

Thank you John.

I will now say a few words about NBA from our own point of view. Let me start by expressing my gratitude for seeing so many of you here – from the physics, archives and history communities, which together define the basis for our existence. Special thanks are due to representatives of the Science Ministry and of foundations, who have supported us throughout the years, and who show their continued interest by coming here.

NBA's origins go much further back than 25 years ago:

- ⤴ In the 1950s a “directorate” was set up by Bohr himself at Carlsberg(link 1) to register and arrange his papers.
- ⤴ In the early 1960s Bohr offered Carlsberg as the centre for the ambitious Archive for the History of Quantum Physics project, thus placing NBA (as it was called already then) at the center of the documentation and writing of the history of quantum physics. Historian of science John L. Heilbron, who will give the main celebratory speech later in the afternoon, was part of this project.
- ⤴ However, NBA was soon to be consumed by the effort to publish the Niels Bohr Collected Works, which was conceived by Bohr's former close colleague, Belgian physicist Léon Rosenfeld.(link 2) The general editorship of the BCW – and the leadership of NBA – were taken over by Erik Rüdinger(link 3) in 1977. The enterprise was funded in the main by the Carlsberg Foundation.

What we celebrate today is the establishment of NBA as an independent institution.

This occurred on Bohr's 100th birthday 7 October 1985 when NBA was created under the Ministry of Education:

- ⤴ In connection with the establishment Margrethe Bohr and her sons wrote a deed of gift(link 4) for NBA, formally leaving the relevant archival material in NBA's

hands NBA holds substantial material, as indicated in our brochure(link 5) and shown on our website. We also hold a library with relevant literature, including books from the collections of Niels Bohr and his close colleague and ardent book collector, Léon Rosenfeld.

- ✦ As an independent institution, NBA was supplied with its own board of directors(link 6) (all but one, Jesper Lützen, of whom are present today). In this connection I would like to use the opportunity to pay tribute to our first director of the board, Aage Winther,(link 7) who died on 30 April. Aage played an essential role in establishing NBA and was instrumental for making me feel comfortable in my job when I first came here. I am also grateful for the continuing support of Andrew Jackson, who succeeded Aage as director of the board in 1998, and who will say a few words up to the coffee break.
- ✦ Since its establishment, NBA has had a small staff; here's a picture of the current one.(link 8) We're all here today and look forward to talking with you.
- ✦ A charter was written,(link 9) setting up the purpose of NBA:
 - To take care of the collections in its hands and use them for studies in the history of science.
 - To supplement the collections with material of significance for scientific studies of the history of physics and its continued development.
- ✦ The charter was approved(link 10) by the then Minister of Education, Bertel Haarder, who will talk at our reception in the Institute's lunchroom.
- ✦ As an independent institution directly under the Ministry, NBA does not sort under a particular Institute or even Faculty at the University of Copenhagen. This seems appropriate, as our archival collections as well as people working with them — and publications based on them — cannot be categorized under a particular field at the University. In this regard, I look forward to hearing what Prorector at the University, Thomas Bjørnholm, will say about the relationship between NBA and the University.

When I took over the helm in 1989, Erik had done a magnificent job with the limited resources at hand, making for a smooth transition. I have been privileged to be the Director and (as a consequence) General Editor under whom BCW(link 11) was completed. During my tenure, too, a digitization project has begun, and detailed information about our collections are now available on the internet. We are also digitizing the archival material itself (not only on paper, but also sound recordings and films), both as security copies and as files that are placed on the internet. A pilot project in this regard has been funded by the Danish State Lottery, which has recently provided a second grant enabling us to digitize another collection. The project is expected to go on for many years still, if not indefinitely. However, a rather overwhelming majority of visitors to our website still limits its interest to Bohr's drafts of letters to Werner Heisenberg about the latter's visit to occupied Denmark in 1941. The digitization of our archival material will show the world that there are a million other, and more important reasons, for studying Niels Bohr and his times.

Over the last several years we have been able to develop an outreach program, mainly for high school students, which is conducted in collaboration with the Institute. Our close connection with the international history of science community has furthermore allowed us to maintain a well-attended public history of science seminar program with talks by some of the most prominent scholars from around the world. You are herewith encouraged to join the hundreds of people who are invited to our seminars, which are held at irregular intervals when international scholars happen to be in the vicinity.

The establishment a little more than 25 years ago was naturally a great improvement; yet our financial situation has always been difficult and after the completion of the Collected Works it has become rather desperate, as we are dependent on additional support from private foundations for our mere survival.

