 2012
- Science Blogger at paleoseismicity.org