

Current Archaeology:

# NEWLY EXCAVATED GULLBERG FORTRESS

## – A fortress with a view!

The Swedish History Museum in collaboration with The Archaeologists 2025



A recreated view of Gullberg fortress seen from the northeast. Image: Mikael Lindahl, Niklas Ekholm and Teobaldo Ramirez, The Archaeologists/SHM (CC BY).

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# INTRODUCTION

**In connection with the planning of the Västlänken railway project, archaeologists examined parts of a fortification on Gullberg in central Gothenburg. Remains of a tower, houses, walls, and earthworks were discovered – along with many exciting artifacts!**

The site was used for defense as early as the 14th century, and was strategically positioned on the Göta River. The fortress protected the town of New Lödöse, the predecessor of Gothenburg. It was a crucial part of Sweden’s defenses until it was stormed by Danish troops in 1612.

The archaeological excavations have provided new insights into both combat and daily life at Gullberg. Using the 3D model on the screen—or via the QR code below—you can explore the fortress as it appeared in 1611, virtually reconstructed based on findings from the excavation!



*Danish soldiers. Photo: Markus Andersson for The Archaeologists, SHM (CC BY).*



# GULLBERG FORTRESS

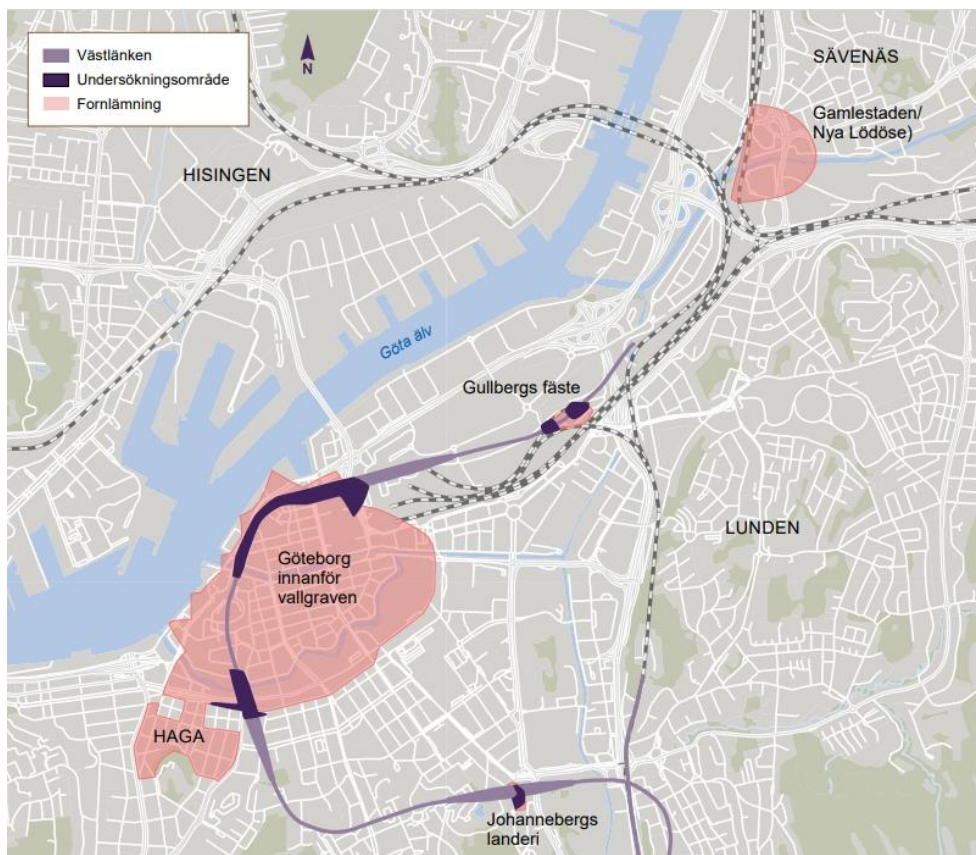
**Gullberg Fortress sat on hill beside the Göta River, in what is now central Gothenburg. It was an ideal location for a fortification. From the hilltop, soldiers had a clear view of the surroundings and could spot approaching enemies from afar.**

Gullberg protected the town of New Lödöse, the predecessor of Gothenburg. The area at the mouth of the Göta River was crucial for Sweden's trade. For a long time, it was Sweden's only connection to the west coast—both Bohuslän and Halland belonged to Denmark-Norway. It was a place well worth defending.

