

THE NIELS BOHR ARCHIVE

Annual Report 2005

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

Staff:

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For the Niels Bohr Institute	Carl Henrik Koch (from 7 October)
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For the family of Niels Bohr	Kirsti Andersen
	Vilhelm Bohr (until 6 October)
	Hanne Bohr (from 7 October)

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 list of the 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 2005

The main priority at the NBA continues to be the completion of the *Niels Bohr Collected Works*. Volume 11, *The Political Arena*, was published in December under the editorship of Finn Aaserud. It reproduces Bohr's publications (and a substantial selection of previously unpublished material, notably from the "Bohr Political Papers") pertaining to his activities for an "open world" and other political and social involvements. Volume 12, *Popularization and People*, also edited by Aaserud, includes Bohr's large number of writings on scientific predecessors and colleagues, as well as friends and family members, not contained in earlier volumes.

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 number of visitors to the NBA website remains remarkably constant. There has also been a great number of people visiting the premises in person, 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, continues her research on Bohr's close collaborator, Léon Rosenfeld, with extensive use of archival material at the NBA.

In the series of NBA History of Science Seminars there have been lectures by Paul Josephson, Sam Schweber, Alexei Kojevnikov and Matthias Dörries. In addition, Lars Becker-Larsen's film, "The Copenhagen Interpretation", has been shown, followed by a panel discussion.

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

Aaserud has taken part in the opening of the new Hevesy Laboratory at Risø, where the Hevesy family was also well represented. He also spoke at a conference on the history of physics in Berlin and took part in a conference in Stockholm in connection with a Swedish project to document recent history of physics and astronomy. He has been interviewed by Swedish television for a program on the Hiroshima bomb, and the entire permanent staff of the Archive took part in the radio programme series *Danmarksbilleder* (Images of Denmark).

Jan Hansen has started a Master's dissertation project on the relationship between theory and experiment at the Niels Bohr Institute in the 1920s.

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

Niels Bohr - Politics, Popularization and People: A Booklet on the Occasion of World Year of Physics (ed. F. Aaserud), Elsevier, Amsterdam 2005. vi, 76 pp., ill.

Niels Bohr Collected Works, Vol. 11: The Political Arena (1934--1961) (ed. F. Aaserud), Elsevier, Amsterdam 2005. xxiii, 754 pp., ill., figs.

F. Aaserud, "The Need for A Dialogue" and "Introductory Comments" in Michael Frayn's *Copenhagen in Debate: Historical Essays and Documents on the 1941 Meeting Between Niels Bohr and Werner Heisenberg* (ed. Matthias Dörries), University of California, Berkeley 2005. 195 pp., on pp. 1-7 and 101-104.