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Collection management and storage issues at the Vasa Museum

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Abstract

Museum stores sometimes tend to function as a cluttered closet, where everything is stored which is not used or displayed. One locks the door and thinks: "All that should really be sorted out, but not right now..."

The Vasa Museum has a collection of about 40,000 objects. The museum has not actively collected any objects since the last dives in 1967. Therefore, the number of finds has not significantly increased or decreased over the years. In spite of this, the Vasa Museum has had problems for a long time with its storage areas, primarily due to lack of space.

In the year 2001 the storage problem finally became unacceptable. Because of this, a project for moving stored items was initiated.

An external warehouse has been rented, and the objects that are moved there are subjected to thorough documentation, assessment of damages and photography. The aim of the project is to relocate objects that are ill placed in temporary locations throughout the museum, and to allow for a more sparse distribution of objects in the museum stores, thus making better care and handling of the finds possible. The relocation also provides an opportunity to take stock of the collection. The aim is to create a storage facility, which will function as a showroom, displaying the museum's stored objects to the public.

The purpose of this paper is to discuss our current relocation of objects and to draw attention to the fact that storage facilities seldom get the same priority as other, more public operations. This is a problem one should try to solve by recognising the possibilities and beneficial aspects that an well-organised museum store can provide.

To carry out a relocation of stored items on such a grand scale as this, is a very time-consuming and costly undertaking. It is important to see beyond this and to recognise it as a long-term investment for the museum.

1 Introduction

The warship Vasa was built between the years 1626 and 1628 on orders of the king of Sweden, Gustavus II Adolphus. On the 10th of August 1628 she sank on her maiden voyage in the harbour of Stockholm.

In 1956 a private citizen, Anders Franzén, discovered the wreck. Diving on the wreck site commenced one year later. The Vasa was finally salvaged on the 24th of April 1961 and placed on a concrete pontoon in a dry-dock. The archaeological excavation of the ship began immediately after the salvaging. Diving and salvaging loose objects on the site continued until 1967.

Less than a year after the salvage the first museum was ready. It consisted of a basic aluminium shed and was built to facilitate the preservation efforts. In order to conserve the ship it was sprayed with polyethylene glycol for 17 years.

In 1988 the Vasa was moved to the present museum, which opened to the public in 1990. This museum was the winning contribution of a contest for Nordic architects, who were invited to design a new building for the Vasa Museum. This magnificent building was based on the measurements of the ship and especially designed to make it possible to view the Vasa from all directions. As an exhibition hall the building is very inspiring and useful. Unfortunately, additional space, for storage facilities and conservation laboratories, are too small or non-existent. The museum was built with exhibitions in mind, not collection management.

2 The museum store and storage areas

There is one major drawback with the storage facility at the Vasamuseum – it is too small! The storage space consists of 330 square meters divided into six rooms, one larger and five smaller cubical cells. Each room has a climate adapted to the requirements of the objects. The material groups represented are the following: PEG-treated wood, freeze-dried wood, metals, bone and leather, glass and ceramics, textile and rope. Most objects are placed on pallets or on shelves in cupboards. The objects that are most affected by the lack of space are the PEG-treated wooden items. This group of artefacts is in part made up of large, heavy objects, densely piled on top of each other. Pressure on the bottom items is high, and air circulation between them very poor. Objects that are not stacked on top of each other are placed much too close to each other, and suffer the same problems with lack of air circulation. The lack of space also makes it difficult to work in the storerooms. Removing pallets is complicated, as everything is so closely stacked. The risk for work-injuries is significant.

Another problem is that objects over a certain length cannot be put in these storerooms, which are on a subterranean level, since they will not fit in the elevator or the cubical cells.

Although all storerooms are fully used, there is still not room for all objects.

When the museum was built, all the objects that were too long or would not fit in the storerooms were placed on the pontoon under the hull, in the main

exhibition hall. These were mostly heavy and long items, such as deck planks, spars and parts of gun carriages. For many reasons this location was unsuitable. The objects cluttered up the space around the ship and also made the maintenance of the ship's supportive cradle difficult. Emergency solutions were sought and all available space in the main hall was soon occupied.