On this our day of celebration NBA has reached a milestone in several respects, opening up for future activities, if the financial situation can be improved. I have already mentioned the completion of the Collected Works, which hopefully will allow us finally to turn in earnest to our tasks as described in the charter, thus both adding to our collections and satisfying the demands of researchers from around the world. 2013 will be the centennial for Bohr's publication of his model of the nuclear atom, which started a veritable revolution in physics that still can be said to continue. NBA is central in the preparations for the celebration. Finally, it is hoped that the move of the Institute to new premises a couple of years later will allow for more space at Blegdamsvej, where at present there is hardly room for placing more archival material.

An institution such as ours thrives on fruitful contact and collaboration between three different groups necessary for its existence. First, the complete trust of the actors — i.e., the creators of the archival material (or its copyright holders) — is essential. I am glad to say in this regard that we have an excellent collaboration with the Bohr family. During my first years at NBA, Niels Bohr's youngest son, Ernest, was always ready to provide important advice and support as the Bohr family's representative on the Archive's board of directors. He has been followed by the next generation of the Bohr family, and I am glad to report today the close collaboration and friendship with the current representative, Vilhelm Bohr, who will talk later today on NBA as seen from the perspective of the Bohr family.

I value in particular the help and friendship of Vilhelm's father, Aage.[\(link 12\)](#) He was of invaluable help in the preparation of Volume 11 of the Collected Works dealing with Niels Bohr's political involvements, sharing with me his reminiscences of father and son's experiences in England and the United States during the war. During several months before his death in September 2009, I had the unique experience of interviewing

Aage Bohr and Ben Mottelson about their collaboration in the early 1950s leading to their shared Nobel Prize in 1975. Such oral history interviews, properly transcribed and annotated, are important historical resources in themselves. In addition, the close contact between interviewer and interviewee is apt to produce particularly important archival material that may otherwise be lost. Equally important material will no doubt subsequently be deposited at NBA, with or without the use of oral history.

Securing and making available recent material poses a particular challenge, as information is increasingly stored digitally rather than on paper. I hope to develop collaboration with physicists at the institute on how to secure “born digital” material for the historians of the future, as well as to follow closely developments in this regard at other scientific archives. I look forward to hearing the perspective of physics professor Jens Jørgen Gaardhøje in this regard.

The second group, then, is constituted precisely by the people and institutions securing and making available historical resources, in our case the scientific archives and archivists. Physics being a strongly international field, it is crucial to keep track of relevant material kept elsewhere, both in Denmark and internationally. In the latter case, the Center for History of Physics at the American Institute of Physics, where I worked for four years before coming here, continues to set the standard. I look forward to what Karl Grandin will have to say later about NBA seen from the world of scientific archives.

Thirdly, we need to maintain close relations with the people using the material, mostly historians. We constantly receive requests — and are visited by — scholars from Denmark as well as from abroad, and, as can be seen from our website, many publications result from research at NBA. Nevertheless, until now we have far from been able to satisfy all requests. Indeed, interaction with historians is in no small way a

two-way affair, as only with their comments can we detect holes in our collections and improve our cataloguing.

Indeed, we hope in the future to establish historical projects from NBA itself (possibly starting with a visitors' programme) and not just service researchers arriving with their own projects. Even our oldest and most central collections of Bohr's scientific letters and manuscripts have not nearly been used to the fullest extent, and there are important historical collections that have not been used at all. As a case in point, I am currently struggling to find time myself to prepare a publication, with partial support from the Carlsberg Foundation, on the basis of the otherwise closed early correspondence between Margrethe Nørlund and Niels Bohr, who were married on 1 August 1912 and who had an extraordinarily close relationship for the rest of Niels Bohr's life. Fate would have it that they were engaged shortly before Niels' post-doctoral stay in Cambridge and Manchester, where the seeds of his revolutionary contribution to physics were sown. While in England, Niels corresponded with Margrethe on an almost daily basis, and many of the letters have been kept. The correspondence promises to be a unique source both for the development of Bohr's ideas during a crucial period in his scientific life and for understanding the importance of such a particularly happy and successful marital relationship within the history of science. Other collections at NBA have similar potential for new historical approaches. Many ideas and visions are floating around in this regard, and you will no doubt hear some of them in the following talks. In the longer run, NBA may play an active role in finally establishing a concerted activity in the history of science at the University of Copenhagen.

All in all, then, at 25, NBA has much to celebrate, such as the publication of the Niels Bohr Collected Works, its prominent role, nationally as well as internationally, as an archive for modern history of science, its digitization effort, its outreach program, and its history of science seminar. But it is only the beginning, as there is much unused

potential. We are hoping that NBA's salaries and day-to-day expenses will be fully funded in the future, hopefully at a more ambitious level than now, so that we can apply externally for projects without a constant need to worry about our very existence. In the process, we hope to become not just an archive providing material for visitors, but an active player in how to obtain and handle archival information as well as how to write history on the basis of this information.