



use and distribution of time seem to outweigh the (undoubtedly present) issues of professional identity and status.

As well as appearing unsympathetic to astronomers, the author sometimes appears not to fully grasp the relationships between astronomy, time, navigation and standardization (for example, errors appear relating to longitude determination and transit-of-Venus observations). Nevertheless, the book adds to the literature on timekeeping with its use of untapped primary sources to illuminate the events surrounding the IMC. Some valuable sections cover attitudes toward time and its standardization from people well outside these core groups, which make clear the impact of differential access and the social and political importance of claims about time.

doi:10.1017/S0007087423000985

Carola Sachse, *Wissenschaft und Diplomatie: Die Max-Planck-Gesellschaft im Feld der internationale Politik (1945–2000)*

Göttingen: Vandenhoeck & Ruprecht, 2023. Pp. 594. ISBN 978-3-525-30206-4. €80.00 (hardback).

Barbara Hof

University of Lausanne

A team of historians has recently completed studies of the German Max Planck Society (MPG). The results are now appearing in a series of books (in print and open-access). *Wissenschaft und Diplomatie* is the contribution of Carola Sachse, who previously played a leading role in putting the predecessor of the MPG (the Kaiser Wilhelm Society) in historical perspective. Sachse contextualizes the MPG in the field of international politics from its founding in 1948 to the 1990s, also including relevant events from the interwar period and current challenges to science diplomacy. *Wissenschaft und Diplomatie* is a timely book because it discusses the MPG's development in the context of the current crisis dynamics in international exchange associated with the restriction and suspension of scientific cooperation with Russia in 2022. These political interventions not only have demystified the autonomy and neutrality of science, but also remind us of some limits of science diplomacy.

The book's objective is the systematic historical analysis of the MPG's role in foreign policy to depict the entanglement of science and diplomacy since the Second World War. To this end, Sachse draws on the classic taxonomy of three relations between science and diplomacy: science and scientific organizations as a means of facilitating diplomacy or counteracting it, diplomatic relations as a prerequisite for scientific cooperation, and the use of scientific knowledge and expertise to inform foreign policy.

Sachse draws conclusions about the MPG as a political actor from a rich body of sources consisting of archival materials and oral-history interviews. *Wissenschaft und Diplomatie* offers relevant insights into the changes in the scientific landscape of West Germany over several decades. Sachse acknowledges that there are still gaps in the literature on

developments after the fall of the Berlin Wall as well as during the periods of European unification and increasing globalization.

The historical findings are presented in three empirical chapters. Chapter 2 begins at the end of the Second World War with a discussion of foreign and domestic interest in the recovery of German science. According to Sachse, the MPG was able to establish itself so easily due to the activities and contacts of the MPG elite. In addition to a discussion of the foreign-policy strategies of several leading scientists, Sachse touches on the MPG's relationship with the supranational organisations CERN (Conseil européen pour la recherche nucléaire) and the OECD (Organisation for Economic Co-operation and Development). What is missing, however, is an in-depth analysis of the impact of the research restrictions imposed on Germany before 1955 on the profile of the MPG, particularly on the German-specific distinction between basic and applied science. This is important because basic science was strongly anchored and promoted in the MPG, while new institutes were founded in West Germany after the restrictions were lifted, enabling research on applied reactor and nuclear technology, which laid the foundation for the later Helmholtz Association. *Wissenschaft und Diplomatie* is not precise enough in distinguishing the activities in these two big organizations, particularly in the biography of the physicist Karl Wirtz, who moved from one to the other.

Offering an effective contrast to the findings about the recovery of West German science during the restriction phase as a result of foreign contacts, Chapter 3 presents the international collaborations of the MPG elite (presidents and leading scientists). Sachse provides a refreshing perspective by decentering the United States as a reference point while considering scientific exchanges with institutions and scientists in Israel, China, Italy, Spain and the Soviet Union. The chapter discusses events and networks from the interwar period through the years of West Germany's CDU government to the shift in power with the election of Willy Brandt as chancellor of West Germany in 1968. Sachse shows how the structure of the MPG consolidated because economic growth, educational expansion and high demand for scientific knowledge benefited new MPG institutes.

Chapter 4 draws on a great deal of knowledge of political campaign groups. The focus is on individuals, mostly researchers from the natural sciences and their protests against nuclear weapons, as well as their commitment to expanding ecological research areas. Although Sachse views the activism of groups such as the Pugwash movement as informal science diplomacy, an important conclusion could also be to view this as science diplomacy 'from below', since it was not the MPG elite but the so-called 'middle forces' (assistants and associates) who became actively involved (for this perspective see: Gerardo Ienna, *Ber. Wissenschaftsgesch.* 45 (2022)).

Wissenschaft und Diplomatie is a well-written and well-researched example of the trend of studying scientific organizations through an examination of social networks and the interconnectedness of science with politics, economics and social developments, rather than focusing on institutional history or individual protagonists. This makes any narrative complex. My criticism is therefore not of the content, but of the narration: Sachse follows too many actors and includes too many singular developments. Nevertheless, she always manages to skilfully point to the core of the analysis, the relationship between science and diplomacy. This makes *Wissenschaft und Diplomatie* a brilliant compendium providing a well-informed overview of the MPG in foreign policy. Its importance lies in the density of the cases presented. The book is a relevant basis for future work by scholars and students who wish to address the history of German science policy, the development of the MPG and its exchange relationships, or the role of scientific organizations and individual scientists as diplomatic actors.