Deck planks, most of which came from the floor in the hold of the ship, were piled up inside the Vasa. In there, they did not disturb the cradle, but they were too densely stacked and obstructive to any work onboard. Furthermore, their accumulated weight was about 10 tons, which structurally strained the ship.

Another place that was used was the area above the visitors' restrooms. This place was never intended for such use, since it was really just a roof. Up here, planks were stacked along with gun carriages, spars and large, unidentified pieces of wood. A tarpaulin covered all item's up. On one hand, the objects were not in the way here, since the space was not being used. On the other hand it was never cleaned, for the very same reason. Soon enough, a layer of dust covered all items. After an inspection by the fire authorities the area was also deemed improper for storage use from a fire-safety point of view.

These problems are neither new, nor unknown. The storage situation has been like this ever since the museum was built. Those responsible for preservation at the museum have called attention to these problems on numerous occasions, and have tried to improve the situation. However, lack of resources has always hampered the attempts to make the necessary changes.

3 Sulphur, the determining factor

It was obvious that a new museum store of some kind would be needed, but acquiring new storage facilities is a big and expensive project. It was not being highly prioritised, although experts had recognised the vast problems and deficiencies.

What finally brought about a change was the discovery of salt precipitates on Vasa and her artefacts. This made the situation unacceptable,

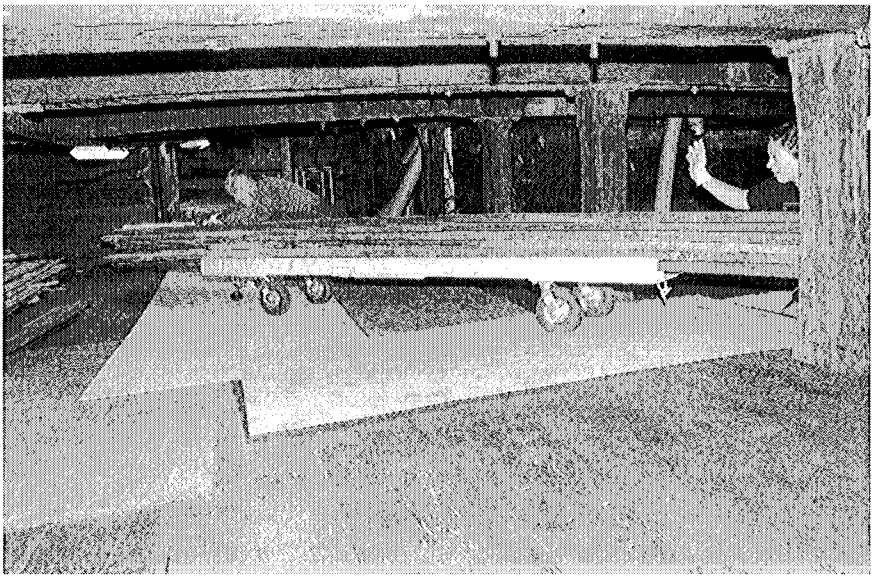
The summer of 2000 was wet and humid in Sweden. That meant more visitors in the museum, many with damp clothing. The climate system could not cope with this, which resulted in an increased humidity in the museum. This led to the formation of salt precipitates, originating from sulphur that had penetrated the wood during the time on the seabed. At first, the precipitates were discovered on loose objects, later also on the ship herself. It was a very serious problem and was given the highest priority.

In connection with this, attention was finally paid to the objects that were improperly stored onboard the ship and in other areas of the main hall. The climate system proved to be inadequate and it was necessary to move all these items to a safe climate. Furthermore, the planks stored onboard hindered the necessary treatments of the precipitates on the ship.

The situation had changed, and at last funds were made available for the acquisition of a new museum store.

4 The relocation

In October 2001 the museum began the extensive relocation of stored objects, a project that is likely to last until 2006. The Vasa Unit, which is responsible for the preservation of the ship and the artefacts, is managing the relocation. The immediate goal is to move those objects that are inadequately stored in various parts of the main hall, and to make more space in the present museum store.



Shipwrights removing deckplanks onboard the Vasa.
Photo: Stefan Evensen, SSHM

After much consideration we decided to rent an external storage facility about one hour's drive from the museum. The storage, which has an area of a 600 square meters, is in a building formerly used for industrial purposes. This building, which has excellent storage possibilities, was taken over by a company called Swedish Warehouse (Svenska Lagerhus AB). They divided the large building into a number of smaller units, most of which were adapted to function as storerooms for various museums.

