THE NIELS BOHR ARCHIVE Annual Report 1996

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General remarks

The Niels Bohr Archive (NBA) is a repository of primary material for the history of modern physics, pertaining in particular to the early development of quantum mechanics and the life and career of Niels Bohr. The NBA has existed since shortly after Bohr's death in 1962. However, its future was only secured at the

centennial of Bohr's birth in 1985, when a deed of gift from Bohr's wife, Margrethe, provided the opportunity to establish the NBA as an independent non-profit institution. The NBA now has its own board of directors, receives a fixed annual sum for running expenses from the Danish Ministry of Education and may apply for project support from private sources. Having housed the NBA from the outset, in 1990 the Niels Bohr Institute supplied improved and expanded quarters.

The core of the collections comprises Bohr's scientific correspondence (6000 letters and drafts) and manuscripts (500 units). This material was catalogued and microfilmed in the early 1960s as part of the Archive for History of Quantum Physics (AHQP), a project sponsored by the American Philosophical Society and the American Physical Society. Since then, 290 microfilms of a wide variety of relevant historical material have been placed in several repositories world-wide.

In addition, the NBA houses several historical collections that cannot be consulted elsewhere. Thus, in 1985 the Bohr family donated the bulk of Bohr's private correspondence, which includes letters to and from central personalities in culture and politics inside and outside Denmark. The equally extensive "Bohr General Correspondence" documents Bohr's substantial administrative involvement. Bohr's family correspondence will become available to researchers in 2012.

Among papers of Bohr's closest colleagues deposited in the NBA, only the George Hevesy Scientific Correspondence has been organized and microfilmed, but the correspondence of among others H.A. Kramers, Christian Møller, Oskar Klein, and Léon Rosenfeld is also of great historical interest. The large collection of photographs relating to Bohr's career is an especially popular resource. Finally, there are reprint, film, sound tape, and video tape collections, as well as a growing library.

Activities in 1996

The NBA's highest priority continues to be the publication – by Elsevier Science – of the Niels Bohr Collected Works, the first volume of which appeared in 1972. A complete list of the whole series was given in the Activities Report for 1988. The series is planned to comprise eleven volumes, and 1996 saw the publication of volume 7, Foundations of Quantum Physics II, which is a continuation of volume 6, also edited by Jørgen Kalckar. Two volumes in the series remain to be published: volume 10, dealing with Bohr's extensions of his complementarity argument outside physics, is edited by David Favrholdt, professor of philosophy at the University of Odense, and is planned for publication in 1997; volume 11, edited by Finn Asserud, will cover Bohr's activities outside science and philosophy, prominently including some of Bohr's previously unpublished writings on his idea of an "open world," developed during and after World War II.

The second main activity consists of organizing, registering, and preserving the several uncatalogued collections. This work has been made possible, first, by a general-purpose five-year grant from the Lounsbery Foundation, which ran out in 1996. Second, dividends from the Danish state lottery, which also were spent in

1996, made possible the development (on the Niels Bohr Institute's ALIN electronic library system) of a database structure for registering archival material as well as input in the structure of three sample collections. This information will subsequently be made available on the World Wide Web. Finally, a three-year grant from the Mellon Foundation, which will run out in 1997, is spent to prepare brief descriptions of each of the NBA's many collections, to be placed in international archival databases.

A part of the Lounsbery grant has been used to catalogue the NBA's book collection on ALIN. This collection includes rare books from the private libraries of Bohr and his close collaborator Léon Rosenfeld (an ardent book collector) and a continually growing library of recent history of science books purchased in part with a grant provided some years back by the American Sloan Foundation.

In addition to the general-purpose grant, the Lounsbery Foundation has provided significant support for computer equipment to be used for scanning data into databases. This equipment is presently being installed and will contribute substantially to NBA's registration effort.

Finn Aaserud spent the first half of 1996 as a Carlsberg Fellow at Churchill College in Cambridge, England. The primary purpose of the visit was to collect material and conduct research for Volume 11 of the *Collected Works*, but, in addition, important contacts were made with international efforts to locate and register archival collections pertaining to the history of modern physics. In May, Aaserud attended (with support from the Danish

Lannung Foundation) a large international conference in Dubna, Russia, devoted to the early history of the Soviet atomic bomb project.

There have been two lectures in the NBA's History of Science Seminar. Last but not least, a several researchers from many countries have visited the NBA.