

Au1 Denmark: Libraries, Archives, and Museums

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Abstract

The authors provide an overview of the modern development of libraries, archives, and museums in Denmark. Topics covered include: National, public, academic, special and school libraries as well as the Danish Agency for Libraries and Media, the State Archives, regional archives, university archives, the Heritage Agency of Denmark, and three major types museums: natural history, art, and cultural heritage. The legal framework for these institutions is detailed. The authors also describe the role of professional associations and the development and professional education in these three fields. Finally, recent trends and issues are discussed with a focus on digital projects.

INTRODUCTION—FACTS ABOUT DENMARK

Denmark is a northern European state and part of the Scandinavian cultural community. The country has been an independent kingdom for more than a 1000 years with variable frontiers. Since 1920, the frontiers have been permanent with an area of 43,094 km². The population in 2006 was 5,427,459. The capital is Copenhagen.

Denmark is a fertile low-lying country, which for the most part is cultivated. Agriculture was the dominant trade until about 1850 when industrialization began. Today, the majority of the population live in towns and are employed in industry, commerce, and service. Denmark's gross national product is one of the highest per capita in the world, as is its rate of taxation. Its social and healthcare system is publicly funded, and education is free all the way to the highest university level (Fig. 1).

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The Danish constitution is based on the Constitution of the Kingdom of Denmark, most recently revised in 1953. It goes back to the Constitution of 1849, which ended a constitution of absolute monarchy introduced in 1660. In 1849, a parliament with two chambers was introduced. Today, Denmark has a one-chamber parliament and a multiparty system. Since 1972, it has been a member of the European Community, and since 1992, of the European Union.

LIBRARY AND INFORMATION SYSTEMS AND SERVICES

The First Libraries and Absolute Monarchy

As in other European countries, the earliest libraries were established in monasteries in the Middle Ages. Later,

libraries were set up at the cathedral schools which from about 1100 were established in connection with a number of cathedrals, where priests were also educated till the University of Copenhagen was founded in 1479 and with it the first Danish university library. The first Danish book had been printed in 1482.

Ten years before the absolute monarchy was introduced in Denmark, King Frederic the Third had started building up a library and cabinet of curiosities. These collections formed the basis of those in The Royal Library, The National Museum, and the Danish National Gallery. In 1697, legal deposit of all printed material was introduced. The Enlightenment in the 1700s left distinct traces in Denmark. In 1775, P.F. Suhm, professor at the University of Copenhagen, opened his library of 100,000 volumes to the public. Twenty years later, the Royal Library opened its collections to the public. Government archives suggest definite moves toward systematic registration as the country became more centralized under the absolute monarchy. The Royal Cabinet of Curiosities became the Royal Art Museum in 1842 and included art as well as other museum objects.

General compulsory education was introduced in 1814 where the country, following the national bankruptcy of the previously year, started to expand in relation to education and culture. Today, the Folkeskole's (municipal primary and lower-secondary school) educational program runs for 9 years.

Democracy and public libraries

The absolute monarchy was abolished peacefully in 1849, and the royal collections went to the state. Art was separated and the Danish National Gallery established.

Several art-historical collections were gathered together in what is today The National Museum. One of these collections was the collection of antiquities, which was made publicly available in 1819. Around this time, the first public libraries were established on the initiative of enlightened citizens, often organized in associations.

With the emergence of the labor movement in 1870 came a movement in favor of public enlightenment. This resulted in reading societies in the towns that built up libraries. In 1882, the State began awarding grants to chapbook collections. In 1900, A.S. Steenberg published a book on the organization and design of libraries. The book was based on his studies of English and American free public libraries. This book became the basis for the subsequent structure of a modern library system. In 1909, the State established an office for the support of library initiatives with Steenberg as its leader, and in the same year, the Royal Library's chief librarian, H.O. Lange, published his ideas of a coherent library system based on regional libraries. In 1920, the first act on public libraries was passed, based on these thoughts, and in that same year, the Book Collection Office became the State Inspectorate of Public Libraries with Thomas Døssing as director and driving force of the systematic development of public libraries all over the country.

A librarian training course was established in 1918 as a mixture of practice and theory. The Royal Library School was established in 1956. In 1999, the school gained university status and the previous education programs were replaced by bachelor's and master's programs and the possibility of Ph.D. studies (Fig. 2).

The Royal Library, the University Library and the libraries at the Technical College of Denmark and the Royal Veterinary and Agricultural University were the only academic libraries until 1902 when the State and University Library in Aarhus was founded to serve the public outside the capital. In 1928, Aarhus University was founded, and the State and University Library became its library. During the last third of the twentieth



Fig. 1 Map of Denmark.

Source: CIA World Factbook (<https://www.cia.gov/library/publications/the-world-factbook/geos/da.html>).



Fig. 2 The Royal Library in Copenhagen.

Source: Photo by Mette Udesen.

century, a number of universities and university colleges were established, and the national museum collections were supplemented by professionally run art and cultural-historical-museums in many towns.

The welfare state and the expansion of public libraries

During the interwar and postwar periods, public libraries followed the classical model with the loan of books and the administration of reading rooms as central activities. The task was to establish libraries wherever the need arose and make sure that they were run professionally. In this period, many public libraries became a driving force in study circle activities. With the 1964 amendment to the law, public libraries were made mandatory in all municipalities; cultural activity was included in the legislation, and libraries geared up to meet the educational boom that arrived with prosperity and the baby boom. In 1970, a municipal reform resulted in merging the small rural districts. This provided the basis for a sustained professionalization of the public libraries. In 1983, the responsibility for local public library service was entrusted to the municipalities. At the same time, the financing of public libraries changed from government subsidy to block grants with the municipalities' free right of disposal as a basic principle.

^{Au3} The last major wave of change arrived with IT development. The first initiatives within cataloging came around 1970 with OPAC as their goal. The breakthrough of the Internet in the mid-1990s brought with it a challenge to change all libraries into hybrid libraries. Home pages and Internet access for the public appeared in the latter half of the 1990s. It became obligatory with the Act regarding library services in 2000 that established free access to a Web-based National Union Catalogue and mandated broad media access through public libraries.

