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**Ditching Masks in Ditches: The Roman Face Masks and Helmets Found in Wet Depositions in Germania Inferior and its Surroundings**  
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**Citation**

Smits, J. (2025). *Ditching Masks in Ditches: The Roman Face Masks and Helmets Found in Wet Depositions in Germania Inferior and its Surroundings*.

Version: Not Applicable (or Unknown)

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Downloaded from: <https://hdl.handle.net/1887/4180746>

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Ditching Masks in Ditches:

The Roman Face Masks and Helmets Found in Wet  
Depositions in Germania Inferior and its Surroundings

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# Ditching masks in ditches: The Roman Face Masks and Helmets Found in Wet Depositions in Germania Inferior and its Surroundings

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*Leiden, 15-12-2024*

*Final version*

## Acknowledgements

I would like to thank my supervisor Dr.ir. M.J. Driessen for helping me during the process of writing this thesis and providing me with literature and knowledge. I want to thank my friends, family, and girlfriend for keeping me grounded.

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# 1 Introduction

Throughout the modern period we have been finding Roman face masks and helmets in rivers, wells, ditches, and other wet contexts. The reason for their deposition, whether this was by accident or on purpose, has been a subject of debate for years. Though deliberately depositing metalwork and militaria in wet contexts as a form of votive offering is known from the Bronze Age and the Iron Age (Fontijn, 2019, pp. 2-3), it is uncertain whether this was also done by Roman soldiers. But as soldiers are known to have deposited equipment at cult places (Nicolay, 2007, p. 177), it has been theorized that they would also sometimes deposit their equipment in bodies of water as votive offering or rite de passage (Roymans, 1996, p. 32).

As classical sources discussing this custom are virtually non-existent and the archaeological contexts of these pieces of military headgear have largely been washed away by the environment they were deposited in, developing substantiated arguments is difficult. It does also not help that literature on the face masks and helmets is generally outdated or only covers one, or a fraction of the items. Therefore, the aim of this thesis is to collect the data of these individual pieces of headgear and create a complete and up-to-date overview of all of these items that were deposited in wet contexts in Germania Inferior. By using this data together with theories that have been posed by other researchers I will attempt to contextualize the items and investigate if there is a correlation between their depositions, possibly providing a substantiated argument for intentional deposition.

## 1.1 *Aim and research questions*

The aim of this thesis is to collect the data of the Roman face masks and helmets that were deposited in wet contexts in Germania Inferior. A research question was formulated to get a clear overview of these pieces of military headgear, which is: *“Which individual Roman masks and helmets have been found in wet depositions in Germania Inferior and its surroundings?”*

To answer this question, information about the items will be gathered from other pieces of literature and museum collections in an up-to-date database.

A second research question was formulated for the examination and interpretation of these face masks and helmets: *“Is there a correlation between why and how these face masks and helmets ended up in their context?”* I will be comparing the data that was collected in the database with the works and theories of other researchers to give context to investigate if

there is a pattern between their depositions. If a correlation can be observed, this could provide a strong argument for the intentional deposition of military equipment in bodies of water by Roman soldiers.

## *1.2 Research design*

To answer the research questions posed before, a research design was set up to go about the research in a structural manner. This subchapter will go over this research design, describing the planned approach to reading literature and creating a database.

At its core, this thesis is a literature review. Literature covering Germania Inferior will be read first, to familiarize with the research area and the people that lived in it before and contemporaneously with the Romans. Next, the focus will be on votive depositions and the veneration of water by the people of Germania Inferior, which could have been adopted by the soldiers that were stationed there, if they were not from the area already. The Roman military will be the final subject of these background studies, as its soldiers and their customs are at the center of this research.

I will also look for and browse through literature that mentions and describes pieces of Roman military headgear that are known to have been deposited in the research area. The qualitative data acquired during this process will be assembled and structurally added to a database. Adding all of the available information about a piece of headgear is crucial to prevent duplicate data and will aid in later stages of the research when investigating and comparing the contexts of the items.

When the database is considered complete, the face masks and helmets will be grouped by find region to interpret their depositions in a well-organized and comprehensible manner. With the help of maps (e.g. palaeogeographical, or thematic) and literature, I will make an attempt to interpret the contexts of the finds and investigate if a correlation can be found, possibly provide a substantiated argument for votive deposition.

## *1.3 Theoretical Framework*

To understand votive offerings and recognize a pattern hereof, the act of intentionally depositing militaria during the Bronze Age will be linked to the later potential votive offering of Roman military headgear during the Roman period. Several theories will be used to propose a continuation between the two by comparing this custom during different periods and



attempting to find similarities and overlaps. In this chapter I will discuss and explain what theories I use to analyze my results, make certain assumptions, or draw conclusions.

Firstly, I make use of the ideas posed by Fontijn (2002, 2019), who traces the custom of intentionally depositing militaria in wet contexts all the way back to the Bronze Age. This period brought the emergence of the deposition of metalwork, where people would deposit hoards in both wet and dry contexts, supposedly as gifts to the gods (Fontijn, 2019, p. 3). This activity also seems to remain a custom throughout the Iron Age, from when we have found many thousands of metal objects all over Europe from contexts that have been interpreted as votive depositions (Fontijn, 2019, p. 2).

The fact that the gifts that were offered to the gods were mostly valuable to a person suggests that Bronze Age gods were thought to be like humans, as the gifts show they would appreciate the same items the givers did (Fontijn, 2019, p. 113). With this in mind, it would be only logical that a Roman soldier's equipment was used as a votive offering since this was presumably the most valuable possession a soldier had to offer, as a single piece of equipment could be worth more than the annual salary of an ordinary auxiliary infantryman (Breeze et al., 1976, p. 95). Furthermore, the evidence of selective offerings – meaning that specific items were gifted to specific gods – poses the idea that there were also differences between the Bronze Age gods in their functionality (Fontijn, 2019, p.114). This difference in functionality is also observed in the Iron Age peoples of the Lower Rhine region, as they are known to have worshipped gods with a strong emphasis on martial ideology – such as Hercules Magusanus of the Batavi, or the Mars deities of the Treveri – to which they offered militaria. This custom seems to have been carried on by Roman auxiliary troops native to this area, and possibly also adopted by legionaries (Roymans, 1996, p. 31). Examples of the offering of equipment at cult places have been found, such as at the temple at Empel, where a Roman legionnaire dedicated a votive inscription to Hercules Magusanus (Nicolay, 2007, pp. 181-182). A shrine that was dedicated to a goddess with the name *Rura* near the river Roer is an indication that Romans would also sometimes personify bodies of water and make offerings to them (Fontijn, 2002, p. 267).

Nicolay (2007) mentions that ritual depositions in rivers are usually concentrated at specific locations, for Roman militaria these are mainly around army camps and cult places (p. 182). Some of these locations of supposed votive depositions seem to also have carried over from the Iron Age to the Roman period. Roymans (1996) notes that certain zones in rivers were

already used for the deposition of militaria during the La Tène period, before the arrival of the Roman army (p. 32). Though accidental loss of military equipment during a fight or river crossing must not be disregarded, the fact that there is a peak in votive offerings in rural settlements, as well as river finds, suggests this is a general pattern (Nicolay, 2007, p. 183). Furthermore, Roman military law strictly prohibiting soldiers from losing their equipment or risk punishment is reason to believe that they would have taken good care of their belongings (Brand, 1968, pp. 191, 193).

In general, people who believe in supernatural powers have a desire to communicate with those powers to ask them for a favor or thank them for something. The deposition of items in water or other contexts could have been used as a way of offering gifts to these powers to convey this message (Fontijn, 2019, pp. 112-113).

#### *1.4 Reading guide*

This thesis is structured in a way that seemed logical to me. It starts off in chapter 2 with background information to provide the reader with a general knowledge of the research area, Germania Inferior. Next, the chapter focusses on the career of a Roman soldier from start to finish, and who could be responsible for the deposition of military equipment and what their motivations might be. In chapter 3, the results will be discussed and analyzed by dividing them into sub-chapters that correspond to the Dutch province or German District they were found in. The fourth and final chapter will be where mention limitations I experienced while conducting this research and give a conclusion to my research.

## 2 Background

This research focusses on the Roman military in Germania Inferior, which was one of the northern provinces of the Roman Empire from 85 AD onward. The province spanned an area which included the south of the Netherlands (south of the Rhine), the whole of Luxembourg, most of eastern Belgium, a northeastern part of France, and the German Rhineland up until the small river Vinxtbodyach. The time period chosen for this research is from the 1st century BC up until the 5th century AD. The reason that this period was chosen was because of the erection of the Roman Empire in 27 BC and the end of the classical antiquity, which was marked by the fall of the Western Roman Empire in 476 AD.

In this chapter, I will provide background information that is useful to gain a better understanding of the research area and the people that lived in it, both natives and non-natives. I will start this chapter off by discussing the history of the research area before, during, and shortly after the presence of the Romans. Next, I will go over the career of a Roman soldier to paint a picture of what it looked like and how his equipment may have ended up in a wet context.

### 2.1 *Germania Inferior*

In this sub-chapter, I will discuss the research area in further detail, going over the physical geography and history of Germania Inferior, and what people lived in the area before and during the Romans.

