



# WORKSHOP

**Architectural Legacy.  
The Visual Representation of Natural History**

**20/21 May 2019  
Museum für Naturkunde Berlin**



# Architectural Legacy. The Visual Representation of Natural History

The nineteenth century saw the building of natural history museums across Europe, at a time when there was acute controversy among scientists and the wider public over whether and how life had evolved. These natural history museums were built as interventions in these controversies, and at the same time they served to assert the importance of national scientific traditions. They remain key sites for the public understanding of science and nature. In this workshop we will examine how the architecture and aesthetics of the major natural history museums in Europe express distinct conceptions of science from within their national traditions and reflect on the meanings embodied in their plans, design and decoration. Through discussions of the interpretative implications of museum architecture, we hope to become more mindful of the implied scientific and ideological narratives built into the fabric of natural history museums and to turn the architectural legacy of nineteenth-century science into a richer resource, both for the public and the museums themselves. Looking at three modern examples of architectural additions, alterations of historical buildings and new constructions, we aim to shed light on contemporary forms and their capacity to combine old and new architecture based on current discourses, insights and requirements.

The workshop was conceived and organized by the Museum für Naturkunde Berlin in cooperation with the University of Birmingham, the Mount Allison University (Canada), the Naturhistorisches Museum Wien, and the Oxford University Museum of Natural History.

## PROGRAMME

### Monday, 20 May

12:30 – 13:15 **Registration**

13:15 Welcome Address | *Johannes Vogel, Director General*  
Introduction | *Anita Hermannstädter, Museum für Naturkunde Berlin*

13:30 – 15:30 **Session I: Cultural Forms for Scientific Ideas**  
**Chair:** *Anita Hermannstädter, Museum für Naturkunde Berlin*

13:30 Building Nature in Victorian England: Natural Theology and Darwinian Science at the Oxford University Museum and the Natural History Museum | *John Holmes, University of Birmingham*

14:15 400 Years of Visually Displaying Natural History: The Muséum National d'Histoire Naturelle in Paris | *Charlotte Bigg, Centre Alexandre-Koyré, Paris*

14:45 **Comment** by *Maike Weißpflug, Museum für Naturkunde Berlin*, and discussion

15:30 **BREAK**

16:00 – 17:45 **Session II: Entering the Book of Nature**  
**Chair:** *Janine Rogers, Mount Allison University*

16:00 Naturhistorisches Museum Wien – Where Science meets Art | *Stefanie Jovanovic-Kruspel, Naturhistorisches Museum Wien*

16:30 Museum für Naturkunde Berlin – Revolution of the New Museum Idea on Display in 1889 | *Jutta Helbig, Museum für Naturkunde Berlin*

17:00 **Comment** by *Will Tattersdill, University of Birmingham*, and discussion

18:00 – 21:00 **RECEPTION** in the Dinosaur Hall

19:00 Guided tour through the museum building, led by *Peter Bartsch, Museum für Naturkunde Berlin* (ca. 45min., fully booked)

20:00 Guided tour through the museum building, led by museum guide *Tom Werner, Museum für Naturkunde Berlin* (ca. 45 min.)

## Tuesday, 21 May

9:30 – 11:30 **Session III: New Challenges – New Architectures**

**Chair:** *John Holmes, University of Birmingham*

9:30 The ROM, Its Architecture and Disciplinary Disposition | *Sascha Priewe, Royal Ontario Museum, Toronto*

10:00 MUSE – An Example of the Dialogue between Architecture and Concept in Newly Erected Natural History Museum | *Michele Lanzinger, MUSE – Museo delle Scienze, Trentino*

10:30 Africa Museum Tervuren, a Contemporary and Decolonised Vision of Africa in a Historic Building | *Tine Huyse, Royal Museum for Central Africa*

11:30 **BREAK**

12:00 – 13:00 **Comments and Discussion**

Comments by *Janine Rogers, Mount Allison University, Tahani Nadim, Museum für Naturkunde Berlin*, and *Paul Smith, Oxford University Museum*

**Moderator:** *Niki Vermeulen, University of Edinburgh*

13:00 **END**

Everyone attending the conference is welcome to visit the exhibitions free of charge.

