

Common people's clothing in a military context - Unique finds from the early 17th-century Swedish warship *Vasa*.

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Abstract

Soldiers in the Thirty Years War (1618 – 1648) commonly wore their everyday clothing as uniforms in the modern sense were still rare. Little is known about their gear, since garments from common people are rarely preserved or detailed in paintings and historical sources.

The Swedish warship *Vasa* sank 1628 in Stockholm harbour. The ship was raised in 1961 and about 12,000 fragments of textiles and leather from clothing, shoes, accessories and personal possessions were recovered. The Swedish navy had not yet issued uniforms to their conscripted crews, which makes the finds unique as the largest collection of everyday clothing in a use context from its time.

This paper will present preliminary results from the initial phase of a new research project focusing on these find groups, in which we seek knowledge about the objects themselves and what they can tell us about the social structures of both military and civilian society.

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The role of clothing in the military and the idea of uniforms in early 17th-century Europe.

Clothes have always had a very important role to play in society. Their powerful visual languages have been used for centuries to express the wearer's personality and way of life as well as social and economic status in society. Therefore, they have often been the subject of a ruler's desire to control and regulate them. The production of clothing and footwear is resource intensive and has had a major impact on both the economy and trade.

For soldiers in war, clothes are even more important as they can make the difference between life and death. Besides keeping the owner warm and protecting him from wind and weather, their visual language can be used to identify who is an enemy and who is a friend. The quality of the fabric, colours, details and decorations can also be used as signs of role and rank within the chain of command. Depending on different types of warfare and tactics, they can also be used as camouflage.

In the time of the Thirty Years War in Europe (1618-1648), most troops did not yet have uniforms, as we think of them today, made from the same fabric and tailored with the same cut and construction (Bellander, 1973, 73-117). But it is during this period that the idea of the

modern uniform and equipping whole armies with the same uniform was starting to take form in northern Europe. It appeared more or less simultaneously in different countries.

Many rulers, including the Swedish King Gustav II Adolf, took a great interest in this matter. He strived to equip his troops with uniforms and in 1622 he ordered every company to be dressed the same (RA, RR 1622, 54), but it was not an easy task to accomplish. Sweden's textile industry was not yet that well developed. Even if great effort was made to travel around to different cities within the country to purchase fabrics, it was not possible to source the significant amount of cloth, of the same quality and colour, needed to meet the requirement for making uniforms to equip all regiments within the army (Kjellberg, 1943, 85-86; UUB, Hall.s. E369, 14; Bellander, 1973, 115-116). The king then ordered the import of cloth from the European market, but since other European countries were focused on producing fabrics for their own troops, there was not enough for sale on the international market either (Bellander, 1973, 107). He ordered the hiring of tailors at the royal wardrobe, who would make uniforms, but it is not certain whether there ever came to be a production of any significant amount (Jacobsson, 1938, 390). If the state could not dress a regiment, it was the regimental commander's responsibility to equip the troops (Bellander, 1973, 111-112, 116). The result was that some regiments managed to achieve some uniformity in their clothing, but different regiments used different fabrics, colours and designs for their clothes (Bellander, 1973, 102-106). Navies lagged behind armies in terms of clothing, and most European navies did not issue uniforms to enlisted ranks until late in the 18th century.



Figure 1. *Norrland's Grand Regiment was one of the Swedish regiments which probably achieved uniformity in their clothing. Detail from the portrait of Jacob Mac-Dugall Duwall (c.1589-1634), regimental commander. Oil painting by Nicolas de la Fage, 1626. Karlberg castle, Sweden*

For many soldiers and sailors, the reality was that they were not provided with clothes or fabric as part of their pay from the state or the regiment, so they had to wear their own clothing into battle (Jacobsson, 1938, 385-405; Bellander, 1973, 102; Kjellberg 85-86). Today we do not know very much about what they wore, since there are not many garments from common people preserved in collections. The garments that have survived in collections are almost exclusively high-status garments, for example in the royal armouries in Stockholm and Dresden, but even then it is not usually everyday clothing that has been saved.

The common people's clothing is sometimes mentioned in the historical sources but seldom described. Gustav Adolf himself complained frequently about his soldiers' poor clothing, for example in a letter to Nils Stiernskjöld, Bengt Kafle, Arvid Hand and Herman Wrangel in 1621, where he urged them to make sure that the newly enlisted soldiers would not arrive in their

farmer's habit, but would be expected to find suitable clothing along the way. The king saw it as an embarrassment and was worried what others might think, but without describing their clothing in closer detail. The soldiers' clothing and its meaning was obviously very important to him (RA, RR 1621, 189-191). This suggests that there was some visible difference between the everyday clothing of civilians and professional soldiers, but without any clue to what it might be.

