



# Annual Report 2011





## The museum and the world

The NTNU Museum of Natural History and Archaeology has experienced a very successful development in recent years. A significant contributing factor has been its steadfast and strategic management since the Museum was reorganized in 2003.

We are working to ensure that this successful trend continues with the same long-term strategic goals in mind. In 2011, we entered into a new strategic period that runs through 2016. In this period, we shall focus on the further advancement of the Museum's research and knowledge development.

One of the Museum's main goals is to be highly visible in public debate. Our research and scholarship undertakings are determined by the areas in which the Museum has pre-eminent expertise and competence. That is why we have set ourselves the goal of contributing to knowledge-based sustainable management of cultural heritage and the natural environment.

The Museum constantly strives to help NTNU achieve its strategic goals. In the period up to 2020, NTNU has set itself an ambitious goal: to provide "knowledge for a better world." We at the Museum take this challenge seriously. As a result, in 2011 a significant campaign was undertaken to negotiate the loan of the exhibition "Afghanistan – Hidden Treasures" from the National Museum in Kabul to Norway and Trondheim.

This project is an enormous undertaking for the Museum, but we believe the investment in time and resources will lead to the invaluable development of infrastructure, expertise, networks and, not least, experience in organising such a large project at an international level.

This is part of how we contribute both to NTNU's "knowledge for a better world" and to fulfilling the Museum's own vision: "The NTNU Museum of Natural History and Archaeology embraces the world"!

*Axel Christophersen*  
*Museum Director*







## History

The NTNU Museum of Natural History and Archaeology has its origins in the Royal Norwegian Society of Sciences and Letters [DKNVS], founded in 1760.

In 1926 the Society reorganized into two sections: the Academy and the Museum.

In 1968 the Norwegian Parliament approved a resolution to found the University of Trondheim, and the Museum was transferred to the University on 1 April 1984.

Further reorganization of the University led to the establishment of the Norwegian University of Science and Technology (NTNU) on 1 January 1996.

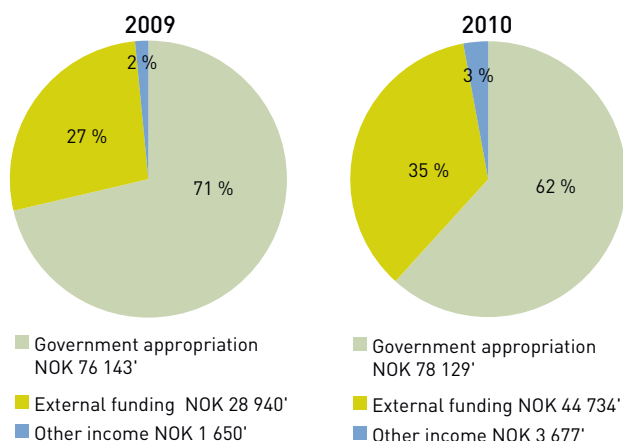
Since 2005 the NTNU Museum of Natural History and Archaeology has been organized similarly to the University faculties, with representation on the Council of Deans and the University Research Committee.

## Our challenges

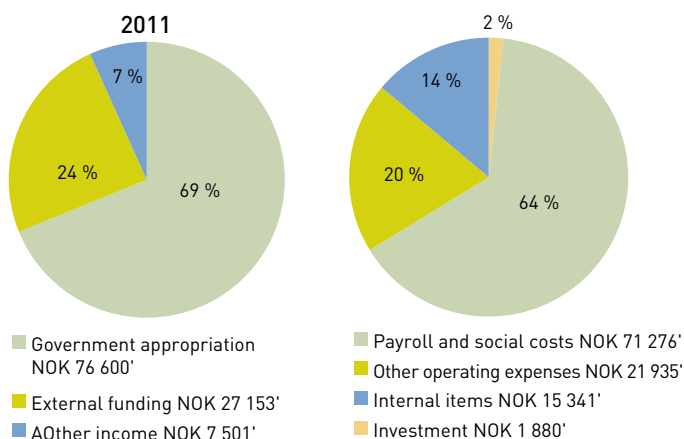
- The NTNU Museum of Natural History and Archaeology shall meet NTNU's goal of developing outstanding research environments in the areas where the Museum has pre-eminent competence and unparalleled circumstances.
- The Museum shall respond to the challenges of its role as a key player in NTNU's goal of increased interaction with the community.
- The Museum shall develop a creative working environment and provide for professional development, making the Museum an attractive workplace for all its employee groups.
- The Museum shall address a financial situation characterized both by increased competition for resources and expertise, internally as well as externally, and by greater demands for external funding.