Throughout the twentieth century, the public library system was consolidated with regional libraries in the counties, libraries in all municipalities, and more branches in larger towns. But many libraries were still owned by associations, and only with the revision of the library act in 1964 was municipal library service made obligatory. In 1983, full responsibility for the local public library was transferred to the municipality. But from the beginning of the century the State maintained a firm involvement in the development of the libraries.

Legislation

Library activities have been regulated by legislation since 1920; the law is changed at regular intervals. The latest act dates from the 2000, Act regarding library services (I 78, 2000) (English version: <http://www.bs.dk/publikationer/english/act/index.htm>). The Act addresses public libraries, regional libraries, government libraries, and government obligations. The stated objective of library

service is to “promote information, education, and cultural activity.” The means are making books and other relevant media available, including Internet access. The public library is open and available to everyone for the loan of materials. All services are free. Public libraries must cooperate with school libraries, which are obligatory in municipal schools and are run as part of the school activity. All municipalities are obliged to provide library service for both children and adults. The State is responsible for the national bibliography and for the union catalog, which is made available via the Internet. The State also pays for regional library service. Together with the State and University Library, the regional libraries are a “superstructure” for the public libraries and handle a number of tasks in relation to procurement of materials, advice, and competency development in the libraries.

The law provides a legal framework that deals with the way libraries should perform their tasks in the information society. It emphasizes that there are media other than print and defines the conditions for giving access to the Internet. For state libraries, including university libraries, a condition for receiving subsidies is that they must participate in interlibrary loan cooperation free of charge.

Legal deposit was introduced in 1697. In 1998, the act on legal deposit was changed so that the deposit obligation included not only printed material but also other media, such as e-publications, videograms, databases, film, and radio and TV broadcasts. The 2005 revision of the law includes harvesting the Danish part of the Internet. Legal deposit of printed material is shared between the two national libraries, the Royal Library and the State and University Library. The latter is responsible for i.a. ^{Au4} the National Newspaper Collection, radio and TV programs, and film produced with a view to public viewing.

Public Lending Right Remuneration is distributed as a culture subsidy to Danish authors whose works are available at public and school libraries. Public Lending Right Remuneration has been paid out since 1946; Denmark was the first country in the world to introduce this subsidy scheme. The principles are stated in the Act on Public Lending Right Remuneration.

The legal framework for the school library can be seen in The Folkeskole (Consolidation) Act [http://eng.uvm.dk/publications/laws/folkeskole.htm?menuid=2010§19.\(2\)](http://eng.uvm.dk/publications/laws/folkeskole.htm?menuid=2010§19.(2)) ^{Au5} where it is determined that a school library must be established in every Folkeskole and that these must function as pedagogical service centers.

National Library and Information Services

The Danish Agency for Libraries and Media, which operates under the Ministry of Culture, is the central government organ for libraries and media. The Agency handles a number of administrative tasks related to the libraries, including administration of the Act regarding library services. Likewise, it deals with development tasks in

association with the libraries' activities and administers a number of subsidies within the library area.

The Agency was founded in 1920 as the State Inspectorate of Public Libraries with tasks related to the public libraries. In 1986, it merged with The Office of the National Librarian, thereby being allocated coordinating tasks regarding the research libraries. In 1997 this office gained status as an agency entitled Danish National Library Authority. In 2008 the Agency merged with The Danish Agency for Media and gained its present name.

The Danish Agency for Libraries and Media, performs tasks that in other countries might belong to the national library. It is responsible for

- The national bibliography,
- Standards, including cataloging rules etc.,
- National bibliographic databases, DanBib and Bibliotek.dk (library.dk) and
- The national distribution scheme for interlibrary lending.
- Financing the regional library service and
- Handling performance contracts with 16 regional libraries, which in 2010 will be reduced to six.

The regional libraries act as central repositories for materials, advise smaller libraries and are responsible for professional development.

The Danish Agency for Libraries and Media, is secretariat for Denmark's Electronic Research Library, which is a collaboration between more than 200 special and academic libraries and handles licenses for e-resources to Danish educational and university libraries. The division of work between the Agency and the libraries means that the agency is responsible for the infrastructure, while the municipalities and research and education institutions are responsible for the actual running of the libraries. Central to the infrastructure is the union database, DanBib, which started in 1994 and registers all Danish library records. DanBib forms the basis of bibliotek.dk, the libraries' common public portal that opened in 2000. There one can search for and request any titles in a Danish library. Projects are in progress concerning the establishment of a common data well with bibliotek.dk and databases with e-resources for the purpose of establishing integrated search.

The Agency is responsible for coordinating library collaboration and ensuring national development of the libraries. This happens via subsidies for development projects and professional development. The Danish Agency for Libraries and Media has entered into a contract with Danish Bibliographic Center, a limited company owned mainly by the Danish state and municipalities, for the preparation of the national bibliography and the running of DanBib and bibliotek.dk. The Royal Library in Copenhagen and The Danish State and University Library in Aarhus both have status as national libraries, the State and University Library also being part of the infrastructure

for the public libraries. As such, they are responsible for legal deposit and Netarkivet.dk that contains the Danish part of the Internet, harvested by Web crawlers. So far the Net Archive can only be used for research.

ACADEMIC AND RESEARCH LIBRARIES

Universities

Following a recent reform of Danish universities which also included the merger of some independent research institutions there are today eight Danish universities. The largest universities by far are

- Copenhagen University (est.1479) with an academic staff of about 3500 and
- Aarhus University (est. 1928) with an academic staff of about 2000.
- The Technical University of Denmark (est. 1829) is the third largest.

These three universities have stronger research profiles, than the smaller schools. The University of Southern Denmark (est. 1966), the University of Aalborg (est. 1974), the Roskilde University (est. 1972), and The Copenhagen Business School (est. 1917) are medium-sized universities while the eighth university, IT University of Copenhagen (est. 2003), is a very small university (Fig. 3).