## ABSTRACTS AND SHORT BIOS

### Monday, 20 May

#### Session I: Cultural Forms for Scientific Ideas

##### **Building Nature in Victorian England: Natural Theology and Darwinian Science at the Oxford University Museum and the Natural History Museum** | *John Holmes, University of Birmingham*

Until the middle of the nineteenth century, natural history in England was confidently assumed to be at the service of natural theology, nowhere more so than at the University of Oxford. When the University decided in the 1850s to build a museum of natural history, it opted for the Gothic architectural style typical of churches and colleges to signal that the study of the natural world was the study of God's creation. But Gothic had another key advantage. It was a style grounded in natural forms, with a long tradition of naturalistic decoration. The Oxford scientists decided to build their museum to be a representation of the natural world itself. When Richard Owen and Alfred Waterhouse built the Natural History Museum in London in the 1870s, they followed Oxford's lead. In this paper, I will explore how the differences in architectural choices between the two museums inflect their shared vision of natural history as natural theology. Although expressed through architecture, these differences reveal too changes in Victorian science itself. When the Oxford Museum opened in 1860, it held a debate on Darwin's theory of evolution by natural selection which saw natural theology pitted against a new tendency towards scientific naturalism and secular evolutionism. Where Oxford science came to accommodate itself to Darwinism, Owen remained one of its staunchest opponents. His Natural History Museum sought to resist Darwin, building Owen's by then outdated conception of the natural world into its very fabric.

Prof John Holmes is Professor of Victorian Literature and Culture at the University of Birmingham and an Honorary Associate of the Oxford University Museum of Natural History. He has worked extensively on the history of natural history museums in relation to nineteenth-century science and art. His books include *The Pre-Raphaelites and Science* (Yale University Press, 2018), *Darwin's Bards: British and American Poetry in the Age of Evolution* (Edinburgh University Press, 2009) and the edited collections *Science in Modern Poetry: New Directions* (Liverpool University Press, 2012) and *The Routledge Research Companion to Nineteenth-Century British Literature and Science* (Routledge, 2017), co-edited with Sharon Ruston. He is currently writing a book on the art and architecture of the Oxford University Museum. **Contact:** [J.Holmes.1@bham.ac.uk](mailto:J.Holmes.1@bham.ac.uk)

## 400 Years of Visually Displaying Natural History: the Muséum National d'Histoire Naturelle | Charlotte Bigg, Centre Alexandre-Koyré, Paris

The Paris Museum began its existence in 1635 as a Royal garden for medicinal plants, founded to promote, against the Sorbonne's traditions, the teaching of chemical medicine in the French language. Under the directorship of Buffon, the garden's purpose shifted to natural history and the following decades and centuries saw a growing need for buildings to house and to display natural history collections, but also amphitheatres, laboratories, a library, etc.. I will focus especially on the nineteenth-century developments, in particular the construction of the galerie de zoologie that eventually opened in 1889, situating it within the wider institutional context of higher education and research policy in the period. I will also examine proposals put forward for the display of collections therein and how they reflected different conceptions both of science and of its public display.

Dr Charlotte Bigg is a research fellow at the Centre Alexandre-Koyré, part of the Centre National de la Recherche Scientifique in Paris. She has published widely on the social and cultural history of the physical and astronomical sciences in the nineteenth and twentieth centuries. Her work focuses especially on the elaboration of optical instruments and visual cultures in scientific practice and their communication to a range of scientific and popular audiences. With Andrée Bergeron she leads the international collective project *Matières à Penser: les mises en scènes des sciences et leurs enjeux, XIX–XXIe siècles*, which examines cultural and political implications of public displays of science. **Contact: Charlotte.BIGG@cnr.fr**

**Comment:** Dr Maike Weißpflug is a political theorist and researcher at the Museum für Naturkunde Berlin where she explores the transformations of the science system, especially in the fields of citizen science and open science. She also works on human-nature-relations and the Anthropocene debate, focusing on the changing public role of natural history museums. She studied political science, philosophy and German literature at RWTH Aachen University. In her dissertation (Hannah Arendt. *Die Kunst, politisch zu denken*, Matthes & Seitz 2019), she re-examined Hannah Arendt's political philosophy and her liberating attitude towards the world. **Contact: Maike.Weisspflug@mfn.berlin**

