

NTNU University Museum Collections Plan 2018 – 2025

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Preface

The scientific collections at the NTNU University Museum represent a legacy we are both proud and humbled to manage and further develop. With this Collections Plan, we aim to lay the foundation for the sustainable development of this heritage – not only as remains from the past, but also as a knowledge resource for the present and for the future.

The Collections Plan is based on the Museum's «Science in the Centre» strategy and is a part of the systematic planning for the Museum's core activities. The plan is a management document that our staff will adhere to when working with the scientific collections in the years to come. The most important follow-up for the near future will for our departments to establish concrete development plans for the respective subcollections.

Over the past decade, the Museum has taken significant steps to improve the conditions of the scientific collections. Through the REVITA Project, substantial collection backlogs have been catalogued and digitized, collection facilities have been improved, and we have implemented a digital infrastructure that better supports efficient and systematic collection curation.

Through these efforts, our understanding of the collections, their relevance, challenges and future potential has been radically expanded, which I find to be very exciting.

The Collections Plan is a formalisation of this knowledge and understanding. Through describing our collections, their purpose and future collection policies, we hope to establish a new point of departure for what our collections shall be in the future.

Long-term curation and preservation of the collections is about priorities and choices. The Collections Plan establishes a collection policy which describe how decisions shall be made, and on which considerations these decisions shall be based.

It is the Museum's goal that this intellectual framework ensures a future development of the collections according to defined priorities, professional benchmarks and thorough ethical considerations.

Through the Collections Plan, we want to facilitate an active use of the collections within research, dissemination and education, both internally and externally. Through such use of the collections, the Museum and society are enriched with new insights and knowledge.

The NTNU University Museum's collections comprise both natural and cultural history. At a time when exciting research is emerging at the interfaces between traditional disciplines, the diversity of our collections and their associated disciplines is a great advantage for the Museum. It has therefore been crucial that the development of the Collections Plan has involved staff from across our departments and disciplines. We have carried out a comprehensive process in which participation through workshops and internal forums has been central. We have consulted with our external collaborative partners and stakeholders as well.

I wish to thank the working group, which has consisted of Torkel Johansen, Tommy Prestø and Solveig Bakken for a job well done, and for a clear and modern Collections Plan. The working group has been supported by a reference group consisting of Torkild Bakken, Kristian Hassel, Birgit Maixner and Bernt Rundberget.

Trondheim, November 2018

Reidar Andersen, Museum Director

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Introduction

The NTNU University Museum is a government funded museum, organised at faculty level at the Norwegian University of Science and Technology (NTNU). We collect, preserve and disseminate cultural and natural history materials, with special emphasis on Central Norway.

Our collections comprise both objects and their associated records. We carry out extensive research based on our scientific collections, and we carry the responsibility for NTNU's professional higher education programme in archaeology.

We plan and conduct archaeological field excavations in accordance with the Norwegian Cultural Heritage Act within the geographical area stretching from the Romsdalen valley (in the south) to the Saltfjellet mountains (in the north). The Museum is also a key national contributor of knowledge and data for Norwegian environmental management.

The NTNU University Museum has its origins in The Royal Norwegian Society of Science and Letters (DKNVS), which was founded in 1760. The Museum is one of the oldest formal Museum collections in Norway, and its present-day character as a museum for archaeology and natural history was established in 1874 with the amendment of the DKNVS's Statutes. The Museum was incorporated into the University of Trondheim in 1984, renamed the Norwegian University of Science and Technology (NTNU) in 1996.

The scientific collections are the core of our activity. The largest collections are within the disciplines of archaeology and biology, but we also have smaller collections in geology, vegetation history, ethnography, art history and recent cultural history. Furthermore, we maintain living collections in Ringve Botanical Gardens, and own objects that are part of NTNU's university historical collections as well.

Our collections document and appreciate unique perspectives on Norway's natural and cultural history. Through this, we wish to contribute knowledge about the development of nature and society in a global perspective.

The Collections Plan sets forth the purpose and scope of the NTNU University Museum's collections, describes what they comprise and establishes a general collections policy. With this, the Collections Plan lays the foundation for developing our collections in a focused and systematic manner according to the Museum's mission, and in a way that safeguards the Museum's ethical and legal obligations.

The Collections Plan has a general section about the Museum's overall mission and areas of activity, and separate chapters that lay out the current collection policies for the cultural history and natural history collections, respectively.

The Collections Plan is grounded in the NTNU University Museum's strategy "Science in the Centre" 2018-2025. The Plan was formally adopted by the Museum's Board of Directors on October 22, 2018 and is valid for the period 2018-2025.

About the NTNU University Museum

The Museum's purpose

The NTNU University Museum shall develop, preserve and disseminate knowledge of nature, culture and science, as a basis for sustainable social development. The Museum focuses on developing its collections of archaeology and biology, but also manages other collections that derive from its long history as a scientific institution.