#### *Physical geography*

The river Rhine was the spine of the province as it flowed from the south of the province into the North Sea in the northeast, forming its natural northern border. Throughout the province, there were both small and larger rivers that connected the Rhine and the coast with its more inland areas. The conditions for cultivation of crops were poor in the north of the province, as seawater regularly flooded the marshy lowlands in present-day Zeeland and the lowlands north of there were mostly too sandy. However, the area between Nijmegen and Krefeld – which is the central part of Germania Inferior – had forested hills, fertile loess plains, and a large plain where the Rhine meandered. These fertile loess soils created the perfect conditions for cultivating crops like cereal (Carroll, 2001, p. 15). In the far south of the province, the mountainous areas of the Ardennes and Eifel were providers of different types of stone (e.g.

limestone, sandstone, granite), and ores (Caroll, 2001, p. 15). Germania Inferior shared a border with Germania Superior in the southeast, marked by the Vinxbach river. In the south and large parts of the west, Germania Inferior shared its border with Gallia Belgica on the other side of the river Meuse.

### *Social composition*

Before the Roman settlers arrived in the early first century, the region was inhabited by a wide variety of peoples, described by Caroll (2001) as *“just as diverse as the many landscapes they occupied.”* (p. 17). Since archaeological records are scarce for a lot of the tribes, we use Julius Caesar’s divisions and descriptions of his reports of the Gallic Wars between 58 and 50 BC. He divided the tribes into two main groups: Celts (or Gauls), and Germans. The tribes were mostly organized hierarchically, having a small group of powerful nobles at the top who claimed to be descendants from a god. Most of the information we have about these gods comes from Roman sources, and it is believed that every tribe had its own set of gods and goddesses, with priests performing public rituals to appease them (Caroll, 2001, p. 23). The elites of the tribes had a lot of influence and played a big role in the Romanization of religion in the region as they would have the social and religious power to construct stories that would show e.g. their ancestry, native gods, or myths actually being connected to Rome, thus changing political and religious ideologies and cultural ideas (Caroll, 2001, p. 25).

### *Roman occupation*

Though not an official province of the Roman Empire yet, the area was occupied under Augustus’ rule, during which he occasionally relocated entire tribes if this would stabilize the region (Caroll, 2001, p. 29). One of the main goals of Augustus (who ruled from 31 BC – 14 AD) was to secure the northern boundary of the Empire which he planned to do by using the Rhine as a natural border and stationing troops on the west bank, while also attempting to expand across the river by organizing campaigns against the German tribes (Caroll, 2001, pp. 29, 32). Roads had to be constructed in order to quickly move troops and their supplies, which would also serve the civilian population in travel and trade. The Rhine valley route went along the west bank of the Rhine from Windisch (Vindonissa) in Switzerland to Katwijk on the North Sea coast, passing by Cologne, Xanten, and Nijmegen and connecting the military camps along the Rhine and also the Alpine regions with the North Sea (Caroll, 2001, p. 33). In 9 AD, Tiberius gave up his efforts of conquering the Germans east of the Rhine and by the time of Vespasian’s

rule (69-79 AD), a chain of 4 legionary forts and 27 auxiliary forts had been established along the Rhine with the defense of the frontier as its main function (Caroll, 2001, p. 38). The soldiers at the border were not limited to the frontier and they would occasionally be needed in other parts of Gaul to assist in keeping things under control. In 85 AD, the region became a Roman province under the name of Germania Inferior with Cologne as its administrative capital, and a governor or legate as its political and military leader (Caroll, 2001, p. 41).

### *Decline*

The number of troops at the Rhine were left greatly reduced after more and more of them were needed to fight the Goths at the Danube and the Visigoths in Italy. It finally reached a breaking point in 406 AD, when large groups of Germans crossed the frozen Rhine and entered the Roman regions. Though the lower Rhine was successfully defended by the Franks, the middle and upper Rhine borders were overrun. The frontier, Gaul, and Germany were left behind by the Roman army, but the tribes that had concluded a treaty with the Romans remained together with the civilian population to defend their land (Caroll, 2001, p. 143). Around 450 AD, the Rhineland and Gaul had been taken over by the Franks without much of a struggle as they adopted the same administrative and legal systems and stopped the traditional division between Roman and barbarian (Caroll, 2001, p. 146). German tribes like the Franks taking over power did not mean a drastic move away from Roman customs and destruction of Roman buildings, as according to Caroll (2001, p. 147) they had a “*debt to the Roman political, legal, cultural and religious heritage, and even the Latin language*”.

## *2.2 The career of a Roman soldier*

The life cycle of a Roman soldier and their equipment will be discussed in this chapter to paint a picture of what the stages of their career would have looked like. I will cover the topics of how they got their equipment, and how and why they – or someone else – could have deposited it.

Most of the soldiers that were stationed at the Rhine during the first century were Italic, but the Romans also recruited natives into their army, even before the region was an official province of the empire. This was done with the use of treaties that were concluded with native tribes, compelling them to lend troops to the Roman army. This changed after the Batavian revolt (69-70 AD) when Vespasian changed the Roman policy regarding conscription and made supplying soldiers part of the tax a region had to pay (Caroll, 2001, p. 102).

A Roman soldier's career usually began when he reached the age of twenty. The first stage of his career was that of *probatus*, which was reached if he had undergone a medical examination – during which his height, age and physical health were established – and was deemed fit for recruitment. After several skills of the *probatus* had been tested, he would become *signatus*, which is a title characterized by a disc made of lead that was to be worn around the neck on a cord. A recruit officially became a soldier (*miles*) when he had sworn the military oath and was submitted to a unit. If a man had Roman citizenship and was in good physical shape he was admitted to the legions, but if a man did not meet these conditions, his only option other than not joining the military was to join the auxiliary troops (Nicolay, 2007, pp. 157-159).

### *Equipment*

Throughout their careers, Roman soldiers were provided with the weapons and equipment they needed by the state. However, these were often not gifted, but rather loaned to them. A certain amount was withheld from a soldier's salary in order to pay for it, making it accessible for everyone from the upper to the lower class of society, with a soldier's income depending on his unit and rank (Nicolay, 2007, p. 159, 166). This equipment was often checked by their superiors (centurion or decurion) to decide if a weapon or other piece of equipment was fit for use or needed repairs or even replacement, which were all expenses paid by the soldier. It is believed that soldiers did not have access to their equipment at all times, but only during certain events such as a parade or battle. In the meantime, it would have been placed in some sort of storage room on the perimeter of the camp (Nicolay, 2007, p. 171).

To identify equipment as their own, soldiers would often inscribe their name on it, together with their unit and unit commander (Nicolay, 2007, p. 167). Though not every find of Roman equipment bears such inscriptions, it is believed that the pieces that lack it had it applied to parts that have not been preserved, such as leather straps (Nicolay, 2007, p. 171). Occasionally, we find equipment with multiple names inscribed on it. A reason for this could be because the soldier who previously owned the piece passed away or left the military and it was issued to a new soldier, sometimes in the same unit; or because the commander of the unit changed for one of the same reasons.

### *Retirement*

The career of a soldier would last about 25 years, and he would receive some sort of reward for his service. Legionaries were given a piece of land or money, while auxiliary troops were

granted Roman citizenship. The latter came with all sorts of benefits, such as the right to legally marry a foreign woman (Nicolay, 2007, p. 160). Both written and archaeological sources suggest that after they had completed their career, some of the soldiers returned to their place of origin, but most of the soldiers remained in the area where they had been deployed. This is probably because of a combination of being away from home for 25 years and being stationed somewhere for a long time, making them grow more familiar with the area and its people (Caroll, 2001, p. 108). Though the piece of land the soldiers were sometimes given by the state after completing their career was not necessarily in the area they had been stationed in, they did have the option to sell it and move somewhere else (Caroll, 2001, p. 109). It was common for equipment to be sold back to the state at the end of a soldier's career, or if they passed away before this, in which case their relatives received the money. If the latter scenario was the case and a soldier passed away before he had fully paid off his equipment, the money he still owed the state for the purchase of this equipment was subtracted from the total amount paid back for it (Nicolay, 2007, pp. 167, 173).

### *Intentional deposition of equipment*

As mentioned before, the relatively large number of helmets that have been found in wet contexts suggest a reason for them to be left there, but by whom? To get an idea of who had the means and motive for the intentional deposition of Roman militaria, I make a distinction between the different groups of people for whom the Roman army was part of life in one way or another. These individuals had access to Roman military equipment and therefore were able to use it for rituals such as votive offerings. For this distinction, I make use of Nicolay (2007). The first of these groups is made up of soldiers from army command who would sometimes ritually deposit equipment after a victory as a way of expressing their gratitude. The fact that the Roman state paid for their equipment made it possible for them to offer equipment during their careers without being punished, unlike the ordinary soldiers who had to pay for their equipment and risked punishment if parts of it were missing (Brand, 1968, pp. 191, 193). This is why it is thought that an ordinary soldier would have predominantly deposited his equipment at the end of his career, when his equipment was paid off. The votive deposition of his equipment could have served as a way of thanking his deities for their protection and assistance in making it through a particular battle; for surviving his career altogether; or perhaps as a symbolic conclusion to that part of his life (Roymans, 1996, p. 32; Nicolay, 2007, pp. 179, 189). The final groups consist of people who are not soldiers themselves but have

access to the equipment through different means. If a soldier died, it was possible for his equipment to be bequeathed to his heirs through a will (Breeze et al., 1976, p. 95). If this was the case, his relatives would sometimes deposit the equipment at a local shrine, temple, or body of water as a votive offering (Nicolay, 2007, p. 189), perhaps in hopes of helping the deceased in the afterlife. People that manufactured or dealt in Roman military equipment are also known to occasionally have left votive offerings to gods at cult places, maybe as a way of thanking them for a thriving business (Nicolay, 2007, p. 179).