**Chair:** Anita Hermannstädter M.A. is an historian and exhibition curator, head of the division "History of Science & Museum Studies" at the Museum für Naturkunde Berlin. She worked as a researcher and exhibition curator first at the Ethnologisches Museum in Berlin and then in the department of scientific collections and science communication at the Hermann von Helmholtz-Zentrum, Humboldt-Universität zu Berlin. At the Berlin-Brandenburgische Akademie der Wissenschaften, she managed the programme *Evolution in Nature, Technology and Culture 2009/2010* and subsequently oversaw the opening exhibition of the Humboldt Forum in the Humboldt-Box. Starting in 2012 she developed a department for cultural studies and the arts at the Museum für Naturkunde Berlin. Recent book (ed.): *Art/Nature. Interventions at the Museum für Naturkunde Berlin*, edition braus 2019) **Contact: anita.hermannstaedter@mfn.berlin**

## Session II: Entering the Book of Nature

### Naturhistorisches Museum Wien – Where Science meets Art | Stefanie Jovanovic-Kruspel, Naturhistorisches Museum Wien

This paper will emphasise the architecture and decoration of the NHM Vienna in relation to its original scientific concept. As biggest natural science and educational institution in the Austro-Hungarian Empire, the NHM Vienna had immense importance as a 'mass medium' of science popularisation. Designed by the architects Gottfried Semper and Carl Hasenauer in cooperation with its scientific director Ferdinand von Hochstetter the NHM Vienna is a unique "*Gesamtkunstwerk*". Hochstetter was one of the earliest supporters of Darwin's ideas in German speaking Europe. By introducing new scientific subjects such as prehistory, anthropology and ethnography in the museum's concept, he intentionally placed humankind in the realm of the natural sciences thus devoting the museum to Darwin's Theory of evolution. This evolutionary narrative is communicated to the visitors with the help of the museum's decorative program. However, it would be wrong to think that the museum could be reduced to this single narrative. The museum avoids the idea of representing only one certain scientific world-view frozen in time. Thanks to artistic licence, the decorative program intentionally plays with the question of knowledge and truth leaving imaginary doors open for the yet unknown. The science visualisations in the showrooms had the power and the purpose to reach beyond their momentary scientific correctness and open the beholder's imagination for other ways of thinking. This openness in its programmatic message makes the NHM Vienna a sanctuary of the yet unknown still suitable for negotiating the "idea of truth" today.

Dr Stefanie Jovanovic-Kruspel is an art historian working as a curator in the Natural History Museum Vienna. She is a subject editor for science history in the NHM Vienna's scientific journal *Annalen des Naturhistorischen Museums in Wien*, Serie A. In her research she focuses on the complex entanglements between science and art during the nineteenth and twentieth centuries. Apart from many scientific articles, she is the author of a monograph about the architectural history of the NHM Vienna *The Natural History Museum Vienna – Construction, Conception & Architecture*. In this book she examined the original concept of the museum as a *Gesamtkunstwerk* designed by the architects Gottfried Semper and Carl Hasenauer in collaboration with the first scientific director of the museum, Ferdinand von Hochstetter. The museum was designed as 'mass-medium' for the popularisation of scientific knowledge. **Contact: stefanie.jovanovic@NHM-WIEN.AC.AT**

### **Museum für Naturkunde Berlin - Revolution of the New Museum Idea on Display in 1889** | *Jutta Helbig, Museum für Naturkunde Berlin*

In 1858 British scientists developed the idea of separating natural history collections into a smaller exhibition part being open to the public and a larger part for scientific collections only accessible for scientists and museum staff. One remarkable aspect was to store parts of the scientific collections in boxes and drawers. This idea, later known as new museum idea, caused a passionate and highly opposed discussion. Eventually, the proclamation of the idea and its publication in *Nature* was groundbreaking and marked the beginning of a reform process in natural history museums. In the long term, this new ordering structure had a great influence on museum architecture and furnishing. In 1889, Karl August Möbius, director of the Zoological Museum, installed one of the first curated exhibition areas that were completely separated from the scientific sector. This separation and the didactically designed exhibition were approved as a "remarkable illustration of the complete revolution of the ideas on museum arrangement."