There are some battle paintings, engravings and portraits with soldiers in the background from the time, but we cannot always be sure how accurate they are since there have not been enough preserved garments with which to compare them. In some cases, it seems like the artist wanted to show the idea of the uniformed army rather than depicting the much more diverse reality the historical sources describe. We also need to be aware that a lot of artworks depicting this period were made much later by people who never viewed the soldiers or the battles. Therefore, we need to be careful when using artwork as a source material.

The unique clothing finds on board the Swedish warship *Vasa*

The Swedish warship *Vasa* was built 1626-1627 in Stockholm for Gustav II Adolf's fleet (F. Hocker, 2006, 36-60). Sweden had not yet entered the major theatre of the Thirty Years War, or The German War as it was called at the time. Gustav Adolf was at this point engaged in a war with his first cousin, Zygmunt III of Poland, over the succession to the Swedish throne. Zygmunt had previously been king of both Sweden and Poland, but Gustav Adolf's father Karl had deposed him in 1599 and had been proclaimed king of Sweden in 1604, as Karl IX.

When *Vasa* sailed on its maiden voyage on 10 August 1628, it was the most powerfully armed warship of its time. In a great embarrassment for the king, the voyage lasted less than an hour. The ship was top-heavy and unstable, due to a flaw in design. When a hard gust suddenly filled the sails, it heeled over to port. The ship righted itself slowly, but when another gust filled the sails, it heeled over again, water came in through the open gun ports and the ship sank very rapidly in Stockholm harbour.

About 150-250 people were on board, although there is no direct evidence of the actual number (F. Hocker, 2011, 112-116). This included the conscripted crew, who consisted mostly of men from the coastal regions of Sweden and Finland, as well as some of their families with them. There were probably guests visiting for the festive occasion as well. Most of the people survived the catastrophe, but about 30 people died. When the ship was excavated in the 1960s, the remains of 15-18 people were recovered, among them at least two women and one child.

The find material from the excavation contains over 40,000 catalogued objects of different types, some of them broken up into multiple fragments. One of the largest find groups is textile and leather fragments from clothing, shoes, accessories and other personal possessions. There are about 5600 fragments of textiles, of which a vast majority are made of wool, but there are also a small number of fragments made of silk and vegetable fibres. The leather finds consist of about 6300 fragments from shoes, boots, gloves, mittens and other accessories. Both the textiles and the leather material are in various stages of degradation and most of the material is fragmentary, but the finds include everything from almost complete garments and shoes to boxes full of loose fibres or leather chips.

From the historical records we know that there were no nobles on board, and since the fleet did not provide crews with uniforms, this means that the clothes come from everyday clothing representing wider social strata. Preserved garments of this kind are rare, since textiles, of all

sorts, were a valuable material and were reused until there was nothing left. In addition, there has been no interest in collecting this kind of object.

Often, in archaeological excavations, the finds come from worn-out and discarded objects, which are not necessarily related to each other, while the *Vasa* objects were in use when the ship went under and can therefore be studied in context with the other finds on board. As Erik Bellander pointed out in 1973, the clothing remains from *Vasa* are unique (Bellander, 1973, 98-100). It is, as far as we know, the largest collection of everyday clothing and shoes of ordinary people from the same use context before the year 1700.



Left: Figure 2. A man's jacket found on the upper gundeck, remounted during conservation. One of the best-preserved garments from *Vasa*. Photo: Maria Ljunggren, Swedish National Maritime and Transport Museums (SMTM).

Right: Figure 3. A woman's shoe made of high-quality goat skin but with poorly done repairs, found on the upper gundeck. Photo: Tony Andersson, SMTM

The Dress Project

After the excavation, the clothing remains went through conservation and those not on display were kept in plastic bags in the museum magazines until 2016, when they were rehoused in acid-free boxes. Since the main focus of previous research on the *Vasa* material has been on the ship, its history, purpose, construction, loss and preservation, there has not been any significant, comprehensive research on the clothing remains. In the 1960s an initial catalogue of the textile finds was made by Anne Looström and Birgitta Stapf to provide an overview of the collection. It was made mainly for the purpose of collections management and was not intended for research; it was, however, summarised and presented as their thesis in ethnology at Stockholm University in 1983. In the same year Michael L. Ryder made a study of the different fleece types represented in the woollen textiles. Ryder's study was published in the *Journal of Archaeological Science* (Looström and Stapf 1983; Ryder 1983). Although the shoes have been

mentioned in some broader histories of Scandinavian shoemaking (Swann 2001, 101-122), there has not been any detailed documentation of the leather finds.

