

## **Workflow and data exchange between museums: documenting of exhibitions in the Estonian Museum Information System**

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### **Introduction**

This presentation gives an overview of the museum as an institution and of documentation as one of the main fields of activity of museums. Its aim is to show the importance of linking descriptive and administrative data of museum objects. As example we treat the documenting of exhibitions in the Estonian Museum Information System.

In modern society, museums have many added functions. While the first museums were primarily closed institutions where the collection and cataloguing of objects took place and museum was only open to a limited circle of hobbyists/researchers, today museums must comply with totally different requirements. Museums are not only open to all, but along with professional museum workers, local communities, and ordinary people are also involved in the creation of the content of the museum. Several museums enable people to participate in the creation of exhibitions, such as seen in the “Own Exhibition” project. Here it is possible for people to supplement museum objects by adding their own personal stories or experiences.

These types of activities in museums have often become primary and the documentation of museum objects tends to be neglected. However, the absence of correct documentation unavoidably reduces the value of the museum object as a source of information by affecting the options for the interpretation and use of the object. The museum information systems make the documentation of museum objects quick and convenient. Alongside the function to recording the acquisitions and catalogue museum objects, it also has the function to document the use of museum objects. Using an information system with such functionalities meets two important requirements in the management of museum objects:

1. The location and change in the condition of museum objects is documented (those requirements, look at “Statement of principles of museum documentation 1.2.2.3” CIDOC).
2. The context of the museum objects is complemented and the substantive data relating to the description of the museum object is organised.

When looking at historical documentations of museum objects, the condition and the location of the museum object have been the data that have always been recorded on the documents. The condition and the location are noted on receipt of the museum object and on every subsequent document that relates to it. Only through continuous documentation it is possible to ensure the tracking of change over time, which is vital to the preservation of the museum object.

The type of user activity through which data is added to museum objects is exhibition activity. An exhibition brings together museum objects that relate to the same theme from various museums and creates a so-called new joint collection. This provides an excellent opportunity to compare the information relating to the museum objects, as a result of which errors are revealed and data is improved. Through the prism of a joint vision the existing approach broadens.

### Life cycle of objects and description process of objects in museums

The description /documentation of museum objects is a continuous process that begins with the receipt of the museum object into the museum and continues as long as the museum object exists. As long as the museums exist, there are used some kind of description and documentation systems. The consideration of previous documentation systems and the recorded information ensures the integrity of the information relating to the museum object. Every new museum information system must take into account the previous documentation systems and preserve the links between the historical records and new records. This ensures the integrity of the information related to museum objects.

Figure 1. Life cycle of object and description process of objects in museums.

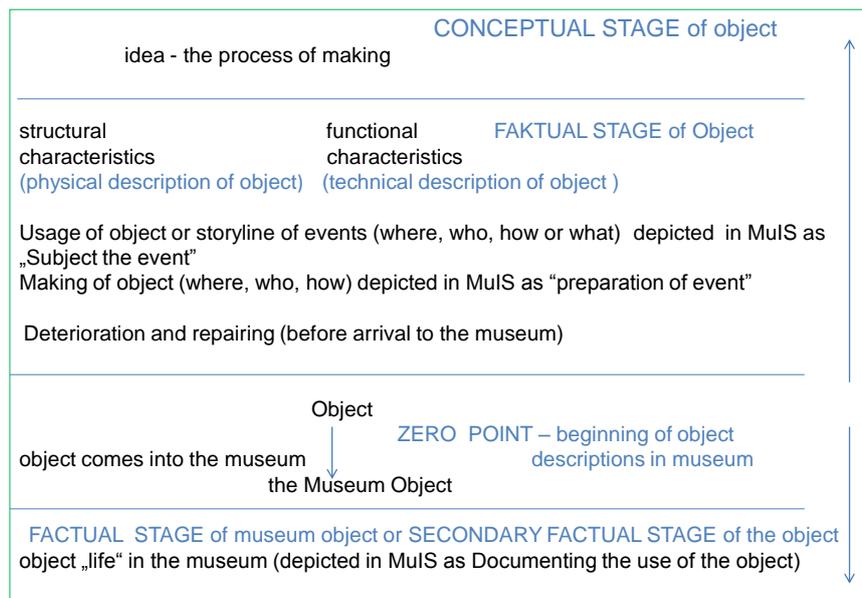


Figure 1 shows the life cycle of the object. It also shows the addition by the museum of descriptive data. Zero-point is the moment when the object enters the museum and the description/documentation of the object begins. A physical object that has been received into the museum acquires through it an additional status, that of a museum object.

