

# Behind the Scenes at the Museum

## *Naturkunde-Museum Bielefeld, Germany*

The Naturkunde-Museum Bielefeld is a municipal natural history museum with a long history. Initially the natural history collections were part of the Museum der Stadt Bielefeld (Museum of the city of Bielefeld), established on 3rd October 1906, that encompassed a history and a nature department. These departments were separated and formed independent museums in 1930 (Keiter and Sachs 2018). The Natural History Museum moved into the Kaselowsky villa where it remained until World War II when the collections were moved to rural locations in order to protect them from Allied bombings. After the war, no permanent home could be found for almost 20 years (from 1946 to 1964). During this time, the collection, neglected and distributed among several attics, suffered heavily. A large number of specimens was lost. In 1964, the Museum was re-established with



*Figure 1. Exhibition building of the Naturkunde-Museum Bielefeld, the Renaissance era Spiegelshof (source: Wikipedia).*



a temporary exhibition space, and in 1977 the current administration building that also houses the geological collections was obtained. In 1986 a new permanent exhibition was opened at the Renaissance era Spiegelshof building (Figure 1).

In 2003, the Museum received the additional name “namu”, which is an acronym for the German words Natur (nature), Mensch (man) and Umwelt (environment). This name also reflects the ecological idea that is depicted in the permanent exhibition.

Today the Museum houses several collections, including a biological collection (approx. 500,000 items), an archaeological collection (approx. 100,000 items, mainly Stone Age artefacts) and a geological collection (approx. 50,000 items). Part of the geological collection is the palaeontological collection, which mainly – but not exclusively – includes fossils from the wider Bielefeld region.

### Palaeontological collection I – Invertebrate fossils

Invertebrate fossils form the largest part of the palaeontological collection (Keiter and Sachs 2018). Most of them, ammonites and bivalves, derive from the Lower Jurassic Herford Liassic Syncline (Althoff 1936; Büchner *et al.* 1986) and from Middle Jurassic strata, exposed in the city area. These fossils were often collected by members of the Naturwissenschaftliche Verein für Bielefeld und Umgegend (the natural science association of Bielefeld and its surroundings), an organization of local citizens that has a strong historical link to the Museum. Next to the Jurassic fossils, the collection encompasses Cretaceous invertebrates, found in the wider region, such as Early Cretaceous bivalves but also plants from the Osning Sandstone and some beautifully preserved Late Cretaceous heteromorphous ammonites (Figure 2). Notable Tertiary invertebrates include approximately 2,500 items (echinoderms, bivalves and others) from the famous Oligocene Doberg locality. Some of the Doberg specimens were donated by Dr August Oetker (founder of the world-famous Oetker food company and active member of the natural science association) in 1907 (Pankoke and Ebel 2014; Pupkulies and Keiter 2019).



Figure 2. *Hyphantoceras reussianum* (ES/kro-16014), affectionally called the “corkscrew ammonite”, is one of many heteromorphous ammonite species found in the Turonian strata around Bielefeld. Size of specimen: 75 mm.

### Palaeontological collection II – Vertebrate fossils

Most vertebrate fossils derive from Mesozoic strata and were found in the Bielefeld region. As well as fish specimens (such as a three-dimensionally preserved *Lepidotes*), there are important amphibian and reptile fossils, two of which became holotypes. Witzmann *et al.* (2016) described a new species of the Late Triassic temnospondyl *Cyclotosaurus*, *C. buechneri*, based on a skull found within the city limits by the former Museum’s director, Martin Büchner (Figure 3).



Figure 3. Holotype of *Cyclotosaurus buechneri* (ES/k-36053), a temnospondyl from the Upper Triassic, Stuttgart-Formation. The skull is 33 cm long and was found over 40 years ago in Bielefeld by the Museum's director Martin Büchner.



