

Chapter 47

OLDENBURG: 180 Years of Local Collection and Research in Oldenburg

Christina Barilaro

Abstract The Landesmuseum Natur und Mensch Oldenburg in the federal state of Niedersachsen was founded in 1836 and is a state museum since 1947. It contains three departments (natural history, ethnology, archaeology) whose collections enlarge through acquisitions, donations, inheritance and active collecting. The collection of natural history, whose focal point is the local flora and fauna, contains about 300,000 objects of which about 15 % are recorded digitally yet. The collection is an important source for exhibitions, education and research regarding internal projects as well as external enquiries at home and abroad.

Keywords Landesmuseum/State museum • Ivan Antonovitsch Kuprianov • Jean Louis Cabanis • Wilhelm Blasius • Carl Constantin Platen • Great Auk + egg

47.1 A Brief Journey Through Time

The Landesmuseum Natur und Mensch Oldenburg (State Museum of Nature and Man Oldenburg) was founded in 1836 under the name “Naturhistorisches Museum” (Museum of Natural History) and is one of the oldest museums in Germany (Bengen 2001). In 1947 the museum was transformed into a state museum. Since then, it is government financed and funded by the federal state of Niedersachsen (Lower Saxony). After several renaming, in 2000 the museum got its current name “Landesmuseum Natur und Mensch Oldenburg”.

The history of the Museum dates back to the time when Oldenburg was a grand duchy (since 1815). In 1835 Grand Duke Paul Friedrich August von Oldenburg (1783–1853) acquired a collection of 9800 insects and 490 mounted local birds from district medical officer Dr. Ernst Otto Oppermann. The acquisition of native species was unusual in these days, because actually the exhibits should represent the good connections to manor houses in foreign countries.

C. Barilaro (✉)

Niedersächsische Landesmuseen Oldenburg, Landesmuseum Natur und Mensch Oldenburg,
Damm 38-44, 26135 Oldenburg, Germany

e-mail: c.barilaro@landesmuseen-ol.de; <http://www.naturundmensch.de>

Fig. 47.1 Donation of the Russian Tsar Nicholas I.: Tufted Puffin (*Fratercula cirrhata*, inventory no. AVE4575) and presumptive Brandt's Cormorant (*Phalacrocorax cf. penicillatus*, inventory no. AVE974) (with permission from: Landesmuseum Natur und Mensch Oldenburg; photo: W. Kehmeier)



The collection of Oppermann was the basis for the foundation of the museum in 1836. It was located at Huntestraße 8 in the so-called Bollmann'sche Stuben. According to the spirit of the age, mainly exotic and uncommon objects were presented, like objects of natural history and ethnology of Russian America, which were collected by the Russian naval officer Ivan Antonovitsch Kuprianov (1799–1857) and got into the collection due to family ties to the Russian Tsar Nicholas I. (1796–1855) (Fig. 47.1).

After another relocation and due to further space requirements, the museum got a new building at today's place in 1880. Besides exhibition space, the building accommodates first depots and a room for educational purpose.

During World War II, on September 22, 1943, the museum and mainly the neighbouring library were struck by bombs. Subsequently, undamaged books and objects were removed. After provisional renovation of the museum, the collections were turned back in 1946. In the 1960's, construction works began with the objective of expanding in the adjoining vacant building of the library. And finally on May 20, 1974, the museum reopened. Today the building of the former library provides space, e.g., for special exhibitions, the lecture hall, workshops and offices, whereas the original building shelters the permanent exhibitions (Fig. 47.2).

Today the Landesmuseum Natur und Mensch, the neighbouring Landesmuseum für Kunst und Kulturgeschichte (State Museum of Art and Cultural History) and the Schlossgarten (Palace Garden) belong together to the corporation "Niedersächsische Landesmuseen Oldenburg" (Lower Saxony State Museum



Fig. 47.2 The Landmuseum Natur und Mensch Oldenburg at today's place (*white* building in the front, original museum; *pink* building in the background, former library) (with permission from: Landmuseum Natur und Mensch Oldenburg; photo: W. Kehmeier)

Oldenburg). The corporation is funded by the federal state of Niedersachsen. In addition to the state funding, the Landmuseum Natur und Mensch acquires third-party funds and sponsors for research projects, exhibitions and educational projects.

Altogether there are approximately 35 employees at the Landmuseum Natur und Mensch. Besides two permanent scientific staff members, namely, the director and the head of natural history, there are two temporary research fellows who are replaced every 2 years. One is employed in the Department of Natural History and the other in the Department of Ethnology. During the employment, the junior staff gets deeper insight in the work related to the museum. For example, they are responsible for parts of the collection and its inventory or for the planning and elaborating of special exhibitions. In addition, each year the museum employs one graduate for a voluntary gap year (cultural). This employee mainly assists the section of marketing and museum education. According to third-party-funded projects, the museum employs further scientific staff for research projects.