## 3 Methodology and results

In this chapter, I will discuss and attempt to contextualize the collected data of the Roman face masks and helmets that were deposited in wet contexts in Germania Inferior. Firstly, I will discuss my methodology through the application of my research design. In the subsequent sub-chapters I will divide the headgear based on the Dutch Province or German District they were found in, in order to interpretate their contexts structurally with the help of maps (e.g. palaeogeographical, or thematic) and literature. I will start with the Dutch provinces of Noord- and Zuid-Holland and will follow the border of Germania Inferior from there to Köln. Descriptions of the individual helmets can be found in the appendix.

### 3.1 Methodology

This subchapter will describe how I followed the research design that was established beforehand and give a detailed description of the steps that were taken.

I started off by searching for papers, articles and book chapters relating to the topic to conduct a literature review. Among others, there are a couple of works that I used above all to base my background research on. I used chapter 5 of Nicolay (2007) to gain general knowledge of what the careers of Roman soldiers looked like and the intentional deposition of their military gear, specifically in wet contexts. I read Carroll (2001) to understand the history and peoples of the research area of this thesis, Germania Inferior. As the focus was also on trying to relate the depositions of Roman equipment to the votive depositions of the Bronze Age and Iron Age, I read Fontijn (2002), Fontijn (2019), and Roymans (1996).

The second phase of my research was to gather qualitative data of the individual Roman face masks and helmets and add them to a database. To make it easier to look for the items in the database, tables, and appendix; I gave every individual face mask or helmet an ID number. Furthermore, I marked down what type of face mask or helmet I was dealing with, what part of the item it was, and to what century it was dated. Next, I recorded when, where, and how the item was found, and in what type of wet context it was thought to have been deposited. Finally, I listed its material composition, and if there was any suspected reason for its deposition. Being detailed when adding information about a helmet prevented me from adding duplicate data and aided me in later stages of the research when comparing the data.

Gathering the information about the headgear was done by going through books, online museum collections, yearbooks, journals, publications of conferences, and excavation reports. A lot of the face masks and helmets have been discussed before in various publications, so looking for the primary source was of importance to gather all the information that was needed. This was achieved by going through the bibliographies and reference lists of the secondary sources.

The final phase of this research started when the database was finished. The data of the face masks and helmets was split up into the different Dutch provinces or German districts they were found in and then split up again in microregions according to their suspected contexts. This was done to make analyzing and contextualizing easier. After this was done, the find contexts were compared in the conclusion and an attempt was made to point out a correlation between the depositions of the items.

In the following sub-chapters, the observations and interpretations of the results will be discussed per Dutch province and German district.

### *3.2 Noord- and Zuid-Holland*

In this chapter, the face mask and helmets that were found in the Dutch provinces of Noord-Holland and Zuid-Holland will be covered. I will start off by shortly discussing the items that were found near Leiden (ID 2 and 64), followed by an interpretation of their find contexts by looking at the Roman fort that was located there during the Roman period to see if there is a relation to be observed between the two. The richly decorated cavalry helmet from Bodegraven will be looked at next. Lastly, the helmet that was found on one of Texel's beaches will be discussed. I will look at the ownership inscriptions on the helmet and the shipping disaster that is commonly associated with it.

#### *Leiden and surroundings*

The first Roman military headgear that was discovered in a wet context in Leiden is a bronze cavalry face mask, dubbed 'Gordon' (ID number 2). It was found in 1996 during excavations of the old riverbed of the Corbulo channel, near one of the many Roman forts along the Dutch Limes, castellum Matilo. The Corbulo channel was dug in 47 AD to connect to waterways between the Rhine and Meuse and establish a safe route for trading vessels as they could avoid the open sea. This face mask was found at the crossing of this channel with the Limes

Road. A finely crafted face mask such as this one is believed to have been used for parades or other special occasions. As such an item was very expensive to make, it seems unlikely that it ended up in the channel on accident, which leads me to believe it was intentionally deposited by its owner. This could have been done at the end of the soldier's career as a votive offering or as a *rite de passage*: a symbolic end to his life as a soldier (Roymans, 1996, p. 32).

Around 2016, several bronze fittings of a second piece of Roman military headgear were found by a metal detectorist in Zoeterwoude among landfill soil from infrastructural works (ID number 64). The fact that the soil consisted of relatively clean sand suggests it was dug up from an old riverbed of the Rhine, though the exact location of this is unknown. The bronze fittings are from a Weisenau type helmet and, apart from the usual helmet components, feature decorative fittings that resemble dolphins and temples. Evidence of heating proposes that the helmet was disassembled before it was thrown away, which could mean it was discarded into the river as scrap. However, Olson (2011, May 27) argues that a helmet being cast away as scrap is highly unlikely as "arms and armor, in whatever condition, were never considered refuse at any point in their life cycle and entered the archaeological record in specific ways." Furthermore, the fact that the helmet was destroyed before it was deposited fits the ritual of sabotaging armor before a votive offering (Roymans, 1990, p. 82). Though not entirely certain, the proximity of the objects to castellum Matilo suggests that the helmet might have belonged to a soldier who was based at the fort. The soldier could have disassembled the helmet and sacrificed the pieces in the river as a way of thanking the gods for something, such as keeping him alive throughout his career. This would correspond to the theory by Nicolay (2007) that ritual depositions of Roman militaria were mainly around specific locations such as forts (p. 182).

### *Bodegraven*

An almost perfectly intact cavalry helmet was found during an excavation on the banks of the Rhine near Bodegraven in 1937 (ID number 8). Its cap and the area around the ears are inscribed with floral and plant motifs, and its forehead features animals and plants that have been applied with a similar technique. There are also two ownership inscriptions on the inside of the helmet: Quintus Salonius and Popnus, who are both believed to have been part of the Roman cavalry. It is unknown where these men were stationed, as it is uncertain whether there was ever a castellum at Bodegraven. Though finds such as the remains of a supposed gate

tower or bridge have lead Vos et al. (2016) to believe there was, there is not enough archaeological evidence, or any mention in classical sources, supporting this claim. The fact that the cavalry helmet was richly decorated suggests that it was a parade helmet, which was a special type of helmet that was used during parades or military training (Vos et al., 2016, p. 75). Such a helmet would have cost a soldier a large sum of money and would not have been departed with easily. This is why the find location in the Rhine makes me believe it was deposited with votive intentions.

### *Texel*

A bronze Hagenau type helmet was discovered on one of Texel's beaches in 1949. The helmet was badly damaged, but the ownerships inscriptions were still readable. It appears to have belonged to an infantryman with the name 'Firon' or 'Piron', who is interpreted to have been a freedman from 'Publius'. According to the inscriptions, he was a soldier aboard the Roman warship 'Hirundo', which is the Latin word for Swallow. It is possible that this is one of the ships of Germanicus' fleet that sunk off the Dutch coast during a storm during his third campaign against the Germanic tribes (Wells, 2003, p. 206).

In the next sub-chapter, I will be discussing the pieces of headgear that were found in the Dutch province of Utrecht.

### *3.3 Utrecht*

A total of 14 pieces of Roman military headgear were found in the Dutch province of Utrecht. The cheek pieces of seven helmets that were found bundled together in Hofstad will be discussed and attempted to contextualize first. Secondly, I will be looking at the fragments of two cavalry face masks that were found in Vechten. Next, the helmets from Woerden and De Meern will be analyzed. Lastly, Amerongen, and the floodplain ('t Spijk) near Amerongen will be looked at.

#### *Hofstad, Houten*

Excavations at the Dutch municipality of Houten had been going on for years when seven cheek pieces of Roman helmets were found neatly stacked together in Hofstad in 2004 (ID number 21, 22, 66, 67, 68, 69, and 70). The stack is made up of two iron cheek pieces that belonged to Weiler type cavalry helmets, and five iron cheek pieces that were all part of Weisenau type infantry helmets. The items seem to have been carefully removed from their helmets and

placed in a ditch together with 40 loose plate armor parts and covered up with two earthenware pots (van Renswoude & Habermehl, 2017, p. 1165). All these aspects point to some kind of ritual deposition that seems to have taken place. The settlement at Houten-Hofstad is believed to have been inhabited by Batavi, some of whom had evidentially been drafted into the Roman army as part of the auxiliary forces (van Renswoude & Habermehl, 2017, pp. 896-897). It is possible for the soldiers to have decided to symbolically conclude their career as a soldier together by depositing their cheek pieces into the ditch, either as rite de passage or as votive offering.

### *Vechten*

The fragments of the face masks of two different bi- or tripartite cavalry helmets were found during excavations in Vechten in 1947 (ID number 4 and 5). The bronze face masks were both decorated with curly strands of hair and one of the helmets had rectangular holes punched from the outside. This is believed to have been for the rivet that was used to attach the face mask to a helmet. The single fragment that was found from the other face mask has hammer marks from its production still visible on its interior (Kalee, 1989, pp. 203-205, 206-207). They were both found in the same ditch fill, together with pieces of armor. This ditch is associated with the Roman fort that was in use until 250 AD. The deposition of the items could have occurred around this time, or they were washed-out into the ditch silt from an earlier period, as the ditch cuts through earlier deposits. In both cases, a votive deposition can not be ruled out (Kalee, 1989, p. 218).