Through our collections, we shall stimulate research, dissemination and education within cultural history and natural history. Through these efforts, the Museum contributes towards fulfilling NTNU's vision, "Knowledge for a better world".

In our strategy «Science in the Centre 2018 – 2025», the following research areas are prioritised:

- Archaeology and advanced technology
- Dating methods and chronologies
- The interactions between humans and nature
- Material culture and cultural patterns in a long-term perspective
- Taxonomy, systematics and evolutionary history
- Ecological processes and species distributions

The Museum's legal and ethical obligations

The NTNU University Museum's activity is mandated in Section §1-4 of the Universities and University Colleges Act, which assigns the universities of Oslo, Bergen, Stavanger, Trondheim and Tromsø a responsibility to develop, manage and maintain museums with scientific collections and public exhibitions. This includes a responsibility to ensure the collections are accessible for research and dissemination.

In accordance with the Cultural Heritage Act and its regulations, the Museum is mandated significant responsibilities within cultural heritage management (Sections §1 - §14), including carrying out archaeological field excavations and surveys, and managing the legally mandated government ownership of Norway's protected movable cultural heritage.

The Museum holds a specific responsibility for archaeological finds from prehistory and the medieval period, Sámi archaeology, numismatic objects older than 1650 and ship finds. In accordance with the provisions of the Cultural Heritage Act, the Museum has a geographical area of responsibility for collecting and preserving archaeological material from Central Norway between the Romsdalen valley (to the south) and the Saltfjellet Mountain (to the north). The Natural History collections do not have a similarly defined geographical scope, but nevertheless focuses on material from Central Norway.

The Museum refers to ICOM's (The International Council of Museums) Code of Ethics for Museums as the basis for its museum activities. The guidelines set forth standards for professional conduct and practices for both museums and museum staff.

The Museum is obligated to comply with international agreements and conventions protecting cultural heritage and biological diversity of which Norway is a signatory.

The Museum's partners and collaborators

The Museum collaborates with other institutions in its mission as a heritage management institution and collections-based knowledge contributor, including the Directorate for Cultural Heritage, The Sámi Parliament, The Norwegian Institute of Cultural Heritage Research (NIKU), the Norwegian Biodiversity Information Centre, The Norwegian Environment Agency, county governors, municipalities, county councils and the other Norwegian university museums. The Museum also actively uses its collections for public outreach and knowledge production, in collaboration with other museums nationally and internationally.

Organisation and management of the collections

The NTNU University Museum is an academic unit of NTNU, organised at the faculty level and subject to current regulations of organization and management put forth in NTNU's [Management Regulations](#).

The collections are organized under two Museum departments: the Cultural History Collections at the Department of Archaeology and Cultural History (IAK), and the Natural History Collections at the Department of Natural History (INH). The collection activities within the departments are furthermore organised in three collection groups - archaeology, zoology and botany - in close cooperation with the Museum's research groups, discipline groups and other areas of activity within education, dissemination and cultural heritage management.

The management of the collections is one of the Museum's core responsibilities, where professional needs, strategic concerns and sustainability issues must be addressed. Important decisions are made in collaboration between the Museum Board, the Museum Director and the departments with collection responsibility for the respective collections. ICOM's Code of Ethics, and the obligations and responsibilities it imposes on the Museum Board, the Director and the collection managers, must in this respect also be seen in the context of the Museum's organisation as part of a university, and the delegation of responsibilities as specified in NTNU's [Management Regulations](#).

The University's Board is the highest governing body at NTNU, with overall responsibility for NTNU's activities in accordance with Section §9 of the Universities and University Colleges Act.

The Museum Board is NTNU University Museum's senior governing body and is responsible for setting goals and strategies for the Museum, as well as setting priorities within the framework specified by current laws, regulations and higher-level NTNU decisions. Matters of principal importance are decided by the Museum Board after presentation by the Museum Director and the relevant department that holds responsibility for the collections in question. This includes, but is not limited to, acquisitions that establishes new collections, gifts with mandatory restrictions, deaccessioning subcollections, accession and deaccession policies and other matters of fundamental importance to the Museum's available resources or standing.

The Museum Director is the Museum's senior executive. He/she shall ensure that the Museum's activities are conducted within the framework set in regulations, higher-level NTNU decisions and Museum Board decisions. The Museum Director has the overall responsibility for all matters not explicitly assigned the Museum or NTNU Board, and has general authority to decide ongoing issues, within the restrictions prescribed by NTNU's Management Regulations.

