



Preface: Celebrating 70 years of “Eiszeitalter und Gegenwart” (*E&G*)

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The German Quaternary Association (Deutsche Quartärvereinigung, DEUQUA) was founded on 24 March 1948 in Hanover. Its journal “Eiszeitalter und Gegenwart” (*E&G*, literally “Ice Age and Present”) was established in 1951 as an annual of the society, publishing scientific articles as well as book reviews, conference reports, and other pieces of information relating to the broad field of Quaternary research. Over the years, the journal not only changed publisher several times, but also shifted towards a pure scientific journal exclusively containing articles covering the entire spectrum of Quaternary research. To open the journal to a broader international readership, it was restructured and renamed *E&G Quaternary Science Journal* (*EGQJSJ*) in 2007 and transferred into a non-profit open-access format, financed by the members of DEUQUA. Together with the open-access policy, all articles published in *E&G* since 1951 were digitised and made available online. However, even though the articles are freely available, of which quite a few contain rather outstanding contributions to and historic views of Quaternary research, there is a major drawback: the articles are written in German and have therefore received limited international attention.

To celebrate the 70th anniversary of the founding of *E&G*, this special issue features a retrospective of the early years of the journal. Articles published until 1980 were worked through by the DEUQUA executive board, which resulted in

a selection of 12 manuscripts. These were not only translated into English, but also got an update of the figures to present-day standards. Our selection of manuscripts by no means intends to present the “best” articles published in *E&G* over its long history. Rather, we aim to cover a wide range of topics and articles that are still relevant from the present-day perspective or that represent benchmarks in the history of Quaternary research. Each translated article comes with a critical appraisal written by selected experts in the field. These retrospectives, a new category of publication, have been reviewed by independent referees and are collected in a special volume of *EGQJSJ*. The translated articles are compiled in one open-access volume of DEUQUA Special Publications (*DEUQUASP*) and cross-linked with the retrospectives as well as with the original article published in German.

Clare Bamford (Freiburg) undertook the initial translations of the original articles, which were then further processed by the individual handling editors. They cross-checked the translated manuscripts with regard to correct use of terminology and content. It has to be noted that a direct translation from German to English terminology was not always straightforward and was partly even impossible. In such cases, footnotes have been added to the translated text for explanation. While an attempt was made to keep the translations as close as possible to the original style in order to not add any kind of interpretation, it was occasionally nec-

essary to use rather loose translations to allow for readability. In this context, we would like to acknowledge the help of Michael Bolus (Tübingen), Norm Catto (St. Johns), Sven Lukas (Lund), and James Rose (London) with four of the articles. Figures were redrawn by Lisett Diehl (Gießen) after consultation with the handling editors, again staying as close as possible to the original style. Henrik Rother, editor of *DEUQUASP*, carried out a final language check of the translated articles.

The special issue starts with a translation of the foreword in the first issue of *E&G* (Woldstedt, 1951), summarising the context of the formation of *DEUQUA* and Quaternary research in the middle of the 20th century. The statement that Quaternary research aims “to contribute to understanding the present and our place in it” is, without any doubt, still valid today.

The article by Büdel (1951) is a remarkable summary regarding the knowledge of climatic zones of the Ice Age at that time. In the tribute by Jef Vandenberghe it is pointed out that this article is a precursor of the famous book “Klimageomorphologie” (Büdel, 1977), which was later translated into English (Büdel, 1982), thereby receiving widespread attention.

Louis (1952) focusses on the theory of glacial erosion in valleys, a topic that is still the subject of lively discussion today. As mentioned by Pierre Valla in his tribute, while the majority of the concepts and proposed controlling factors discussed by Louis (1952) are still valid today, the understanding of physical subglacial processes has significantly increased since.

Articles on Palaeolithic archaeology always attracted attention in the early years of *E&G*. This was also the case with the contribution by Narr (1952) on the stratigraphy of the Upper Palaeolithic, which synthesised the state of research of these days. As the tribute by Nicholas J. Conard notes, the article is “instructive in terms of both the history of research and as a reflection of what the goals of Palaeolithic archaeology could and should be today”.