Before starting the relocation, we planned in detail how we wanted to store objects in the new warehouse. This was a perfect opportunity to introduce new procedures for handling and storage. One important consideration was that all fitting would be purchased new, and of such design and of such materials, that the stored items would not be harmed.

A climate system was installed for optimal temperature and humidity: +18°C, RH 50–60%. Supports for pallets and other storage racks were initially installed along the walls. The number of pallet supports will be increased when necessary, and will then be arranged in rows throughout the room.

During the relocation one of the auditoriums at the Vasa Museum has been put at our disposal. It is now used as a work- and transit room. Objects about to be moved will pass through here, and are documented, assessed for damages and photographed.

- Documentation is performed by two curators and consists of a description of the item's original function and visual features. These new data, measurements and drawings, are subsequently compared with and added to previous documentation from the excavation, and finally registered in our object database.

- The collection of the Vasa Museum has not had any problems with vermin, mould, or any other such problems that may affect museums. The main purpose of the damage assessment is to locate salt precipitates by measuring the object's pH value. If a precipitate is found, it is rated on a scale of one to three: slight, intermediate or severe precipitates. Other damage, such as fractures or abrasions, is attended to with various kinds of removable reinforcements. Then, the item's status is registered in a database for conservation, which is linked to the object database. The intention with the documentation is to get a complete picture of the scope and severity of the damage that can be used as reference material for any future preservation projects. Two conservators perform the damage assessment.

- High quality, digital photos are taken of each object. The images are stored in the object-database.

When the objects have been examined they are placed on specially designed stretchers or on pallets, according to size and category. When a shipment of items has been prepared, it will be transported to the new warehouse. The stretchers and pallets are wrapped in plastic for weatherproofing, and are then loaded onto a truck, suitable for this purpose.

In the warehouse the items are unpacked and placed, still on stretchers or pallets, on their supports. Every stretcher and pallet has been marked with the object number and damage status of its respective object. When the project is completed, every object's position will be registered database.

So far, the relocation has been successful. During this first year we sometimes had to try different methods before finding the best one. We have mostly worked with homogenous groups of objects; various kinds of boards and planks that have been stored onboard the ship, and we have come up with a system that works well for these objects. Before long, we will start dealing with other types of items; gun carriage, spars etc, and we will have to figure out new systems and solutions. For example, how to place them and how to lift heavy objects without damaging neither the objects, nor our backs.

5 Priorities

5.1 How are storage facilities prioritised in museums?

"The primary duty of the museum is to preserve its collections for the future and use them for the development and dissemination of knowledge..."
(ICOM Code of Ethics for Museums)

To protect and preserve collections in a building designed for the purpose has proved a difficult accomplishment. This problem is not unique for the Vasa Museum. In a technical inventory of storage facilities for museums made between 1993 and 1995, more than half of the storage volume of Swedish museums was deemed inadequate.

This has often been a result of limited resources or an imbalance in the allocation of funds to the different departments of a museum. This imbalance has long prevailed concerning the distribution of resources between public activities and care for the collections. Museums have focused on exhibitions, and the appreciation of a museum's degree of function and efficiency has been based on the number of visitors.

The result of this attitude has been that preservation and storage often gets a low priority, although this is one of the most important tasks for the museums.

Today, the care for collections has become more efficient due to the development of information technology. Archives are digitalised and databases created. This is important but costly work, which will affect available funding. Maintaining and improving storage facilities are also expensive, and will easily be overlooked until the situation becomes intolerable. Museum stores are archives of irreplaceable objects that should benefit from better protection.

In order to improve the situation in the museum stores, the attitudes towards collection management will have to change. It is in the museum stores and within the field of collection care that knowledge is generated and accumulated.

5.2 How are objects prioritised in museums?

The Vasa Museum has a policy, according to which all artefacts are regarded as equally valuable. Everything brought to the surface during the salvage operation and the subsequent dives, is part of the enormous jigsaw puzzle that constitutes the Vasa, and all parts are equally important for the creation of a full picture.