Universities are the primary institutions for higher education in Denmark, and all of them, except IT University, have an independent research library, which the school funds and manages. In the case of Aarhus and Copenhagen universities, the libraries have an independent role, since the two national libraries also function as university libraries.

In the recent reforms of the Danish educational sector, also included the vocational educations at college/high school level. A large number of schools for engineers, nurses, teachers, and pedagogues were merged into eight university colleges. The largest of these have close to 10,000 students. The largest of these colleges have roughly the same number of students as the medium-sized universities. The students and teachers at the university colleges were originally supported by small libraries connected to the particular education but following the mergers new and larger library organizations are being established at the different university colleges.

Special Libraries

A number of academic libraries are regulated by the Act regarding Library Services. The act specifies that the libraries participate in the general interlibrary loan cooperation and are freely accessible to the public; doing so is a prerequisite to receiving a grant for the library. The



Fig. 3 State and University Library in Aarhus.
Source: Photo by Martin Lund.

Danish Agency for Libraries and Media each year publishes a list of those libraries regulated by the Act.

There are a large number of small academic libraries. The Danish library statistic collects data from 169 academic libraries; 42 of these participate in general interlibrary loan cooperation. Of these 42 libraries, 16 are large academic libraries that provide more detailed statistics. The universities have a total of 122 departmental libraries, e.g., libraries in law and medicine.

The loan of printed materials continues to play a central role in library activities. The library.dk service and the underlying interlibrary loan cooperation are important in that regard. In the last 5 years, downloads from subscription-based electronic journals have replaced printed materials as the most important activity for the larger research libraries. In 2006, the 16 largest libraries had 2.8 million loans of books and other printed materials and 8.2 million downloads from electronic journals. That means that two out of every three loans are now electronic.

Library roles and tasks

Academic libraries are expanding the traditional role of information provision to include new services to support activities at the parent institution. In its strategy for library development, The Danish Agency for Libraries and Media identifies five major functions of academic libraries.

The most important task is still providing information through building print collections and purchasing subscriptions to electronic journals and databases. A second activity is the creation of new interfaces to the global Web of knowledge for both students and researchers. At present, efforts are focused on integrated search,

i.e., creating seamless access to the many different information resources and delivering accurate search results.

The 2003 act on universities emphasized the export and mediation of knowledge from universities. Subsequently, this has become a third major task for academic libraries. An important activity is the registration of research and the operation of current research information systems (CRIS). This role is expanding into the fourth major activity—the support for a coherent e-framework for education and research at the parent institution. There is increased focus on ITsystems for supporting learning and research. This can include systems for e-learning and handling of scientific primary data. The fifth and final task is development of information literacy skills.

Digital Library Collections and Services

Denmark's Electronic Research Library (DEFF) plays an important role in regard to the build-up of the libraries' digital collections. Among other things, it functions as a national framework for consortia buying electronic journals and databases. The DEFF-secretariat handles negotiations with vendors and administers practical aspects of the subscriptions. Denmark's Electronic Research Library supported the development of the national access system that allows all students and researchers to have remote access to electronic journals.

Denmark's Electronic Research Library provides the infrastructure for both consolidation and development of library services, and it supports the increasing consolidation of library systems and the joint development of common CRIS systems. It also support more specific projects, e.g., in information literacy. The SWIM tutorial at Aalborg University Library (<http://www.aub.aau.dk/swim2/1024/start.html>)

and the library test (<http://www.librarytest.dk/>) developed by The Royal library are examples of such projects.

In addition to its own Web site www.deff.dk, DEFF has supported the development of the national science portal www.videnskab.dk and the national research database <http://www.forskningsdatabasen.dk/>.

PUBLIC LIBRARIES

The Danish public library system is regulated by the Act regarding library services, which is a framework law that obligates all municipalities to run a public library that offers both children and adults free and equal access to Danish libraries' materials. Public libraries must cooperate with school libraries. All major research and special libraries participate in the interlibrary loan cooperation free of charge.

^{Au6} The common database, bibliotek.dk, and a transport scheme financed by the State form the basis of extensive ILL-activity. All public libraries are to be run by professionally qualified staff. The law obliges the libraries to provide free access to all types of media, including the Internet. Public libraries together produce a number of national, Web-based services, e.g., Biblioteksvagten.dk/Ask-a-librarian, Litteratursiden.dk, SpørgOlivia (Ask Olivia).

In 2007, the Danish municipal structure was changed from 275 to 98 municipalities, which led to the merging of many public libraries. One hundred and thirty-six branches were closed that year culminating a decade of closures of almost 500 out of more than 1000 libraries. In 2007, there were 550 public libraries. The closures are seen as part of a restructuring of the libraries to accommodate the needs of the knowledge society. The remaining libraries are extending their opening hours and services, and work is going on to find alternatives to the

small local branch, e.g., cooperation with school libraries, self-service branches, flexible mobile libraries, and delivery of library materials. The total budget for public libraries is 2.75 billion krone (DKK), which means a per capita expenditure of 502 DKK per year (2007) (Fig. 4). ^{Au7}

There is a decrease in the loan of traditional library materials, but an increase in the use of new digital services. The average loan figure per citizen is 13 (2007). The government's strategy for the development of public libraries features three main tracks:

- Continuous development of digital services;
- Changing the physical library from storehouse to a learning, meeting, and experience space;
- Innovative thinking in terms of outreach library service.

One example of a new digital service is the loan of music files from home via the library that clears the use with the rights owners. All recorded Danish music is digitized and forms part of this agreement together with a large part of foreign music.

Outreach library service is partly Web-based and partly directed toward various target groups. Kindergarten libraries and targeted early initiatives concerning children in ghettos in the shape of bookstart programs are examples.