With regard to the descriptive data of the object, two types of data are documented in the museum: descriptive data that relates to the object regardless of whether it is a museum object or not, and data that the object acquires exactly because it has the status of a museum object. An example of the latter type of data is the information relating to use of objects in museums.

At point 0 of documentation, i.e. during the process of receipt, the transferor legend and initial data are recorded. With the formalisation of the Receipt report, the object becomes a museum object. In museums, the museum objects are preserved and used in exhibitions, other events, in print publication, etc. In this connection, new data is added with regard to the object itself and also to the object as a museum object.

Figuratively speaking, descriptive data is added 'in two directions' to the objects received into the museum. Moving from point 0 upwards, the addition of data to the object as such is constant. Moving from point 0 downwards, the creation of new museum context related to the object takes place.

1. When the object enters the museum then the describer adds the physical data of the object into the system and with regard to contextual information tries to find all data associated with the object before it became a museum object. Basically, this process is endless; data becomes more complete with each new research or exhibition work. Moving from point 0 upwards means the improving and complementing the description of object.

2. Moving from point 0 downwards - the object begins its life in a museum as a so-called museum object. Museum objects are used for exhibitions and programmes. These activities generate such so-called artificial collections and it help to see new data in the historical context of the object itself or notice new physical data, which has remained un-noted so far. Additionally, the knowledge about the object becomes more complete, both contextually, as well as sometimes with regard to knowledge of materials, technologies, and so on. Along with the development of science, new analytical methods emerge that allow us to better 'read' the object. The information added through the use of the object as a museum object must be recorded in the system along with the documents of use (e.g., Loans out /-in ), where the essential data recorded includes for what project, or for what reason the item has been used; by whom and when and where it was used; and often also what other objects were used in the same way. This is all very important information, that data added to the museum object is accurately mapped and defined, because only the data that includes such background information will have source value in the future.

This is one important reason why the documentation of the use of museum objects should take place in the same information system where their receipt is documented and catalogued. In this way, each museum object is automatically linked with new information without the need for someone to re-write it or add it separately; such retrospective adding is already inevitably subject to additional interpretation by the person who adds it.

The constant completion of descriptive data of the museum object and the change in its condition are activities that demand continuous documentation. This must necessarily be taken into account when creating museum information systems. The work process of museums developed over the years must be the basis of the creation of the work process in the information system. Only in this way can continuous data accumulation be ensured.

### **Estonian Museum Information System**

In order to make the following description/demonstration of the work process more understandable, I feel it is important to give some background information regarding the Estonian museum landscape and the information system in use.

In Estonia, there are 19 state museums. Of these, 14 are under the auspices of the Ministry of Culture. It is estimated that there are approximately 250 museums in Estonia, and as well as a number of private collections, all of which are not even known. In Estonian museums, the information technology age started in the mid-1990s. The earlier software (KVIS 1993/97 - 2008) was installed on personal computers and there was no connection between different databases, even inside one museum. By 2008, KVIS (Information System for Museums and Antiquarian Institutions) was in use in 42 Estonian museums, including both central state museums and smaller local museums.

After comparing the advantages and disadvantages of the local information system (KVIS) with the web-based information system, the Estonian Ministry of Culture decided in 2004 to start the development of a new web-based information system, MuIS. The new museum software was a central Internet-based system. The data model of MuIS is identical to the data model of KVIS. In 2009, the data of all the museums which had used KVIS was transferred to the new web-based information system MuIS. Several new museums have also joined the system; it is used by 62 museums, including state museums, municipality museums and smaller local museums.

More important than the number of museums, is that in the information system there are together museums from a very wide range of fields: sports, the arts, city, university, agricultural and other museums.

When creating the Estonian Museum Information System, the priority has been to: 1) ensure the continuous documentation of museum objects, and 2) ease the use of data and the documenting process. Its prerequisites are one-time data entry and multiple re-use. Once the information has been added into the information system, it can continually be updated and re-used for different documents. In this way, the museum employees have an interest to use the system, and the database is completed in the course of the normal work process.

In the Estonian Museum Information System, the addition of data relating to a museum object begins with the collection of the object into the museum (Data pre-registration page, Report of the acquisitions commission, Accessioning report). After that, more data is added during the process of description of the museum object. First, descriptive data (catalogue data) makes the museum object available to public use. This is Phase I of description, the end result of which is 'Object ID'. At this level of description, the museum object becomes available to everyone interested through the MuIS portal.

### **Documenting of exhibitions in the Estonian Museum Information System**

Through the broadening of the circle of users, the museum object is more actively used in different exhibitions, print publication, research, etc. The use of the museum object is recorded in usage documentation (Request, Loans out/ - in document, The Return document). Through use, new information is added to the museum object.

