

Siegmund-Schultze, Reinhard

Rockefeller and the internationalization of mathematics between the two world wars. Documents and studies for the social history of mathematics in the 20th century. (English)

Zbl 0981.01013

Science Networks. Historical Studies. 25. Basel: Birkhäuser. xiii, 341 p. (2001).

What does the internationalization of science, or particularly mathematics, mean? To answer this, we must know first what a national mathematics means. Does it mean that a particular country is the location where most mathematical advances (perhaps only in a subdiscipline) have their origin, and that budding scholars from other countries flock there to learn? If so, then France was the leading country throughout most of the 19th century, though by 1900 that hegemony had passed to Germany, and today it resides in the United States. But isn't the very welcoming of foreign nationals who then take what they have learned back to their home country a sort of internationalization? Isn't it a kind of international cooperation? These and similar questions show how vexed the seemingly simple word "internationalization" really is.

The book under review examines the role of the Rockefeller Foundation in stimulating international mathematical contact between the two World Wars. The Rockefeller Foundation also helped "national mathematics" in, for example, helping build the Mathematical Institute in Göttingen (completed 1929) and the Institut Henri Poincaré in Paris (completed 1928). These were national institutes, interested in international visitation, and created with "international" aid from another country. A long section of the book is devoted to these.

The first "Rockefeller program" was the International Educational Board (IEB) which was mainly concerned with fellowships of an international (not necessarily trans-Atlantic) sort. The program was gifted with the influential field worker August Trowbridge, an experimental physicist from Princeton who spoke French, German, and Italian fluently, and became head of the IEB's central office in Paris in 1925. The IEB lasted from 1923 to 1928, when it was replaced by the Rockefeller Foundation (RF). The RF had strict criteria for the selection of fellows (which were more or less the same as those of the IEB), and these are detailed with specific examples. In an appendix is a complete list of IEB and RF fellows in mathematics.

Mathematics though seems initially a strange subject to attract Philanthropic funds in the 1920's. It was. Physics was the "paradigmatically revolutionary science" of the 1920's. Mathematicians had to draw attention to the importance of mathematics; this was accomplished by an (invited) letter by Oswald Veblen to Simon Flexner (!) who then helped turn Rockefeller interest toward mathematics. After the end of the IEB Rockefeller interest in mathematics declined in favor of "molecular biology".

Siegmund-Schultze does not address Rockefeller programs other than in mathematics. His book is very thoroughly researched, contains several original documents as appendices, has an eleven-page bibliography plus a listing of numerous archival sources used, as well as the aforementioned list of all "Rockefeller fellows" in mathematics (there were 130 of them). The last section of the book is devoted to the Rockefeller involvement in the Emergency Program to rescue foreign scientists after 1933 (for mathematics). Here, of course, the figure of Warren Weaver bulks large.

Siegmund-Schultze seems to believe that "internationalization" amounts to stimulating international contact. This reviewer tends to side more with Brigitte Schröder-Gudehus (whose views are briefly mentioned in the book), that development of science is primarily within a national framework, and "internationalism" is *not* the norm; this granting the ambiguity discussed earlier. This ambiguity is shown in the last phrase of the text: "...confirmed the dominance of the United States in world science and world mathematics, which had been prepared in part by the policies of the Rockefeller philanthropy between the two World Wars".

This well-written and well-researched sociological study is recommended to anyone interested in the putative internationalization of mathematics, the activities of the Rockefeller Foundation, or international communication between the wars.

Reviewer: [S.L.Segal \(Rochester\)](#)

MSC:

- [01A60](#) History of mathematics in the 20th century
- [01A74](#) History of mathematics at institutions and academies (non-university)
- [01A73](#) History of mathematics at specific universities
- [01-02](#) Research exposition (monographs, survey articles) pertaining to history and biography

Cited in 1 Review
Cited in 24 Documents

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[Rockefeller](#); [internationalization](#)