47.2 The Collection of Natural History

Almost from the beginning, the museum contains three departments: natural history, ethnology and archaeology. The focal point of the collection of natural history dates back to the first curator (1837–1878) and later director (1879–1895) Carl

Friedrich Wiepken. He focused on local fauna, which was unusual in these days. Since then, the emphasis of the collections is placed on local flora and fauna from the Weser-Ems-Gebiet (area of Weser-Ems) in the northwest of Niedersachsen.

Most objects in the collection of natural history are zoological, and among them insects and birds are the lion's shares. There are about 15,000 ornithological items, including round about 260 nests and 7900 eggs. The collection of birds is entirely recorded digitally.

Due to friendly relations with ornithologists like Jean Louis Cabanis (1816–1906) and Wilhelm Blasius (1845–1912), also exotic birds belong to the collection of the museum. That way a syntype of *Strix seloputo wiepkeni* (W. Blasius, 1888), which is named after Carl Friedrich Wiepken, got into the museum's collection (inventory no. AVE14002). In addition, the museum owes a syntype of *Prioniturus platenae* (W. Blasius, 1888) (inventory no. AVE993) to the friendship between Blasius and Carl Constantin Platen (1843–1899), of which the latter collected in Indonesia and the Philippines. Further special objects in the collection of birds are the mounted Great Auk (*Pinguinus impennis* (Linnaeus, 1758), inventory no. AVE8086) and an egg of the same species (inventory no. AVE8365).

The collection of insects includes more than 200,000 specimens, of which round about 10% are registered digitally yet. Butterflies and beetles are especially represented. Besides the collection of Oppermann and further collecting of Wiepken, the museum got more than 30,000 butterfly items (including approx. 2200 Macrolepidoptera; 24,250 Microlepidoptera; 4000 genital preparations) from Oswald Tiedemann (1913–1999) in 1995/1996 (Meyer 1998). Georg Kerstens (1903–1982) bequeathed the museum his collection of approximately 70,000 beetles, mainly Staphylinidae (Rose 2004). Further coleopterists with importance for the museum's collection were, e.g., Dr. med. Ernst Friedrich August Röben (1843–1912), Dr. med. Wilhelm Paasch (1874–1959) and Johannes Kühn (1904–1989) (Erbeling 1991). Recently, the museum focuses its active collecting on dragonflies, locusts and beetles.

Further invertebrates are represented by molluscs (approx. 10,000), mainly snails and bivalves.

The collection of natural history includes comparatively few mammals (approx. 3000), reptiles (approx. 1000), amphibians (approx. 400) and fishes (approx. 500). Reptiles, amphibians and fishes are completely registered digitally, whereas only 1050 mammals are recorded yet. The collection of fishes includes furthermore a type specimen, namely, an 8.5 cm-long tooth of the shark *Carcharodon megalodon*, which is extinct since three million years. The collection of reptiles includes two syntypes of *Lycodon ruhstrati ruhstrati* (Fischer, 1886) from Taiwan (inventory nos. REP918, REP919) (Fuhrmann and Kucharzewski 2008; Kucharzewski et al. 2009) (Fig. 47.3). They got in the collection by Ernst Ruhstrat in the latter half of the nineteenth century.

Besides the zoological objects itself, the museum takes tissue samples of every bird and mammal since 1998. Today, the collection of tissue samples contains

Fig. 47.3 Syntypes of *Lycodon ruhstrati* (with permission from: Landesmuseum Natur und Mensch Oldenburg; photo: C. Barilaro)



446 samples of birds and 413 of mammals. Reptiles, amphibians and fishes are stored in whole in alcohol. Thus, tissue samples can be taken when necessary.

The herbarium of the museum (official acronym, LMO) includes approximately 40,000 specimen, of which 6000 are registered digitally yet. The collection is based on the 2300 specimens collected by Johann Friedrich Trentepohl (1748–1806) in the Grand Duchy of Oldenburg (Becker 2014). Further important collections are, e.g., 405 specimens of grass and meadow plants from Oldenburg and Osnabrück collected by Jacob Ludwig Meyer (1802–1869) and Karl Hagen (1806–1882), 100 specimens of conifers from Wilhelm Hochstetter (1825–1881) and 934 specimens of lichen from the Grand Duchy of Oldenburg collected by Heinrich Sandstede (1859–1951). Furthermore, the museum shelters the herbarium of Prof. Dr. Gerhard Wiegleb (born 1948), which contains 7000 specimens, mainly aquatic plants, from, e.g., Northern Germany, further European countries and Japan (Will 2014).