According to Erik's Chronicle, King Birger Magnusson had a fortified house built, The Gullbergshus fortress, around the year 1304. It was likely a simple wooden stronghold with palisades and watchtowers. The fortress was repeatedly attacked, demolished, and rebuilt between the 14th and 17th centuries. Its final chapter came in 1612 when Danish troops stormed Gullberg Fortress and destroyed it.

The sconce we see on the site today is The Sconce the Lion, which was built in the 1680s.

Archaeologists excavated parts of the fortress between 2014 and 2023. They discovered buildings, the remains of a tower, and artifacts dating from the 15th to the 17th century.



*Map over central Gothenburg, Gullberg and Gamlestaden (The Old Town).  
Image: The Archaeologists/SHM (CC BY).*



*Aerial photo above The Sounce the Lion facing south. The archaeological excavations are visible in the lower left corner. Photo: The Archaeologists/SHM (CC BY).*

## THE STAIRCASE TO THE CELLAR

**The ruins of an old tower are among the best-preserved remains discovered by archaeologists at Gullberg. It was found that the cellar and the staircase leading down to it were well preserved. The walls were remarkably thick—up to four meters wide, indicating that the tower was at least two stories high.**

The tower was built from stone and brick, likely in the late 1500s or early 1600s. The basement had a vaulted ceiling, and both the walls and ceiling were covered in white lime plaster. There were two openings in the walls, possibly used for shooting through. The larger opening may have housed a cannon aimed at the river. The floor in that section was made of larger stones than the rest of the room.

The staircase led out of the tower, meaning there was no direct connection between the cellar and the floor above. The cellar was not only part of the fortress's defense but also used for storage. In the room archaeologists found fragments of glass, taps for beer barrels (Items 7, 8), a small sand sprinkler (9), and a sundial (12).



*The stairs to the cellar during excavations. Photo: The Archaeologists/SHM (CC BY).*



*The cellar and stairs digitally reconstructed. Image: Mikael Lindahl, Niklas Ekholm and Teobaldo Ramirez, The Archaeologists/SHM (CC BY).*



*The stairs to the cellar during excavation. Photo: The Archaeologists/SHM (CC BY).*

## Items 1–4 WEAPON FINDS

**Gullberg was attacked multiple times by foreign armies. Both Sweden and Denmark wanted control over the area around the mouth of the Göta River. Therefore, it is not surprising that archaeologists have found various kinds of weapons and ammunition.**

Crossbow bolts and arrowheads were among the oldest artifacts uncovered during the excavation (1). A crossbows was easier to use than a bow and did not require as much muscle power. The bolts were short and thick.

Eventually, the crossbow was replaced by firearms using black powder. Lead balls for light cannons (2) as well as smaller weapons such as muskets and pistols were discovered during the excavation, reflecting the adoption of the new technology. Grapeshot (3) was also found, which was smaller than regular cannonballs. Cannons were loaded with several pieces of grapeshot at once to inflict as much damage as possible on the enemy's army. In the early 1600s, there were as many as forty cannons of various sizes at Gullberg. The cannonballs were likely made on site in the fortress. Some of the balls show signs of having been fired.

A so called "testicle dagger" was uncovered as well (4). The striking name comes from the phallic shape of the handle. It was a weapon used in battle but also worn as an accessory by both women and men. This particular dagger was found broken, along with crossbow bolts, near the fortress's quay, suggesting that it may have been used in combat. It dates from the mid-1400s. The blade is made of iron, and the handle is made of curly birch, decorated with circles.



