

THE NIELS BOHR ARCHIVE Annual Report 1990

Staff	Acting Director	Finn Aaserud
	Secretary	Helle Bonaparte
	Preservation	Judith Hjartbro
	Programming	Felicity Pors
	Scientific Staff	Hilde Levi
		Abraham Pais (also at Rockefeller University, New York)

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. Having led an uncertain existence on the premises of the Niels Bohr Institute since shortly after Bohr's death in 1962, in 1985 it was established as an independent non-profit institution on the basis of a deed of gift from Bohr's wife, Margrethe. The NBA has its own board of directors of five members selected respectively by: the President of Copenhagen University (Ove Nathan); the Niels Bohr Institute (Aage Winther, chair); the Royal Danish Society of Science and Letters (David Favrholt); the Danish Minister of Education (Birgit Andersen); and the family of Niels Bohr (Ernest Bohr). It is supported financially by the Danish

Ministry of Education and private sources.

The core of the NBA's collections consists of Niels 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 major part of which consists of 290 microfilms of historical collections from around the world; the AHQP was sponsored by the American Philosophical Society and the American Physical Society. As a result, the NBA became one of the founding repositories of the AHQP.

In addition, the NBA houses several historical collections that cannot be consulted in any other place. In 1985, for example, the Bohr family donated the bulk of Bohr's extensive private correspondence. The NBA also houses the equally extensive "Bohr General Correspondence," which contains letters that can be described neither as scientific nor private. There are also the papers of some of Bohr's closest colleagues, such as George Hevesy and Léon Rosenfeld. The NBA's extensive collection of photographs relating to Niels Bohr's career is an especially heavily utilized resource. There are also book, reprint, film, sound tape, and video tape collections of historical interest.

Activities in 1990

A major event was the move in May 1990 of the NBA's offices and library – and some archival material – to expanded and improved quarters in Blegdamsvej 21, kindly

provided by the Niels Bohr Institute. The bulk of the archival holdings will be moved to the same premises in 1991. The move, which is financed by a special grant from the Danish Ministry of Education, will make it possible to take better care of the NBA's collections, to expand in-house historical research, and to offer improved working conditions for the many visiting researchers.

A major task consists of completing the *Niels Bohr Collected Works*, the first volume of which was published in 1972; the series is being published by North-Holland Physics Publishing. It is planned to comprise eleven volumes, of which three remain to be published. Volume 7, *Foundations of Quantum Physics II*, edited by Jørgen Kalckar and volume 10, which under the editorship of David Favrholt will deal with Bohr's extensions of his complementarity argument outside physics, are in preparation. Volume 11, which will cover Bohr's extra-scientific activities both internationally and within Denmark, will be edited by Finn Aaserud. In the course of 1990, Chinese editions of volumes 3 and 4 were published through the efforts of Professor Ge Ge in Beijing and financial support from the (Danish) Sonning Foundation. A complete list of all the volumes was given in the Activities Report for 1988.

In 1990, the conservation of Bohr's scientific correspondence was completed with support from the Ib Henriksen Foundation. Conservation of Bohr's private correspondence was also completed, whereas the George Hevesy Papers are presently being conserved. This work was supported by Tuborg Foundation, the Alfred Benzon Foundation, and the R.W. Jorck Foundation. Most

items in all these collections have also been registered on computer. The extensive records of the Danish Society for the Dissemination of Natural Science [Selskabet for Naturlærens Udbredelse] were placed in acid-free boxes.

Abraham Pais's biography, entitled *Niels Bohr's Times: In physics, philosophy, and polity*, will be published by Oxford University Press in 1991. Tragically and unexpectedly, Carsten Jensen, who has been connected to the NBA for several years as a historian of physics, died less than three months after defending his Ph.D. dissertation (see *Publications* below). It is hoped that this work will be published as a book.

In the course of the year, several researchers have visited the NBA. In particular, Mark Walker's lecture on the role of physicists in Germany under Hitler and Lars Becker-Larsen's film on quantum physics as seen through the eyes of the American physicist John Wheeler drew much attention. Three television teams from Japan visited for the preparation of three separate films about Niels Bohr.

The board of directors has received two new members: David Favrholt and Birgit Andersen. They replace Olaf Pedersen, who resigned, and Niels Hermansen, who died in 1990. The NBA wishes to express its gratitude to both of them, and not least to Erik Rüdinger, the NBA's trusted leader from its uncertain beginnings in the 1960s, who in December resigned his position as director, to become Project Administrator (Research) at DANIDA.

Publications

Finn Aaserud, *Redirecting Science: Niels Bohr, philanthropy and the rise of nuclear physics* (Cambridge, New York, etc.: Cambridge University Press, 1990).

Finn Aaserud, review of Niels Blædel, *Harmony and Unity: The Life of Niels Bohr* (Madison, Wis.: Science Tech Publishers; Berlin: Springer-Verlag, 1988), *Isis* 81 (1990): 130-131.

Carsten Jensen, "A History of the Beta Spectrum and its Interpretation, 1911-1934," Ph.D. dissertation at the University of Copenhagen, 1990.

Abraham Pais, "Nuclear physics in the Netherlands: The early years," text of a lecture given in Amsterdam, November 22, 1990.

Abraham Pais, "Stalin, Fuchs and the Soviet bombs" [letter], *Physics Today* 43 (August 1990): 13-15.