THE NIELS BOHR ARCHIVE Annual Report 1994

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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 has now its own board of directors and receives a fixed annual sum for running expenses from the Danish Ministry of Education as well as 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), the work for which was 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 involvements. 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 1994

The NBA's highest priority continues to be the publication by North-Holland Physics Publishing 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, of which three remain to be published. Of these, volume 7, Foundations of Quantum Physics II, is a continuation of volume 6, which was also edited by Jørgen Kalckar. 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. These two volumes are planned for publication in 1995 and 1996, respectively. Volume 11, edited by Finn Asserud, will cover Bohr's activities outside science and philosophy, as well as contain a bibliography of Bohr's writings and an index to the whole series. This volume will prominently include a section containing a number of Bohr's previously unpublished writings on his idea of an "open world," developed during and after World War II. It should be mentioned in this connection that the NBA has been closely monitoring, and to some extent contributing to, the debate about the book by Sudoplatov alleging

that Bohr and other scientists partaking in World War II project to develop the atomic bomb provided secret information to the Soviet Union. In the process, contacts have been established with historians, archives, and physicists that will prove invaluable for work on this last volume of the *Collected Works*.

The second main activity consists of organizing, registering, and preserving the several uncatalogued collections. This work is made possible by the five-year grant from the Lounsbery Foundation granted in 1993 together with a share of the dividends from the Danish state lottery and a three-year grant from the Mellon Foundation which will be drawn upon from 1995. As for specific collections, work is presently being completed on Bohr's private and family correspondence with special support from Danish foundations, in particular the Tuborg Foundation. In the course of the year, Professor Aage Bohr has donated his scientific papers to the NBA, and the papers from the recently deceased Stefan Rozental, one of Niels Bohr's closest collaborators, are presently being sorted for later deposit.

Work continues with the registration on the ALIN computer system used by the library of the Niels Bohr Institute of the NBA's original book collection, which includes rare books from the private libraries of Bohr and his close collaborator Léon Rosenfeld (an ardent book collector) and a library of more recent history of science books purchased with a grant from the American Sloan Foundation.

There have been seven lectures, a record, in the NBA's History of Science Seminar, with contributions by Amer-

ican, Chinese, Danish, German, and Russian historians and physicists. In addition, the NBA has been visited by an unusually high number of researchers from several countries.

Publications

Aaserud, Finn, "The Swedish Scene" (review of Svante Lindqvist (ed.), Center on the Periphery), Science 263 (18 March 1994): 1633–1635.

Aaserud, Finn, "[Review of] Olaf Pedersen, Lovers of Learning," Isis 85 (1994): 303–304.

Pais, Abraham, "'Den usandsynlige virkelighed,'" Alef: Tidsskrift for jødisk kultur (nos. 10–11, 1993): 40–73.

Pais, Abraham, *Einstein Lived Here* (Oxford and New York: Clarendon and Oxford University Press, 1994).

Pais, Abraham, Il danese tranquilo: Niels Bohr un fisico e il suo tempo 1885–1962 (Torino: Bollati Boringhieri, 1993).

Pais, Abraham, Niels Bohr og hans tid i fysik, filosofi og samfundet (Copenhagen: Spektrum, 1994).