New information is added to the object through the usage documentation itself, as well as through continuing to describe the object. In order to separate the catalogue data from the subsequent description of the object, the description in MuIS is divided into two levels: level I description, i.e., cataloguing; and level II description, i.e., description that is not limited by the amount of data or the number of people who add data. Level II description can be started and

stopped repeatedly. The end of data entry is recorded with the name of the data adder and end time.

All data and documents relating to the museum object are displayed through the report “Full description of the museum object”, where also the museum object’s last recorded location and change in its condition are displayed. For each change in condition, the time and the document number where the change in the condition was recorded are displayed.

One of the work processes that re-uses and adds data to the Museum Information System is exhibition activity. Exhibition activity is also interesting because, generally, museum objects from other museums are needed. This brings an exchange in data and a linking of documents which often takes place between several museums. This tests our common methods of documentation and tests how usable and unambiguous the descriptions of museum objects are between several museums. Through this comparison, the existing descriptive data is organised.

This system which supports the documentation of exhibitions between museums has been in use in Estonia since 2009. During the first couple of years there were difficulties with joining the network, but now it is one of the most used functions of the information system by museum staff. This function develops and improves continuously on the basis of user experience.

Figure 2. Documenting of loans of objects for exhibitions in the Estonian Museum Information System

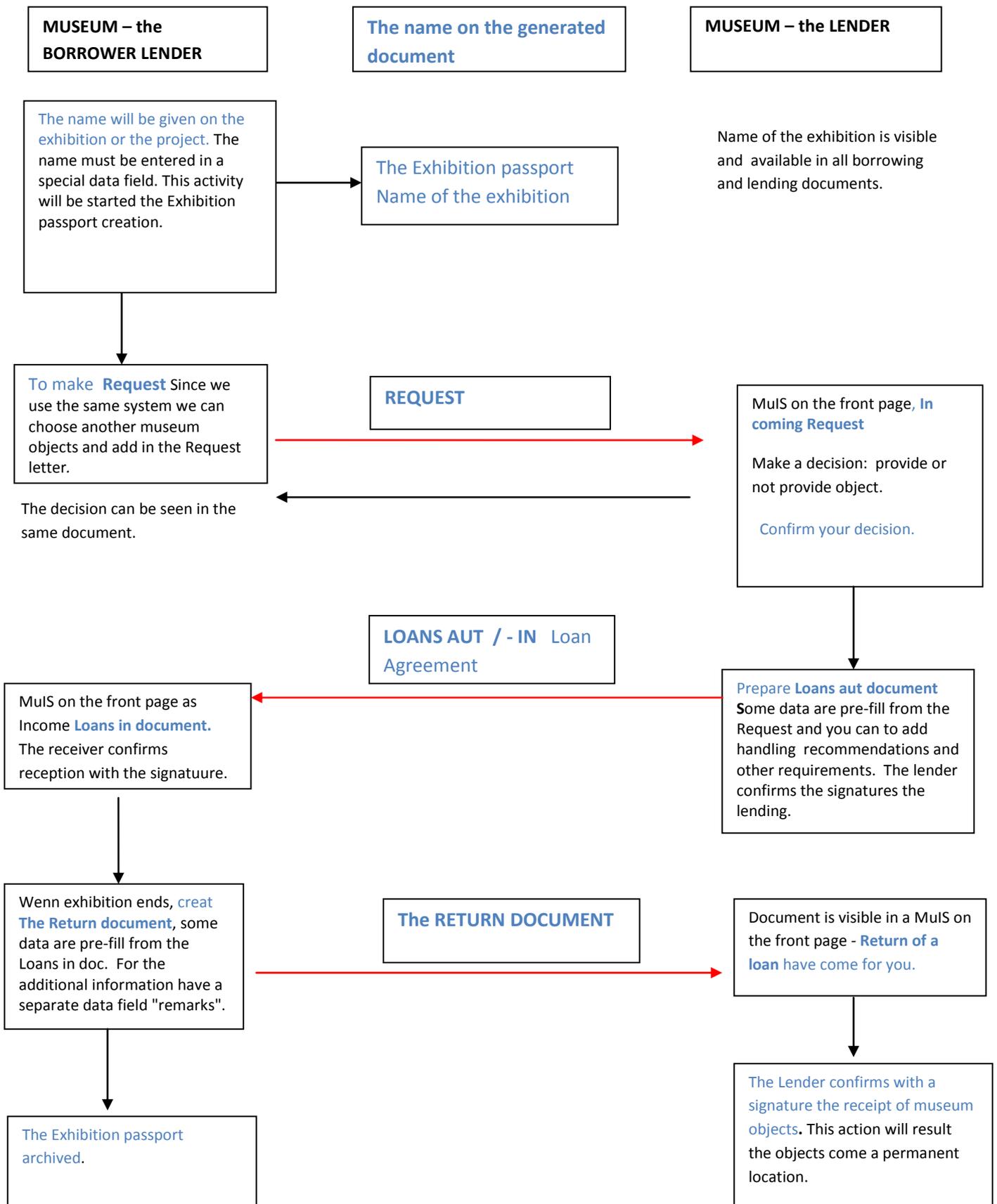


Figure 2 „Documenting of loans of objects for exhibitions in the Estonian Museum Information System“ shows the order of actions.