Dr Jutta Helbig is an art historian working as a collection manager at the Museum für Naturkunde Berlin. She is a subject editor for science history in the NHM Vienna's scientific journal *Annalen des Naturhistorischen Museums in Wien*, Serie A. In her research she focuses on the construction of natural history museums during the 19th century with a particular emphasis on the museum reform process initiated by Thomas Henry Huxley and other British scientists and its effects on the interior arrangements and emerging curated exhibition areas. On that note she wrote her doctoral thesis on the design and building history of the Museum für Naturkunde Berlin. Besides she is interested in the field of image criticism with a special focus on scientific specimen. **Contact: jutta.helbig@mfn.berlin**

**Chair:** Prof Janine Rogers is the Head of Department in the Department of English Literature at Mount Allison University in New Brunswick, Canada. Her primary research area is in the field of literature, science, and museumship. She is the author of *Eagle* (Reaktion Press, 2015) and *Unified Fields: Science and Literary Form* (McGill-Queen's, 2014). Her current projects include: *Building the Book of Nature: The Poetics of the Natural History Museum* (co-investigator with Professor John Holmes, University of Birmingham), on the intellectual heritage of medieval manuscript culture in the history of science and natural history museums. She is also the primary investigator of *Cultural Literacy: Addressing Learning Barriers with Museum Literacy*, held in partnership with ABC Life Literacy Canada. **Contact: jrogers@mta.ca**

**Comment:** Dr Will Tattersdill is a writer and teacher in the British higher education system. He is especially interested in how literature and science talk to each other, and has written about X-rays, future prediction, arctic exploration, and messages from Mars in addition to his current work on palaeontology. That work draws together studies of museums, popular culture, science fiction, and natural history; it will eventually result in a book called *The Social Dinosaur*, to be published by Bloomsbury. He is an AHRC Leadership Fellow on the project *Narrativising Dinosaurs*, and his earlier book is *Science, Fiction, and the Fin-de-Siècle* Periodical Press (2016). He also has work forthcoming on *Star Trek: Discovery and the Victorian serial*. **Contact: W.J.Tattersdill@bham.ac.uk**

## **Reception Programme**

Dr Peter Bartsch is curator of the fish collection at the Museum für Naturkunde Berlin and commissioner of building. An ichthyologist, embryologist and comparative anatomist by training, his academic career includes the position of a research assistant at the University of Tübingen and a postdoc-fellowship at the Naturhistoriska Riksmuseet, Stockholm. At the MfN, P. Bartsch held the position of head of the department of collections 2010 to 2013 and is in charge of the building programme which included the reconstruction of the East Wing and its conversion into a modern space for the museum's wet collection, finished in 2010. Current activity is leading the second phase of building restoration at the MfN, almost finished in 2019. He is also involved in the actual projecting

of the future development of the site. His main interest and experience is to unite the old marvellous existing buildings with the demands of an open state-of-the-art research and educational institution. **Contact: Bartsch, Peter.Bartsch@mfn.berlin**

**Tuesday, 21 May**

### **Session III: New Challenges – New Architectures**

**The ROM, its architecture and disciplinary disposition** | *Sascha Priewe, Royal Ontario Museum, Toronto*

This paper gives an account of the architectural history of the Royal Ontario Museum (ROM) - Canada's largest and most visited museum – by tracing this history against the museological motivations that triggered developments in this history. Reflective of the museum having been found as a museum of both nature and culture, the paper will also attempt at giving an overview of the disciplinary history and disposition of the museum. Both narratives unite in the museum's new strategic direction that charts new paths both for its architectural as well as its disciplinary histories with implications for an invigorated role of the ROM in the age of the 21st century museum.

Sascha Priewe Ph.D. is the Royal Ontario Museum's (ROM) Associate Vice President, Strategic Initiatives & Partnerships. Before joining the ROM, he was the Curator of Chinese and Korean collections at the British Museum and served as a diplomat in the German Foreign Office. He holds a PhD in archaeology from the University of Oxford. Sascha is a Co-Founder of the North American Cultural Diplomacy Initiative (NACDI). He is also currently cross-appointed as an Associate Professor in the Department of the History of Art at the University of Toronto, and is an Affiliate Associate Professor in Cultural Studies at Queen's University. Sascha also serves on the Board of Directors of ICOM (International Council of Museums) Canada, is an Associate Member of the Posthumanism Research Institute at Brock University and a Senior Fellow of Massey College. **Contact: saschap@rom.on.ca**

**MUSE – an example of the Dialogue between Architecture and Concept in Newly Erected Natural History Museum** | *Michele Lanzinger, MUSE – Museo delle Scienze, Trentino*