The geological collection includes about 15,000 geological objects. It features, e.g., 326 lacquer soil profiles of Prof. Dr. Drs. h.c. Reinhold Tüxen (1899–1980), which is the biggest collection of these profiles in Germany (Obermüller 2007). Tüxen developed the profiles in the scope of a vegetation mapping in Northern

Germany between 1952 and 1961. Thus, he focused on phytosociology, but his work provides furthermore information about geology, agrology and archaeology.

A lent collection of 500 gemstones from Hans Lüschen is the basis for the permanent exhibition of minerals and gemstones in the cellar vault of the museum (Becker 2014).

Most plant fossils are momentary at the Senckenberg Museum in Frankfurt for more detailed investigations.

In 2011, the Hofmann couple bequeathed the museum a substantial collection of fossils, mainly zoological objects. This collection was for the time being the last important incoming in the geological section. At the moment the objects are registered digitally.

47.3 Focal Points of Exhibitions

The main part of the collection of natural history is stored in internal and external depots. Only parts of the collections are shown in the permanent exhibition, which ranges over 1200 m² and is subdivided into five parts. The exhibition's moor, coast and marshland and geest show the characteristics of the regional landscape of the northwest of Niedersachsen. They focus on the interrelation of nature and man and therefore display archaeological objects as well.

The exhibition concerning the local river Hunte includes freshwater and seawater aquaria with living animals from this region (e.g. insects, crustaceans, amphibians, reptiles and fishes). The human influence is also considered, for example, by showing living goldfishes. From the latter half of the nineteenth century to the beginning of the twentieth century, Oldenburg was an important centre for their breeding. Through escapes of the ponds, goldfishes were already found living in local freshwater in 1870. Today there are still goldfishes in the wild, maybe as offspring or recent maroons.

Finally, the last permanent exhibition deals with minerals and gemstone, which are displayed in the cellar vault of the museum.

The space for special exhibitions ranges over 600 m² and is subdivided in a room (approx. 400 m²) and a gallery above (approx. 200 m²). Thus, it is possible to show two different special exhibitions at a time or one larger one. In general, the special exhibitions change twice a year. The displayed topics are generally related to the collections or to the region, involving the whole world.

47.4 The Collection and Its Exploration

The collection of natural history is the basis for research in different ways. Some projects are internally realised, like the joint project *Vernetzung und Erschließung zoologischer Museumssammlungen—am Beispiel der paläarktischen Käfer*. It is



Fig. 47.4 Insight into the collection of ground beetles (Carabidae) at the Landesmuseum Natur und Mensch Oldenburg (with permission from: Landesmuseum Natur und Mensch Oldenburg; photo: C. Barilaro)

funded by the Deutsche Forschungsgemeinschaft (DFG, JO-134/14-1), and five museums of the NORe Consortium (Museumsverbund der Nord- und Ostsee Region) are involved (Staatliches Naturhistorisches Museum Braunschweig, Naturkundemuseum Bielefeld, Zoologisches Institut und Museum der Universität Greifswald, Zoologisches Museum der Universität Hamburg, Landesmuseum Natur und Mensch Oldenburg). The project focuses on the ground beetles (Carabidae) from the Western Palearctic. Each museum records and thereby revises their respective specimens. The aim is to digitalize and link the collections and to make the final database accessible to the world via the Internet in order to foster further research (Fig. 47.4).

The project started in March 2013 for a period of 3 years. At the Landesmuseum Natur und Mensch, a scientific staff is employed to record and revise this part of the collection. It contains approximately 13,500 specimens. Until July 2015 round about 11,000 specimens are already digitalized.

The bulk of this collection dates back to the nineteenth and twentieth centuries and is based mainly on the collecting of Carl Friedrich Wiepken (1815–1897), Dr. med. Wilhelm Paasch and Johannes Kühn. In the recent past, only few specimens were collected, for example, in the course of the special exhibition “natur. wert.schätzen”, which was shown in summer 2014 and compared the fauna of the man-made palace garden in Oldenburg and an unspoiled alluvial forest, its former habitat.

In addition to research concerning the objects in the collection, the scientific staff could be involved in field studies, like what happened with the Tooth-billed

Pigeon *Didunculus strigirostris* (Jardine, 1845) in Samoa (Beichle and Baumann 2001).