The Head of Department is responsible for developing and managing the activities at the respective department and has overall responsibility for the collections held by his/her department. The Head of Department may delegate assignments, create subject groups and advisory groups for specific matters, and make decisions on collection-related issues regarding loans, analyses and deaccessions that do not require decisions at a higher level. The Head of Department has financial and human-relations (H-R) responsibility, ensures the allocation of resources and coordinates the activities between the department's different areas of activity. The Head of Department shall ensure that matters relating to loans, analysis and deaccessions are dealt with in advisory groups that provide professional advice within the relevant subject-specific area.

Head of Collections has the overriding disciplinary responsibility for the curation and development of collections within one of the Museum's scientific disciplines. The Head of Collections is responsible for distributing tasks in his/her collection group, makes collection-related decisions on matters

delegated from the Head of Department, and coordinates activities in line with goals and priorities set for the respective collections. The Head of Collections shall participate in advisory committees that handle collections related issues.

Curators are museum professionals responsible for the scientific development, facilitation and acquisition of material for subcollections within a subject-specific area of the collections, and participates in a collections group. Curators in academic posts have a specific responsibility to develop the collections through research initiatives, academic collaboration and facilitation of collection materials for dissemination and exhibition. Curators may be assigned responsibility for specific issues and activities related to the collections when relevant. Curators are authorised to accession objects for the collection in accordance with the Collections Plan.

Conservators are museum professionals responsible for active and preventive conservation of objects, as well as for environmental conditions (e.g., climate and pest management) in the Museum's physical stores. Conservators provide advice on issues related to destructive sampling for analysis, are responsible for installing objects in in-house exhibitions and carry out courier activities for external loans.

The Museum's collection policy

Principles for acquisition of objects to the collections

The collections represent primary sources for knowledge about society's natural and cultural heritage, and through these, the Museum shall contribute to research and education about this heritage. The collections shall be developed systematically, and in accordance with legal, scientific and museum ethical principles.

The Museum's collecting and accessioning of objects to the collections shall be conducted within the disciplines of archaeology and biology.

Active collecting shall be based on the Museum's current research strategies, research questions of current field projects, as well as the Museum's legally mandated responsibilities set forth in the Cultural Heritage Act.

Decisions to add objects to the collections shall be based upon an assessment of the object's scientific relevance, rarity, available documentation, preservation potential, conservation needs, available resources for preservation, as well as on legal and ethical obligations.

Furthermore, the individual departments may develop department-specific guidelines for how accession evaluations and decisions shall be made, in accordance with these principles.

Principles for collections curation

The Museum's collection management is founded on ICOM's Code of Ethics for Museums, and follows the general principles of legal ownership, long-term preservation, documentation, accessibility and responsible deaccession.

Rightful ownership – valid title

Accessions to the collections must not occur unless the museum holds rightful ownership (valid title) to the material, in line with current laws, agreements and conventions.

The Museum does not accept objects from collecting, purchase, donations, loans, bequests or exchange unless a valid title is held, the provenance of the objects is fully established, and the acquisition complies with the Museum's collection policy and current development plans.

Deposition of objects in the collections shall not occur, i.e. material shall not be permanently placed in the collections, unless the Museum formally accepts and assumes ownership of the material.

Museum staff shall not compete with their own department in the acquisition of objects through private collecting. This also applies to activities where the employee's competence and responsibilities at the Museum may lead to conflicts of interest in relation to external parties.

Long-term preservation

The Museum is committed to a systematic and responsible development of its collections in a long-term perspective, in line with the Museum's goals and societal mission.

The Museum is obligated to provide the necessary resources and facilities for responsible curation of materials that are included in its collections according to current accession criteria.

Decisions regarding long-term preservation shall be based not only on current research relevance or on scientific trends but also take into account the depth and diversity of the historical development of the collections over time. Through this, the collections shall also be primary source material for the historical development of the sciences in Norway.

Documentation

Objects in the collections are subject to systematic requirements for documentation upon acquisition, accessioning and management in the collections.

The main purpose of documentation is to ensure the collections are available for research. Documentation must be structured in a manner that makes it available for active use for reporting, planning and managing the activities of the collections.

Documentation shall be established as accession data and archival material upon entering the collections, and it must account for the object's provenance, characteristics and academic relevance.

Object documentation shall be collected systematically through the life cycle of the objects in the collections to safeguard the objects' history and record their knowledge potential.

The Museum may decline or dispose of material in cases where documentation requirements have not been met.

Accessibility

The collections and their associated documentation shall be managed as public heritage, and shall as a general principle, be publicly available. Where specific ethical, legal, judicial or security issues apply, the Museum shall decide in what form the material or its associated information is made available.

The Museum shall actively work to increase the accessibility of its collections and their associated documentation, and to continuously develop concepts for how this work will take place, in line with the Museum's mission and society's requirements.