The MUSE has been erected in 2013 in the context of an urban regeneration program. The museum presents a very tight relation between the form of the building, the spatial organization and its story telling. This is the result of an intense and fruitful dialogue between the museum interpretation team and the Renzo Piano Building Workshop the company charged to develop the architecture and the exhibition design. The museum staff developed at first and independently the space needs, the zoning and the Concept of the exposition: "A journey into the fabulous space of Muse to appreciate the uniqueness of the alpine natural landscape and to imagine smart solutions for our common sustainable future". The concept was aiming at a twofold perspective: the local natural history thought vertically, from the mountain peaks down to the valleys; the "horizontal" global approach, with the planetary ecological boundaries that gives a global – local perspective to a discourse of mutual interplay between nature – science and society. On the basis of the museological brief, RPBW developed the building and exhibition design within a participated process with the museum team and external advisors. The outstanding brand new architecture with tilted roofs with angles inspired by the local very close mountain slopes, the breathtaking "emptiness" and the "light" approach given by the glass walls and lightness of the exhibitions, results in a very lively environment particularly appreciated by the visitors.

Michele Lanzinger Ph.D., graduated in Geology and PhD in Anthropology, from 1988 to 1992 he was curator of the Geology and Human Palaeontology Department and then Director at the Museo Tridentino di Scienze Naturali. From 2013 as Director at the MUSE-Museo delle Scienze, the brand new and relocated science museum in Trento – Italy . Mr Lanzinger has been the promoter of MUSE with the responsibility of the concept, the organization and management of the Feasibility Study and the Cultural Plan. He managed the operations with the architect Renzo Piano and his RPBW, in the design phases and directly in the exhibitions design and realization. During his directorate the museum staff increased from 23 to 240 people and visitors augmented from 60.000 to more than 500.000. **Contact: Michele.Lanzinger@muse.it**

## **Africa Museum Tervuren, a Contemporary and Decolonised Vision of Africa in a Historic Building | Tine Huyse, Royal Museum for Central Africa**

The Royal Museum for Central Africa was established in 1898 as the 'Musée du Congo'. From a colonial museum it gradually evolved to become the most important reference institute in the world on Central Africa. In December 2013 the museum closed its doors and embarked on a major renovation program with the objective of doing a major overhaul of the permanent exhibition, which had not changed since the fifties, and of decolonizing the museum. The permanent exhibition now focusses on modern themes with a direct link to sustainable development of contemporary Central Africa, such as biodiversity, resources, rituals and ceremonies, language and music and diaspora, and has a new and critical narrative on the Belgian colonial past. The historic museum building was completely renovated, with the restoration of marbles, paintings and floors, decorations, energy and sanitary systems and of the roof. All the historic showcases were equally restored but a new central scenography was put in place. The building is however a protected monument in which structural changes are not possible. In order to modernize the infrastructure it was necessary to build a new entrance pavilion that hosts the public facilities. In this talk we discuss the challenges of renovating the old and providing the new.

Tine Huyse Ph.D. studied Biology at the University of Leuven (Belgium) and the University of Exeter (UK). She obtained her PhD in Leuven in 2002. She worked as postdoctoral researcher at the Institute of Tropical Medicine in Antwerp and as Marie Curie Fellow at the Natural History Museum in London. Her research interests are centered around the evolution of tropical diseases, which have led to several field expeditions on the African continent. She is promoter of several Belgian and African Phd and Msc students and regularly communicates science to a wider public. She currently works as senior scientist at the Royal Museum for Central Africa (RMCA) and is visiting professor at the University of Leuven. She took up the role as scientific commissioner of the zone Landscape and Biodiversity in the new permanent exhibition of the RMCA that reopened its doors in 2018. Contact: [Tine.Huyse@africamuseum.be](mailto:Tine.Huyse@africamuseum.be)

### **Comments and Discussion**

Prof Janine Rogers is the Head of Department in the Department of English Literature at Mount Allison University in New Brunswick, Canada. Her primary research area is in the field of literature, science, and museumship. She is author *Eagle* (Reaktion Press, 2015) and *Unified Fields: Science and Literary Form* (McGill-Queen's, 2014). Her current projects include: *Building the Book of Nature: The Poetics of the Natural History Museum* (co-investigator with Professor John Holmes, University of Birmingham), on the intellectual heritage of medieval manuscript culture in the history of science and natural history museums. She is also the primary investigator of *Cultural Literacy: Addressing Learning Barriers with Museum Literacy*, held in partnership with ABC Life Literacy Canada. Contact: [jrogers@mta.ca](mailto:jrogers@mta.ca)