Besides this internal research, the collection provides specimens, tissue samples and data for requests of external scientists and institutions. For example, the museum cooperates with the Forschungs- und Technologiezentrum Westküste (FTZ, Research and Technology Centre) in Büsum in the scope of the monitoring of plastic ingestion by the Northern Fulmar (*Fulmarus glacialis*) in the North Sea (see van Franeker et al. 2011). Before the integration into the museum's collection, each Northern Fulmar is sent to the FTZ for the analysis of the stomach contents.

Moreover, in 2015 the museum provides tissue samples for a project at the Senckenberg Naturhistorische Sammlungen Dresden dealing with the distribution and phylogenetic relationship of Grass Snakes (*Natrix natrix*; inventory nos. REP107, REP128, REP496, REP553, REP957, REP960, REP961, REP962, REP963) (see Kindler et al. 2013, 2014). Furthermore, a skin sample of the Great Auk (*Pinguinus impennis*, inventory no. AVE 8086) was taken for a project at Bangor University, Wales, and the University of Copenhagen, Denmark, which focuses to identify the skins of the last living great auks ever seen by man by the use of genetic analysis.

Occasionally research arises from the daily work. For instance, during the inventory of the collection of birds into the digital database, it turned out that the collection contains a mounted Snowy Egret (*Egretta thula*, inventory no. AVE1213) (Fig. 47.5). Beforehand, it was determined and handled as a Little Egret (*Egretta garzetta*). After the revision, it became clear that this individual is the first record of this species in Germany and the Western Palaearctic (Gottschling et al. 2005).

With the neighbouring school, Graf-Anton-Günther-Schule Oldenburg, furthermore, an occasional cooperation regarding the project "Jugend forscht" exists. In 2014, for example, two students analysed the flocking behaviour of fishes in the museum's aquarium and reached the first place in the regional final.

47.5 Spreading Knowledge

Results of own research and contemporary issues regarding the museum are published in written form through magazines and journals, e.g., the "Museumsjournal Natur und Mensch", published by the museum; the "Oldenburger Jahrbuch", published by the Oldenburger Landesverein für Geschichte, Natur- und Heimatkunde e. V.; or "DROSERÄ Naturkundliche Mitteilungen aus Nordwestdeutschland", which was published by the museum in cooperation with the Carl von Ossietzky Universität Oldenburg from 1976 to 2002. Today's editors are the Verein zur Förderung Naturkundlicher Untersuchungen in Nordwestdeutschland e. V. and the Universitätsbibliothek Oldenburg.

Fig. 47.5 Snowy Egret (*Egretta thula*). First recorded in the Western Palearctic (with permission from: Landesmuseum Natur und Mensch Oldenburg; photo: W. Kehmeier)



Further information regarding special exhibitions is given in appendant catalogues. Via lectures at conferences and workshops, the museum spread information about new exhibitions, the collections, the educational opportunities and other contemporary issues concerning the museum.

Besides these ways of publication, the permanent and special exhibitions are used to inform people. The museum reaches especially families and schools but also other parts of the population. The permanent exhibitions mainly concern the regional landscape. By the use of archaeological objects and objects of natural history, the exhibitions show how people live and handle the characteristics of this environment. How do people and animals live at the coast with the risk of storm floods? What do people do to make the meagre soil of the geest fertile, and what are the consequences for nature? What is so special about the moor biotope, and what do the archaeological findings tell us about our ancestors?

Text panels, audio guides or special guided tours and educational workshops serve to engross in the topics of the permanent exhibitions. Furthermore, an interactive digital book gives the opportunity to exchange experiences about the permanent exhibitions and the regional landscapes. This digital book is developed in cooperation with senior citizen and young migrants within a third-party project funded by the Deutsche Bundesstiftung Umwelt (DBU, 32433/01-43/2).

The presented special exhibitions originate either from external or from internal. In certain cases, during the planning of exhibitions, the museum collaborates with external partners, like universities, nature conservation organisations and the neighbouring school.

The special exhibitions mainly refer to the museum's collection or to the region and include matter which is up to date. Besides factual information, the concepts always provide interactive elements. The visitors shall have the opportunity to experience the exhibition in different sensuous ways. This should facilitate the acquisition of knowledge.

47.6 The Museum's Heart

Collections constitute the core of museums and provide the basis for the museum's key tasks: collecting, conserving, researching, exhibiting and communicating. Every item serves as an analogue archive and holds information for various desiderata. Especially zoological collections are of particular importance regarding the distribution and development of species over time. They give insights in environmental variation, e.g., due to climate change or human action. Thus, the collections provide an opportunity for research and education regarding matters of natural history. The Landesmuseum Natur und Mensch Oldenburg performs this task for the flora and fauna of the northwest of Niedersachsen. Its collection represents this region and its changes since almost two centuries and will be continued in the future.

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