



Preface: Palaeontological papers written in honour of Professor Dr. Hans-Georg Herbig, a tribute and memorial

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Hans-Georg Herbig in his office in spring 2015

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This volume of the *Paläontologische Zeitschrift* is dedicated to Hans-Georg Herbig.

In mid-June, when we submitted the editorial of this special issue, the sentence above continued with ‘who retired from the Chair of Palaeontology and Historical Geology at the Universität zu Köln in March 2021.’ Unfortunately, Hans-Georg passed away a couple of weeks later (August, 1st 2023). Therefore, instead of celebrating and looking towards many active and productive years of his retirement, it has turned into our sad duty to honour the career and life of Hans-Georg with this issue. Hans-Georg will not see the final printed volume, but the ever-curious researcher, fortunately, had already found almost all articles of this issue in their online version.

We were and are very pleased that many colleagues, friends, and former students of Hans-Georg took their time and wrote a total of 14 contributions for this volume, and in doing this followed the spirit of the German tradition of a *Festschrift* for a very special occasion. It is unfortunate that this turned from celebrating Hans-Georg’s retirement into honouring his scientific legacy and career, but the broad stratigraphic and thematic spectrum of this issue would have certainly pleased Hans-Georg. The stratigraphical order of the contributions has a nice side effect. The first and last contributions are authored by colleagues from the former Würzburg department, where Hans-Georg started his scientific career.

The first three contributions of the volume are dealing with lower Palaeozoic topics. A first contribution of Geyer et al. (2022, **this volume**) presents the oldest known graptolithoid hemichordate in West Gondwana and possibly the oldest graptolite presently known, based on material from Cambrian strata of Franconia (Germany). The reviewed taxonomy of the widely distributed Cambrian trilobite genus *Eccaparadoxides* by Geyer et al. (2021, **this volume**) shows the importance of the pygidia for taxonomy and phylogeny and clarifies the stratigraphic range of the genus. Reich and Kutscher (2023, **this volume**) present a new alcyonacean octocoral (Anthozoa) from the Late Silurian of Gotland, Sweden.

The next three contributions deal with Devonian topics. Ernst (2022, **this volume**) presents two bryozoan species of the Semicosciniidae, which are both endemic to the Middle Devonian (Eifelian–Givetian) of the German Eifel region. Friedel et al. (2022, **volume 97(2)**) use about 600 specimens of a single hippocardiid rostroconch species to clarify its taxonomy and to highlight the importance of the shell layer architecture in conocardiid rostroconchs for species identification and basic taxonomy. The contribution of Gercke and Piecha (2022, **this volume**) deals with an enigmatic

styliolinid limestone from lower Frasnian strata of the eastern Rhenish Massif.

In total seven contributions deal with the Carboniferous, the geological period in which Hans-Georg has probably spent most of his scientific career. Korn and Montenari (2021, **this volume**) use two ammonoid species to clarify the stratigraphic position of the *Protocanites* Beds in the Black Forest (Schwarzwald), and hence to contribute to a better understanding of the evolution of the central parts of the Variscan Belt. Gursky (2023, **this volume**) provides a review on radiolarian cherts and associated siliceous rocks of the German Kulm Basin in the Rhenish Massif and Harz Mountains and relates their distribution and stratigraphic evolution to the closure of the Palaeotethys Ocean. The study of the brachiopods from the Erdbach II limestones by Mottequin et al. (2022, **this volume**) greatly improves our knowledge of these very specific late Tournaisian biotopes and the biodiversity it hosts in crevasses in Devonian carbonates in the eastern Rhenish Massif. Becker (2023, **this volume**) presents a cephalopod fauna from Viséan strata of the Moroccan Anti-Atlas, which contains the unique pericyclid *Tectocyclus herbigi* n. sp. included in the new subfamily Helicocyclinae (Goniatitida) and named in honour of Hans-Georg. The following two contributions deal with Carboniferous corals. Denayer et al. (2022, **this volume**) describe the very peculiar group of colonial heterocorals and their epibionts from southern France. They also honour Hans-Georg with the naming of the species *Semenomalophyllia herbigi* n. sp. Rodríguez et al. (2022, **this volume**) show that rugose coral taxa typically considered to represent the Mississippian are still present in strata of Bashkirian age in the Adarouch area in central Morocco. The block of contributions on Carboniferous topics finishes with Brauckmann et al. (2021, **this volume**). Based on a single fragment of a mesothoracic wing, the new species *Sandiella herbigi* n. sp. in honour of Hans-Georg is described from Westphalian D strata (Pennsylvanian) of the Piesberg Quarry near Osnabrück.

The volume finishes with the contribution of Niebuhr and Wilmsen (2022, **volume 97(2)**). It provides a detailed systematic and stratigraphic revision of selected large inoceramid bivalves of the *lamarcki* group from Late Turonian to Early Coniacian (Cretaceous) strata of Germany. They speculate that the size increase in Late Turonian–Early Coniacian inoceramids is part of an escalating arms race between prey and predators, ultimately triggering Late Cretaceous inoceramid gigantism.

Overall, this volume contains a broad range of topics from various geological periods and geographical regions. It is the mirror of Hans-Georg’s research activities and interests, not bound to a specific topic or region, but always curious and looking for the bigger picture and implications, without losing the importance for details.

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Declarations

Conflict of interest The authors have no competing interests to declare.

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