# The figures speak

## Income



## Expenditure



The Museum's revenues are generated from two primary sources: direct grants from the Norwegian Government and external projects funded by private and public sources. Other income includes grants from the Directorate for Cultural Heritage that fund archaeological investigations of marine, rock art and other archaeological sites protected under the Norwegian Cultural Heritage Act. Government appropriation is relatively stable from year to year and is adjusted primarily according to wage and price inflation. Larger variations in this funding from year to year are the result of individual grants for scientific equipment, staff recruitment or extraordinary security measures, for example.

External revenue is generated from three types of sources: collaborative research projects, commissioned projects, and archaeological investigations in accordance with the Norwegian Cultural Heritage Act, referred to as "public authority". Funding bodies such as the Research Council of Norway and the European Union provide financial support for self-initiated projects. Commissioned activities include projects that are financed in full by the client; whereas, archaeological investigations in accordance with the Cultural Heritage Act are funded by the developer. External income fluctuates more from year to year compared with the government grant. This is mainly due to the scope and number of statutory archaeological investigations and the extent to which the Museum wins competitive grants and contract projects.

## Annual result

Result	(in NOK 1000 )	
	2010	2011
Government appropriation	78 129	76 600
External funding	44 734	27 153
Other income	3 677	7 501
<b>Total income</b>	<b>126 540</b>	<b>111 254</b>
Investment	4 554	1 880
Payroll and social costs	77 134	71 276
Other operating expenses	30 669	21 935
Change on-going projects	-758	-15
Internal items	15 020	15 341
<b>Total expenditure</b>	<b>126 619</b>	<b>110 417</b>
<b>Result for the year</b>	<b>-79</b>	<b>837</b>

## Study activity

	2009	2010	2011
Archaeology: number of Master degrees with Museum-based supervisor	5	4	3
Biology: number of Master degrees with Museum-based supervisor	3	2	4
Archaeology: number of field course days	2 338	2 014	1 824
Biology: number of field course days	490	285	1 220

## Dating

	2009	2010	2011
Radiocarbon dating	655	1 414	1 493
Dendrochronological dating	161	231	461

## Media coverage

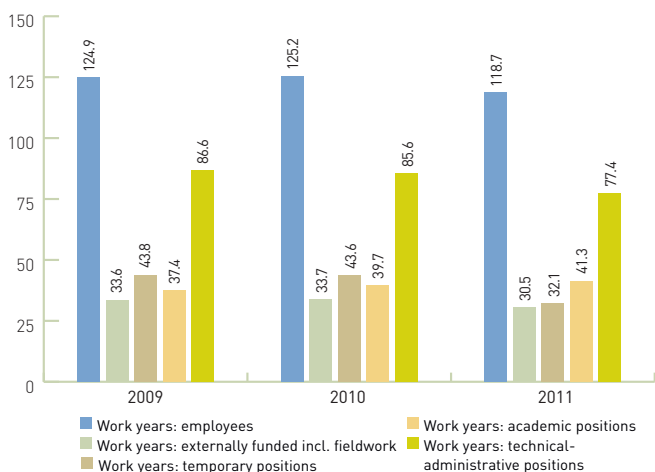
	2009	2010	2011
Media hits: Norwegian	1 001	762	867
Media hits: English	45	4	18
Coverage at Forskning.no	14	17	23