SCHOOL LIBRARIES

School libraries are obligatory in the Folkeskole where they have status as pedagogical service centers. Thus, they are integrated into the school and are run by teachers who have supplemented their training with a school librarian course (diploma program). The school library makes available all types of educational materials for



Fig. 4 Interior of Children's library at Hjoerring Public Library. **Source:** Photo Fjord and Bosch by Laura Stamer.

teaching and provides books and other materials for the pupils' leisure reading. There are 1929 school libraries, and most pupils use them; 75% of pupils visit the library at least once a week. The school library forms a central part of the school's learning environment and acts as the school's innovative, mediatory, and pedagogical learning center. It supports the aims of the Folkeskole and contributes to realizing the school's fundamental values, learning targets, and action lines.

There is no statutory requirement for libraries in secondary schools. About 75% of the nearly 250 secondary schools, however, do have a library with instruction in information literacy as a central feature. Upper-secondary school libraries support the pupils' learning environment and study competence, and studies show that traditional library service is heading toward a new form of learning and knowledge center. Focus is directed at interdisciplinarity, and many places are working intensively on introducing a new project culture. In 2007, the upper secondary schools were changed from being county institutions to private institutions. Beginning in 2009, these schools will be included in Denmark's Electronic Research Library.

School libraries are supported by 16 government centers for educational services. These centers offer information on and loan of educational materials, pedagogical advice, and guidance to teachers, assistance with the production of educational materials, and educational programs, such as instruction in IT application.

Library and Information Science Education

The Royal School of Library and Information Science (<http://www.db.dk/english>) was established in Copenhagen in 1956 as a professional school with 4-year educational programs. In 1973, a branch was established in Aalborg in Jutland. Until the late 1960s, research and academic libraries offered a program for library assistant, which then became a 4-year education program at research and academic libraries. In the mid-1980s, the two programs merged into one.

In 1999, the school became an institution of higher education with bachelor's, master's, and Ph.D. programs (3 + 2 + 3) and a diploma program which consists of a 1-year advanced level program following a bachelor's degree. The school also offers a number of diploma and master's programs. Prior to the school's change to university status, an assessment of RSLIS was carried out according to American Library Association Standards for accreditation of Master's Programmes in Library and Information Studies with a very gratifying result.

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A research evaluation, carried out by five recognized international and national researchers in 1999 concluded that the school's research was at the highest level. The school employs about 100 researchers with a broad spectrum of research fields. It has made its mark internationally

through research within information retrieval, domain analysis, and knowledge organization. In the past few years, several Danish universities have conducted information scientific research projects and established educational programs bordering on information science.

The educational programs at the Royal School of Library and Information Science are directed at tasks in both public and research libraries, public administration, organization, and private businesses. Students trained at the school are increasingly being employed in all types of knowledge-based institutions. Both the classical library services and the rapidly growing digital services play an ever-increasing role: organization, mediation, and sharing of knowledge are of fundamental importance to society's economic and cultural development and cohesion. About half of the school's graduates are employed outside the library sector. The school has close to 1000 students, about 200 in Aalborg, and 800 in Copenhagen.

The Royal School of Library and Information Science has a Department of Continuing Education and Consultancy, which is responsible for continuing education and deals with advice and development tasks. The Department of Continuing Education and Consultancy is visited annually by about 5000 course participants and arranges about 300 courses a year.

Associations

The association, "Danmarks Folkebogsamlinger," was founded in 1905 and was merged with the Danish Library Association in 1920. The aim of the association was to further the library cause in Denmark, and for more than 50 years it represented all library interests in the country. Today, the association membership includes local authorities responsible for cultural affairs and institutions as well as personal members, primarily among library staff. It lobbies for the continuous development of public libraries and publishes the journal *Danmarks Biblioteker* (<http://www.dbf.dk/Default.aspx?ID=4126>).

In 1969, library employees broke away from the association and formed The Danish Union of Librarians, which represents the interests of professionally trained librarians. Today, the union has 5500 members and publishes the journal *Bibliotekspressen* (<http://www.bf.dk/dk/bf/GlobalNavigation/uk.htm>).

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Research libraries broke away in 1978 and formed the Danish Association of Research Librarians, a professional organization for research libraries and their employees (<http://www.dfd.dk/uk.php>).

The Municipal School Library Association dates from 1919 and organizes municipalities and their politicians with particular interest in school libraries, <http://www.ksbf.dk/page/foreningen.html> while school librarians have their own association, the Association of School Librarians (<http://www.emu.dk/gsk/skolebib/>).

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Danish public library directors are organized into the Association of Library Directors. <http://www.bibliotekslederforeningen.dk/>, while the libraries' clerical staff and library assistants are organized in HKstate (http://www.hk.dk/stat/landssammenslutninger/statslige_biblioteker_og_arkiver) and HK Municipal Library Committee (<http://www.hkkommunal.dk/sw30576.asp>). These associations' homepages are only available in Danish.

Au11 Since 1989, all of the Danish associations have collaborated in the Library Umbrella, just as most of them are members of the European library associations, EBLIDA, and IFLA.

ARCHIVES AND ARCHIVAL SCIENCE

Legislation

The Danish Archives Act regulates preservation and disposal of public records, the public archives' activities, and the public's access to records. It states that public archives must:

- Ensure the preservation of records of historical value or that serve as documentation of conditions of important administrative or legal importance to citizens or authorities;
- Guarantee the possibility of disposing of non-preservation-worthy public records in cooperation with those authorities affected by the law;
- Make records available to citizens and authorities, including for research purposes;
- Instruct citizens and authorities in the use of records; and
- Do research and spread the knowledge about research results.

The Danish Archives Act is administered by the State Archives, a government agency under the Ministry of Culture that determines the detailed rules for preservation and disposal of public records. Municipalities and regions may choose to establish their own archives for the preservation of their records. The State Archives are obliged to cooperate with these regional or local archives. Government authorities must transfer their records before they are 30 years old. Special rules apply to digital records.

The Archives Act defines the rules for accessibility to public records. Public records are normally freely available when they are 20 years old. Records that contain information about an individual's private, personal, or financial, situation are only available after 75 years. There are a number of regulations about accessibility to specific types of records. In special cases, authorities transferring records can, in cooperation with the State Archives, determine accessibility deadlines for specific archive groups. The Act states that it is possible to seek access to records

that are not immediately accessible. In such cases, the State Archives, possibly in collaboration with the relevant public authorities, decide whether special permission may be granted. The State Archives can collect and make available private records from individuals, associations, organizations, and companies. In such cases, agreements must be made on accessibility between the transferring party and the State Archives.

