

Foreword

special issue

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The present volume 62/2 of “E&G Quaternary Science Journal” contains contributions submitted to the 36th assembly of the “Deutsche Quartärvereinigung” (DEUQUA, German Quaternary Association), held at the University of Bayreuth from 16 to 20 September, 2012. Thanks to generous support from the Deutsche Forschungsgemeinschaft (DFG) substantial contributions by external scientists were made possible. The program included 45 oral and 53 poster presentations, a minor part of which are being published for the first time in the present volume. Nevertheless, the publications presented here reflect the broad scope of the scientific program under the principal theme “Umwelt – Mensch – Georisiken im Quartär” (Environment – Man – Geohazards in the Quaternary). This included geoarchaeologic research as well as studies in the sedimentary heritage of Quaternary processes influencing present-day and future geohazards.

The first article by *Solis-Castillo et al.* investigates the provenance of Holocene sediments in the Mayan Lowlands in Central America, their degree of weathering, palaeosols and pedostratigraphy, and their chronology.

The second article by *Tillmann et al.* deals with the historical processes and landscape evolution of the western coast of the island of Amrum in the German tidelands of the North Sea. The results are obtained by careful multidisciplinary work including historical maps and documents as well as geophysical and sedimentological methods.

The third and the fourth articles report on the state of the art in deciphering the Palaeolithic record at the Lower Gravettian open air site of Grub-Kranawetberg, Lower Austria. The contribution by *Antl* highlights recent and ongoing archaeological research, thereby focussing on Archaeological Horizons 4 and 3, which point to different groups of humans occupying the site within a short time under changing environmental conditions. The article by *Zöller et al.* (edited by

Holger Freund) reports on a diachronic chronology of the site and discusses some unexpected problems with luminescence dating techniques (IRSL and OSL) in comparison with calibrated radiocarbon ages.

The relevance of Quaternary researchers dealing with present and near future geohazards in an Alpine environment is demonstrated in the article by *Damm & Felderer*. Based on intensive studies in the spatial distribution of debris flows since the Little Ice Age, the authors attempt to project their results into the middle of the 21st century for a scenario of 1 to 2 K atmospheric warming. The retrospective study by *Jaeger et al.* investigates a landslide from 1957 AD in the average mountain area built up from slightly dipping Mesozoic sedimentary rocks in Northern Bavaria, Germany. The area is very prone to landslides. The contribution is able to further differentiate some elements and processes of the landslide compared to earlier studies. With respect to ongoing climate change and possible change of precipitation patterns an endangered susceptible slope area is indicated in the future.

The last article by *Diedrich* deals with a famous cave in the northern Franconian Alb, Germany. The intermittent use of the cave by Pleistocene animals and humans is discussed with respect to the geomorphologic evolution of river terraces. The contribution boldly raises the question of a limited valley glaciation in the area during the Last Glacial Maximum at altitudes of around 500 m a.s.l., sedimentary remnants of which may only have been protected in caves from later erosion.

The editors are much obliged to the authors for submitting their manuscripts and hope for a comparatively wide range of contributions in future.

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