Source: Retriever

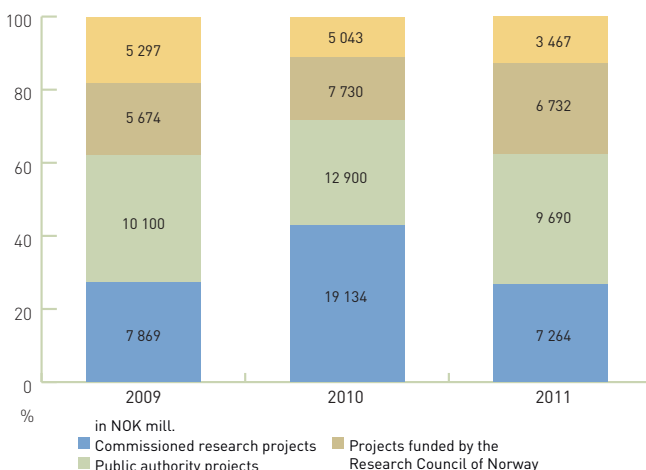


# Operation and financial position

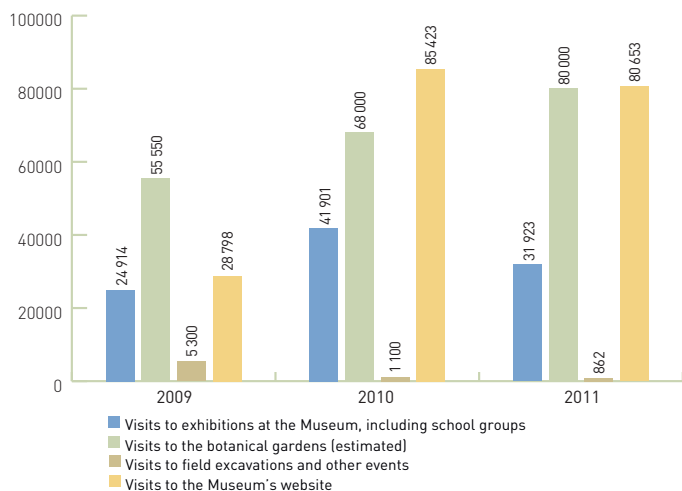
## Staff



## Breakdown of revenue - collaborative and commissioned activities



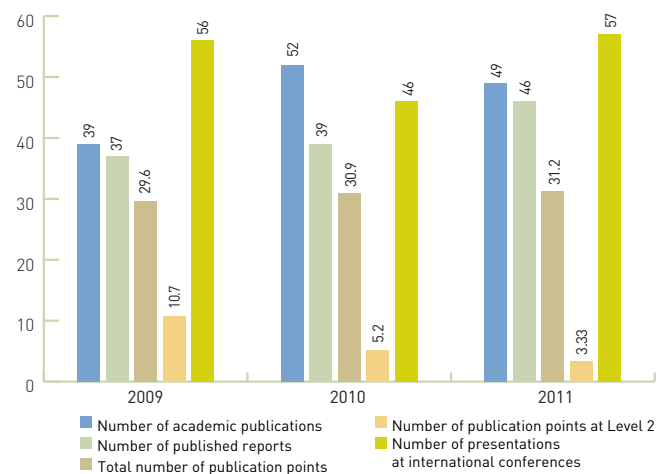
## Attendance



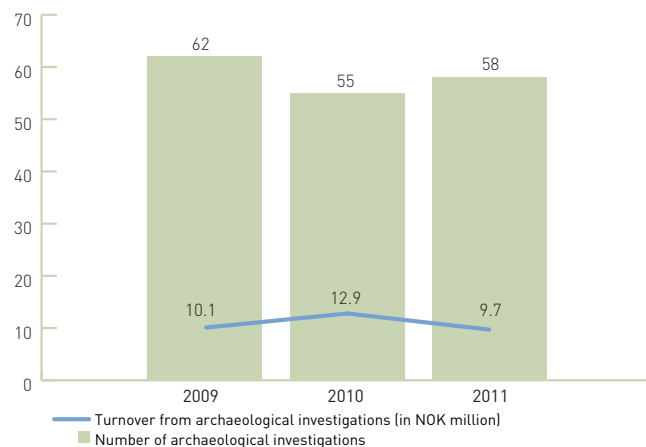
Salaries and associated personnel costs account for nearly 65% of total expenses, while operating costs make up 20%. Internal costs consist primarily of rent to NTNU. Because the Museum's accounts are part of the University's accounting, there is no separate balance. NTNU has a relatively large account balance brought forward from one fiscal year to the next. It is a goal that the annual account balance carried over for the entire University should be reduced. Consequently, annual accounts shall show a deficit until the target level for annual carry-over is reached.

