

# Digitisation of Cultural Heritage in Finland

*Author:*  
*Sirkka Valanto*

**CIDOC06**  
**GOTHENBURG**  
**S W E D E N**

## Museums

After years of effort and experiment, digitisation of collections has become standard every day work in museums. However, due to the huge amounts of material, the percentage of collections digitised is still far from 100%, and the number of items digitised varies largely in museums.

As a rule, the highest number of collections has been digitised in art museums while cultural history and natural history museums are much behind. According to a survey made two years ago, in professional museums on average a third of the collections had been catalogued in some data system. As concerns photographic collections, the number is much less, around 10%.

Digitisation of collections has been done partly by special support from the Ministry of Education. Still the speed of progress is far from satisfactory, and museums are continuously coping especially with gaps in the retrospective cataloguing.

The continuous problem for museums nowadays, is not the lack of programs but the slow speed digitisation proceeds. Lomakkeen yläreuna

While museums earlier tended to have data systems of their own, the trend has quite a long time been towards fewer systems and centralization thanks to the active role central institutions like the National Board of Antiquities (NBA) at the head have taken. In cultural history museums the leading data system Musketti developed by the NBA is based on international standards such as the CIDOC guidelines, the Spectrum, the Getty categories etc. The leading art museum system Muusa developed by the Finnish National Gallery (FNG) use the CIDOC CRM model.

Thanks to varying ways of object description, different terminologies and contradicting ways of using them, data retrieval has been partly incomplete. Museums have not such a long tradition with standardised thesauri and classifications as libraries, but the use of indexation has been urged on very strongly starting from the 1990's when a thesaurus of museum objects – the Finnish Museum Thesaurus - was compiled by the NBA. It has ever since been widely used in cultural

history museums, together and in order to specify the Finnish General Thesaurus (nowadays WebThesaurus) maintained by the National Library.

As finding aids also two international classification systems have been connected to the digitisation process. The Outline of Cultural Materials (OCM) for cultural history objects and the Iconclass for works of art, both translated into Finnish, also help overcoming linguistic obstacles.

## Expanding access to museum collections

Making collections accessible via the Internet has been the goal from the mid 90's. Due to the tardiness of the digitisation work, only a small part of objects and works of art can be browsed over the Web. And only parts of the already digitised collections have been opened to the Internet, because museums want to ensure the correctness of information and revising old inventories is time consuming.

Individual museum collections can, however, be browsed via the Web in several museums. The FNG was the first one in Finland to open the art collections to the internet already in 1995 (<http://www.fng.fi/fng/rootnew/fi/vtm/etusivu-taiteilija-jateoshaku.htm>).

In the NBA, a collections' browser was launched in 2002, but still only a minor part of the digitised material is reachable (<http://kokoelmaselain.nba.fi/>).

One of the main targets of the NBA has been development a portal for a larger number of museums, the Finnish Museums Online

([http://www.suomenmuseotonline.fi/SIR/smol/museot\\_etusivu.html](http://www.suomenmuseotonline.fi/SIR/smol/museot_etusivu.html)). It will make accessible major cultural history museums' collections as well as collections from specialised museums. So far it contains rather limited amount of material, but in a very near future it will be the main access point to Finnish collections. The mapping of data structures and the system interfaces already exist and quite a lot of material from several museums is expected to be found in it in the

near future. Until now, the FMO is only in Finnish, but it will be translated into Swedish and English in the future. However, the data will not be translated – it is only the language technology in the future that will solve the problem of real multilingual accessibility.

## Collaboration with other memory organisations

The central memory organisations in Finland have long been working together. The National Library, the National Archives and the NBA discussed the possibilities of interoperability of information systems already in mid nineties. The report Kamut –data structure in 1997 gave a model for common cataloguing rules for archives, libraries and museums. The structure was used in the following concrete project called Memory, a joint database of digitised national material from libraries, archives, and museums (<http://www.lib.helsinki.fi/memory/muisti.html>).

Kamut was followed in 2003-2004 by Kamut 2, still aiming to the interoperability of the collections in archives, libraries and museums which had been approached in steps thanks to developing technology and improvements in data administration within the memory organisations. Following the target to find out what new eventual technologies there are for the interoperability, the report listed a common meta data format, ontologies or the combination of the both, portals combining different data bases, solutions based on harvesting and collections descriptions. The recommendations of Kamut was a common meta data format, the Dublin core, which was very close to the recommendations of Kamut 1 from 1997. In the project it was believed that the future development will be with ontologies and consequently, participation in ontology development was recommended.

The collaboration within the memory sector has only become tighter then. The central memory organisations - museums included - collaborate under eKam, where the work is coordinated by the microfilming and conservation department of the FNL.

## Plans for the future

The development in museums has been from individual data systems to centralisation within the museum sector, towards interoperability between museums and other memory organisations. At the beginning, data was only used for the museum's internal purposes, but now the target audience is the whole world. Today we are learning semantics and transforming thesauri to ontologies.

In collaboration with the Helsinki Institute of Information technology (HIIT) the semantic web has been explored and several applications have been produced. In the project MuseoSuomi (MuseumFinland) <http://www.museosuomi.fi/>

<http://www.seco.tkk.fi/applications/kulttuurisampo/> semantic searches can be made to a limited amount of museum content. In order to make semantic searches possible, old thesauri have been and are being turned to ontologies. The Museum Ontology already exists as well as the ontology for photography. Work with General Finnish Thesaurus is going on.

In general, the official goal in Finland is to make the cultural heritage in memory institutions accessible. Collaboration in several international projects and within the EU gives promising views for the future. Our expectations are connected with the semantic web, language technology and common portals.