### *Woerden and De Meern*

Dredging operations in 1999 in the Singel canal in Woerden revealed a Roman cavalry helmet (ID number 9). The helmet is made of bronze and is decorated with the head of an eagle on its crest. The helmet seems to be a unique type, as it resembles both helmets from the Niederbieber I type, as well as Weiler-Guisborough type helmets (Kok et al., 2001, pp. 228-229). The intricate decoration of the helmet suggests that it was a parade helmet that was typically worn during parades or military training. The owner of the helmet is thought to have served at Laurum, was located at Woerden. Little is known about this suspected army camp, but it is believed to have been occupied by native Roman auxiliary troops from the Batavi or Cananefates until the 3<sup>rd</sup> century AD (Kok et al., 2001, p. 229). The archaeological context of

the helmet was lost, but its good preservation suggests it was deposited in a wet context, such as a riverbed or ditch, possibly with ritual intentions.

### *De Meern*

In 2004, a well was found during excavations of a settlement from the Roman period at De Meern (ID number 10). This well contained a brow-plate from a cavalry helmet made from silver-plated brass and decorated with the bust of a woman with long curly hair accompanied by animals that are thought to symbolize Africa, including two lions, a wild boar, and a panther (Langeveld et al., 2010, p. 317). The brow-plate seems to have been destroyed before it was discarded, which could suggest a deposition with ritual intentions, as votive offerings were often destroyed before being deposited (Roymans, 1990, p. 82). Its owner – who was possibly stationed at the Roman fort at De Meern – could then have deposited the headpiece in the well as part of a symbolic transition from his military career to civilian life (Langeveld et al., 2010, p. 277).

### *Amerongen*

Three pieces of Roman military headgear have been found in the area around Amerongen over the years (ID number 16, 62, 78). The brow-plate of an unidentified cavalry helmet that is decorated with portraits of supposed members of the imperial family was found during dredging operations in the Rhine. The item had been discovered some time in the years before 1960 and was bought by an art dealer, before he sold it to the RMO in 1960. Six years later, a Niederbieber type cavalry helmet that is inscribed with 'VIII' on its neck guard was also bought by the RMO. Sand extraction operations north of where the Rhine runs now brought it to the surface. Both items are dated to between the 1<sup>st</sup> and 2<sup>nd</sup> century AD. Fragments of the bronze lining of an unidentified helmet were found somewhere between 1972 and 1975 in the Rhine on the floodplain 't Spijk. There are inscriptions on it that seem to be the name of the commander of the owner's unit: 'Reburrus' (Kuipers, 2021, p. 12). The convenient location in relation to the Rhine and the several finds of militaria suggest that a small installation such as a watchtower was located in the area (Kuipers, 2021, p. 17). The pieces of military headgear might have been tossed into the river as ritual offerings by soldiers that were stationed here, but accidental loss or wash-out from another settlement can not be ruled out.

In the following sub-chapter, I will focus on the Face masks and helmets that were found in the Dutch province of Gelderland.

### 3.4 *Gelderland*

By far the most Roman military headgear from wet contexts in the Netherlands have been found in the province of Gelderland (30 out of 53). In this chapter I will be going over these helmets, where and in what context they were found, and attempt to contextualize them. I will start this sub-chapter off by discussing the helmets that are associated with the several Roman army camps that are known to have been located at Nijmegen. Secondly, I will be analyzing the items that were found at IJzendoorn and Kesteren. I will then focus on Rijswijk, before turning to Millingen aan de Rijn, Lobith, and Pannerden. Lastly, I will be discussing the pieces of military headgear that were found at Spijk, Hedel, and Alem.

#### *Nijmegen and De Steeg*

The many dredging operations in the Waal near Nijmegen have provided us with an abundance of Roman military headgear, with at least 16 of the helmets from my database being found during these activities (ID number 1, 3, 11, 12, 13, 14, 15, 20, 28, 29, 30, 31, 36, 37, 39, and 58). The area of Nijmegen had several settlements, forts and a large army base along the Waal that were home to Roman troops varying in numbers over the years (Haalebos, 2000, p. 9). The helmets – that consist of 3 cavalry face masks, 6 cavalry helmets, and 5 infantry helmets – seem to all have been found in the Waal. Among these is one Kalkriese type face mask where this is perhaps not the case (ID number 6), as it was found in a depot in De Steeg where gravel and sand from both Nijmegen and Rees were stored. The proximity of the many Roman army installations means that a considerable number of soldiers would have been stationed here over the years, some of whom probably ended their career there or moved to the large civilian settlement after being stationed somewhere else. According to Roymans (1996), Nijmegen was already a popular place for deposition of militaria during the Late La Tène period (p. 31), which could have been a custom that was carried on by native Roman soldiers from the auxiliary troops and potentially adopted by non-native legionaries. Though it is tempting to explain the deposition of these pieces of military headgear as votive depositions, the lack of archaeological context prevents us from knowing for sure.

#### *IJzendoorn and Kesteren*

Near IJzendoorn, a decorated cheek piece from a cavalry helmet and fragments from an unidentified Roman helmet were found. The cheek piece is dated to the 1<sup>st</sup> century AD and

has a figure of Mars, the Roman god of war, holding a sword and shield depicted at its center (ID number 18). The corner where the ear of the wearer would be situated features an embossed stylized ear. The bronze fittings of an unidentified Roman helmet were also found at IJzendoorn (ID number 81). A Chiastogram – a combination of the letters X and P, which together form the abbreviation for ‘Christ’ in Greek – is depicted on the piece. The archaeological contexts of both pieces are unknown, but it can not be ruled out that they were used as votive offerings.

A Hagenau type infantry helmet was found underneath an orchard near Kesteren in 2010 (ID number 48). It is thought to have been deposited in a river dune or water-bearing residual channel near a native settlement or suspected Roman fort (Swinkels, 2020, p. 140). The bronze helmet is inscribed with at least 3 names, which are interpreted as the names of the owners of the helmet and their unit:

- (1) Titus Varronius, from the centuria of Lucius Mettius
- (2) Gaius Iulius, from the centuria of Sextus Vetius
- (3) Titus Iulius, from the centuria of Petonius
- (4) From the centuria of Marcus Hirius

The fact that there is a name missing at the fourth inscription could be because it was on a different part of the helmet that was lost, or because the centurion of one of the owners changed. The helmet could have been deposited with ritual intentions by a Roman soldier, who would likely have been stationed at a nearby fort. But the fact that the item seems to have had multiple owners opens up the possibility of the helmet still being in use during the Revolt of the Batavi, after which it could have been taken as spoil of war (Swinkels, 2020, pp. 140-141).

### *Rijswijk*

Four helmets were found during dredging operations in the Nederrijn near Rijswijk ID numbers 26, 27, 79, and 80). Though two of these helmets have not been identified, the others have been identified as infantry helmets of undisclosed types. One of the helmets (ID number 26) has at least three names inscribed on its neck guard. Two of the names of the supposed owners are ‘Titus Allienus Martial(n)is’ and ‘Statorius Tertius’, the third name is ‘Antonius Fronto’ who is thought to have been the centurion of both soldiers. The interpretation of the finds has



proved difficult, as building materials and other finds from both a rural settlement, as well as a presumed fort seem to have been washed-out into the river (Kuipers, 2021, p. 14). The helmets could have been washed-out together with one of the settlements, but accidental loss or votive deposition is equally possible for all of the helmets. Perhaps such a ritual was performed near the place where they were stationed as their owners had completed their military career.

### *Millingen aan de Rijn, Lobith, and Pannerden*

A Buggenum type infantry helmet was found in the Waal at Millingen aan de Rijn (ID number 32). It is thought that there was a crossing over the Waal there, such as a ford or perhaps even a bridge (Erfgoed Gelderland, n.d.). At this crossing, a settlement made up of several farms and at least two unidentified stone buildings emerged (Heunks, 2003, p. 25). An altar dedicated to Rufia Materna, a native priestess or goddess, was also found. This could mean that the stone buildings were part of a cult place where a Roman soldier – perhaps stationed at the nearby castellum Carvium – could then have deposited his helmet in the river as an offering. This Roman fort was washed-out at some point, which could also be the reason it ended up in the river (Verhagen, 2022, p. 89). The fact that Millingen aan de Rijn was a place where the Waal was regularly crossed, means that accidental loss in the river is also quite possible.

An infantry helmet of the Hagenau type was discovered in the Waal at Lobith, not far from the aforementioned helmets (ID number 38). It bears the inscriptions of its suspected owner: 'Iunius Secundus' from the century of 'Iulius Irvus', who could have ended his career at castellum Carvium, which supposedly was close to Lobith.

Dredging operations at an old arm of the Waal, near Pannerden, brought another bronze Buggenum type helmet to the surface (ID number 33). The helmet is thought to have belonged to a Roman infantryman and the proximity of the find to castellum Carvium, which is thought to have been located at Herwen-De Bijland, suggests he was stationed there. This could mean that the soldier, after completing his career, deposited his helmet in the nearby river as a way of thanking the gods for protecting him or as a symbolic end of his life as a soldier (rite de passage). However, the Roman fort was washed-out some time after its abandonment, which makes it just as possible that it ended up in the river in this way (Verhagen, 2022, p. 89).