The Museum experienced a decrease in revenues from externally funded projects in 2011 compared to 2010. There has been increasing revenue from projects funded by the Research Council of Norway the past three years, while other contribution activity is somewhat reduced. Income from commissioned projects and "public authority" in 2011 was significantly lower than in 2010. Revenues from public authority are dependent upon the current economic situation, and the Museum is not able to influence the scope of this type of activity.

## Publication



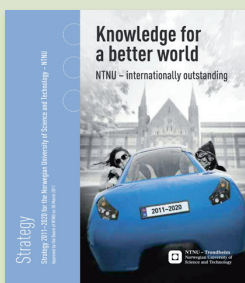
## Archaeological investigations







**1. January:**  
The Museum's Strategic Plan 2011-2016 takes effect



**31. March:**  
The Strategic Plan 2011-2020 for NTNU adopted by the Board of NTNU



**27. June - 8. July:**  
«Sommerlarm» – Summer school for young aspiring researchers



**4. - 6. July:**  
Conference on midges «The 18<sup>th</sup> International Symposium on Chironomidae»

**31. January:** Premiere of «Dead Animals in the Archives» on TV-Adressa



**9. June:**  
Europe gets its first joint web portal of species name: EU-nomen



## Organization



The NTNU Museum of Natural History and Archaeology is one of six university museums in Norway, and a part of the Norwegian University of Science and Technology (NTNU).

The Museum is situated at Kalvskinnet in the centre of Trondheim, together with its exhibitions, collections, Administration and three of its Sections. The Section of Archaeometry is located at the Gløshaugen campus of NTNU; whereas, Ringve Botanical Gardens can be found at Lade on the outskirts of Trondheim. Finally, the Kongsvoll Alpine Garden lies at Kongsvoll in the Dovrefjell National Park.

## Our role in society

The NTNU Museum of Natural History and Archaeology shall develop and disseminate knowledge about nature and culture. Furthermore, it shall safeguard and preserve its scientific collections, making them available for research, curation and dissemination.





12. August:  
«Vitenskapsspillet»  
[“Science Game”] launches



September:  
Archaeologists from Argentina visit Norway  
to study evidence of pioneer settlements as  
part of the project «Marine Ventures»

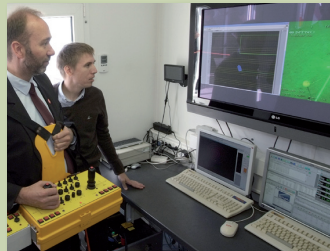
23. September:  
Museum inducted in  
«Excellence Club» of  
«The Best in Heritage»



11. August:  
National Geographic TV  
film for their production  
«Viking Age Swords»  
at the Museum



23. August:  
Start-up event for AUR-Lab



21.-23. September:  
The conference  
«People and nature  
in mountains»



July:  
A publication about  
**grazing** having a greater  
effect than climate on tree  
ring size in birch trees  
receives attention in the  
international media

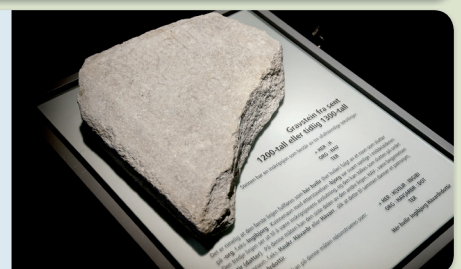
**The Section of Natural History** carries out research in biogeography, biosystematics, and ecology with emphasis on conservation biology. Within NTNU, the Section has a special responsibility to build and curate the collections of scientific object and long-term series of biological data. The Section has a taxidermy laboratory and two botanical gardens, and teaches and supervises students in its fields of expertise.



