Book Reviews

The Life History of a National Academy

The Anatomy of a Scientific Institution. The Paris Academy of Science, 1666–1803. ROGER HAHN. University of California Press, Berkeley, 1971. xiv, 433 pp. + plates. \$12.

Of the two major national institutions which dominated science from the latter part of the 17th to the early years of the 19th century, detailed historical studies in English have been available only for the Royal Society of London. Indeed there has been no fulllength history, in any language, of the Parisian Royal Academy of Sciences for the last 80 years. For that reason alone, any study of the length of this one would have been welcomed, but Hahn has not given us just any study; within its self-imposed limitations we have here a model of what an institutional history can be.

Institutional histories may seem the most obvious response to recent popular pressures for the study of the sciences in their social context, but if the available documentation is at all detailed (and the range and quantity of sources used by Hahn are staggering), a complete, balanced history of a major society over any substantial period is well-nigh impossible. One can treat of a society's achievements, or of its internal organization and membership, or of its immediate relationships and interactions with the community of which it is a part; one cannot treat of all three in a single work unless one is to emulate those many-volumed compilations of a century ago, which remain invaluable source books but which no one ever reads.

Hahn, who has been working on this topic at least since his doctoral dissertation nearly ten years ago, has taken the last of these three options. Although he discusses both achievements and organization, these are ancillary to his major emphasis on the Paris Academy as a social institution. His story essentially begins in 1666, with

the transformation of private, voluntary gatherings into a state-supported, formalized society; it ends, practically, with Napoleon's structural reorganization of the Institut National in 1803, completing the take-over of a learned society by the state. More fundamentally, however, the whole of the text implicitly, and two-thirds of it explicitly, reflects the customary preoccupation of French historians with the French Revolution. For the dominant theme of Hahn's institutional study is the way in which the organization and operation of the Academy inevitably led to its revolutionary dissolution, while the nature of French society as inevitably led to the Thermidorean reconstitution of the Academy in an even more bureaucratic form.

Using the actionist sociology of Talcott Parsons and his school, Hahn has marshalled his arguments effectively, and in his hands the story has the quality of Greek tragedy. From the moment that Colbert achieved the centralization of scientific authority in an Academy responsive to the state-and what other mode of organization was possible in the age of Louis XIV?—the seeds of the Academy's greatness and of its ultimate functional destruction were sown. French science became professionalized; the Academy acquired prestige and authority, as an arm of the state, over scientific publications and education and became a final court of appeals in the realm of technology, with effective control of patents for invention. The Academy also became an elitist group of intellectuals whose conscious sense of superiority irritated the external community. In two of the best chapters of the book, Hahn shows how the very successes of the Academy, contributing to the growth of science, and the changing demands of society rendered the Academy increasingly vulnerable to attack, for all its halting attempts at self-reform, With

the Revolution, the attacks were successful and the Academy was dissolved. During an interim period, science demonstrated its crucial role in a modern state while the French demonstrated their incapacity for informal, ad hoc responses to social problems. The Academy was reconstituted as a class of the Institut National and the process by which the scientific organization became functionally incapable of doing creative work as it became increasingly prestigious and powerful was completed.

The theme is a controversial one, and no doubt there will be further arguments regarding it. One aspect, at least, will need more examination, and that involves a comparison with national scientific societies that evolved to a similar honorific fossilization without the particular social pressures that acted on the Parisian Academy. Nonetheless, Hahn's work is a major contribution to our understanding of the social functioning of scientists and their organizations and might well serve as a warning to modern enthusiasts for a technocratic meritocracy. And for those whose interests in the Academy are more traditional, Hahn provides a series of appendices constituting references for a continuing series of researches-including a list of manuscript resources for historians of other French institutions and bibliographic data on 224 of the 325 working academicians appointed or elected during Hahn's period of study, again including manuscript materials when located. Finally, the book is well designed and produced, the bibliography is detailed, the index useful, and the notes where they belong, at the foot of the page.

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Cultural Analysis

Ethnohistory in Southwestern Alaska and the Southern Yukon. Method and Content. MARGARET LANTIS, Ed. University Press of Kentucky, Lexington, 1970. viii, 312 pp., illus. \$9.75. Studies in Anthropology, No. 7.

This volume reflects the rising emphasis on one of the several ancillary fields of ethnology that are tending to replace traditional ethnography. It also