Prof Tahani Nadim is a sociologist of science and assistant professor for socio-cultural anthropology in the Institute for European Ethnology at the Humboldt-Universität zu Berlin in a joint appointment with the Museum für Naturkunde Berlin. She is a member of the Centre for Anthropological Research on Museums and Heritage (CARMAH). Her research focuses on the datafication of natures and its consequences. She heads the department 'Humanities of Nature' at the Museum für Naturkunde Berlin. Contact: [tahani.nadim@mfn.berlin](mailto:tahani.nadim@mfn.berlin)

Prof Paul Smith is director of Oxford University Museum of Natural History and Professor of Natural History. Prior to moving to Oxford in 2012 he was head of the School of Geography, Earth & Environmental Sciences at the University of Birmingham, as well as being director of the Lapworth Museum of Geology. Paul's geological research is focused on the interactions of Earth systems and organisms, particularly in relation to the origin and early evolution of animals. He has over thirty years of experience of Arctic field expeditions and was awarded the Polar Medal for contributions to Arctic research in 2017. He also has interests in the application of digital technologies to science museums, particularly in the areas of 3D visualization, virtual reality and the evaluation of user experience. Contact: [paul.smith@oum.ox.ac.uk](mailto:paul.smith@oum.ox.ac.uk)

Dr Niki Vermeulen Science Technology and Innovation Studies (STIS), University of Edinburgh & Centre for Science and Technology Studies (CWTS), Leiden University, specializes in the organization of research, with an emphasis on scientific collaboration in the life sciences. Investigating the entanglement of epistemic and social transformations, she analyses new ways of doing research as well as the institutional structures in which research is performed, e.g. in centers for systems biology and the new Francis Crick Institute, also paying explicit attention to the architecture of collaboration. Next to her academic positions, she has experience as a policy advisor and consultant and won the Tam Dalyell Prize for her 'Curious Edinburgh' walking tour app. Contact: [Niki.Vermeulen@ed.ac.uk](mailto:Niki.Vermeulen@ed.ac.uk)

**Concept and Contact:**

Anita Hermannstädter M.A.  
History of Science and Museum Studies  
Department: Humanites of Nature  
Phone: +49 (0)30 889140-8983  
E-Mail: Anita.hermannstaedter@mfn-berlin

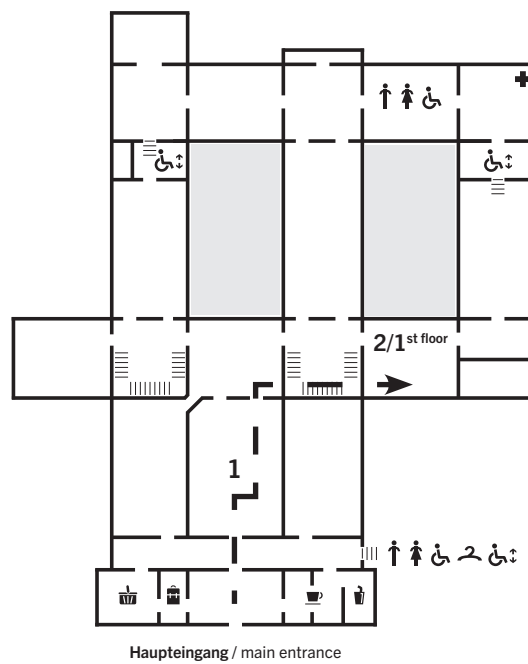
**Organisation:**

Ronja Drews / Lisa Bröenhorst  
Museum für Naturkunde  
Phone: +49 (0)30 889140-8787  
E-Mail: humanities@mfn.berlin

**Museum für Naturkunde Berlin**

Leibniz-Institute for Evolution and Biodiversity Science  
Invalidenstraße 43 · D - 10115 Berlin

**Erdgeschoss  
Ground Floor**



- 1 Saurierwelt  
dinosaur hall
- 2 Konferenzaal - 1. OG  
conference hall - 1<sup>st</sup> floor

**1. Obergeschoss  
First Floor**

