



**William B. Jensen, Henry Fenichel, Milton Orchin.** *Scientist in the Service of Israel: The Life and Times of Ernst David Bergmann (1903-1975)*. Jerusalem: Hebrew University, Magnes Press, 2011. 416 pp. \$49.00 (cloth), ISBN 978-965-493-580-7.



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## The Enigma of Ernst Bergmann: Science and Power in Israel's Early Days

This is the first book-length biography of Ernst David Bergmann, (1903-75, hereafter EDB) science advisor to Israel's first and longest serving prime minister, David Ben Gurion, in the period 1948-63. As such, EDB exerted a major influence on the role played by science in the new State of Israel, including the creation of several new scientific institutions, the balance of basic and applied research, as well as the pursuit of a nuclear option. As co-author Orchin reasons in his "Personal Foreword" while aiming to justify this biographical effort, science advisers in the United States and United Kingdom have been the subjects of detailed biographies, so why not EDB, especially since, as he puts it, the nuclear option "continues to haunt the politics of the Mideast to this day" (p. ix). Though a whole chapter (9) is devoted to EDB's role in Israel's pursuit of a nuclear option, the three co-authors readily admit that key documents on this issue remain classified, and hence, their biography relies on secondary sources and is not definitive. However, their other ten chapters shed much-needed light on other historical events of great interest, such as the role of science

during World War II, (especially in the Middle East but also in the United Kingdom and the United States, where EDB spent most of World War II) during Israel's War of Independence in 1948, and during the new state's formative decades, which coincided with the "early Cold War."

The authors uncover EDB's family background (chapter 1) as one which revolved around the geographical and professional upward mobility of EDB's father, the son of a kosher butcher who moved from the outskirts of the Austro-Hungarian Empire in Galicia to Berlin. There, he was known as a liberal rabbi who had his own synagogue, wrote several books, gave lectures at the University of Berlin on topics such as "Judaism in Hellenistic and Roman Times," and secured university education for all his seven children, of whom EDB was the eldest. This background positioned EDB's family among the most educated Jews who lived prior to World War I in the minority-tolerant, multinational empires of Central Europe. The authors further highlight EDB's flourishing academic career at the University of Berlin (chapter 2), where he collaborated and published with the chair-

man of the Department of Organic Chemistry, Wilhelm Schlenck, as well as with other peers among them Ottilie Blum, a four-years-older scientist whom Schlenck brought from Vienna, and whom EDB married in the late 1920s, against his father's wishes. Though collaborative couples are of great interest to historians of science, this biography reveals relatively little about the collaborative dynamics of this couple, beyond making it clear that EDB's spouse was seen as a scientist in her own right both before and after they left Berlin (chapter 3, "Leaving Germany").

Unlike most Jewish scientists who, upon being dismissed by the Nazi regime in 1933 tried to find positions in the United Kingdom, United States, and other countries (or waited in Germany hoping that the Nazi menace would soon disappear), as this book documents (chapters 4-6), EDB embarked on a somewhat unexpected course of action. Despite his prior experience with a major scientific center in Berlin, and despite an offer to continue his research at Oxford (with Robert Robinson, who would receive the Nobel Prize for chemistry in 1947), EDB opted to join a small, new research institute being planned at the time and eventually established in 1934 in Rehovoth, a small town south of Tel Aviv, by the scientist, statesman, and Jewish leader Chaim Weizmann, of Balfour Declaration fame. As the authors further document, the welfare of the new research institute became the reason for an emerging close relationship between Weizmann, whose diplomatic missions required that he spend a great deal of time in London, and EDB, who became Weizmann's indispensable assistant, not only at the Institute in Rehovoth, but also on Weizmann's various missions in the United Kingdom and United States.

Chapters 4-6 shed new light not only on EDB's activities as a would-be scientific director of the Weizmann Institute (in 1949 the Zieff Institute was so renamed, at a time Weizmann served as the first president of the State of Israel) but also on Weizmann's own scientific involvements before and during World War II. Much as in World War I, Weizmann pursued war-related inventions, most notably processes for the production of artificial rubber as well as acetone, which was needed for munitions. The authors discuss the role of science in the war effort, whether during World War II especially in the Middle East (e.g., by providing services and supplies to the British army) or during the War of Independence, (e.g., by doing the same for the Israeli army), both aspects which have not previously received wide attention. This book thus contributes to a growing literature suggesting that scientific research played a key role in the eventually

successful quest for Israeli statehood.

