Preface

EVERY historian of science, whatever his special interest, has acknowledged the importance of the Parisian Académie Royale des Sciences as the central theater in which science's intricate plot was unraveled during the Enlightenment. Curiously enough, however, no serious study of that institution has been written since the 1880's, despite the universal recognition of its place in the annals of science.

This study is meant first as a response to this gross lacuna. It is therefore based upon extensive archival research and drawn together from the mass of scholarly literature on French science written in the intervening period. These sources are discussed in Appendix I ("A Bibliographical Note"), to which the specialist is referred for details. Beyond that, this study is an essay into the history of a scientific institution, conceived as something more than the sum of the accomplishments of its illustrious members, however famous they were as individual creators. Any institution that has a continuous history extending into three turbulent centuries of French history develops a special flavor, a character of its own which transcends the acts recorded in its proceedings. It is this elusive spirit that is sought here.

The Académie Royale des Sciences, building upon its early successes, will be seen to have established a set of traditions and to have carved out important functions in the world of science and the state. A delineation of these traditions will be the central issue of the first three chapters. Chapters 4 and 5 will explore the pre-Revolutionary forces that challenged the patterns established by the Academy in the early years of its existence. The next three chapters are devoted to the overwhelming effects of the French Revolution, which successfully

called into question all of the values for which the institution had been established, and which eventually led to its demise in 1793. The rest of the book is concerned with the re-emergence of the Academy as part of the Institut National, this time in a new political and scientific setting and with a significantly modified role, which was not substantially altered during the rest of the nineteenth century.

Taken as a whole, this study illustrates the extent to which scientific institutions are shaped by the requirements of both science and society. In writing about scientific institutions as something more than a chronicle of discoveries or the social history of its members, there is a need to recognize that they are the main instrument for the formulation and the transmittal of scientific norms, and that these norms must harmonize with the dominant nonscientific modes of the time. The juxtaposition of the Academy with three different societal settings—the Old Regime, Revolutionary France, and the France of the Napoleonic era—will illustrate this concretely far better than a theoretical discussion could accomplish. More than any other entity, the scientific institution is the anvil on which the often conflicting values of science and society are shaped into a viable form. The institution's success is in large part determined by its ability to make the peculiar enterprise of science palatable to society while at the same time maintaining the advancement of the discipline itself.

This book is also intended to fill a gap in the monographic study of French science, flanked in historical time by Harcourt Brown's *Scientific Organizations in Seventeenth Century France* and Maurice Crosland's *The Society of Arcueil*. What is needed most now to fill out the sequence are similar studies on France's important scientific institutions of the nineteenth century, the Ecole Polytechnique, the Muséum d'Histoire Naturelle, the Faculté des Sciences, and the Collège de France. Only then, perhaps, will it be possible to fathom that special genius and the peculiar limitations that characterize the French scientific mind.

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