National, Regional, and Local Archives

"The State Archives," consists of the Danish National Archives, the Regional Archives of Zealand, Regional Archives of Funen, Regional Archives of Southern Jutland, Regional Archives of Northern Jutland, the Danish Data Archives, and Danish Business Archives. The State Archives altogether employ about 300 people.

The Danish National Archive in Copenhagen is the central administration's archive and collects and stores records from all Danish central authorities—ministries, government agencies, and the armed forces—and from private individuals and organizations. The National Archive contains about 168,000 shelf meters of records that are made available to the public in the reading rooms of the State Archives. The reading rooms have about 17,000 visitors each year, principally genealogists, researchers, and students.

The public archives in Denmark are quite professionalized, partly because they are administered under the authority of the State Archives. The State Archives' dual function as an agency for the administration of the Archives Act and as a cultural institution for the preservation, accessibility, and mediation of records has proved to be effective. As opposed to many other national archives, the State Archives no longer have a backlog. With the prospect of new, climate-regulated stacks that can accommodate the entire collection a volume of almost 400,000 shelf meters, the State Archives find themselves in an extremely favorable situation.

Denmark also has a number of "Regional Archives" that collect and store records from public regional authorities, primarily regions, and municipalities. These include:

- The Regional Archives of Zealand, Lolland-Falster, and Bornholm are also situated in Copenhagen.
- The Regional Archives of Zealand contain about 69,000 shelf meters of records and are visited by about 18,000 people each year in their reading rooms.
- The Regional Archives of Funen in Odense collect and store records from public regional authorities, primarily regions, and municipalities.
- The Regional Archives of Funen contain about 20,000 shelf meters of records and annually welcome about 9000 visitors to their reading rooms.

- The Regional Archives of Southern Jutland in Aabenraa collect and store records from public regional authorities, primarily regions, and municipalities.
- The Regional Archives of Southern Jutland contain about 18,000 shelf meters of records and have about 4000 visitors each year in their reading rooms.
- The Regional Archives of Northern Jutland in Viborg collect and store records from public regional authorities, primarily regions, and municipalities.
- The Regional Archives of Northern Jutland contain about 62,000 shelf meters of records and about 11,500 visit the reading rooms each year. Here you also find the State Archives' Filming Centre, which does microfilming and digitization of the records kept in the State Archives.

The Danish National Business Archives is a research institution that collects and preserves important historical source material about the development of Danish business life and makes it available to the public. The Business Archives also act as archive for Aarhus municipality. They contain about 50,000 shelf meters of records and about 3500 visitors find their way each year to the reading rooms.

Danish Data Archives in Odense collect, preserve, and deliver digital research data from social science, medical science, and history. Quantitative research data in the form of questionnaires make up most of the collection. Danish Data Archives' material is available via search catalog on their homepage. The State Archives' collections are searchable via the database DAISY, which is available online. Digital historical data in the shape of archiving versions are available via the database SOFIA.

Separate from the State Archives are a number of municipal archives. Among the largest are Copenhagen City Archives, Aalborg Municipal Archives, Vejle Town-historical and Municipal Archives, and Frederiksberg Municipal Archives. State archives typically offer search in special databases. Finally, there is DANPA, Denmark's National Private Archive Database where one can search registrations of private archives from most large archives in Denmark.

College and University Archives

The archives of Danish institutions of higher education are to be found in the State Archives. The archives of Copenhagen University, Technical University of Denmark, and the Aarhus University School of Education are placed in the Danish National Archive. The archives of Aarhus University and Aalborg University are placed in the Regional Archives of Northern Jutland, those of the University of Southern Denmark in the Regional Archives of Funen and Roskilde University archives in the Regional Archives of Zealand.

The State Media Collection, part of the State and University Library, collects, preserves, and mediates Danish TV and radio broadcasts, commercials and sound recordings from parliamentary debates, news bulletin manuscripts and Danish video releases. Researchers (including journalists) and students/lecturers at institutions of higher education can borrow the TV and radio broadcasts. Everyone can use the audiovisual collections in the library, even the legal deposit material, since they cannot be loaned to other libraries or to private individuals.

According to the Film Act, the Danish Film Institute is obliged to ensure the preservation of films and documentation material about films, to collect film and TV literature, to do research and to make the collections available to the public. The archives of the Film Institute hold more than 30,000 titles and contain all kinds of films shown in Danish cinemas from the beginning of the history of film in 1896 to the most recent films that are legally deposited with the archives. The film archives work actively for preventative preservation, conservation, and digital preservation/conversion. The Institute's films are available online in the database "Danmarks Nationalfilmografi."

DR Archives and Research is part of Denmark's Radio and contain archives and library. Apart from servicing the employees at DR, it sells archival and research services to external stakeholders. DR Archives and Research does not lend from its archival collections with TV broadcasts, but it is possible via the country's libraries—for research purposes—to use TV materials.

DRs Radio Archives file and maintain the broadcasts that must be preserved for posterity. The radio broadcasts go back to the 1930s and cover recent Danish history politically, socially, and in societal terms. Add to this radio dramas, montages, and recitals. There is no public access to the collections of radio broadcasts, but it is possible to buy individual broadcasts. Radio materials from the State Media Collection can be used for research purposes.

Other Archives and Repositories

The Labor Movement's Library and Archives in Copenhagen contain a large collection of archival material concerning the history of the labor movement in Denmark. The Danish Emigration Archives in Aalborg are The National Collection of records on the history of emigration in Denmark. The Map and Land Registry Agency contains previously valid cadastral maps, cadastral protocols, and registered cadastral cases, including surveying information. The collections cover the period from 1844 to the present. For information on Greenland and the Faroe Islands, see National Museum of Greenland and Archives and the Faroese National Archives.