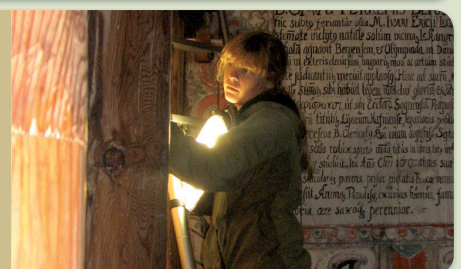
**The Section of Archaeology and Cultural history** conducts research in prehistoric, historic, maritime, Sami archaeology and conservation science, and runs the Conservation Laboratory. The Section is responsible for carrying out archaeological surveys in Trøndelag, Nordmøre, Romsdal and Helgeland. Moreover, the Section, by government mandate, has curatorial responsibility for the collections of archaeological and other cultural heritage materials from the region of Mid-Norway. The Section for Archaeology and Cultural History is also responsible for NTNU's education in archaeology in cooperation with NTNU's Department of Archaeology and Religious Studies.



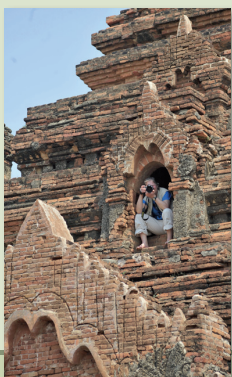
**Section of Exhibitions and Public Programs** is responsible for the Museum's outreach activities. This includes production of exhibitions, also for external clients, as well as activities and events, educational programs, the Newton room and hospitality. The Section runs the Museum Shop, and works together with NTNU's Information Division and the Royal Norwegian Society of Sciences and Letters (DKNVS) on the lecture series "City of Knowledge".



**The Section of Archaeometry** employs scientific methods to determine the age of archaeological, natural historical and geological materials. The laboratory for  $^{14}\text{C}$ -dating is the only one in Norway that carries out age determination of archaeological and scientific samples of organic material. The Section also performs dating of wood by tree ring analysis, dendrochronology.







**13.-14. October:**  
The seminar  
«**Into the Past -  
Out in the World -  
In the Museum**» held in  
conjunction with the  
Museum Director's 60<sup>th</sup>  
birthday



**31. October:**  
On **Halloween**  
150 visitors of all ages walked  
along a spooky nature trail in  
Ringve Botanical Gardens



**6. December:**  
Assume the coordination  
of Norway's contribution to  
The International Barcode  
of Life project, iBOL



**25. December:**  
After the storm «Dagmar»  
25 trees of 19 different species  
laid broken in Ringve Botanical  
Gardens



**October:**  
A mysterious  
wooden structure is  
recovered from the  
river Driva in Oppdal,  
and the timber is  
dated to between  
1435 and 1450



**November:**  
A wooden figure  
found in a barn in  
Melhus is dated to  
the 1300s

**17. December:**  
The contract to host the exhibition  
«**Afghanistan - Hidden Treasures**»  
is signed i Kabul



Musée Guimet Paris; Thierry Olivier

## Innovation

### Norwegian DNA barcoding

DNA barcoding uses similarities in the genetic material of organisms for the identification of species. As the new coordinator for the Norwegian contribution (NorBOL) to the International Barcode of Life (iBOL), the Museum will assure DNA barcoding in Norway is developed for application in research, management and industry.

### AUR-lab

The Museum contributes its expertise and equipment to NTNU's new initiative in applied underwater research, Applied Underwater Robotics Laboratory (AUR-Lab), which was inaugurated in August 2011. AUR-Lab will conduct research in close collaboration with industry and government. For NTNU, this is a first step in a new strategy towards joint research in Ocean Space Science and Technology.

### Tv-cooperation

In 2011 TV-Adressa and the Museum collaborated on a web television series entitled: "Dead Animals in the Archives." Through ten episodes viewers were able to learn more about various animal species housed in the Museum's stores. With vast collections, only a fraction of the Museum's objects are on display to the public at any one time.

### Smart phone game

"Vitenskapsspillet" ("The Science Game") is a game for smart phones for use in the Museum's exhibitions. The Museum wanted to create something that was experience-based and tied place, objects, knowledge and observation together in a new way for the Museum. The game began as a student project.

### Nidaros in the Middle Ages

The Museum continued its cooperation with the Department of Computer and Information Science at NTNU to use animation and game technology to create "Medieval Nidaros in Virtual Reality." Students who participated in the "Experts in Team" project made several films about Medieval Trondheim that can be viewed on the Museum's website.



**NTNU**

**Museum of Natural History  
and Archaeology**

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