### *Spijk*

A Roman settlement is thought to have been located near Spijk, evident by remnants of stone buildings and a large number of building materials, coarse ceramics, and pottery. Legion stamps on roof tile fragments, swords, and spearheads suggest that it was of military nature. An Intercisa type infantry helmet was found in the Rhine that could belong to a Roman soldier who lived in or was stationed at the settlement (ID number 59). It is possible that he used the helmet as a votive offering, but accidental loss or wash-out from a Roman castellum further upstream is also very well possible (Kuipers, 2021, p. 7).

### *Hedel and Alem*

An iron helmet of Weisenau type was brought to the ROB technological laboratory for conservation in 1981 (ID number 71). It had been found in the floodplains of the Meuse, near Hedel. The use of red enamel on the helmet as decoration is characteristic of the Late Le Tène period, which suggests it was crafted before the 1<sup>st</sup> century AD and was probably owned by a member of the auxiliary troops of the Roman army (Nicolay, 2005, p. 132). Hedel is associated with the Roman settlement 'Hedilla' or 'Hatalle' (Maasdriel, 2022, p. 11). At the end of his career, the owner of the helmet could have ritually deposited the helmet upon returning home.

A bronze infantry helmet that is thought to be a transitional form between 'Hagenau type' and 'Niederbieber type', was found in the Meuse near Alem (ID number 40). Next to where the carrying handle used to be, two names have been inscribed. These names are presumed to be the names of the helmet's owners: 'Valerius Maxumus from the century of Servatus', and 'Marcus Rufus from the century of Gratus'. Alem-De Marensche Waarden is known to have been inhabited continuously from the Late La Tène period into the Roman period (van Hemert, 2010, p. 53). Grinnes, as this Batavian settlement was called, seems likely to have been a vicus. The last owner of the helmet could have been part of the auxiliary troops that are known to have been stationed here in 70 AD (van Hemert, 2010, p. 64).

In the next chapter, I will be discussing the helmets that were found in Noord-Brabant.

### 3.5 *Noord-Brabant*

The three helmets that were found in wet contexts in the Dutch province of Noord-Brabant will be discussed in this chapter. I will start off by looking at the famous “peelhelm” that was found in the Peel region near the municipality of Deurne. This helmet will be examined, and an attempt will be made to contextualize it, as the find conditions of this helmet could point to ritual deposition. Secondly, I will be discussing the fragments of a cavalry helmet that were found in a residential area in Breda and why it would have been thrown into a well. The last piece of headgear from Noord-Brabant I will be covering in this sub-chapter, will be the cavalry helmet that was found at the bottom of a well at the temple of Empel, which was a temple that was dedicated to the supreme god of the Batavi, Magusanus.

#### *Peel region*

The Peel region is a raised peat area on the border of the Dutch provinces of North Brabant and Limburg, where a peat cutter discovered a richly decorated cavalry helmet in 1910 (ID number 7). The area has not always been the bog it is now, as study has shown that the formation of peat had just started when this item was discarded in the 4<sup>th</sup> century AD (van Driel-Murray, 2000, p. 303). The helmet is made of iron and covered with about 370 grams of richly decorated silver sheets. Inscriptions on the helmet read ‘Marcus Titus Lunamis’, who is thought to be the maker of the helmet; and ‘Stablesia VI’, which was a mobile elite corps that accompanied the emperor on his travels through the Roman empire (van Driel-Murray, 2000, p. 302). The helmet was found inside a carrying bag made of two pieces of calfskin, wrapped up in a fine cloak together with coins, horse bells, and three pairs of shoes. This bundle was then rolled up in a sheet of tent leather with a sword sheath and a spear and then placed in a shallow pool of about 30-60 centimeters deep (van Driel-Murray, 2000, pp. 305-306). The fact that the items were placed in a shallow pool makes both accidental loss and deposition of the items as a hoard improbable. The bundle would be very easy to find and the water it was discarded in would make retrieval by the owner at a later date illogical, as it would have severely degraded the items. Most of the items seem to have been of rather significant value and resemble certain attributes of the military life of the Roman soldier. The assemblage seems to be intentionally deposited, perhaps at the end of the soldier’s career as votive offering to express gratitude to gods for protecting him throughout his career, or as rite de passage.

### *Breda*

A bronze helmet belonging to a Roman infantryman was found in Brede somewhere around the year 2000 (ID number 19). Helmets with a similar “onion shape” have been found in Dacia, which suggests this helmet from the 2<sup>nd</sup> to 3<sup>rd</sup> century AD also comes from the eastern part of the Roman Empire. The foreign origin of this type of helmet likely means the owner was part of the auxiliary units of the Roman army who took the helmet home after his service (van der Weerden et al., 2020, p. 1177). The helmet was discarded in a well at the time, which is believed to have been with votive intentions, as veterans are thought to have taken certain pieces of their equipment home for offering at a cult place or in bodies of water (Nicolay, 2007, pp. 176, 189).

### *Empel*

Excavation at the temple of Empel between 1989 and 1991 uncovered a Roman Niederbieber type II helmet from the 2<sup>nd</sup> century AD (ID number 63). This temple complex was dedicated to Hercules Magusanus, the supreme god of the Batavi, and was used as a cult place during the 1<sup>st</sup> and 2<sup>nd</sup> century AD (Roymans, 1996, p. 31). The fact that this Roman helmet was found at the cult place of the Batavi could mean the owner was a Roman auxiliary soldier native to the area, who offered the item at the end of his career. The helmet was found in a well with a hole in its left side, which would fit the ritual of sabotaging armor before sacrificing it to the gods (Roymans, 1990, p. 82) The well was located inside the temple’s main hall and was filled with a large amount of building material, which suggests that it was used during clean-up after the temple was partially demolished. As votive offerings were common at the temple, it is possible the helmet was part of such a ritual before the temple’s demolition, but this is uncertain (Jonkergouw, 2019, p. 52).

The following sub-chapter will discuss the pair of helmets that was found in Limburg.

### *3.6 Limburg*

Only two of the helmets that are included in my database were found in wet contexts in the Dutch province of Limburg. Both are infantry helmets, though different types, and were found in the river Meuse. Firstly, the helmet that was found at Buggenum will be discussed. I will be giving a description of the features of the helmet and its find condition before an interpretation

of its context will be made. Secondly, the cheek piece from a Weisenau type helmet, together with possible reasons for its deposition will be examined.

### *Buggenum*

One of the two helmets that was found in wet contexts in Limburg is of Montefortino, or 'Buggenum', type (ID number 34). It was discovered in the Meuse near Buggenum during dredging operations in 1951. There are inscriptions on the neck guard of the helmet that read: 'K.A.P. XI-XII G. K.A.P.'. These inscriptions could be the name of the item's owner or maker, but they have yet to be interpreted. The cap of the helmet and its cheek pieces are believed to have been lined with leather, though this has not been preserved (van der Heijden & Koster, 2017, p. 19). Not much is known about the helmet other than the fact it was probably deposited in the river Meuse. As Roman army camps are not known to have been located near Buggenum (Roymans, 1996, p. 32), a nearby settlement seems more likely. This could be where the Roman soldier lived the remainder of his life after symbolically ending his career with the votive deposition of his helmet.

### *Venlo*

This right cheek piece of a Weisenau type helmet was found in the river Meuse, near the city of Venlo (ID number 65). The cheek piece is made of iron with a bronze strip along its edge and is decorated with the bronze image of the front view of a temple with a crescent moon on its facade and three entrances (Klumbach, 1974, p. 55; van der Heijden & Koster, 2017, p. 12). The find context of the item was lost in time and it is impossible to know with what intentions it was discarded, if any. Though it is unknown whether there was ever a Roman settlement at Venlo, it is possible for one to have been there. The owner could also have lived in one of the many Roman villas of Limburg (Rijksmuseum van Oudheden, n.d.), perhaps throwing it in the river as a rite de passage after his career as soldier had ended, or as votive offering.

After having discussed all of the helmets that were found in wet contexts in the Netherlands, I will cover the helmets that were found in Germany.

## **3.7 Kleve**

In this chapter, I will be discussing the four helmets that were found in the German district of Kleve. All of these helmets belonged to Roman infantrymen and have been dated to the 1<sup>st</sup> or

2<sup>nd</sup> century AD. I will start the chapter off by talking about the two Hagenau helmets that were found at Hönnepel and Niedermörmter in the German municipality of Kalkar. And will then analyze the ones from Wissel.

### *Hönnepel and Niedermörmter*

Both a Hagenau type and a Niederbieber type helmet were found during gravel dredging operations at Hönnepel (ID numbers 46 and 61). Several names are inscribed on the former that are interpreted as the names of the helmet's multiple owners:

- (1) C - AMILISI - T(iberi) - CALVENTI
- (2) C - SATRI - C(aius) - CAILCIUS - PR
- (3) C - SATRI - P(ubli) - MESSI
- (4) ..IATISTI - NAEVI
- (5) C MILES CO(ho)RT(is) VII
- (6) TI(beri) CALVATI
- (7) MILIS; (8) AN..TIA (?)

The interior of the Niederbieber type helmet's neck guard is inscribed with 'II.VI', which could be a reference to the owner's unit (Klumbach, 1974, p. 43). Since the helmets were found close to the presumed auxiliary fort at Kalkar-Hönnepel, it is likely the owners of the helmets were stationed there (Gerlach et al., 2022, p. 9). The soldiers were auxiliary troops – perhaps native to the area – who could have deposited the helmets into the river as votive offering.