Digital Archival Collections and Finding Aids

Cf. the Archives Act, the State Archives collect, store, and make available Danish authorities' digital records. Development of search tools for the digital collections is undergoing a tremendous process of change. The database SOFIA, which contains the authorities' digital archival version, as of 2008 was only available in the reading rooms of the State Archives. An online solution is expected to be implemented soon.

Archival Science as a Discipline and Profession

Archivistics, as profession and discipline, has emerged in Denmark mainly under the auspices of the State Archives and to a lesser extent the municipal archives. The State Archives employ about 200 archivists, providing a professional archive environment. Extensive Nordic collaboration is going on with expert seminars, Nordic Archives Academy, exchange of staff and the Nordic Archive Days. The central publication relating to archives and archivistics in the North is *Nordisk Arkivnyt*, published four times a year.

Education for archivists and records managers

Denmark has no actual archivist training course. However, Aalborg University, together with Aalborg Municipal Archives, has established a training program in information administration that includes courses such as archive theory, databases and communication, and a final project. The program, first offered in 2008, runs for two semesters. A student enrolled both terms can earn 60 points European Credit Transfer and Accumulation System. In addition, the State Archives offer a number of internal courses for their archive professional staff.

Professional associations

There are four major associations related to archives and archivistics.

1. *The Organisation Danish Archives (ODA)* works to increase public awareness of the importance of Danish Archives and also attempts to promote collaboration, coordination and other kinds of activities that can enhance Denmark's archival cultural heritage.
2. *Forum for Knowledge, Information, Documentation, and Archives (VIDA)* is an association whose aim is to encourage rational archival organization, particularly in the corporate sector. Here companies, organizations and individuals are gathered together, who have journalizing, EDH and ESDH as areas of responsibility, occupation, or interest.

Au12

3. *The Archives Association* arranges functions open to anyone interested in archive professional issues, or who just has a general historical interest. There are 6–8 functions a year.
4. *The Association of Local Archives (SLA in Danish)* brings together people with archival interests in Denmark in a common endeavor to heighten the quality in the work with preservation of the cultural heritage. SLA has more than 400 members, distributed on 13 districts that each covers one of the former counties. Members of the association profit from each other's experiences and expertise and from the development work carried out by SLA's committee.

Au13

Electronic Records as Archival Documents

The Archives Acts does not differentiate between electronic/digital records and paper records. The State Archives thus have the obligation of collecting, storing, and making available all records whatever the medium and format. The State Archives have collected electronic/digital records since the early 1970s.

In order to preserve and make available electronic/digital records, the State Archives conducted a large conversion project during the past few years where electronic/digital records of older formats are recorded on DVD in a searchable format. The project ended in 2008, and from now on focus will be placed on accessibility of the collection of electronic/digital records.

Preservation

The State Archives do not perform actual conservation of its collections. For the purpose of conservation, a professional consultant is employed who monitors the collections and decides which records should be conserved. The conservation process is outsourced to The Royal Library's Preservation Department.

The State Archives are in the process of introducing climate control regulations for all new stacks, to ensure that a stable, low temperature and stable, low, relative humidity will inhibit the deterioration paper records. In addition, the State Archives stores the majority of its collection in acid-free, bar-coded boxes.

Conservation and preservation of digital records take place as mentioned above in a special format and structure conversion project.

MUSEUMS AND MUSEOLOGY

Introduction—The Danish Museum Sector

The Danish museum sector covers a broad and varied spectrum of institutions and subjects. The major institutions

share the same legal framework—The Danish Museum Act—and receive funding or subsidies from the Ministry of Culture. Almost 100 museums cover cultural history, another 35 focus on art, and three specialize in natural history (geology, zoology, and botany).

The number of visitors at Danish museums has been stable for the past 10 years, totaling approximately 10 million visitors a year. In 2006, the state-owned and state-subsidized museums introduced free access for people under age 18. At the National museum and “Statens Museum for Kunst—The Danish National Gallery,” free access is also given to adults. Since 2006, there has been a 2% yearly increase in the number of visitors. In 2007, the total number was 10.8 million. That is the equivalent of two museum visits a year per inhabitant in Denmark.

Total public spending on the museum sector is approximately DKK 1.1260 million a year, of which the State’s share is DKK 716 million (2006). There are eight state-owned museums that are fully funded by the central government, and 123 others that are approved by the State and receive partial funding.

The state-subsidized museums are owned by local authorities, by independent institutions or by an association whose objective is to run the museum. These three forms of ownership are equally prevalent. The central government’s share of funding for state-subsidized museums is approximately 35% of their total expenses. There are 19 state-subsidized museums that receive extra State funding, because they have special research and/or dissemination activities. Some of these museums also handle tasks at the national level.

Legal Framework

The state-owned and state-recognized museums are regulated by the Museum Act, passed in 2001.

According to the law, the general purpose of the museums is to safeguard Denmark’s cultural and natural heritage and secure access to and knowledge about this heritage and its interaction with the world around us. The purpose is realized through the five key function that constitute the tasks of the museum: collecting, registering, preserving, researching, and disseminating information. The act identified three types of museums: 1) natural history museums; 2) art museums; and 3) cultural history museums. The 2006 revision of the act introduced free access for children and made some changes related to the reform of the Danish municipalities.

Heritage Agency of Denmark

This agency promotes collaboration between museums and supports the development of individual museums. It makes recommendations to the Minister of Culture about which museums are to be recognized by the State and thus eligible for state subsidies. It also administers

state subsidies for these museums. Other tasks include listing buildings of national significance and the protection of ancient sites and monuments, and of the archaeological excavations undertaken by Danish museums. The Heritage Agency also administers various funds for which both state-owned and state-subsidized museums can apply annually. Such state grants provide support for research projects, study trips, purchases, publication of books.

In addition to the Heritage Agency, certain museums have special roles in regard to other museums. The National Museum of Denmark, “Statens Museum for Kunst—the Danish National Gallery” and the Danish Museum of Natural History are the principal museums for cultural history, history of art, and natural history, respectively. These three museums have a special status and offer expert advice to other museums in Denmark.

