Mathematicians Fleeing from Nazi Germany: Individual Fates and Global Impact
by Reinhard Siegmund-Schultze

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REVIEWED BY G. L. ALEXANDERSON

This is an important book for mathematicians and other scientists, for those in the field of intellectual history, and for general readers interested in our not-too-distant past. I got so caught up in it I could scarcely put it down. It is well written and meticulously researched and documented. For many, there will be connections to personal experience. Anyone who spent the 1950s or even later in the vicinity of Stanford University will have encountered many in its cast of characters: Faculty at Stanford (S. Bergman), C. Loewner, G. Polya, G. Szegö, H. Samelson and M. Schiffer) and visitors (R. Courant, H. Lewy, O. Neugebauer, I. Schoenberg and S. Warshawski, among others). These people shaped the professional and personal lives of many Stanford students. Similar stories could be told of research universities throughout the United States at that time.

This book follows by a few years another fascinating work, Mathematicians Under the Nazis, by Sanford Segal (Princeton, 2003), which covered those “German speaking” mathematicians who remained in Germany and the occupied countries during World War II. Siegmund-Schultze’s book covers, in a sense, the complement. Up until now, the literature on the émigrés has not been large, due to a variety of reasons: Archives that remained closed to scholars, unwillingness of some to speak on the subject because of political sensitivities, and the possibility that the reminiscences of the émigrés were sometimes unreliable due to the passage of time. For those interested in the subject, one of the best sources has been Max Pinl’s series of articles (some written with A. Dick) “Kollegen in einer dunklen Zeit,” that appeared in the Jahresbericht der Deutschen Mathematiker-Vereinigung in the 1960s and 1970s. Siegmund-Schultze points out, however, that Pinl is incomplete and, on occasion, can be misleading, but he has high praise for Constance Reid’s biography of Courant and gives credit for much of his work to Courant’s papers at New York University.

The author is extremely conscientious in defining the words he uses. For example, he does not use “National Socialism” because it was neither socialism nor national in character, nor does he use “Aryan,” “Third Reich,” and other such words, because after the war they carried too much additional baggage. He prefers “Nazis,” though sometimes he refers to “Hitler’s regime.” He also makes careful distinctions between those who left Germany or Austria before 1933 or after, and between those who left “voluntarily” or those who were “forced.” The author decided to concentrate on “forced emigration” after 1933. He also relies most on émigrés fleeing racial persecution, though other groups were also leaving central Europe—pacificists, some Catholics and homosexuals.

Some who left were able to reach “safe” countries like Sweden, Switzerland and England, though many came directly to the United States. Some were unable to leave or chose to stay, believing the situation would improve. Notable among the latter was F. Hausdorff who stayed, but eventually, with his wife and sister-in-law, committed suicide rather than face the death camps. These personal stories are heart-wrenching. There are many personal stories of death or hardship such as the grim task of travelling across Siberia to end up eventually on the West Coast of the United States (Max Dehn and Kurt Gödel, for example).

We also read here of the difficult questions of just how much the state of mathematics changed as a result of this mass movement of some of the most brilliant mathematicians of the time from one continent to another. The author warns of the post hoc, ergo propter hoc phenomenon: The widespread assumption that mathematics prospered in the United States as never before because of the infusion of all that talent. Though probably true, we have no proof that American mathematics might not have shown remarkable growth in any case. The war itself created jobs, particularly in applied mathematics, and this provided work for many American scientists. At the same time, to say that European mathematics declined in prominence only because of the emigration may be simplistic. These are provocative ideas and will surely be discussed for years to come. The author states that he is quite aware that his will not be the last word on the subject. In particular, he points out that the questions raised about G. D. Birkhoff’s alleged anti-Semitism could only be treated by a much larger biographical study of Birkhoff, well beyond the scope of this volume. He correctly argues, however, that good work is more easily done in a community of scholars: It is best to be able to communicate one’s ideas directly with colleagues rather than relying solely on reading published work. In this way the United States, and other countries, obviously benefited significantly from the emigration.

Chapter One covers questions of terminology. Chapter Two is devoted to the extent to which the emigration affected mathematics more than some of the other sciences. The author observes that the United States accepted more émigrés by far than other countries, and a disproportionate number of these were mathematicians. One side-effect of the migration was to make English the lingua franca of mathematics, finishing off German as the international language of science. A complication in compiling statistics about the émigrés was that some mathematicians (notably E. Artin, K. Friedrichs, E. Kamke and H. Weyl) were not Jewish but were forced to leave their positions because their wives were. And we note, too, that age made a difference: The oldest of those who came to the United States (F. Bernstein, M. Dehn, H. Hamburger, E. Hellinger and A. Rosenthal) failed to get regular appointments. Among those who were eventually successful in locating positions...
appropriate to their ability were those at the Institute for Advanced Study (IAS) in Princeton, or at Stanford, Berkeley or NYU. But with very few exceptions, mainly due to specialized fields of expertise like applied mathematics or history of mathematics, émigrés did not get regular positions at the leading departments at Harvard, Princeton, Yale, Chicago, Brown, MIT or Caltech.