Responsible deaccession

The Museum can make decisions on rationalisation and disposal of objects if it helps to increase the quality and preservation conditions for the collections for which we are responsible. By deaccession we mean disposal, destruction or transfer of ownership to another institution.

Upon deaccessioning, the objects rarity, available documentation, subject relevance, preservation potential, conservation needs, available resources for preservation as well as legal and ethical

considerations must be assessed. In such situations, the information value of an object shall be evaluated against the obligations arising from its long-term preservation.

Economical and capacity-based justifications are in and by themselves, not sufficient grounds to consider deaccessioning an object, as it is the Museum's responsibility to provide adequate facilities for objects which we assume responsibility under the Collections Plan criteria.

During the deaccession process, it will be considered whether the material in question can be offered to other Museums with a collections profile that indicates they may have use of the material.

During deaccessioning, legal obligations or agreements relating to earlier decisions on accession of the material to the collections must be taken into account unless it can be demonstrated that the material cannot be maintained in accordance with original restrictions, or that such maintenance needs are harmful to the Museum or its collections.

Human remains

The Museum receives and curates a substantial number of human remains in accordance with its legally mandated responsibilities set forth in the Cultural Heritage Act. The material must be properly curated in accordance with professional standards and ethical guidelines. We follow «[Guidelines for Research Ethics on Human Remains](#)» from the Norwegian National Committee for Research Ethics on Human Remains as the basis for research on, and management of this material.

Biological and geological material

The Museum shall not acquire biological, genetic or geological material that has been collected, sold or otherwise transferred in violation of local, regional, national or international laws or agreements on environmental protection or conservation of natural heritage that Norway has ratified.

Archives

Scientific archives containing documentation on the collections, their provenance or other scientifically relevant information on the collections shall be developed and maintained as an integrated part of the Museum's collections. The Museum also maintains other archives that document the history of our institution.

The Museum shall curate documents and other archival material in accordance with current provisions of the Norwegian Archives Act (Arkivlova), the Personal Data Act (Personopplysningsloven), the Public Administration Act (Forvaltningsloven) and EU's General Data Protection Regulation (GDPR).

The archives shall be administered according to a general archive plan.

Analyses

Destructive sampling or changes to the characteristics of an object in the collections through analysis may be granted where criteria for knowledge potential, subject relevance, feasibility of the study, availability of results and other research-ethical obligations are met. The preservation consequences of such interventions must be weighed against the potential knowledge such an intervention generates.

Results from destructive analyses must be reported to the Museum and made available as part of the object's permanent documentation in the collections.

Application for destructive analyses must be processed in accordance with written procedures and advice from relevant subject specialists in the department that manages the collections. Application

for sampling of human remains shall be submitted to and evaluated by [The National Committee for Research Ethics on Human Remains](#) before the Museum can consider the application.

Departments can in accordance with the above develop department-specific guidelines for how applications for analyses are processed.

Loans

The Museum loans out material from its collections to other museums that address themes or activities in line with the NTNU University Museum's purpose. Collection material is lent out for exhibition purposes according to strict requirements for security and preservation conditions at the exhibition venue. The Museum may decline loans where demands for a professional framework, security measures or preservation conditions cannot be met by the borrowing institution. Objects from the natural history collections are also lent out for research purposes to other Museums, if deemed safe for the object concerned. Permission for destructive sampling shall be considered on an individual application basis.

Loans shall be of fixed duration. The Museum cannot enter into agreements for the permanent deposition of its own material with external institutions.

Departments can in accordance with the above, produce department-specific guidelines for how applications for loans should be processed.

Deaccession procedures

Decisions on the deaccession of material are the responsibility of the Museum Board in collaboration with the Museum Director and Collections Manager according to ICOM's Code of Ethics for Museums.

In accordance with this Collections Plan, the Museum Board delegates the work of preparing policies, routines and guidelines for deaccessioning collection material to the Museum Director. Policies and guidelines must be considered and adopted by the Museum Board before they can be implemented.

Deaccession of subcollections must be decided by the Museum Board after presentation by the Director and the department curating the collection.

The decision to deaccess individual objects is according to this Collections Plan delegated to the Head of the respective department.

The Head of Department may initiate the deaccession of materials included in a deaccession policy adopted for specific subcollections or categories of objects.

Matters related to deaccession must be reviewed by an advisory committee appointed by the respective department in order to provide professional recommendations on the proposed deaccession of individual objects, subcollections or policy development. The Head of Department appoints the committee according to discipline-specific requirements for expertise.

Deaccession shall otherwise comply with the principles and criteria for responsible disposal put forth in the Museum's Collections Policy.