*Reenacting soldiers. Photo: Markus Andersson for The Archaeologists/SHM (CC BY).*



*Item 1. Arrowheads for a crossbow, dated to the middle of the 15<sup>th</sup> century. Photo: Helena Rosengren/SHM (CC BY).*





*Items 2. Iron cannonballs from late 16<sup>th</sup> century. Approximately six centimeters in diameter. Photo: The Archaeologists/SHM (CC BY).*



*Item 3. "Druvhagel" from the late 16<sup>th</sup> century. Approximately three centimeters in diameter. Photo: Helena Rosengren/SHM (CC BY).*



*Item 4. A so-called testicle dagger from the middle of the 15<sup>th</sup> century. Photo: The Archaeologists/SHM (CC BY).*

## **Items 5–8 KITCHENWARE AND FOOD**

**Life in Gullberg Fortress was more than just warfare. The logistics of operating the fortress required vast amounts of food. Archaeologists found many household items used for eating, drinking (5), and cooking (8), as well as taps for beer barrels (6, 7).**

The account books of the steward of the fortress provide useful insight into everyday life at Gullberg, including lists of what food was purchased for the inhabitants. Farmers from Västergötland and Småland brought grain, which was used to cook porridge, bake bread, or brew beer. Cows and sheep were bought and slaughtered on-site. Despite employing two

fishermen at Gullberg, even more fish was purchased. Fish played a much larger role in the diets of the past compared to today.

Residents of Gullberg had a fairly varied diet, but not everyone got the same food. The steward and his family dined on expensive food, such as wheat bread, pork, and cod. It might have been seasoned with pepper, sugar, or even saffron. The soldiers might get rye bread, groat, cabbage, cheese, mutton, beef, and herring.

Beer, wine, and mead were the drinks of choice. In 1571, 225 barrels of beer were brewed at the fortress. Fine taps made of copper alloy (6, 7) were used for the beer barrels. Some beer and wine were imported from Germany. "German beer," "steward's beer," and "lord's beer" were considered tastier, while the cheapest beer was called "svenne beer." There was a clear difference between beers!



*Hungry soldiers. Photo: Markus Andersson for The Archaeologists, SHM (CC BY).*



Gullberg  
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*Item 5. Iron spoon from the late 16<sup>th</sup> century. The spoon could be used for brandy, gruel or soup. Photo: Markus Andersson for The Archaeologists/SHM (CC BY).*



*Items 6–7. Taps for beer kegs. The tap with a rooster-shaped knob is called a “beer roster”. The taps regulated the flow of beer through a tap from the keg. They are made of copper alloy and date to the late 16<sup>th</sup> century. Photo: Markus Andersson for The Archaeologists/SHM (CC BY).*



*Items 8. Legs from pipkins, which were three-legged earthenware pots used for cooking. Redware pipkins were typical during the 16th- and 1700-centurys. They are the most common pots found at Gullberg. Most of them were made in Sweden, but some were imported, mainly from the Netherlands and Germany. Photos: Helena Rosengren/SHM (CC BY).*

## Items 9–11 HOUSE AND HOME

**The excavations at Gullberg Fortress have provided insight into routine life at the site. Everyday objects and personal belongings, such as a sand sprinkler and keys, tell the story of the people who once lived and worked there.**

The sand sprinkler (9) was used when writing with ink. Sand was sprinkled over the writing, absorbing moisture and drying the ink. The sprinkler is made of a copper alloy and dates to the late 1500s.

We don't know much about horse keeping at Gullberg, however it's likely that there were a few riding horses for the officers and perhaps a workhorse or two. A horseshoe (10) may be a trace of one of Gullberg's horses — perhaps it was made in the fortress's forge.

A key (1) was found that may have belonged to a door or been used to secure belongings or ammunition.



*Item 9. A sand sprinkler and a small container with sand found in the sand sprinkler. Photos: Helena Rosengren/SHM (CC BY). The sand sprinkler with a hand for scale. Photo: Markus Andersson for The Archaeologists, SHM (CC BY).*



*Items 10–11. A horseshoe of iron and a key for a door or a large chest from late 16<sup>th</sup> century. Photo: Helena Rosengren/SHM (CC BY).*

## Item 12 A SUNDIAL

The sundial (12) is one of the most remarkable finds from Gullberg Fortress. It was discovered on the floor of the tower's cellar. Before the widespread availability of reliable mechanical timekeeping, people relied on the sun to tell the time.

The sundial consisted of a square slab of limestone, though its gnomon — the pointer which casts the shadow — is missing. On the underside of the slab, traces of lime mortar were found, suggesting that the sundial had been fixed in place, perhaps on a pedestal in the castle courtyard.

The sundial's pointer would have been aimed north. When the sun shone, the pointer's shadow fell on one of the numbers on the stone slab. These numbers were Roman numerals, marking the hours from four in the morning to eight in the evening. The downside, of course, was that the sundial didn't work when it was cloudy!