For a long time, it has been a goal to study the clothing remains in detail and in 2017 we started a new research project at the *Vasa Museum*, *The Dress Project*, as a part of the bigger research program *Understanding Vasa*. The aim of the project is to document and analyse the collection of all the finds of clothing in thorough detail. The documentation will then form the basis of research at the museum and the results will be published in different formats. Another very important part of the project is to make the documentation available for the international research community and the public.

This material is, in most cases, very fragile and repeated handling of the objects presents the greatest threat to preserving them in the condition they are today, so in addition to obtaining new knowledge our aim is also to ensure long-term preservation. By providing as comprehensive a record as possible, the need to handle this sensitive material while doing further research in the future is minimized.

The project has been divided into three parts. During the initial part we needed to find a suitable documentation method that would collect enough data to be able to cover a wide range of questions. A new inventory was made of the material to gain an understanding of its extent, variety and what type of information the fragments contained. Overall research questions were defined in order to give the documentation process structure. These are based on the research questions that have been used throughout the documentation of other find groups in the research program *Understanding Vasa*.

The questions we are working with are set at three different levels. The first level is focusing on the object and what it can tell us about itself: What is the object? What material has the object been made of? What techniques have been used to produce the object? The next level is looking at the object in the context of the ship, trying to answer questions such as: How has the object been used? Who owned the object? Who used the object? What can that tell us about the life, social structures and economic status among the people on board the ship? Finally, the finds are studied in the larger context of the military and civilian society in Sweden and northern Europe in the early 17th century. What can it tell us about production, trade, fashion, exchange of ideas, craft traditions, life conditions and social structures in different parts of society?

Methodology

The finds are organised by find numbers, given during the excavation, and they can be divided into three different categories based on where they were found in the ship: loose finds, loose finds in connection with human remains and closed finds, which were inside chests, casks and boxes. Most finds were recovered during the excavation, after the ship was raised, but a few finds were made by divers before the salvage.

During our survey of the textile collection we could see that one find number could contain several different types of textiles, but also that fragments of the same type of textile could be found in several different find numbers. In order to be able to analyse and interpret the material in a useful way, we needed to understand the find context, which is very complex, and the conditions for preservation on the bottom. When the ship sank, it had heeled over to port and things inside the ship moved around (E. Hocker 2018:7-8, 71). Besides the disturbance when the ship sank, many things happened during the 333 years the ship was under water. The conditions on the bottom of Stockholm harbour, with its brackish cold water and oxygen-free

environment, were very good for preserving organic material, although animal fibres and leather were better preserved than vegetable fibres. Sewing thread, which in most cases was made of flax, has broken down, causing objects to fall apart into their separate pieces, and in some cases, these moved away from each other with the aid of water movements inside the ship. To further complicate the find context, parts of the ship have also been disturbed by human activity, for example, during the 1660s when the upper deck was broken up to get access to the cannon on the upper gundeck and also by divers during the salvage of 1956-1961. (E. Hocker 2018:18)

To sort this out we mapped every find number on drawings of the ship's interior. Then the find numbers found in the same area were grouped into *context groups*. This made it easier to know what material we needed to compare. In practice, we have discovered that our initial context groups were too narrow and that some things had moved around in a much wider area than we initially presumed.

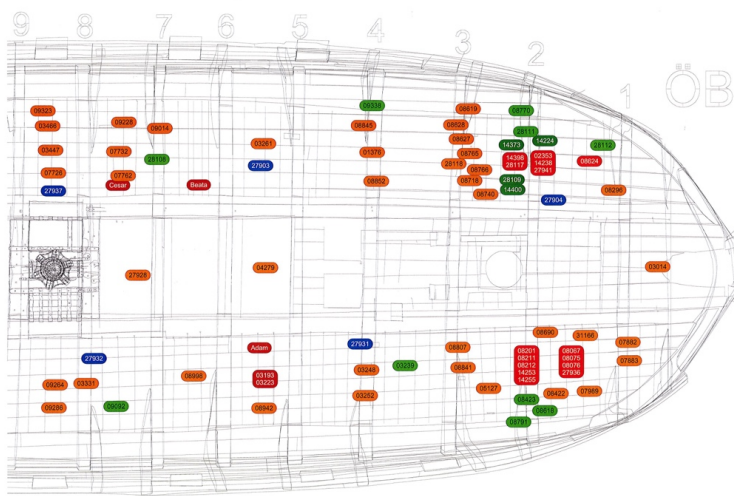


Figure 4. A drawing of the upper gundeck in the bow, with all the clothing finds mapped. Orange represents loose finds, red are closed finds, blue are finds inside shoes, and green are buttons. Drawing: Fred Hocker, SMTM.