The Museum's collections

Cultural History collections

The cultural history collections consist of material from the disciplines of archaeology, numismatics, art history, ethnography and recent cultural history. The oldest parts of the collections contain objects from Johan Ernst Gunnerus' collections from the 18th century. Since that time the collections

have amassed diverse and unique cultural history materials. Current acquisitions to the collections are within the disciplines of archaeology and numismatics, in accordance with the museum's management of government ownership of protected objects / movable cultural heritage. Moreover, we safeguard other collections as part of our historical heritage as a scientific institution.

Overview of the collections

Archaeology collection (1.6 million objects)

The Archaeology collection consist of finds of human-made artefacts from the Stone Age to recent times, also including marine finds from lakes and the ocean. The collection has a high annual growth rate and research activity and is the primary collection in the Museum's Cultural History collections. The collection is built through the systematic collecting of archaeological material from the counties of Møre and Romsdal, Trøndelag and Nordland that began in the mid-19th century.

The collection contains unique source material for elucidation of for instance the earliest settlement of Norway during the Early Stone Age; the development of agricultural societies from the Neolithic to the Middle Ages; rock art; the development of religion and death rituals in prehistoric times and the medieval period; Sámi culture and way of life; and, the urban development of Nidaros (Trondheim) in the Middle Ages. At present, acquisitions to the collection are from both archaeological excavations and private stray finds.

Numismatic collection (46,500 objects)

The Numismatic collection consists of coins, medals and notes with a non-archaeological provenance and from archaeological contexts. The collection has its origins in Conrad Nicolai Schwach's (1793 – 1860) coin collection, which he sold to The Royal Norwegian Society of Science and Letters (DKNVS) sometime between 1832 and 1840. Subsequently, the collection has grown through purchases, gifts and archaeological finds. The coin collection comprises among other things coins from archaeological excavations in the city of Trondheim and several churches, in addition to Arne E. Holm's collection of classical and byzantine coins. The collection provides unique perspectives on economic, political, social and religious matters, especially from the Iron Age to the early Post-Reformation period. Today, acquisitions to the collection stem from archaeological excavations, metal-detector finds and mandated deposits of coin copies from the Bank of Norway.

Art History collection (1,100 objects)

The Museum's Art history collection comprises the collections of ecclesiastical art and the collection of paintings and pictures.

The collection of ecclesiastical art (600 objects) comprises art, building elements, fixtures and fittings from medieval and post-reformation churches in Norway. The objects in the collection were acquired mostly during the 19th century, when many churches underwent demolition, restoration and replacement of liturgical furnishings. Currently, the collection is closed for new acquisitions, but it is a primary source of unique material that elucidates the development of ecclesiastical art and church furnishings from the medieval period to recent times. The collection has significant art historical and cultural historical value, especially its polychrome wooden sculptures, ecclesiastical paintings and building elements from older stave churches. The Cultural Heritage Act stipulates that objects from the medieval period are protected movable cultural heritage.

The collection of paintings and pictures (500 objects) consists Post-Reformation works of art and photographs, acquired through earlier gifts and purchases, mainly portraits and landscape images. This collection also includes works of art that belong to the Trondheim Historical Society. The

collection is closed for new acquisitions but is maintained as a part of the Museum's and collection's historical heritage.

[Ethnography collections \(1,800 objects\)](#)

The Ethnography collections contain both ethnographic objects and foreign archaeological material. The collection stems from different donors and expeditions and was first described in a comprehensive catalogue in 1950. The collection can be roughly divided into a collection of Sámi, Greenlandic and Arctic ethnographic material, and a general collection of objects from other parts of the world. Particularly important is the collection of Sámi objects, which represent a unique record of Northern Sámi, South-Sámi and Lulesámi cultures. Some of this material is protected movable cultural heritage in accordance with the Cultural Heritage Act. Apart from this, the ethnographic collections are closed for new acquisitions and are maintained as part of the Museum's historical heritage.

[Recent Cultural History collections \(2,500 objects\)](#)

The Recent Cultural History collection comprises objects from urban and rural areas after the Reformation, including furniture, weapons, folk art, uniforms and farm antiques accumulated over the Museum's history as a scientific institution. The material comprises "Special Collections" donated to the Museum by various donors such as Johan Ernst Gunnerus and Christopher Blix Hammer. The collections of folk art have since 1950 mostly been deposited at Sverresborg Trøndelag Folk Museum. The collection of recent cultural history is closed for new acquisitions but is maintained as part of the Museum's historical heritage.

[Cultural History archives](#)

The Cultural History archives contain primary documentation on the objects in the Museum's cultural history collections, and represent a vital source of information for archaeology and cultural heritage in the Museum's district. The archives receive and incorporate scientific documentation (reports, drawings, photographs, etc.) produced in association with excavation activities and acquisitions of protected artefacts from the Museum's district. The contents of the archives are described in a separate archive plan.