Close by, a helmet of Weisenau type was found during gravel dredging operations near Niedermörmter (ID number 72). Its Brow-plate is richly decorated with images such as a naked Mars figure and dolphins. Ownership inscriptions are interpreted as 'Lucius Sollionius Super, from Legio XXX Ulpa victrix'. Though the close proximity of the find to aforementioned fort could mean the owner was stationed there, it is also possible that it was taken down by the current of the river from Vetera II, possibly as washed-out (Klumbach, 1974, pp. 37-40). Either way, ritual deposition can not be ruled out.

### *Wissel*

A largely destroyed Hagenau type helmet was found during gravel dredging operations near Wissel. Inscriptions on the neck guard are interpreted as 'Dellius Super' from the century of

‘Cornelius Rufus’, and ‘Decius Albanus’ (Klumbach, 1974, pp. 29-30). Till-Moyland (Steincheshof), an auxiliary fort close to where the helmet was found, could likely have been the place where the last owner of the helmet was stationed. Though the auxiliary fort at Kalkar-Hönnepel is also relatively close. He could have thrown his helmet into the nearby river as part of a ritual deposition.

In the next sub-chapter, I will be analyzing the helmets that were found in the Kreis Wesel.

### *3.8 Wesel*

In the German district of Wesel, 23 helmets were found in wet contexts, 4 of them being from Roman cavalry, 18 from infantrymen, and a fragment from 1 helmet that has not been identified. This subchapter will start off by discussing the 22 helmets that were found in the area around Xanten and their possible contexts. In the second part of this chapter, I will examine the single infantry helmet that was found at Flüren, near Mainz.

#### *Xanten*

The 22 helmets that were found at Xanten range from items that are remarkably crafted to standard issue and were mostly found during dredging operations near Xanten-Wardt and Lüttingen-Wardt. Though this body of water is now cut off from the Rhine today, the river coursed through the area during the Roman period (Schalles et al., 1993, p. 14). A civilian settlement and several castra, auxiliary forts, and temporary camps are known to have been located around Xanten, which leaves a lot of possibilities for where the owners of the helmets could have been stationed. From ownership inscriptions on helmet number 49, we can deduce that the owner of the helmet was in legio XXI Rapax (*LEG · XXI[R?]*), which was a legion that was stationed in Vetera I from 9-43 AD, and then in Vindonissa until 69 AD (Schalles et al., 1993, p. 46; Zandstra, 2019, p. 66). This could mean that the owner either lost or intentionally deposited his helmet during his time at Vetera I, or he was a soldier native to the area around Xanten, who returned there after his military career was over to start his life as a civilian, perhaps deposition the helmet as a symbolic way of transitioning to a life as a civilian (rite de passage). Nothing concrete can be deduced from inscriptions on some of the other helmets, and most lack inscriptions altogether. The proximity of the forts to the sheer number of helmets in the river, together with the fact that militaria was used as votive offering at Xanten in the contemporaneous Late La Tène period, are strong arguments for the intentional ritual

deposition of the items. These offerings could have been performed by soldiers native to the area, or non-native soldiers who adopted the custom (Roymans, 1996, pp. 31-32, 34; Nicolay, 2007, p. 184).

### *Flüren*

It is thought that this Hagenau type helmet was found during dredging operations on the right bank of the Rhine, near Flüren. A temporary army camp is known to have been located at Wesel-Flüren, which is where the owner of this helmet is thought to have been stationed. Though accidental loss is possible, it could also have been deposited as a votive offering.

In the final subchapter of my results, I will discuss the pair of helmets that were found in the administrative capital of Germania Inferior, Köln (Cologne).

### *3.9 Köln*

Though a number of statuettes and votive altars were found throughout the city of Köln (Cologne), according to my database, only two helmets were found in the river that runs through the old capital of Germania Inferior (Huffman, 2018, p. 42). One of these Hagenau type infantry helmets has several ownership inscriptions on its neck guard (ID number 41), suggesting it was reused multiple times, perhaps after the death of its previous owners as it was customary that equipment was returned to the arms store when this occurred (Breeze et al., 1976, pp. 94-95). The previous owners could also have retired and sold their equipment back to the army, where it was reused (Nicolay, 2007, p. 173). What is certain is that both helmets ended up in the river at some point, either accidentally or intentionally. The fact that we have only found a pair of helmets in the river could be because the rest was washed away or simply not found yet. However, it is also possible that the Ubii, the native peoples of the area, did not have the custom of depositing votive offerings of militaria in bodies of water, or it was practiced to a lesser extent. The helmets could have been lost or intentionally deposited into the river by two of the thousands of soldiers that were stationed at Cologne over the years, perhaps with ritual intentions (Huffman, 2018, p. 34).



## 4 Conclusion

With this thesis, the Roman face masks and helmets that were found in wet contexts in Germania Inferior have been examined. Knowledge about the subject was collected and distributed, the data of 82 helmets was collected in a database, and an attempt was made to contextualize them. In this chapter I will summarize my findings and provide a clear answer to my research questions.

### *Limitations and recommendations*

There are certain aspects that have posed limitations to the collection and interpretation of the data for this thesis. The collection of data was mostly impaired by the fact that it was often difficult to find information and literature about the helmets online, as older (especially German) works had rarely been uploaded, or the literature was behind a paywall. Though most of the Dutch museums had online databases where data and literature of the military headgear could easily and systematically be extracted from, the German museums did not. This meant that I had to go through every yearbook I could find online in search of new data, which really slowed down the data collection process.

The biggest challenge when it came to interpreting the finds was the lack of archaeological context that comes with aquatic depositions. Wet contexts are dynamic environments, and the items they contain are very susceptible to disturbances such as displacement or fragmentation as a result of natural processes (e.g. currents or erosion), which makes finds that are complete and still in their original context rare. Moreover, most of the items that were deposited in wet contexts in Germania Inferior were retrieved as byproducts of dredging operations (at least 63%) and have lost any possible context in this process.

My recommendations for future research would be to contact as many museums as possible in order to get a clear view of what helmets are located where.

### *Conclusions*

My first research question, '*Which individual Roman face masks and helmets have been found in wet depositions in Germania Inferior and its surroundings?*', was answered by making a database in which the data of every Roman face mask and helmet that was found in wet

contexts in Germania Inferior was collected. In total, 82 items that fit this criteria have been entered into my database.

In order to see if there was a pattern to be observed between the depositions of the finds, and answer my second research question, *'Is there a correlation between why and how these masks and helmets ended up in their context?'*, the data of these 82 pieces of Roman military headgear was examined and an attempt was made to contextualize them. This was done with the use of existing theories that were developed by other researchers, which were put together in the theoretical framework.

The custom of using valuable metalwork as a votive offering is thought to have started during the Bronze Age and remained a relatively common practice throughout the Iron Age (Fontijn, 2019, pp. 2-3). Most of the Roman headgear that was entered into my database seems to have been deposited in bodies of water near settlements, and Roman forts or camps. Furthermore, particularly large concentrations of these items were found near the Roman army bases at Nijmegen and Xanten. According to Roymans' (1996), these zones in the rivers were already used as a place for the ritual deposition of militaria during the Late La Tène period (p. 32). This suggests that there is an overlap between this Iron Age period and the Roman period, perhaps as Roman soldiers native to the area carried on this practice, which would explain the majority of the helmets being found in the vicinity of auxiliary forts. However, it was possibly also adopted by non-natives as cultures mixed (Roymans, 1996, p. 31). Both the depositions of some helmets that strongly hint towards ritual intentions, as well as the sheer amount of Roman military headgear that was found near Roman camps and settlements leads me to believe that some soldiers intentionally deposited their equipment. Most of them would have done this after completing their career (Nicolay, 2007, p. 179), depositing their helmets in a river close to the place they were stationed at or near a settlement they moved to. We may never know the exact motives a person would have for intentionally depositing a piece of Roman military headgear into a body of water, but they could have used it as a way of thanking the gods for protecting them during their career, or as a symbolic end of their life as a soldier (rite de passage).

## Abstract

The large amount of Roman face masks and helmets that were found in wet contexts in the Roman province of Germania Inferior suggests intentional deposition. Though accidental loss during a fight or crossing of a river could occur, intentional deposition with ritual purposes seems more likely. This is attested by a peak in votive offerings in rural settlements in the 1<sup>st</sup> century AD across the Lower Rhine that coincides with a peak of Roman military headgear in wet contexts in the same area. The custom of depositing metalwork as gifts to deities seems to have started in the Bronze Age and was carried over to the Iron Age. The native peoples that lived in Germania Inferior during the final century of this period provided the Roman army with soldiers. It is thought that these auxiliary soldiers practiced the custom of using Roman face masks and helmets as votive offerings, which was then possibly adopted by non-native soldiers of the Roman army. This thesis analyzes these pieces of Roman headgear and their contexts to see if a correlation can be observed between them. Information about 82 face masks and helmets was collected in a database. The items were then described, and possible reasons for their deposition were examined. This showed that almost all of the headgear was deposited near Roman forts, camps, or settlements. This would confirm theories about Roman soldiers votively depositing their equipment at the end of their career, perhaps to thank the gods for their protection, or as a symbolic transition from their life as a soldier to a life as a civilian.