Figure 5. Textile fragments in one context group from the upper gundeck, showing woollen fabrics and felt in various stages of degradation. Photo: The author, SMTM.

When we began the documentation work, we compared all textiles within a context group to find out which fragments come from the same fabric. Each fragment, in addition to its find number, receives a unique number based on the context group and the fabric. The fragments are then studied with visual analysis where we attach great importance to taking the time needed to discover all the small details, traces, imprints, stains, holes etc. that can be of significance. Due to the condition of the fragments, it is important to take time to study carefully every detail and give the object a chance to talk to the viewer. The principle is similar to what Ingrid Mida and Alexandra Kim call “*Slow Approach to Seeing*” when studying whole garments (Mida and Kim, 2015, 40).

The textile technique is described, and we measure the thread density, threads/cm and stitches/cm. The yarn is studied on the basis of fibre material, yarn diameter, number of threads/cords in the yarn, spinning direction, spinning angle, twisting direction and twisting angle and the colour. The dimensions of the fragment are measured. In cases where the fragment contains more information than the textile technique, it is drawn in 1:1 scale with all details noted. We look for selvages, weaving deviations, finishing treatments, impregnation, cut edges, folds, seams, holes that are not stitch holes, repairs, wear from use, residues of other material, concretion, and sediment. Other parts of the same fabric in other find numbers and related objects are noted. In the case where we find traces of stitches and seams the type of stitch, type of seam and stitch lengths are recorded; we also measure the stitch holes and the spaces between them. The sewing thread is documented according to the principles of yarn. There are often remains of the sewing thread preserved in the stitch holes, but not usually as complete stitches. We also make a great effort at puzzling the fragments back together in order to get a better understanding of what they have been. All aspects and details are described as thoroughly as possible.

We use a Dino-Lite Edge digital microscope at 30X magnification for taking basic measurements of the yarn, and a Nikon Eclipse LV100ND microscope with 50X-200X magnification equipped with a Lumenera Infinity 1 camera to study the fibre material, details and seams. We also have a collaboration with the Royal Institute of Technology in Stockholm where we use SEM microscopy for more detailed studies of the fibre structure and measurements. Later in the project we will also analyse dyestuffs, the bast fibres and if possible, isotopes to investigate the origin of the materials.



Figure 6. A pair of sewn stockings, found in a locked box on the lower gundeck. Photo: Maria Ljunggren, SMTM.

Analyses and research will be carried out during the third part of the project and the results will be shared in several ways. It will be published in the comprehensive monograph series on the *Vasa* material containing all research from the research program *Understanding Vasa*. It will also be published in a separate book on costume on board as well as in scientific articles and presented at costume and textile history as well as marine archaeological conferences. It will be the basis for new exhibitions or updates/extensions of existing exhibitions at the museum.

After the museum has published the research, the documentation will be available through the internet site *Digitalt Museum* where the museum's collection is available today (www.digitaltmuseum.se). More detail can also be provided from the museum on request, so that anyone, researchers as well as an interested public, will be able to access the information. The project has been granted 400,000 EUR from Riksbankens Jubileumsfond to finish the remaining part of the documentation. The whole project is expected to run until 2025.

Preliminary results

The first part of the project has allowed us to develop a good documentation method which covers a wide range of possible questions in several different levels and approaches. The preliminary results from the documentation of the textile collection show a wide variety of different fabric qualities among the woollen fabrics, both home-spun and professionally manufactured. The cut and the find context show that both men's and women's clothing is preserved. The fashion trends range from the late 16th century to the 1620s, and the collection represents a cross section of a militarized society. We have also been able to correct earlier misinterpretations of certain garments or garment parts. We estimate that about 90% of the textile collection consists of woollen fabrics, but there are also a few finds made of silk and vegetable fibres. So far, we have been able to document about 10% of the total textile collection in a thorough manner.



Figure 7. This object was initially registered as a pair of trousers, but after puzzling the pieces back together and studying the find context, it proved to be a skirt associated with a female skeleton. Photo: The author, SMTM.

It is very clear that having the opportunity and enough time to carry out a thorough documentation and analysis of the material provides a lot of new information. These data will be of great importance in understanding and interpreting the material effectively. It gives us greater opportunities to deepen and broaden the research as we put the material into its historical context, to understand the production and use of clothes and shoes, the people on board

the ship as well as society in the early 17th century. If we put all of these aspects together, we see that the costume material from *Vasa*, almost unexplored, gives us unique opportunities to find out more about military dress in a period before uniforms were common.

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