[Areas and priorities for developing the collections](#)

The NTNU University Museum is a university museum, which through its cultural history collections and research possesses a unique in-depth knowledge of the past cultural landscape and material culture. The purpose of the collections is knowledge production, and this is the guiding principle for the development of the collections. Development includes initiatives for quality enhancement, activation, accessibility and growth of the collections.

Quality enhancement, accessibility and activation of the existing collections shall be seen in the context of current research strategies, academic programs and current exhibition and dissemination initiatives at the Museum. Development plans shall be prepared where initiatives in these areas are justified based on their relevance for research, exhibition and dissemination.

Acquisitions to the collections shall primarily be related to the Archaeology collections, with an emphasis on prehistoric, medieval, Sámi, numismatic and marine archaeological material that is legally protected by the Cultural Heritage Act. Periods in which *archaeological material represents the primary source material for the study of humans and their surroundings* are strictly protected in accordance with the Cultural Heritage Act, Sections § 4 and 12. This crucial criteria can also be found in the definition of the archaeological heritage stated in the [European Convention on the Protection of the Archaeological Heritage \(Valetta Convention\)](#) (ETS 143, article 1-2-ii). The legally mandated

management of protected movable cultural heritage is the guiding principal for the growth of the collection.

Acquisition of archaeological material is generated mainly through external development projects that come into conflict with protected cultural heritage monuments, in addition to protected stray finds that are handed in by private individuals. Hence, the Museum has little or no control as to where the collecting of material for the collections takes place. In the case of excavation projects, however, research questions direct which materials are collected and how. These questions are also taken into consideration when selecting which material to add to the collections.

Active collecting of material can include artefacts, production debris, remnants of buildings and sample material. The Museum maintains that professionally justified priorities are necessary to ensure a long-term, sustainable preservation of these sources, and that professional quality and documentation value must guide the Museum's acquisition practices within the current legal framework.

Upon accession to the collections, objects must be assessed according to their find context, rarity, information potential, preservation potential, comparative value, available documentation and relevance to the research questions of the excavation. The documentation value of the object must be weighed against available facilities and resources needed for long-term preservation. Alternatives to accessioning must be considered where deemed relevant (e.g. *in situ* preservation, verbal description, descriptive statistics, visual representation, representative sampling or similar).

Samples (macrofossils, soil chemistry, charcoal, etc.) are added to the collection when relevant to archaeological analyses, and the need for further study or preservation is present. The selection of samples collected from an investigation must be representative, methodically justified and documented in line with procedures for archaeological objects. The requirement for documentation also applies to samples that are analysed prior to accession to the collections. As a rule, unused or non-processed samples are not to be added to the collections.

As a rule, the Museum does not acquire archaeological material that is not legally protected under the Cultural Heritage Act. This is grounded in the Museum's obligation to manage its resources in such a way that it can fulfill its legally mandated responsibilities in a sound manner.

Material not legally protected may be considered for acquisition where: (a) there are specific arguments regarding its source value, and (b) the collecting is related to an ongoing research project. If the material is eventually accessioned, it must be processed in accordance with the Museum's adopted accession procedures applicable for other archaeological materials.

Ethnography, Art history and Recent Cultural History collections are managed but shall not be subject to new acquisitions unless legally mandated in accordance with provisions of the Cultural Heritage Act.

For the cultural history archives, an archive plan describing their contents and organization shall be established.

Areas and priorities for rationalisation and deaccession

The Museum acknowledges that earlier collecting of archaeological documentation includes material of little subject relevance that the Museum has neither legal nor professional justification to safeguard. Sustainable preservation of the collections presupposes a responsible deaccessioning and disposal of such material, insofar as it contributes towards improving preservation conditions and available resources for other parts of the collections.

In the case of bulk materials (potshards, production debris, etc.) and sample material (soil samples, charcoal samples, etc.), specific policies and procedures to deaccession such material will be developed in connection with ongoing revision of the collections.

The Museum will clarify the status and ownership of cultural history materials being kept on behalf of other institutions. As a rule, the Museum shall only manage collections it holds ownership to, and it shall work towards either acquiring ownership of or returning collections that belong to other institutions. This applies to material belonging to the Trondheim Historical Society, Stjørdal Museum and the Nidaros Cathedral Restoration Workshop.

Furthermore, the Museum will repatriate its own cultural historical collections currently deposited with external institutions. This specifically applies to the collections of human and animal osteological materials deposited at the Universities of Oslo and Bergen, in accordance with the principle that collections and associated records must be maintained and managed together. This will rationalise and simplify the processing of requests, analyses and the return of analytical results from research on these materials.

[Natural History collections \(1,360,000 objects\)](#)

The Natural History collections comprise collections within zoology, botany and geology and associated documentation. The living collections at Ringve Botanical Gardens, type-collections (reference objects for the scientific naming of species) and tissue collections are also part of the natural history collections.

