

Robert Schulmann

Before the Call to Olympus: Einstein and Switzerland, 1895 —1914



Born in Bacolod, Philippines in 1942. Professor of History, Boston University and Director of Boston University's Center for *The Collected Papers of Albert Einstein*. Educated at University of California, Riverside, and University of Chicago (Ph. D. 1973). Taught Modern German History and History of Science at the University of California, Riverside and University of Pennsylvania. Research in the development of the modern physics discipline in the German-speaking world. As one of three co-editors, published five volumes of Einstein's *Writings and Correspondence* (1987, 1989, 1992, and 1993 with Princeton University Press), and together with Jürgen Renn *The Love Letters* in 1992. — Address: History Department, Boston University, 225 Bay State Road, Boston, MA 02215, USA.

I came to Berlin with two main goals: to finish work on the fifth volume of the Einstein edition encompassing the period 1902 until 1914 (the so-called Swiss years), and to complete a manuscript for a biography of Einstein. Despite the most delectable and tempting of diversions afforded by both the Wissenschaftskolleg and the city, I succeeded in both endeavours.

The material for Volume Five of *The Collected Papers of Albert Einstein* consists of 520 documents, fully 40% of which were unknown until their rediscovery over a period of five years in a variety of record offices, private attics, and public repositories. When this volume begins, in mid-1902, the 23-year-old Einstein has just started working at his first regular job: he has been given a provisional appointment as Technical Expert, third class, at the Swiss Patent Office in Bern. Einstein is still unknown in scientific circles, even though he has already published one paper in the major German journal for physics (*Annalen der Physik*) and has two more on the way to publication. He is apparently quite happy despite his isolated position since he is free to pursue his own work when he is not occupied at the Patent Office and can discuss his ideas on science and philosophy with his equally unknown friends, in particular at meetings of the self-constituted Olympia Academy.

By the spring of 1914 when this volume ends, Einstein is departing from Switzerland to return to the Germany he could hardly wait to leave some two decades earlier. He is returning in scientific triumph. At thirty-five, having already held full professorships at the German University of Prague and the Swiss Federal Institute of Technology (ETH) in Zurich — and turned down offers of chairs at Utrecht, Leyden, and Vienna — he has accepted a new position in Berlin. Some of Germany's leading scientists, including Max Planck and Walther Nernst, have persuaded Einstein to take up a well-paid appointment as a member of the Prussian Academy of Sciences with the possibility of teaching at the University of Berlin but with no obligation to do so at all. He has also been promised that an Institute for Theoretical Physics would eventually be created and that he would be its director, something that comes to pass in 1917.

I spent the first three months of my stay at the *Wissenschaftskolleg* reading proof of the 700-page manuscript, polishing the introduction, and generating and controlling the index, while staying in hourly contact with my Boston office over the FTP tool. Many thanks go to Dr. H.-G. Lindenberg for making this almost palpable communication with the Other Side possible.

In the writing of the Einstein biography, my chief purpose was to drive the biographical factum of the saintly oracle of Princeton to the sidelines and place the variety of contexts within which he had to operate in the late nineteenth, early twentieth century at the center of my inquiry. Conditions of and constraints on his creativity and ambition, the reception of various intellectual traditions, and his scientific development and career choices are the focus of my interest. I try to show how Einstein came to assign pride of place to two major nineteenth-century traditions — that of molecular reality and of the organization of physical and chemical knowledge by general principles or laws — in the development of an integrated research program. I examine to what degree his qualified autodidacticism predisposed him to accept the popular science works of Aaron Bernstein and Ludwig Büchner, while not neglecting the loftier intellectual traditions of Helmholtz and Schopenhauer, and how his readings led him to demand answers to foundational and integrated physical-philosophical questions, a point of departure unusual for practising physicists of his generation. The experience Einstein acquired in his family's electrical engineering firms and later in the Swiss Patent Office served as critical intersections between scientific and technological knowledge. I look at why he came to physics in the first place, and not, for example, to engineering, which would have been a more normal path for the son of a well-assimilated German-Jewish family of his generation. Another chapter deals with the question of what constituted the discipline of physics in German-

speaking Europe at the beginning of the century, and why Einstein's study in Switzerland led him to appropriate specific variants of the established German traditions in natural sciences.

This account of my activities is much too compact and smooth to serve as an accurate reconstruction of my year in Berlin. It leaves out the sounds, the smells, the emotional fabric of the place. Because my family and I lived at Heydenstraße and not in the Villa Walther I had the great pleasure almost every day to puzzle through an array of problems as I wended my way on foot for half an hour each way to and from the Kolleg. Only those who fight their way through Boston traffic on the way to work can truly appreciate the simple luxury that these walks gave me. Berlin itself was a most agreeable surprise. Raised in Los Angeles to speak German with a Bavarian accent and to see the world through the eyes of Karl Valentin, I found myself rapidly developing an affinity with the *Berliner Schnauze* and the accompanying dry humor. To steal a page from the book of Einstein's life, I too initially feared a "-Gottseibeimir-Verberlinerung"¹ and was haunted by the prospect of becoming a "Fatzke."² In the event, the process of acclimatization was remarkably painless and pleasant, and no small part in this was played by the matchless surroundings of culture and nature concentrated in and around the Wissenschaftskolleg.

The Herculean efforts of Gesine Bottomley and her peerless staff — perhaps Amazonian would be more appropriate — loom largest in my memory of this year, but the helpfulness of the staff of the secretariat and the culinary labors in the basement of the Altbau were equally unstinting. My thanks to Rector Lepenies, whose intellectual support was greatly appreciated. I regret only not seeing him more often on the playing fields of the Kolleg, where the accumulated frustrations of a week of pounding the computer could be vented in socially acceptable form of hostility. Lastly, friendships were formed that will probably stand the test of years, and for them I am also deeply grateful to the Kolleg: Eörs Szathmáry contributed the ebullience of his tender years and reminded me doggedly of America's intellectual debt to Hungary; Shahid Amin was irrepressible on the table-tennis court and in lengthy discussions over *lahmacun* in Kreuzberg or in the pub *Kommandatur* in Prenzlauer Berg; Peter Hammerstein provided both theoretical rigor and a wealth of empirical data on the *Verhaltenspsychologie* of local fauna; and Oriol Bohigas proved time and time again that the divide between physicist and humanist can be comfortably bridged.

¹ Einstein to Elsa Löwenthal, autumn 1913, *Collected Papers of Albert Einstein (CPAE)*, Vol. 5, Doc. 362.

² Einstein to Elsa Löwenthal, February 1914, *CPAE*, Vol. 5, Doc. 399.