Woldstedt (1952) critically discusses the different components and issues of the formation of river terraces. As the tribute by James Rose, David R. Bridgeland, and Rob Westaway stresses, river terraces are important landforms for both science and society. In this respect, the article by Woldstedt (1952) has not lost its importance, and because of the debate on climate change and its consequences for fluvial geomorphology, the article is more relevant than ever.

A very detailed overview of the occurrence and distribution of terraces, loess, and palaeosols in Austria is given by Fink (1956). He attempted to divide Austria into different (climatic) loess regions, an approach which is in principle still valid today, as highlighted in the tribute article by Tobias Sprafke. Beyond that, the work of Fink (1956) impressively shows the true art of field observations, which is the basis for Quaternary research.

Flohn (1963) added the meteorological view to Quaternary research. At that time, (palaeo)climate research was not the focus of meteorology or the other way around. However, as Ulrich Cubasch, the author of the tribute article, states, “Flohn’s paper presents the vision that meteorological modelling and Quaternary sciences will have an inter-dependence in future”.

Loess research has always been of great importance in Quaternary science, and Ložek (1965) contributed to that with his work on loess formation and loess molluscs. In his article, he not only elaborated on the term “loessification”, but also pointed out the importance of the malacofauna to the sediment and its use for reconstructing the loess formation. Denis-Didier Rousseau discusses these observations – focussing on the molluscs – and concludes that this paper is not only a very good review, but is also still relevant today.

Schwarzbach (1968) was one of the leading German Quaternary scientists of his time and in particular aimed at placing local and regional observations into the overall picture. His summary refers to both ice age hypotheses still being valid today as well as some that have been almost forgotten. As highlighted by Jürgen Ehlers, while palaeoclimate research has seen significant advancements over the past decades, there are still several questions that remain to be solved with regard to the mechanisms of natural climate change and hence the causes of widespread glaciations.

The plains of northern central Europe have been, for a long time, one of the key areas for the reconstruction of Quaternary environmental change. The review by Menke (1970) compiles the early work on pollen analyses in Schleswig-Holstein that has been of eminent importance for the understanding of past vegetation dynamics. While the general scheme has been verified in the following years, as stated by Roberta Pini in her tribute, the increased number of sites investigated and the advent of new approaches have led to a partly more detailed picture of past developments.

The article by Rohdenburg (1970) deals with morphodynamic activity and stability, a topic which is still controversially discussed within the Quaternary and geomorphology community up to now. Thus, as Dominik Faust and Markus Fuchs point out in their tribute, the fundamental ideas of Rohdenburg (1970) had a great influence on these disciplines, and the topic is more relevant than ever, especially since the effects of fauna and flora on geomorphological processes are intensively discussed today.

Smolíková (1971) not only brought to attention the relevance of soils and soil science for Quaternary research, but also presented the possibilities and importance of micromorphology in that field. To better understand the scientific background at the time of publication, Lenka Lisá and Aleš Bajer explain the then new ideas and understanding of soil science, highlighting that even though some of Smolíková’s (1971) observations and her terminology have been revised, micromorphology still ought to be of great importance in Quater-

nary research to better understand the processes of soil formation under specific site and climate conditions.

The Lower Rhine Embayment is one of the major de-centres of Europe, with a complex sedimentation history since the Tertiary. As accentuated by Philip Gibbard in his tribute, the article by Boenigk (1978) provides a comprehensive picture of the palaeogeographical development and fluvial drainage patterns over time. This contribution is considered a key example of a critical assessment of regional data prior to aiming at correlations with other records, in particular those representing global-scale changes.

We hope that the selection of classic articles presented here not only elucidates some historic aspects, but also effectuates some critical reflections about the development of Quaternary research – both in the past as well as at present. Last but not least, we would like to express our deepest gratitude to the authors of the tribute articles and the referees for their contributions as well as all who helped with the production process. Special thanks go to Copernicus Publications, who generously covered the article processing charges for the *DEUQUASP* issue.

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