Museums of Art

There are three state-owned art museums. The Danish national “Statens Museum for Kunst—the Danish National Gallery,” is according to the museum law, given has the responsibility of illustrating Danish and foreign visual arts, primarily from the western world after 1300 A.D. The museum’s collections constitute almost 9000 paintings and sculptures, more than 240,000 works of art on paper as well as more than 2600 plaster casts of figures from ancient times, the Middle Ages, and the Renaissance. The major part of the museum’s older collections comes from the art collections of Danish kings.

The two other State art museums are the Ordrupgaard Collection and the Hirschsprungske Collection. The former is named after the village of Ordrupgaard, which lies just outside Copenhagen. Its collection features nineteenth-century French and Danish art, including works by important Romantic, Realist, and Impressionist painters. The Hirschsprungske Collection owes its name to Pauline and Heinrich Hirschsprung, who donated their comprehensive collection of nineteenth century Danish art to the Danish State in 1902.

Among the 35 art museums are the ARoS (formerly Aarhus Art museum), which was established in 1859 and opened in a new building in 2004. It offers Denmark’s largest art collection outside Copenhagen and has notable collections of Danish art that span 300 years as well as exhibitions of contemporary international art. The Ny Carlsberg Glyptotek in Copenhagen is one of Denmark’s most popular museums. It houses more than 10,000 works divided into two principal collections. One is devoted to the Mediterranean cradle of Western culture and the other to Danish and French art from the nineteenth and twentieth centuries.

Outside Copenhagen are two museums of twentieth century art. The Arken Museum of Modern Art, which was opened in 1996, collects Danish, Nordic, and international art with special emphasis on work from 1990 to the

present. The Louisiana Museum of Modern Art offers a collection of more than 3000 works, produced primarily after 1945, that concentrates on more compact groups of works and artists.

Cultural History Museums

The Museum Act states: "The cultural history museums illustrate change, variation, and continuity in the living conditions of human beings from prehistoric times to the present." The National Museum of Denmark is the country's principal cultural history museum. Its responsibility is to illustrate Denmark's culture and the interdependence of all the world's cultures.

In addition to exhibitions of Denmark from prehistory through the Middle Ages and the Renaissance to modern times, the museum houses exhibitions from the ancient cultures of Greece, Italy, the Near East, and Egypt. It is also in charge of some of the archaeological investigations that the Museum Act specifies as important in securing the cultural and natural heritage.

Denmark has three additional cultural history museums. The Danish Defence Museum has two exhibitions: The Royal Danish Arsenal Museum, which exhibits the development of small arms and edged weapons during the last 500 years, and the Royal Danish Naval Museum, which presents naval models and marine paintings. The Defence Museum also exhibits historic warships, which include the frigate, Peder Skram, the last Danish submarine, Sælen, and the fast attack boat, Sehested.

The Danish Agriculture Museum illustrates farming and the life of farming families from the Late Stone Age through the agricultural reforms that took place from the late eighteenth century to the present day. The collection contains approximately 70,000 items, some of which are extremely large. The museum's buildings extend over approximately 24,000 m², including 8000 m² of exhibition space.

The Danish Museum of Hunting and Forestry is one of the largest of its kind in Europe. With 3000 m² of exhibition space, the museum presents the history of hunting and forestry in Denmark from the Stone Age to the present day.

Danish history from the Stone Age and Iron Age can be experienced at several other places. The Prehistoric Museum, Moesgaard, near Aarhus in Jutland, offers a wealth of relics from prehistoric Denmark to the Viking Age, including a large collection of runic stones. On the border between museums and experience centers, Hjemsted Oltidspark in southern Jutland and Lejre Experimental Centre near Roskilde, are worth mentioning.

Natural History Museums

The natural history museums illustrate nature, its development, contemporary environment, and the way it's related to human beings. In 2004, four institutions were merged to create The Natural History Museum, which is responsible for maintaining and building up natural

history collections, for carrying out research in the natural sciences, and for presenting the current state of knowledge about natural history to the general public. The four merged institutions, the Botanic Garden, the Botanical Museum and Library, the Geological Museum, and the Zoological Museum, are now a department of the University of Copenhagen. The museum's exhibitions play an important role in teaching and public outreach.

The Ministry of Culture grants subsidies to four natural history museums. The Natural History Museum in Aarhus, the second largest of its kind in Denmark in both size and exhibition area, contains more than 5000 different species of animals from all over the world. Svendborg Zoological Museum (naturama) focuses on mammals and birds whereas the Mid-South Jutland Museum exhibits primarily fossils collected in the Gram Clay Pits (Gram Lergrav), which have fossils as much as 8 million years old. The Fur Museum contains a unique collection of 54 million-year-old fossils.

Digital Museum Exhibits and Services

The Heritage Agency coordinates registration of the museum's collections. The cataloging system Regin was made available to the museums in 2003, and the data are presented on the Internet at www.kulturarv.dk/mussam. With this service, it is possible to get an overview and search the collections of the cultural heritage museums.

A similar service is available for the arts museums. The central register of works of art in Danish museums and collections was founded in 1985 and went online in 1996. The register holds information on approximately 39,000 works by Danish and international artists. It is available at: <http://www.kulturarv.dk/kid/Forside.do>. In addition, there is the possibility of searching for museums and institutions by geography, subject, or collection at: <http://www.dmol.dk/engelsk/start.asp>.

A 2006 ministerial report recommended an increased focus on digital mediation and increased cooperation and knowledge sharing, and it proposed a specific focus on mediation for children in a digital environment. It also highlighted some of the many services and projects developed by the museums themselves. A good example is www.kongedragter.dk/ where it is possible to study the clothing of Danish monarchs. At Zoom Ordrupgaard (www.zoomo.dk) the public can experience close ups of pictures, compare pictures, and get tips on analyzing them. Another example of digital mediation is www.absalon.nu, which is a collaboration between the local library, archive, and museum presenting the history of Copenhagen on the Web. At www.tilbygningen.dk (the annex), audiences can experience a virtual addition to Thorvaldsens Museum and take a trip around the collections. The museums are continuously developing new digital exhibitions and services, frequently with funding from the Kulturnet Danmark funding pool. One such example is www.vildmedwillumsen.dk.