The collections go back to the 1760's. Bishop Gunnerus' collection of naturalia, and his contributions to botany through the work of "Flora Norvegica" (1766, 1776) helped to establish what is today Norway's oldest scientific collection.

The collections are organised according to taxonomic, alphabetical and geographical criteria. They are available to a global research community by visiting the Museum, by loans to approved institutions, and by published information about our collections. Occurrence data are available through the [Species Map Service](#) (Artskart) and [GBIF \(Global Biodiversity Information Facility\)](#), which also are available to the general public and the environment management community.

The biological collections of zoology and botany make up most of the natural history collections, documenting the identity and occurrence of both rare and common species. These are used for research in biosystematics, biogeography, conservation biology and environmental issues.

The growth in the number of natural history objects comes from both research projects and targeted collecting efforts, and as such reflects the Museum's fields of interest and current priorities. The Museum also accepts objects from other research and development institutions and the general public. The collections constitute the most important natural history research infrastructure at the Museum, and they are the most important source of information on animals, plants and fungi in Central Norway.

Observational data, data from research projects and time series of habitat and species monitoring are not covered by the Collections Plan.

[Overview of the collections](#)

[Zoological collections \(838,000 objects\)](#)

The Zoological collections are some of the Museum's oldest collections. These contain both vertebrates and invertebrates. The collections include systematic collections of species, type collections and different specimen collections from collecting and research activities.

Vertebrates: The collections of vertebrates include individuals, eggs, antlers and specimens from vertebrates, including crania, skeletons, antlers, bird skins, fluid-preserved specimens, taxidermy mounts, and fish scale samples. The oldest parts of the collections consist mainly of birds and mammals, while the current collections also include herptiles (amphibians and reptiles) and fish. The collection's taxidermal mounts form an important part of the Museum's public exhibitions.

The composition of the collection has a particular focus on species distribution in Central Norway for mammals and birds, and on fish from watercourses studies since the 1970s.

Invertebrates: The collections of invertebrates are the most extensive within the zoological collections, and include insects, benthos and plankton. The objects in the collections stem from limnic, marine and terrestrial environments (i.e. freshwater, ocean and land). Today, the collections of invertebrates are one of the most important resources for zoological research at the Museum. The collections originate in baseline reference surveys of fundamental importance, but are of vital importance today for studies of human impact on the environment.

Furthermore, the collection of terrestrial (landbased) invertebrates has been central to collecting activities over the last decades, covering species-rich groups such as butterflies, beetles, Diptera and Hymenoptera.

Botanical collections (513,000 objects)

The Botanical collections consist mainly of preserved plant specimens stored in herbaria (vascular plants, bryophytes and algae) and fungaria (fungi and lichens). The objects are mounted on herbarium sheets or stored in special archival envelopes. Most of the plants and fungi are collected in Central Norway, but the collections also include items from other parts of Norway and the rest of the world. The botanical collections comprise vascular plants, bryophytes, fungi, lichen and algae. The Gunnerus Herbarium and vegetation history collections are part of these collections as well.

The collection of vascular plants is the largest botanical subcollection. It has experienced significant growth in recent decades through targeted collecting efforts. The collection well-covers in both time and space Central Norway's native flora and the spread of alien species.

The collection of bryophytes has the largest acquisition rate today, and we have recently collected specimens of more than 90% of Norway's approximately 1,100 different bryophyte species. We also have internationally important collections of boreal and arctic bryophytes.

The algae collection consists mainly of Norwegian brown algae, red algae and green algae, but it includes an internationally important collection of coralline algae as well. A significant part of the lichen collection consists of specimens from Central Norway, including many valuable recent acquisitions from boreal rain forests. Most of the fungi are from Central Norway, and cup fungi are particularly well-represented.

The Gunnerus Herbarium is the oldest scientific collection in Norway, established through collecting efforts in the period 1762 – 1772. It is based upon Linné's binomial naming of species with both genus and species name. The collection is the reference material for Gunnerus' "Flora Norvegica" (1766, 1776), Norway's first scientific study of flora.

The Vegetation History collection is the reference material from pollen-analytical studies of the migration of the fir tree to Norway and the historical development of the cultural landscape. The collection was donated to the Museum by the widow of Professor Hafsten. The collection is not frequently used, and we lack scientific staff with specific expertise.

Type collections (2,600 objects)

Biological type specimens are objects selected as international, morphological references for the description and publication of species new to science. The Museum's collections of type specimens are particularly valuable in the fields of bryophytes, algae, insects and marine invertebrates. Photodocumentation has been carried out for some of the type specimens.