The first step. The idea/exhibition is given a name which has to be entered into the specific field on the Exhibition creation page.

Naming the ‘exhibition’ starts the linking of the various loan documents. Having a name allows all subsequent creators of documents to use it and create links through it.

Under this ‘exhibition’ name is the Passport of the exhibition (i.e., a list of objects exhibited). All museum objects and documentation related to them are listed there. The status of documents is also shown, which is variable in time and which reflects the actual situation.

The second step. After naming the exhibition, the search for museum objects begins, either in the MuIS portal or by viewing the items in the depository. An Request is compiled for the chosen items. The application is made to a specific museum. The objects are chosen and added to the Request by number, name, condition, and the general information of the museum object. General information is text, where data from various object description fields are gathered.

The movement of various descriptive data of a museum object to documents has been resolved through the common data field ‘General information’. This is a data field where the information from the museum object’s various data fields is displayed that has been marked by a particular document compiler on the ‘Data choice of the museum object’ query page. There are 48 different data fields for the description of a museum object. Ten of these are compulsory. The use of the others depends on the needs of the museum. Such relative freedom in description is necessitated because in our system co-exist both agricultural machinery and works of art. Accurate cataloguing and uniform data re-use must be guaranteed for all museum objects.

Along with the idea of the exhibition one can already start to compile an Request. As long as the Request has not been confirmed, the objects there may be deleted and new ones added.

The third step. The confirmed Request will be sent to a particular museum.

In the museum that receives the Request, it will be displayed on front page on Museum Information system, until a decision has been made as to whether and which of the museum objects in the Request will be issued. The confirmation of the decision will be displayed in the museum that sent the Request. On the basis of this, the curator of the exhibition can count on the ability to use the existing objects. If the answer is negative, then the curator starts looking for new ones.

The fourth step. The common practice is that the Request are compiled in a timely manner and the Loans out/ -in (Loan Agreement) is formalised at the same time that the items are picked up. All signatures can be provided digitally and it is possible to add to each document created in MuIS further additional documents (insurance contracts, etc.).

The fifth step. The return of the items takes place through the Loan Agreement, where all museum objects may be returned at the same time or one at a time, as needed. For each item returned, a Return document is created; it is started by the museum that loaned the objects and confirmed by the museum that issued the objects for loan. When confirmed, a document is created where the museum objects are once again assigned their permanent location, and it is easy for the museum employee to return the objects to their correct physical location based on this document.

The museum object's condition and current location records are recorded in separate data fields so that this information can be separately monitored and changed. The current location can be changed in all museums. The condition data can only be changed by the museum that manages the museum object.

If the condition of the museum object has changed in the process of real use, the change is recorded on the Return document, and the museum object receives a new condition value in the system.

Each document has a separate data field for 'comments' where various parties can add new data about the object as necessary.

When the exhibition is completed and the items returned, the whole history of exhibition activity is then saved as a separate file. Under this 'exhibition' name is the Passport of the exhibition (i.e., a list of objects exhibited).

As museum objects from several museums are used in the documentation relating to exhibition activity, the museum object must have a unique number (identification code) not just within one museum but within all museums that have joined the system. In Estonia, this has been resolved with the letter abbreviation of the museum's name. It is a unique abbreviation, which has been in use since 1959. Then, a national law gave each museum a letter abbreviation and monitored that any new museums created would not use an abbreviation that is already in use. It is a legacy that has been and continues to be a great help to us with the management of museum objects from various museums in a single information system. This unique identification code of museum object to which all information relating to the museum object is linked forms the basis for interlinking of documentation between different museums.

## **Conclusion**

Finally, it would be desirable if we could carry out similar documentation between museums in different countries. Before we are able to do this, we must agree on work processes within a single country, and take into use common methods. It is important to organise the work process and documentation within a country. We all have our own historical traditions in the documentation of museum objects. These derive not only from the past socio-political situation of the country and from cultural traditions developed over time, but also from the practices of specific museums. Thus, it would be wise to find and correct the internal

contradictions first and find a solution that suits everyone domestically. Only then will it be easier to find a solution across borders. For example, as a result of this work in Estonian museums, the Estonian language document names have become organised and homogenised, which is the basis for working together in the system.