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Review of

WERNER STELZNER, *GOTTLOB FREGE. JENA UND DIE GEBURT DER MODERNEN LOGIK*

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There is no doubt that Gottlob Frege is one of the major figures of human science and philosophy. He is usually regarded as the founder of modern (first-order predicate) logic and as one of the founding fathers of analytical philosophy. In the light of Frege's importance it is astonishing that there is no book-length biography up to now which could serve scholarly demands. Especially the English speaking world still relies on Terrell Ward Bynum's biographical remarks attached to his translation of some of Frege's main writings on *Conceptual Notation and Related Articles* ([2]). These remarks are partially based on interviews with witnesses who remembered Ludwig Wittgenstein's recollections on his meetings with Frege and on what he had heard about him. Today research on Frege does not need to depend on such third-hand sources. A lot of scholarly biographical research has been done, in Leipzig, Jena, Erlangen and elsewhere. Many of Frege's traces have been uncovered, but a good deal of this knowledge is still awaiting publication, and several results have been published at out-of-the-way places so that access is not easy.

The booklet under review, written by the logician and logic historian Werner Stelzner from Frege's home town Jena, is able to fill the gaps at least partially. It is based on these published sources, including the most exciting recent editions of long pendent documents: Frege's diary showing the dark sides of his political thoughts ([3], English translation [5], Spanish translation [6]), and his lectures on Begriffsschrift based on Rudolf Carnap's notes ([4]). It is furthermore based on unpublished material especially from the university archives in Jena and from the archives of the Carl Zeiss company.

Stelzner organizes his material in three sections. Section 1 deals with Jena, the town and its university (pp. 9–41). In the second section the

author presents Frege in his scientific context in Jena (pp. 42–67). The third section gives a short, but illuminating account of Frege's scientific work (pp. 68–88). The introduction provides a reliable biography of Frege.

The first section gives an impressive view of the close relations between the town, its university and the Carl Zeiss company, which dynamically developed after its foundation in 1846 into one of the world's leading optical industries. It was Ernst Abbe (1840–1905), extraordinary honorary professor of mathematics at the university and responsible for the scientific care of the production of microscopes at the Carl Zeiss factory, who pushed the rise of the University of Jena in the final decades of the 19th centrury. As a manager of this company, he established the Carl Zeiss foundation in 1889, an act which was prepared by creating a "Ministerialfonds für wissenschaftliche Zwecke"(1886).

The second section deals with Frege as a citizen of his town and a member of its university. This topic had also been treated in detail by Uwe Dathe in his unpublished dissertation *Frege in Jena* ([1]). In this section the discussion circle of Frege's teacher Karl Snell (1806–1886), follower on Jakob Friedrich Fries' chair of mathematics and physics, is presented, also Hermann Schäffer's "Mathematische Gesellschaft" in which Frege was a very active member. Of special interest are Stelzner's details concerning the relation between Gottlob Frege and Ernst Abbe, who was one of Frege's teachers and who became his life long supporter. Abbe wrote the assessment of Frege's "Habilitationsschrift," he initiated Frege's appointment as an extraordinary professor in Jena in 1879 and his promotion as an ordinary honorary professor in 1896. He was furthermore responsible for substantial support in financing the extraordinary professorship with the help of the "Ministerialfonds." The ordinary honorary professorship was a real "Stiftungsprofessur," financed by the Carl Zeiss foundation.

The last section on Frege's scientific work is prefaced by the consideration of possible influences. The author especially stresses the effect of Kuno Fischer (1824–1907), Frege's philosophical teacher in Jena. This effect was not an influence in the sense that Frege took over some of Fischer's ideas, rather Fischer's philosophy served Frege as a counterpoint for his own ideas.

The book gives a first-hand historical introduction to Frege and his work, serving as a rapid and reliable source for the most important facts. One should hope that it becomes widely spread. But it shares one of the marks of earlier scholarly historical work: it cannot easily be accessed. Those who are interested in obtaining a copy should address the author himself (Prof. Dr. Werner Stelzner, Stauffenbergstr. 28/582,

D-07747 Jena-Lobeda, E-mail: wstelzner@t-online.de). These difficult conditions in distributing the booklet have been mitigated, however, with the help of new technologies. A short electronic version of the book with all illustrations can be found on the author's homepage (http://home.t-online.de/home/wstelzner/).

The book under review is complemented by a collection of historical articles entitled *Frege in Jena* ([7]). The editors Gottfried Gabriel and Wolfgang Kienzler understand these papers as "Contributions for preserving evidence". Topics are: the relation between Ernst Abbe and Gottlob Frege (Werner Stelzner), the reasons for Frege's choice of Jena for his university studies (Lothar Kreiser), information on Leo Sachse who is prominent as an example in Frege's writings (two papers by Torsten Heblack and Gottfried Gabriel), Frege's adopted son Alfred (Lothar Kreiser), Frege's relation to Rudolf Eucken (including the edition of two recently discovered letters of Frege to Eucken, by Uwe Dathe), Johannes Thomae (Uwe Dathe), Hermann Hankel (Volker Peckhaus) and Paul Natorp (Christian Thiel), an evaluation of Frege as a mathematician of his time (Olaf Neumann), the problems of identifying the basic laws of arithmetic (Wolfgang Kienzler) and reflections on truth values as objects (Marco Ruffino). The volume is closed by an annotated bibliography compiled by Uwe Dathe.

References

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