Tissue Sample collections (4,700 objects)

The Museum is developing DNA and tissue sample collections with a specific focus on endangered Norwegian species of animals and plants. Tissue sample collections consist of specimens or complete objects maintained for future genetic analysis. Tissue samples are routinely taken for all new acquisitions of mammals and birds. The DNA collection comprises extracted DNA. This provides unique information about the most vulnerable Norwegian species, and it will be a valuable resource for future research using new technologies.

Living collections (2,500 items)

The Museum curates living collections at [Ringve Botanical Gardens](#). The collections consist of about 2,500 living plants. Each accession consists of one or more plants (individuals, clones) with associated digital documentation. Living items are generally maintained as long as possible, but are removed if the plants die, or become sick or damaged.

The collections comprise a wide variety of vascular plants that illustrate the diversity of plant life, including cultural plants, traditional garden plants and specific collections of selected species groups. The items range from 200-year-old trees to annuals that are planted in the gardens each year. The collections are concentrated in six main areas of the gardens: the Systematic Garden (evolution and relationships among flowering plants), the Arboretum (trees and bushes from the Northern Hemisphere), Old Perennials (traditional garden plants from Central Norway), the Renaissance Garden (historical herb garden), the Primula Garden (the genus of primroses) and the Historic Park (landscape garden). Together the gardens make up a park and the collections are thus de facto public exhibitions. The collections are digitally available to the general public through [Garden Explorer](#). The collections at Ringve Botanical Gardens were surveyed and appraised in 2012.

Geological collections (9,726 objects)

The Geological collections comprise minerals, rocks, ores and fossils. The collections have a significant historical value and an important place in the history of DKNVS. Currently, the Museum has no scientific staff curating these collections. They are not added to, but are secured and their associated find information is registered.

Areas and priorities for developing the collections

The collecting and accession of new objects must be sustainable. We shall collect material of known rare or endangered species only when deemed necessary. Our collecting efforts shall not reduce the biological diversity in nature. Good inventories of the existing collections contribute towards sustainable conservation, and we can avoid the unnecessary collecting of new objects. They will also stimulate more collection-oriented research initiatives and collaborative projects.

All activity at the Department of Natural History shall be assessed on its potential for developing the collections through acquisition, activation and quality enhancement. This includes resource needs for development, and the management of these in practice. These aspects will be considered when applying for project funding and submitting tenders. The development of the collections is to a large extent guided by the projects that are applied for and granted. This includes projects that actively use existing objects, thus further developing their quality, and projects that add new objects to the collections. The use of modern methods for the determination and analysis of DNA-sequences

requires access to well-preserved historical and recent DNA. For some research questions, this entails collecting new objects.

Development plans for the natural history collections shall be made for areas where the Museum is scientifically active or has specific priorities. The contents of the development plans will vary, but the potential for development must be the focus. This may entail the need for collecting, data registration, photodocumentation, analysis, competency, identification control, research potential, collaborative partners, and inventory control (“stocktaking”). The development plans must ensure relevance for research, but dissemination, exhibition and interactivity must be addressed.

Storage areas accessible to the general public, the potential for citizen science and work on the tissue sample collections will be specifically addressed. The development plans shall be reviewed regularly.

The natural history collections shall develop and implement written guidelines for curation of the collections. Collections management will be further developed in line with national standards and guidelines for the Norwegian university museums, including digitalisation, access for research and dissemination. Digitalisation will be developed into a predictable and documented workflow from acquisition of material to the objects being made available for study and research. This includes photodocumentation, sampling for genetic analysis and tissue samples, as well as technical solutions for digital dissemination.

To document the Department’s history, we will consider projects such as documentation of collecting, expeditions, field diaries, and photographs (digital, slides, paper) of persons, places, events, conservation and collectings.

Living collections

The Museum has two main strategies to increase the scientific quality of the living collections at Ringve Botanical Gardens: 1) increase the proportion of items with a documented provenance from the wild; and, 2) replace items with poorly documented provenance with well-documented ones. This increases the gardens’ relevance for research, teaching and dissemination for a range of user groups. Material collected in the wild will be acquired through targeted seed-exchanges with other botanical gardens, supplemented by our own collecting efforts. Plants collected in the wild with a known provenance also have significant biological value in a conservation perspective, and we wish to contribute towards preserving biological diversity through *ex-situ* collections for conservation of relevant plant groups. We continue to develop the collections in a manner that balances the botanical, scientifically interesting with the fact that the gardens are open to the public.

Geological collection

It is our aim to house the geological collection within premises better suited for long-term preservation. The collection will benefit from photodocumentation of the objects, which will increase its potential and value for accessibility and dissemination.

Areas and priorities for rationalisation and deaccession

The Museum shall consider deaccessioning objects in collections we currently maintain, but for which we do not have discipline-specific expertise. Consideration for future security, preservation and development shall be given primary consideration.