A partial skeleton of a Lower Jurassic plesiosaur, likewise found within the limits of Bielefeld, was established as new genus and species, *Arminisaurus schuberti*, by Sachs and Kear (2018) (Figure 4). Other notable vertebrate fossils include part of a large ichthyosaur, described as *Temnodontosaurus* sp. (Hungerbühler and Sachs 1996), footprints of Lower Cretaceous ornithomimid dinosaurs from the nearby Bückeberge mountain range (e.g. Hornung 2015), and remnants of a Late Cretaceous elasmosaurid plesiosaur found in northern Germany (Sachs and Ladwig 2018). Highlights of the Cenozoic vertebrate collection are remains of a cave bear (another donation by August Oetker) and the skeleton of the woolly rhinoceros *Coelodonta antiquitatis* (Diedrich 2008).

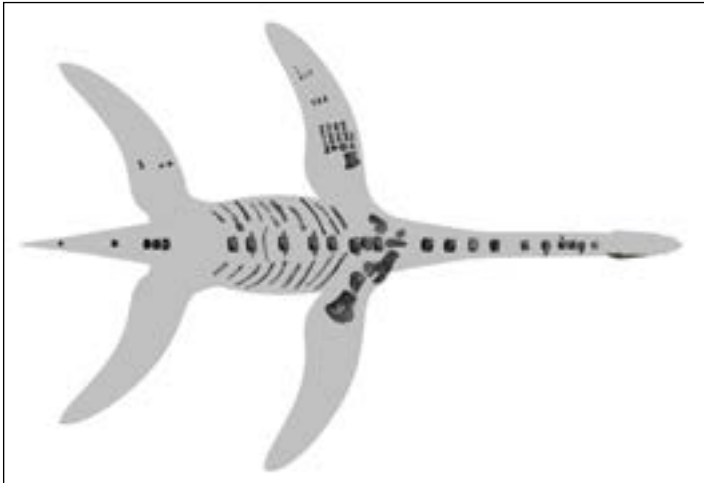


Figure 4. Overview of preserved bones from the holotype specimen of *Arminisaurus schuberti* (ES/jl-36052), a new genus of plesiosaur from the Upper Pliensbachian of Bielefeld-Jöllenbeck.

#### Palaeontological objects on display

The current permanent exhibition focuses on sustainable development and ecological topics, with only some fossils shown in the galleries. The fossils include a large slab containing several complete specimens of the Middle Triassic crinoid *Encrinurus liliformis* as well as a number of



ammonites and selected skeletal remains of Pleistocene mammals. The 'Geostollen', an exhibition space in the Museum's basement that depicts a recreated mining tunnel, shows additional geology-related objects. Further outreach to the general public is achieved by several showcases in Bielefeld subway stations, presenting casts of selected specimens under the slogan "Verdammt lang her ..." ("long long ago"). These include replicas of a *Temnodontosaurus* skull at the central train station (Figure 5) and of *Cyclotosaurus buechneri* at the Rudolf-Oetker-Halle station.

*Figure 5. Showcase presenting casts of the Temnodontosaurus skull (ES/jl-3857) in the subway of the central train station.*



## Epilogue

The Naturkunde-Museum Bielefeld understands itself as the custodian of the rich natural heritage of the surrounding region. Its collection is an archive of immense value with large scientific potential. Preserving this heritage is a huge task, considering the cramped space in the historical buildings and the less-than-ideal personnel situation. Nonetheless, the 'namu' team always welcomes scientists, and will do everything possible to make specimens available for research. Feel free to visit the Museum's page at <<https://owl.museum-digital.de>>, where a good number of representative specimens are listed under "Erdgeschichtliche Sammlung".

### Sven Sachs

Associate Researcher at the  
Naturkunde-Museum Bielefeld  
<[Sachs.Pal@gmail.com](mailto:Sachs.Pal@gmail.com)>

### Mark Keiter

Collection Manager, Earth Sciences at  
the Naturkunde-Museum Bielefeld  
<[Mark.Keiter@bielefeld.de](mailto:Mark.Keiter@bielefeld.de)>

*Find out more about the Naturkunde-Museum Bielefeld:*

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