## Bibliography

- Akkermans, P. M. M. G., & Spies, W. P. (1992). *Brons uit de oudheid*. De Bataafsche Leeuw.
- Bishop, M. C., & Coulston, J. C. (1989). *Roman military equipment*. Shire Publications.
- Bishop, M. C., & Coulston, J. C. (2006). *Roman military equipment : from the Punic Wars to the fall of Rome* (2nd ed.). Oxbow Books.
- Bloemers, J. H. F., Louwe Kooijmans, L. P., Sarfatij, H., Brandsen, H. (1981). *Verleden land : archeologische opgravingen in Nederland*. Meulenhoff Informatief.
- Braat, W. C. (1939). Romeinsche helmen in het Rijksmuseum van Oudheden. *Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden*, 20, pp. 29-46.
- Braat, W. C. (1961) Das Stirnband eines römischen Paradehelmes. *Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden*, 42, pp. 60-62.
- Brand, C. (1968). *Roman Military Law*. University of Texas Press. <https://doi-org.ezproxy.leidenuniv.nl/10.7560/733930>
- Brandenburgh, C. R., & Hessing, W. A. M. (2014). *Matilo, Rodenburg, Roomburg: de Roomburgerpolder: van Romeins castellum tot moderne woonwijk*. Primavera Pers.
- Breeze, D. J., Close-Brooks, J., Graham Ritchie J. N., Scott, I. R., & Young, A. (1976). Soldiers' Burials at Camelon, Stirlingshire, 1922 and 1975. *Britannia*, 7, 73–95.  
<https://doi.org/10.2307/525763>
- Brouwer, M., & Spies, W. P. (1993). *De Romeinse tijd in Nederland*. De Bataafsche Leeuw.
- Carroll, M. (2001). *Romans, Celts & Germans : the German provinces of Rome*. Tempus.
- Connolly, P. (1988). *Tiberius Claudius Maximus: The Legionary*. Oxford University Press.
- Crease, S. M. E. (2015). *Re-thinking ritual traditions: interpreting structured deposition in watery contexts in late pre-roman iron age and roman britain*. ProQuest Dissertations Publishing.
- Curle, J. (1915). On a Roman Visor Helmet Recently Discovered near Nijmegen, Holland. *The Journal of Roman Studies*, 5, 81–86. <https://doi.org/10.2307/296291>

de Bruin, J. (2020). *Romeinen langs de Rijn*. Rijksmuseum van Oudheden.

Erfgoed Gelderland. (n.d.). *De Liburna in Millingen*. MijnGelderland. Retrieved December 12, 2024, from <https://mijngelderland.nl/inhoud/verhalen/de-liburna-in-millingen>

Feraudi (2020, December 9). *Owner/artist inscription from Colonia Claudia Augusta? Agrippinensium?, bei – Köln? bei (Germania inferior)*. Epigraphic Database Heidelberg. <https://edh.ub.uni-heidelberg.de/edh/inschrift/HD022083>

Fontijn, D. (2002). Sacrificial Landscapes: Cultural Biographies of Persons, Objects and 'Natural' Places in the Bronze Age of the Southern Netherlands, c. 2300–600 BC. *Analecta Praehistorica Leidensia*. 33.

Fontijn, D. (2019). *Economies of Destruction: How the systematic destruction of valuables created value in Bronze Age Europe, c. 2300-500 BC* (1st ed.). Routledge. <https://doi-org.ezproxy.leidenuniv.nl/10.4324/9781315109879>

Gerlach R., Meurers-Balke J., and Kalis A. J. (2022). The Lower Rhine (Germany) in Late Antiquity: a time of dissolving structures. *Netherlands Journal of Geosciences*, 101, e14. doi:10.1017/njg.2022.11

Haalebos, J. K. (2000). *Romeinse troepen in Nijmegen*. Bijdragen en Mededelingen Gelre 91.

Hazenberg, T. (2000). *Leiden-Roomburg 1995-1997. Archeologisch onderzoek naar het kanaal van Corbulo en de vicus van het castellum Matilo*. Amersfoort: (Rapportage Archeologische Monumentenzorg 77). <https://doi.org/10.17026/dans-zyu-8uux>

Henrich, P., Miks, C., Obmann, J., Wieland, M. (2015). *Non solum ... sed etiam : Festschrift für Thomas Fischer zum 65. Geburtstag*. VML Verlag Marie Leidorf GmbH.

Heunks, E. (2003). *Gemeente Millingen aan de Rijn; een archeologische beleidsadvieskaart*. RAAP-RAPPORT 885. RAAP.

Huffman, J. (2018). *The Imperial City of Cologne: From Roman Colony to Medieval Metropolis (19 B.C.–1125 A.D.)*. Amsterdam University Press.

Jonkergouw, E. T. M. E. (2019). *Roman Religion in Germania Inferior: A case study of the temple of Empel* [Unpublished master's thesis]. Leiden University. <https://hdl.handle.net/1887/83414>

Kalee, C.A. (1989) Roman helmets and other militaria from Vechten, in C. van Driel-Murray (ed.), *Roman Military Equipment. The Sources of Evidence. Proceedings of the 5th Roman Military Equipment Conference*, Oxford (BAR International Series 476), 193-226.

Klumbach, H. (1974). *Römische Helme Aus Niedergermanien*. Rheinland-Verlag.

Kok, D., Kok, R., Vogelzang, F. (2001). *Archeologische Kroniek Provincie Utrecht 2000-2001*. Provincie Utrecht

Koster, A. (2018). Two pieces of cavalry helmet from the province of Gelderland. In T. Ivleva, J. Bruin, & M. Driessen (Eds.), *Embracing the provinces: Society and Material Culture of the Roman Frontier Regions* (pp. 4-7). Oxbow Books Limited.

Kuipers, W. (2021, May 4). De verspoelde Romeinse vindplaatsen in de Gelderse limes. *Detector Magazine*, 176.

Langeveld, M., Luksen-IJtsma, A., Weterings, P. (2010). *Een goede buur? Definitief archeologisch onderzoek naar een vicus, grafvelden, infrastructuur en een inheemse nederzetting in de omgeving van het Romeinse castellum in De Meern, deelgebied 'De Woerd' (Gemeente Utrecht)*. Basisrapportage Archeologie 19. Gemeente Utrecht.

Maasdriel. *Kernatlas Hedel*. Kerkdriel: Maasdriel, 2022

Miks, C. (2014). Ein spätrömischer Depotfund aus Koblenz am Rhein: Studien zu Kammhelmen der späten Kaiserzeit. *Katalog Vor- und Frühgeschichtlicher Altertümer* (Vol. 44). Römisch-Germanisches Zentralmuseum.

Nicolay, J. A. W. (2005). Nieuw licht op de late ijzertijd: twee vermoedelijke sierknoppen van gordelhaken uit het Friese terpengebied. *Paleo-Aktueel*, 17, 130-134.

<https://ugp.rug.nl/Paleo-aktueel/article/view/36374>

Nicolay, J. A. W. (2007). Military Equipment and the life Cycle of a Roman Soldier. In *Armed Batavians: Use and Significance of Weaponry and Horse Gear from Non-military Contexts in the Rhine Delta (50 BC to AD 450)* (pp. 157–206). Chapter, Amsterdam University Press.

Olson, B. (2011, May 27). *The dedication of Roman weapons and armor in water as a religious ritual*. Popular Archaeology. <https://popular-archaeology.com/article/the-dedication-of-roman-weapons-and-armor-in-water-as-a-religious-ritual/>

Pouls, J., & Cromptvoets, H. (2006). *De Gouden Helm uit de Peel: feiten en visies*.

Heemkundevereniging Medelo.

Rijksmuseum van Oudheden. (n.d.). *Research on Roman "country estates."* Rijksmuseum Van Oudheden. <https://www.rmo.nl/en/research/research-projects/a-roman-idyll/>

Robinson, H. R. (1975). *The armour of imperial Rome*. Arms & Armour Press.

Roymans, N. G. A. M. (1990). *Tribal societies in Northern Gaul. An anthropological perspective*. (CINGULA 12). Instituut voor Prae- en Protohistorie, University of Amsterdam.

Roymans, N. G. A. M. (1996). *From the sword to the plough : three studies on the earliest romanisation of Northern Gaul*. Amsterdam University Press.

Schalles, H.-J., Schreiter, C., & Boelicke, U. (1993). *Geschichte aus dem Kies: neue Funde aus dem Alten Rhein bei Xanten: Publikation zur Ausstellung im Regionalmuseum Xanten vom 6. Juni bis 31. Oktober 1993*. Xantener Berichte 3. Rheinland-Verlag GmbH Köln.

Stuart, P. (1986). *Provincie van een imperium: Romeinse oudheden uit Nederland in het Rijksmuseum van Oudheden te Leiden*. Rijksmuseum van Oudheden.