Another kind of service presented by Danish institutions in arts, design, and architecture is a joint portal

www.arkade.dk, which offers a collection of links, the possibility of cross-searching the institution's catalogs and access to other digital information resources.

Two initiatives seem to hold interesting prospects for future mediation. One is www.emuseum.dk where the museum's collections and mediation is directly linked to teaching. The other is www.danskkulturarv.dk which is a pilot project that attempts to show how digitization and, in particular, mediation can be cross-institutional and bridge the traditional division between archives, libraries, museums, and other institutions, such as the Danish Broadcasting Cooperation.

Museology as a Discipline and Profession

The universities have a long history of offering education in museology as subjects in arts history and ethnography, but there was no coherent education specifically focused on museology until 1977 when it was established as an interdisciplinary, optional course at the Department of Art History at Aarhus University. In 2001, museology was offered as a supplementary program at the University of Aarhus, and in 2002, museology was integrated in the B.A. program at the University of Copenhagen. In 2005, a master in museology was established at the University of Aarhus. The latter program is divided into four modules: international museum theories and methods, organizational museum theories and methods, museum communication, and finally a master's project. Additional teaching study in museology is offered at the University of Roskilde and at The Royal School of Library and Information Science.

Training for curatorship and museum administration

For a number of years, The Museumshøjskolen (a folk high school) was an important center for the development of museology in Denmark. The school offered further education to employees at Danish museums. In 2006, the Museumshøjskolen was merged with the Association of Danish Museums, which offers a number of shorter courses as well as further education. For example, the training in museum administration and management is offered at the diploma level.

The School of Conservation, part of The Royal Danish Academy of Fine Arts, was established in 1973. The education as conservator is a 3 year bachelor degree followed by 2 years of graduate studies. After 5 years of study, the student earns the degree Cand.Scient.Cons. The school also offers a 3 year research program (Ph.D.).

Professional associations for curators and museum administrators

The Association of Danish Museums, which covers almost all Danish museums, organizes a number of different subject-based informal networks. One of these is a

museology researcher's network, which has evolved into at more permanent organization with regular meetings.

Key contemporary issues—preservation, access, educational role

The growing importance of museology as a profession, the Museum Act of 2001 and the establishment of the National Heritage Agency all signal a new and more visible profile for Danish museums. The Danish reform of municipalities and counties has entailed new funding structures, and some mergers in the museum sector. These issues have dominated the debate for the past few years.

These developments have also served as a catalyst for a debate on the concept and functions of the museum. There is a growing emphasis on the educational and interpretive role of the museum in relation to the other four functions (collecting, registering, preserving, researching). Mediation is seen as increasingly important as the museums try to contribute to other societal goals, such as education, tourism, social inclusion, and economic development. This has sparked a debate on whether museums risk becoming mere entertainment, like the Tivoli amusements, or whether, according to new theories of learning, entertainment, and education can be combined in innovative ways. At the same time, digital development challenges the traditional concept of museums as dependent on collections and highlights the possibilities of cross-institutional cooperation.

CONCLUSION

Danish libraries, museums, and archives are highly advanced and are undergoing rapid transformation as a result of the knowledge society's new standards for hybrid institutions. Although the library, archives, and museum sectors are formally separated and each has its central state agency, the fundamental objectives, and conditions for the institutions are similar.

All knowledge and culture institutions are facing a radical digital challenge that has to do with the materials and services of the institutions, their service to the users, their organization, and expertise.

For a number of years, work has been going on locally as well as centrally concerning cooperative digital projects between the three types of institution. Nationally, work has centered around an adaptation of search systems to make it possible to search in all collections at the same time. Locally, focus has been on the work with joint Web presentations with local history subjects or themes of common interest.

The Danish Ministry of Culture is preparing a national strategy for digitization of cultural heritage materials. The existing interim report reveals the desire for interdisciplinary presentation of digital cultural heritage based on

user needs. It also points out that consolidated solutions for preservation and mediation will reduce costs in connection with digitization and stresses the need for a consolidated data warehouse. Finally, functional division of labor with a few centers of expertise is contemplated.

Confronted by new challenges libraries, archives, and museums are all moving toward a realignment of their institutional culture, going from a collection orientation to a user-centered orientation. The need for this can be most clearly observed in work with children and young adults. Particularly in libraries and museums, there have been increased efforts to establish new modes for communication and interaction based on Web 2.0, inclusion, and active participation. The importance of keeping the interest of children and young as users of cultural institutions is underscored by an increasing political understanding of the importance of culture- and knowledge-institutions in increasing social cohesion and stimulating collective innovation.

WEB LINKS

- Danish Agency for Libraries and Media: <http://www.bs.dk/default.aspx?lang=en>

- Nordic public libraries in the knowledge society: <http://www.bs.dk/publikationer/english/nnpl/index.htm>
- Act regarding library services: <http://www.bs.dk/publikationer/english/act/index.htm>
- Danish library policy: http://www.bs.dk/publikationer/english/library_policy/index.htm
- Danish Library Statistics: <http://www.bs.dk/publikationer/english/statistics/2006/index.htm>
- The Library System in Denmark, Jørgen Svane-Mikkelsen, Royal School of Library and Information Science Denmark, Copenhagen 1997. Extracts available at: <http://www.bibliotekshistorie.dk/sektion14.lasso?-database=bibdan.docs2&-layout=document&-response=sektion14.lasso&refID=263&-search&-token.level=2>
- Heritage Agency of Denmark: http://www.kulturarv.dk/english/about_us/index.jsp
- Museum Act: <http://www.kum.dk/sw4497.asp>
- The Danish State Archives: http://www.sa.dk/content/us/about_us
- Danish Archives Act: http://www.kum.dk/graphics/kum/English%20website/Legislation/Promulgation_of_the_Danish_Archives_Act.pdf

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