This book also aims to clarify the major shift in EDB's career circa 1951 (chapter 8, "Shifting Alliances") when he switched his allegiance of eighteen years (1933-51) from Weizmann to Ben Gurion, the prime minister, defense minister, and undisputed leader of Israel in the 1950s, but by then a rival of Weizmann. Upon being fired by Weizmann, who felt that EDB's growing preoccupation with security issues came at the expense of his time and effort as scientific director of the Weizmann Institute, EDB suddenly emerged as science adviser to Ben Gurion, as well as director of the Research and Development Division in the Ministry of Defense. It is difficult to assess whether EDB acquired such an influence with his three, culturally different bosses (i.e., Schlenck in Berlin, Weizmann in London and Rehovoth, and Ben Gurion in Jerusalem and Tel Aviv, respectively) because he had mastered the art of catering to the needs of men in power, or because he aimed to serve some higher ideals which required realignments in times of major historical change, such as 1933 and 1948, when EDB suddenly changed his allegiances. The authors tend toward the second interpretation, though they seem aware that the two "betrayals" at the heart of EDB's career, one of science for political service in 1933 and the other of Weizmann for Ben Gurion in 1948, require more profound explanations than those offered in this book. Along these lines, the possibly negative impact of EDB's break with Weizmann for the Weizmann Institute is not addressed at all, even though the authors must be aware that Weizmann's choice of a non-scientist and EDB rival as his successor at the Weizmann Institute inevitably had an impact on its scientific vision.

EDB's legacy as a chemist educator at the Hebrew University in Jerusalem, (chapter 10) remains a problematic aspect of this book despite the authors' effort to contact many former EDB students and quote their views. Though the authors are aware that autocratic professors such as EDB used to put their names on any paper done in their labs regardless of their actual input, still they provide large counts of numbers of papers and students (in separate appendices) as evidence of EDB's importance. As a result of their persisting belief in the importance of the biographee as a sole rationale for a biography, the authors tolerate rather than question various instances which add up to suggesting that EDB's influence may well have been more negative than positive. For example, they refrain from clarifying the ramifications of EDB's politicized appointment as an additional professor of organic chemistry at the Hebrew University in Jerusalem

in 1952, citing a lack of documentation. But they do not inquire whether such an appointment, which prioritized EDB's primary occupation as science adviser to the prime minister and was not conducive to healthy relationships with students (EDB's presence on campus was limited to one day a week), had negative ramifications for both students and staff.

The weakness of the Hebrew University at the time, shortly after it lost its Mount Scopus campus in the War of Independence (as well as its president, J. Brodetzky, who disagreed with Ben Gurion over who constituted the Hebrew University's ultimate constituency, the Jewish people or the State of Israel) may explain in part such a blatant politicization of academic appointments. Furthermore, the authors do not inquire whether the Hebrew University's acceptance of an unnecessary second professor of organic chemistry may have also led to interrupting negotiations with world-famous Jewish scientists from the United States, who worked in more promising areas than EDB's dispersed and often arcane research interests in fluorine chemistry, fluoro-derivatives, and pre-World War II syntheses of polycyclic aromatic compounds.

The authors document how EDB's autocratic conduct, which was grounded not only in his German educational background but also in his political power as a loyalist science adviser to an authoritarian prime minister, blocked the rise of other gifted scientists to professorial status, but miss EDB's equally deleterious role in long inflating the status of organic chemistry at the expense of other rising sub-chemical fields, such as quantum chemistry, biochemistry, and material science, thus

leading repeatedly to student rebellions against the imposition of an outdated curriculum.

Last but not least, the authors mention EDB's incomprehensible conduct as a civil servant dabbling in party politics at a time he flaunted his loyalty to Ben Gurion by publicly joining the latter's divisive split from the Labor Party prior to resigning his own civil service position; but they refrain from assessing the corrosive impact of EDB's conduct upon the fragile democratic fabric of the state at the time. Such conduct, which put loyalty to a man of power before constitutional rules, was shared by others of "Ben Gurion's boys," who used his coattails for a quicker rise to power. Most notable among them was Shimon Peres, who serves the authors as a source of much praise for EDB. The conduct of these Ben-Gurion loyalists played a role in the eventual fragmentation of the Labor Party, leading to its 1977 electoral defeat and to far-reaching and often problematic changes in Israeli politics.

As the authors themselves state, focusing their effort on documentation (thirty-two pages of notes) rather than interpretation should stimulate others to expand on EDB when additional sources become available. Hopefully, such future efforts need not depend on the belief that only an important scientist deserves a biography. Instead of belaboring EDB's real or apparent importance, future authors may wish to use micro-historical approaches in which the lives of relatively modest historical actors and bystanders, just as those who, like EDB, chose to serve men in power, can be skillfully used to tease out a wider historical and social context and do so in more critical and interpretive terms.

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