This means that everything has been saved, from sculptures to unidentified pieces of wood. Except for all the artefacts that belong to the ship, there are also other objects that are part of the Vasa's history. For instance, objects used during the diving and the salvaging; the bench that the divers sat on between dives, the core-sampler used to find the Vasa etc.

This policy can, and should, be considered self-evident, but how does it work in reality? Do all items have the same value?

The same value does not just mean that the objects in question are salvaged and stored in the museum, it also means that they should be given the same kind

of care, and receive equal preservation treatment. How the Vasa Museum has acted on this policy is a matter of opinion. If you take the objects that have been kept in temporary storage spaces in the main hall, they are usually less exclusive objects such as planks, unidentified pieces of wood and parts that are plentiful, such as gun-carriage parts.

Why were these objects stored under such poor conditions? Would we store, for example, sculptures in the same way? Even if we do not want to face it, there is in reality a tendency to give priority to certain objects in museums. Objects that do not fit into exhibitions or the scientific papers often get less treatment and attention. The interesting items are automatically more carefully documented and preserved, while lesser objects are overlooked.

When we work with the ongoing relocation, we often get recurrent questions and comments:

"Why is so much time spent on these objects?"

"Is it necessary to save unidentified wooden objects and splinters?

"Do they contribute at all?"

"Does everything have to be saved?"

These questions are important and deserve our attention. We should not pretend that some objects are not more interesting and have more to tell than others, but we must remember the decisions that were once made. The Vasa Museum has chosen to preserve all objects, thus granting them equal value, so we must do that, earnestly and completely. All objects in the collection must receive the same treatment.

There really is no alternative to this policy.

If we decide to exclude part of the collection, where should we draw the line? Should we get rid of all unidentifiable objects or items that are not part of the ship? Is there any point of saving groups of objects that contain many identical finds?

In situations like this it is important to think about the future. Objects that are considered uninteresting today may very well be in the spotlight tomorrow, and answer questions that have not yet been asked. A museum must be able to offer all the information there is, and not just a selection based on the most spectacular finds.

Today's salt- and sulphur problem also makes it important to look ahead. Will it be possible to preserve everything? Will part of the collection be lost?

When reasoning like this it becomes clear that the answer to the above questions undoubtedly must be that our collection contains many different kinds of objects, which are impossible to exclude from the totality. They are all part of the history of the Vasa and of our cultural heritage.

Vasa and all her artefacts can be considered as a closed find and a unique collection of a 17th century society in miniature. We must give all objects the same degree of care and documentation, so that the information that is collected is truthful and objective. Short-term thinking does not belong in a museum.

6 Goals

Our goals for the future are to move all objects from the inadequate storage in the main hall, and we have now begun working with the restroom area. When this is done we will move on to our museum store in the museum building. To begin with, the museum store needs to be extensively inventoried. The majority of artefacts will then have to be surveyed for damage and photographed.

In connection with this, we will relocate objects to ensure better preservation conditions.

Object categories that contain many identical finds, parts of the rigging for example will be separated, and only a few objects will be kept in the museum. The rest will be sent to the external storeroom. The result will be, that all groups of finds will be represented in the storerooms of the museum, but they will not suffer from lack of space, like before. The reason for this is to improve storage conditions, but also to create a facility, which will be available to the museum visitors. There is already a possibility to visit the museum store by appointment, but it can be improved.

By moving artefacts that take up lots of space we will be able to expose items that have so far existed in obscurity. Our goal is to make it easier to get a full view of the collection in its entirety.

7 Results

After working with the relocation of stored objects for one year, we have emptied the ship of all loose boards and planks, which have been stored there since 1994. In total about 500 objects or some 10 tons have been lifted out of the ship and moved to the new storeroom. All of these objects are now registered in the object database with documentation, photographs and a links to the conservation database where the condition of the objects is registered.

The objects now enjoy considerably better storage conditions, a suitable, spacious building with proper climate and fittings. For the museum, this means that we have improved the status of collection care and increased the knowledge and the quality of information about our collection

We have finally given these objects the storage and the documentation they deserve.

References

[1] ICOM, Basic Principles for Museum Governance, *Code of Ethics for Museum*, 2.9, pp. 8, 2002.

[2] National Heritage Board, *Tidens tand, förebyggande konservering*, Stockholm, pp. 19, 1999.