

Preface to volume I

This first volume of the Zermelo edition focuses on Zermelo's work in set theory and the foundations of mathematics and is supplemented by his papers in pure mathematics. The published papers are accompanied by selected items from Zermelo's *Nachlass* and some letters. Whereas the papers span the time between Zermelo's first encounter with set theory around 1900 in Göttingen and the end of his mathematical research in the mid-1930s in Freiburg, the selected items mainly stem from the early 1930s, from a time when Zermelo's foundational views were in growing opposition to the mainstream developments in mathematical logic.

The primary criterion for the inclusion of an item was the degree of novelty and of insights into Zermelo's foundational views that it provides. Some items may be considered as partly independent drafts of (parts of) a published paper or as offering a variation of (parts of) a published paper (such as *s1931g* with respect to *1932a*, *1932b*, and *1935*); some may be viewed as first steps of a continuation of a published paper, for example by elaborating on a feature only touched on there (such as *s1931f* and *s1932d* with respect to *1930a*); some items allow a deeper insight into Zermelo's foundational views (such as *s1929b* and *s1930d*).

The correspondence with Kurt Gödel given here together with one of Zermelo's letters to Reinhold Baer (*s1931b* to *s1931d*) sheds additional light on Zermelo's foundational views around 1930 which are marked by a strong aversion to finitary approaches to the foundation of mathematics. The last letter *s1941* to Paul Bernays is a revealing testament to Zermelo's mathematical disillusionment and physical deterioration in his final years. The Zermelo part of the correspondence with Reinhold Baer and Arnold Scholz, which could have provided further insights, is lost up to the letter *s1931c* to Baer.

The parts *Landau 1917b* and *D. König 1927b* of *Landau 1917a* and *D. König 1927a*, respectively, are included here because they were written by Zermelo or closely follow a note written by him.

Zermelo was well-educated in and had a continuing enthusiasm for literature and the classics. In the 1920s he translated large parts of Books V to IX of Homer's *Odyssey* into German blank verse. Part of his translation of Book V was published as *1930f*. It is given here together with an appendix which contains his entire translation of Book V.

The introductory notes are a crucial part of this edition. As a matter of fact, all the people we invited to comment on a paper or a group of papers, were instantly ready to join the project and share their experience and knowledge with us and the potential reader. The discussions we had toward securing the most informative and accurate presentations were framed by mutual cooperation and open-mindedness. We particularly appreciate the valuable help

provided by the collaborators in checking bibliographical items and making useful proposals concerning the English translations.

When work on the edition started, the most serious problem we seemed to be faced with was how to get accurate translations. As it turned out, the problem found the best solution imaginable. First, we could use the translations of 1904, 1908a, and 1908b which Stefan Bauer-Mengelberg had provided for Jean van Heijenoort's *From Frege to Gödel*. Furthermore, Warren Goldfarb and R. Gregory Taylor allowed us to use their English translations of 1909a and 1931g, respectively. All the other translations were done by Enzo de Pellegrin. We express our deep gratitude for his extraordinary care and admire his feeling for both languages when handling Zermelo's style with its richness in nuances and its involved sentential structures.

There are many others who have supported us during our work. We express our gratitude to all of them and mention here, in particular, Ruth Allewelt of Springer-Verlag through whom we had smooth cooperation with the publisher; Barbara Hahn who, as the librarian of the Freiburg Mathematical Institute, efficiently provided the literature we needed; and Andrea Köhler of Le-Tex Publishing Services who directed the multitude of files and problems with patience and care. We appreciated the supportive interest which Gunther Jost from the Heidelberg Academy showed for the imponderabilities of our work. As ever, Martin Peters from Springer-Verlag was ready to offer valuable help and advice. As a final note, the second-named editor would like to express his special gratitude to the Lichtenberg-Kolleg at Göttingen. Awarded an inaugural fellowship there, he was able to carry out editorial work in a particularly supportive environment at the Gauß Sternwarte, in the city where Zermelo did his best-known work in set theory.

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