Chapter Three largely deals with émigrés to the United States prior to 1933, mainly motivated by the economic conditions in Europe. Some of these had illustrious careers in America: E. Hille, E. Hopf, T. Radó, D. Struik, J. von Neumann and A. Wintner. Others from non-German speaking countries also came to the United States at that time: C. Lanczos, I. Sokolnikov, J. Tamarkin, S. Timoshenko, and T. von Kármán, and, in the critical year 1933, one of the most illustrious additions to the IAS faculty, H. Weyl.

A striking table in Chapter Four shows that 90 of the 145 émigrés, and 130 of the 234 persecuted (including nonemigrants and those killed) came from only four of the 42 cities covered (from Berlin, 41 faculty members out of 62, and from Göttingen 24 out of 28). The Hitler regime was remarkably effective in clearing out the best and the brightest.

In this and the next chapter, we read letters and documents pertaining to those who succeeded in their efforts to emigrate as well as those who waited too long or were just plain unlucky. Among the latter were: O. Blumenthal and A. Tauber, who both died at Theresienstadt; Hausdorff, who was mentioned earlier; and F. Noether, who made the mistake of going to Russia, where he was executed by the Soviets.

Chapter Six is devoted to those who emigrated to “safe” European countries, the Middle East, Australia or India. Many of these were eminent mathematicians, but the numbers were comparatively small, and some were also in transit to other destinations.

In Chapter Seven the author addresses the attitudes of the émigrés following their move to the United States. Curiously enough, though they were grateful for having been saved from almost certain death in Germany, often they still held out hope that they could at some time return to Germany and the colleagues and institutions that had been hospitable to them early in their careers. Since Gauss, the German mathematical community had been extremely strong, with support from outside the universities by the government and publishers such as Springer, for example. Many émigrés retained their concern for the health of German science and culture. Germany was, after all, the country of Heine, Schiller and Goethe, Bach and Beethoven. A few mathematicians even returned (notably Eberhard Hopf and, at least temporarily, Carl Ludwig Siegel). Some who could have left Germany did not, for a variety of reasons. A prime example was the Dutch algebraist, B. L. van der Waerden, prompting Courant to write to him in 1945, “Your friends in America, for example, could not understand why you as a Dutchman chose to stay with the Nazis.” This criticism followed van der Waerden through the remainder of his long career. Some who left openly expressed their regret over leaving behind German culture—von Neumann and Feller, for example. Even Courant found it hard to give up his loyalty to Springer and advised Szegő to publish his Orthogonal Polynomials with that eminent publisher. (But Szegő did not agree, and it was published instead in 1939 by the American Mathematical Society.) There are many well-known stories here—Neugebauer’s eventually establishing Mathematical Reviews to substitute for the largely unavailable Zentralblatt during the war, and many not so well known.

The author explores at some length the reactions in the United States to the crisis in Europe (Chapter Eight) and the various committees and organizations set up to expedite the granting of visas and making the necessary arrangements for appointments, even when only temporary. He cites faculty at three institutions who stood out for their efforts: (1) The Institute for Advanced Study; (2) The graduate school at NYU under Courant; and (3) The graduate school at Brown under R. G. D. Richardson.

On the other hand, there were those like G. D. Birkhoff who questioned the wisdom of hiring the émigrés during the Great Depression when native-born Americans were having such difficulties in getting jobs, a view expressed in Birkhoff’s well-known statement that American mathematicians would be reduced to being “hewers of wood and drawers of water,” on the occasion of the semicentennial of the American Mathematical Society in 1938. Some viewed the remark as clearly anti-Semitic. The American government under Roosevelt could have done more to speed up the process of getting the émigrés into the United States, but it was politically difficult because of the Depression and a strong wave of isolationism in the country. Siegmund-Schultze, however, makes it clear that “it is imperative to stress that this kind of anti-Semitism cannot be compared, let alone put on an equal level, with the criminal, institutionally legalized and incited anti-Semitism in Germany after 1933.”

These observations are supported by a large number of citations of documents and letters and are followed by an assessment of the effect of the immigration on mathematics in the United States (Chapter Ten) and an Epilogue. Much of this is concerned with the question of how well émigrés adjusted to American life. With so much attention paid to undergraduates in American universities, the European professors were disappointed in American students who needed background in mathematics that would have been covered in the gymnasium in Europe. Further, in Germany, professors had traditionally held a higher social position than was common in America. These conditions made adjustment difficult. The author quotes L. Coser: “The intimacy of the coffee house had to give way to the distance and strangeness of the American lifestyle, and so they were for the most part happy but not glücklich.” Further, in a quotation from M. R. Davis, we read that, “Another bar between the foreign professor and his students was the difference in attitude which characterized the European as distinguished from the American professor. The former had developed to a fine art the technique of social distance from his students.” C. L. Siegel wrote, “I no longer have the hope, which led me to America four years ago, of finding a tolerable position abroad.… I can no longer adapt, I am too much of a Prussian.” He also wrote to Courant in 1935, “It