*Item 12. Sundial of limestone. Photo: Markus Andersson for The Archaeologists/SHM (CC BY).*



*Still image from a film showing how a sundial works. Film: Mikael Lindahl, Niklas Ekholm and Teobaldo Ramirez, The Archaeologists/SHM (CC BY).*

# THE PEOPLE OF GULLBERG

**Not only soldiers lived at Gullberg Fortress, but there were also other people who ensured the soldiers had food, clothing, and shelter.**

Gullberg employed a blacksmith and other craftsmen, such as carpenters and masons. In the fortress's barn, farmhands took care of the horses and cattle, and likely worked alongside a milkmaid. A milkmaid was a woman responsible for making butter and cheese.

Scribes and administrators managed purchases and finances. They recorded what was bought, who received wages, and much more. Much of what we know about Gullberg today, we owe to these scribes and their meticulous lists. There was also a preacher who tended to the spiritual needs of the people.

Most of the inhabitants of Gullberg Fortress were likely men. However, it was often women who handled cooking, baking, sewing, and washing clothes. Women were therefore hired as maids and milkmaids. Some soldiers brought their families with them, and their wives also participated in the daily work. Women's labor was essential to keeping life in the fortress running smoothly. However, we don't know how many women and children lived in the fortress, as soldiers' families were not included in the records.



*Some of the fortress's inhabitants were women and children.  
Photo: Markus Andersson for The Archaeologists/SHM (CC BY).*

# THE DANES ATTACK

**On the winter night of January 26–27 1612, the Danish king Christian IV attacked Gullberg Fortress. The Danes aimed to surprise Gullberg, but a guard raised the alarm in the nick of time. The attackers greatly outnumbered Gullberg’s defenders, and the fighting was brutal.**

When Gullberg’s commander, Mårten Krakow, was severely wounded, his wife, Emerentia Pauli, took over command. The soldiers at Gullberg defended the fortress with cannons and muskets. When they ran out of cannonballs, they loaded the cannons with horseshoes and other iron objects. The women threw stones and poured boiling lye on the attackers.

The Danish army attacked five times but failed every time. Eventually, they retreated. Later that same year, they returned — but this time, there was no battle. The Swedes surrendered immediately, and the fortress was destroyed.

One of those present at the fortress during the attack was Cecilia Krakow, the daughter of Mårten Krakow and Emerentia Pauli, who was barely 10 years old at the time. As an adult, she wrote down the story of the attack.



*The Danes attacks. Photo: Markus Andersson for The Archaeologists, SHM (CC BY).*



# THE 10 YEAR OLD CECILIA KRAKOW – The Children in the Fortress

Archaeologists found no evidence that children lived in the fortress, but Cecilia Krakow's account shows that there were children present when the Danes attacked in 1612. She was barely 10 years old at the time of the attack.

"At last, 25 or 30 of the Danes entered our cottage, where we children were, and the maid was baking. They sat down around the table and benches and demanded food, for they were tired and hungry, having gone two days without eating. The maid gave them some cakes. They ate and dried themselves, thinking that the others would surely handle things well at the castle. But God, and my blessed mother, along with the soldiers' wives, dragged out barrels and tubs and whatever else they could find, to throw and pull into the passage so that no more of them could enter the courtyard."

— From Cecilia Krakow's account of the attack on Gullberg in 1612.

Cecilia Krakow used the words "we children," indicating that there were more children present besides herself. She also mentioned "the soldiers' wives," suggesting that multiple families lived at Gullberg Fortress.

Cecilia married twice. After the death of her second husband, she continued running his trading business. In addition to this, she became a successful pawnbroker and eventually became the second richest person in Gothenburg.



*Danes storm into the baker's cottage. Staged in Torpa Stenhus.  
Photo: Markus Andersson for The Archaeologists, SHM (CC BY).*

# EMERENTIA PAULI

## – Cecilias mother

Here are a few more stories from what Cecilia Krakow remembered as a 10-year-old, as well as things she probably heard from others, about how her mother, Emerentia Pauli, led the defense of Gullberg Fortress.

