

THE NIELS BOHR ARCHIVE

Annual Report 2004

The Niels Bohr Archive is an independent institution,
at present under the Ministry of Science, Technology and Innovation

Staff:

Director	Finn Aaserud
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	Jørgen Kalckar
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	Erik Rüdinger

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For the Vice-Chancellor of the University of Copenhagen	Hanne Andersen
For the Niels Bohr Institute	Andrew D. Jackson, chair
For the Royal Danish Academy of Sciences and Letters	Jørgen Christensen Dalsgaard
For the Minister of Science, Technology and Innovation	Kirsti Andersen
For the family of Niels Bohr	Vilhelm Bohr

General remarks

The Niels Bohr Archive (NBA), website: www.nba.nbi.dk, 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. Although the NBA has existed since shortly after Bohr's death in 1962, 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 not-for-profit institution. Since 1985, the NBA has had its own board of directors and has received a fixed annual sum for running expenses from the Danish Ministry of Education (1985-1998 and 2000-2001), the Ministry of Research (1998-2000) and the Ministry of Science, Technology and Innovation (from 2001); it has also made ample use of its privilege to apply for project support from private sources.

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. The outcome was 290 microfilms of various relevant historical material, which have been placed in several repositories world-wide, including the NBA.

In addition, the NBA houses several historical collections that cannot be consulted elsewhere. Thus, in 1985 the Bohr family donated the bulk of the "Bohr 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, whereas the "Bohr Political Papers" shed light on his substantial effort, beginning during the Second World War, for an "open world" between nations.

Among papers of Bohr's closest colleagues deposited in the NBA, only the George Hevesy Scientific Correspondence has been microfilmed, but the papers of among others H.A. Kramers, Christian Møller, Oskar Klein, and Léon Rosenfeld are also of great historical interest. Some papers of more recent origin - notably those of Niels Bohr's son, Aage Bohr, Niels Bohr's close collaborator, Stefan Rozental, and Danish solid state physicist Allan Mackintosh - have also been deposited. 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.

The NBA continues the publication - through Elsevier - of the *Niels Bohr Collected Works*, the first volume of which appeared in 1972. A complete list of the ten volumes published so far is posted on the NBA's website.

In early 1999, upon consultation with the Ministry of Research, the NBA increased its special activities disseminating natural science for the public, particularly gymnasium (high-school) students (for details, see the website).

Activities in 2004

The main priority at the NBA continues to be the completion of the *Niels Bohr Collected Works*. The number of Bohr's remaining publications is too large to be held in one volume, as originally planned. Therefore, two final volumes, Volumes 11 and 12, both edited by Finn Aaserud, will be published. Volume 11 will reproduce Bohr's publications (and a substantial selection of previously unpublished material, notably from the "Bohr Political Papers") pertaining to his political involvements. Volume 12 will contain Bohr's publications documenting his various other activities in society. A booklet containing a few selected publications from Volumes 11 and 12 has recently been prepared in collaboration with Elsevier Physics Publishing. It will be distributed at events in connection with the 2005 World Year of Physics.

After the completion of the *Collected Works*, the next major project will consist of digitising the film and sound collections at the NBA with a special grant from the Danish Ministry of Science. The project is expected to run until the end of 2007.

The large number of visitors to the NBA website resulting from archival documents released in early 2002 pertaining to the Bohr-Heisenberg meeting in 1941 has remained constant. The number of people visiting the premises in person has increased, in spite of the NBA's reduced services owing to the priority of completing the *Collected Works*.

Anja Skaar Jacobsen, post-doc in the history of science, has obtained a grant from the Danish Research Council for the Humanities to write a biography of Bohr's close collaborator, Léon Rosenfeld, with extensive use of archival material at the NBA. Lars Becker-Larsen's well-received film, "The Copenhagen Interpretation", is based in part on research at the NBA. In May, a large group of people with an interest in George Hevesy, who played a major role at Bohr's institute between the world wars, visited the NBA.

There have been three events in the NBA's series of History of Science Seminars, with speakers Karen Barad (in collaboration with Claus Emmeche), Paul Forman and David DeVorkin.

The NBA continues its effort to organise and catalogue its historical collections with the help of outside funds.

Aaserud has visited Stockholm as an adviser to the planned Einstein exhibit at the Nobel Museum in connection with the World Year of Physics.

Upon the death of Knud Max Møller, the remainder of his substantial history of science photo collection will be transferred to the History of Science Institute at the University of Aarhus,

where it will be catalogued and made available to researchers.

As part of the dissemination programme, the NBA has hosted several lectures and guided tours as well as contributed to the well-attended NBI arrangement on the annual *Kulturnatten* (Culture Night) in Copenhagen.

Publications

none in 2004.