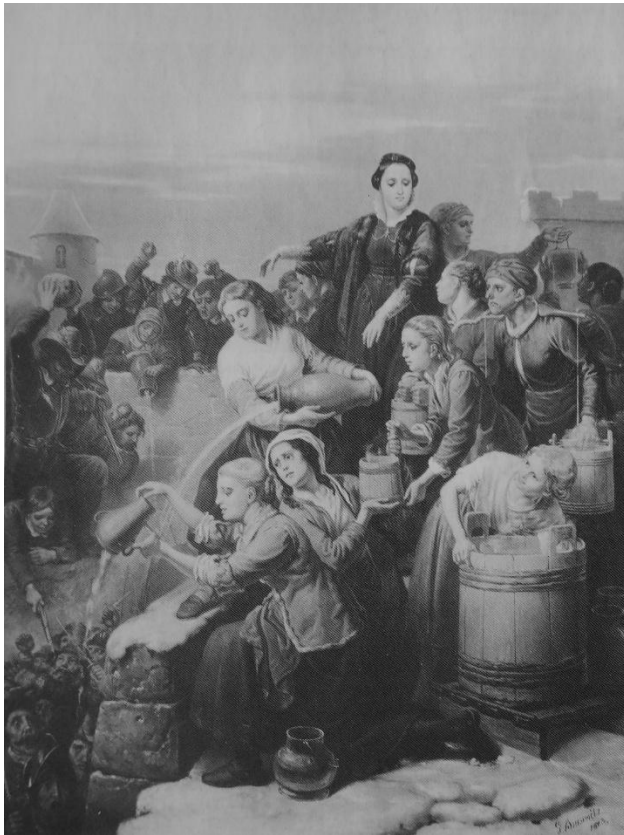
Emerentia became furious with the (Swedish) captain who had locked himself in the upper courtyard with the gunpowder and threatened to hang him and the others up there. Eventually, the door was opened, and together they managed to drive the Danes away.

The fortress's staff buried the dead Danes and informed the Danish troops "that they came so unexpectedly; but if they would like to come for dinner, we would prepare a better meal for them."

Emerentia went to the bakery where the thirty hungry men were sitting. She promised them food but took them out one by one and killed them with a firewood log or the musket's stock.

...

After her time at Gullberg, Emerentia became a successful landowner, and she is buried in Gothenburg Cathedral.



*Painting of the 1612 siege in the National Romantic style. Emerentia takes command of the women who pour boiling lye over the Danes. Image: Wikimedia commons.*

# GULLBERG TODAY

**Much has happened at Gullberg Fortress. It has been rebuilt, attacked, defended, and conquered.**

In the 1680s, The Sconce the Lion was built on Gullberg. The strong stone tower, adorned with a lion wearing a golden crown, is one of Gothenburg's most prominent historical landmarks. It is clearly visible to those traveling by train into Gothenburg.

For those who want to learn more about Gullberg and the archaeological excavations, several articles are available, and a report will soon be published. The artifacts from the excavations will be stored at the Gothenburg City Museum.



*Visitors to Gullberg can still see the remains of the older walls. Photo: The Archaeologists/SHM (CC BY).*

# 3D-MODEL

**After four centuries underground, Gullberg Fortress has been brought back to life. Archaeologists have digitally recreated the fortress in 3D to show what it may have looked like just before it was destroyed in 1612.**

The model is based on knowledge gathered from archaeological excavations, historical maps and documents, as well as comparisons with other fortifications from the same period. The bastion at Gullberg Fortress had many similarities to Bohus Fortress, and thus was reconstructed using the Bohus bastion as a model.

The model provides a way to experience what Gullberg Fortress may have been. But it is also useful for archaeologists to test different interpretations and helps to raise new questions.



**You can also scan the QR code and walk around Gullberg Fortress on your mobile!**



*Image of the Gullbergs Fortress from the 3D model. Image: Mikael Lindahl, Niklas Ekholm and Teobaldo Ramirez, The Archaeologists/SHM (CC BY).*



*Bastion in Bohus Fortress. Photo: The Archaeologists/SHM (CC BY).*



*Digital reconstruction of the bastion from Gullberg Fortress. Image: Mikael Lindahl, Niklas Ekholm and Teobaldo Ramirez, The Archaeologists/SHM (CC BY).*

*The exhibition will be on display until January 2026.*

*The PDF is available for download on the Historical Museum's website.*