Swinkels, L. (2020). Buit van de Bataven. Een Romeinse helm uit Kesteren. Batavian booty? A Roman helmet from Kesteren. In V.T. van Vilsteren, J.R. Beuker, P.W. van den Broeke & E.M. Theunissen (eds.), *Overpeinzingen op een vuilnisbelt : liber amicorum aangeboden aan Wijnand van der Sanden ter gelegenheid van zijn afscheid als conservator bij het Drents Museum* (pp. 133-143). Barkhuis.

van Der Heijden, P., Koster, A. (2017). *Romeinse Helmen in Nederland: alle helmen en viziermaskers van de limes en de rest van Nederland*. Hazenberg Archeologie.

van der Weerden, J. F., Van der Veken, B., Janssens M. P. J. (2020). *Tienduizend jaar gedeelde bewoningsgeschiedenis in Baarle. Definitief archeologisch onderzoek in het tracé van de randweg Baarle*. RAAP.

van Driel-Murray, C. (2000). A late Roman assemblage from Deurne (Netherlands). *Bonner Jahrbücher des Rheinischen Landesmuseum in Bonn und des Rheinischen Amtes für Bodendenkmalpflege im Landschaftsverband Rheinland und des Vereins von Altertumsfreunden im Rheinlande*, 200, 293-308. <https://doi.org/10.11588/bjb.2000.0.46370>

van Es, W.A. (1984). Romeinse helmen uit de Rijn bij Rijswijk. In: A.O. Kouwenhoven, G.A. de Bruijne & G.A. Hoekveld (eds), *Geplaatst in de tijd, liber amicorum aangeboden aan Prof. Dr. M.W. Heslinga bij zijn afscheid als hoogleraar in de sociale geografie aan de Vrije Universiteit te Amsterdam op vrijdag 12 oktober 1984* (pp. 255-291). Vrije Universiteit.

van Hemert, J. (2010). *Het rivierenknooppunt bij Rossum/Alem opnieuw bezien* [Unpublished master's thesis]. Vrije Universiteit Amsterdam.

van Renswoude, J., Habermehl, D. (2017). *Opgravingen te Houten-Castellum. Bewoning langs een restgeul in de IJzertijd, Romeinse tijd en Vroege Middeleeuwen*. Zuidnederlandse Archeologische Rapporten 65. VUHbs archeologie.

van Roemburg, J. (n.d.) *Romeinse helmen en schild van Zoeterwoude PAN-S-00026*. PAN. <https://www.portable-antiquities.nl/pan/#/ensemble/public/PAN-S-00026>

Verhagen, J. G. M. (2022). *Tussen de Dam van Drusus en de Zuilen van Hercules: Romeinse waterwerken in de Rijn-Maasdelta*. [doctoral dissertation, Vrije Universiteit Amsterdam]. Fagus.

von Lipperheide, F., & Rickelt, K. (1896). *Antike Helme*. Mühlthaler.

Vos, W. K. (2009). *Bataafs platteland: Het Romeinse nederzettingslandschap in het Nederlandse Kromme-Rijngebied*. [Doctoral dissertation, Vrije Universiteit Amsterdam]. <https://hdl.handle.net/1871/13283>

Vos, W. K., Lanzing, J. J., Siemons, H. (2016) *Romeins Bodegraven. Een overzicht van en visie op de archeologische bewoningsresten*. Vos Archo.

Wells, P. S. (2003). *The battle that stopped Rome : Emperor Augustus, Arminius, and the slaughter of the legions in the Teutoburg Forest*. W. W. Norton & Company.

Ypey, J. (1928). Een Romeinse ijzeren helm uit het begin van onze jaartelling, gevonden bij Hedel (Gld.). *Westerheem*, 31(1), 101-103.

Ypey, J. (1966). Twee viziermaskerhelmen uit Nijmegen. *Numaga*, 13, 187-99.

Zandstra, M. J. M. (2019). *Miles away from home. Material culture as a guide to the composition and deployment of the Roman army in the Lower Rhine area during the 1st*



century AD. [Doctoral dissertation, Radboud Universiteit Nijmegen].

<https://hdl.handle.net/2066/212417>

Zienkiewicz, D. (1994). *Roman legion*. National Museums and Galleries of Wales.

## Appendix A: Database

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
1	Cavalry face mask	near complete face mask	Waal, Spoorbrug, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	around 1915	found	Presumed Offering (River)	Iron, with bronze and silver plating	(Culre, 1915; Klumbach, 1974, pp. 61-62)
2	Cavalry face mask	near complete mask	Leiden, Zuid-Holland, Netherlands	Channel (man-made)	1st-2nd century AD	1996	excavated	Presumed Offering (Channel)	Bronze	(Hazenberg, 2000, p. 53; Brandenburg & Hensing, 2014)
3	Cavalry face mask	near complete face mask	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	find date unknown, bequeathed to RMO in 1931	dredging	Unknown	Bronze with silver plating	(von Lipperheide & Rickelt, 1896, p. 323; Robinson, 1975, pp. 122-123; Akkerman

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
										s & Spies, 1992, p. 92; Brouwer & Spies, 1993, pp. 48-50; Van der Heijden & Koster, p. 31)
4	Fragment from cavalry face mask	fragment of mask	Vechten, Utrecht, Netherlands	Ditch (man-made)	Unknown	1947	excavated	Presumed Offering (Ditch)	Bronze	(Kalee, 1989, pp. 203-205)
5	Fragment from cavalry face mask	fragment of mask	Vechten, Utrecht, Netherlands	Ditch (man-made)	Unknown	1947	excavated	Presumed Offering (Ditch)	Bronze	(Kalee, 1989, pp. 206-207).
6	Cavalry face mask (Kalkriese type)	near complete face mask	De Steeg, Gelderland, Netherlands	River (running water)	1st century AD	2014	dredging	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 25; Koster, 2018)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
7	Decorated cavalry helmet	near complete helmet	Peel region, near Deurne, Noord-Brabant, Netherlands.	Bog	4th century AD	1910	found by peat-cutters	Presumed Offering (Bog)	Gilded silver	(Klumbach, 1974, pp. 65-66; Brouwer & Spies, 1993, pp. 16-17; Van Driel-Murray, 2000; Pouls & Crompvoets, 2006)
8	Decorated cavalry helmet	near complete helmet	Old riverbed of the Rhine, near Bodegraven and Fort Wierickerschans, Zuid-Holland, Netherlands	River (running water)	2nd-3rd century AD	1937	sand extraction	Unknown	Gilded bronze	(Braat, 1939, pp. 29-32; Klumbach, 1974, pp. 53-54; Robinson, 1975, p. 102)
9	Decorated cavalry helmet	near complete helmet	Singel, Woerden, Utrecht, Netherlands	River (running water)	2nd century AD	1999	dredging	Presumed Offering (River)	Bronze	(Kok et al., 2001, pp. 229-230)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
10	Brow-plate from decorated cavalry helmet	brow-plate	De Meern, Utrecht, Netherlands	Well (man-made)	1st century AD	2004	excavated	Presumed Offering (Well)	Silver-plated brass	(Langeveld et al., 2010, pp. 297-304; Van der Heijden & Koster, 2017, p. 1)
11	Decorated cavalry helmet	near complete helmet	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-2nd century AD	find date unknown, bought by RMO in 1939	dredging	Unknown	Iron with bronze plating	(Braat, 1939, pp. 40-42; Klumbach, 1974, pp. 46-47; Robinson, 1975, pp. 98-99; Brouwer & Spies, 1993, p. 20)
12	Brow-plate from decorated cavalry helmet	brow-plate	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	bought by RMO in 1878	dredging	Unknown	Bronze	(Klumbach, 1974, pp. 47-48)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
13	Decorated cavalry helmet	near complete helmet	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	2nd-3rd century AD	bought by RMO in 1931	found	Unknown	Iron	(Braat, 1939; Klumbach, 1974, pp. 50-51; Robinson, 1975, p. 101; Henrich et al., 2015, pp. 63-72)
14	Parts from decorated cavalry helmet	part of brow-plate and ear guard	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	Unknown	dredging	Unknown	Bronze	(Klumbach, 1974, pp. 49-50)
15	Fragments from decorated cavalry helmet	fitting from brow-plate and neck plate	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	Unknown	found	Unknown	Bronze	(Klumbach, 1974, pp. 51-52)
16	Brow-plate from decorated cavalry helmet	near complete brow-plate	Amerongen, Utrecht, Netherlands	River (running water)	1st-2nd century AD	bought by RMO in 1960	dredging	Unknown	Bronze	(Braat, 1961; Klumbach, 1974, pp. 52-53; Robinson, 1975, pp.

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
										138-139; Stuart, 1986, pp. 113, 115)
17	Decorated cavalry helmet (Weiler type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 47-48, 191)
18	Cheek piece from decorated cavalry helmet (Weiler type)	cheek piece	Waal, IJzendoorn, Neder-Betuwe, Gelderland, Netherlands	River (running water)	1st century AD	Find date unknown, bought by the RMO in 1963	dredging	Unknown	Bronze	(Klumbach, 1974, p. 59; Stuart, 1986, p. 113; Brouwer & Spies, 1993, pp. 20-21; Van der Heijden, 2017, p. 6)
19	Fragments of cavalry helmet	fragments of helmet	Breda, Noord-Brabant, Netherlands	Well (man-made)	2nd-3rd century AD	1999/2000	excavated	Presumed Offering (Well)	Bronze	(Van der Weerden et al.,

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
										2020, p. 1177)
20	Cheek piece from cavalry helmet	cheek piece	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	Unknown	dredging	Unknown	Bronze	(Klumbach, 1974, p. 57)
21	Cheek piece from cavalry helmet (Weiler type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)



Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
22	Cheek piece from cavalry helmet (Weiler type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)
23	Cavalry helmet (Weiler type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Presumed offering	Iron	(Schalles et al., 1993, pp. 47-48, 114-116, 191-193)
24	Cavalry helmet (Weiler type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 48, 192)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
25	Fragments from cavalry helmet (Weiler type)	fragments	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 48, 192, 194-195)
26	Infantry helmet	near complete helmet	Rhine, Roodvoet, Rijswijk, Gelderland, Nederland	River (running water)	1st-2nd century AD	1979	dredging	Unknown	Bronze	(Robinson, 1975; Van Es, 1984; Van der Heijden & Koster, 2017, p. 29)
27	Infantry helmet	near complete helmet	Rhine, Roodvoet, Rijswijk, Gelderland, Nederland	River (running water)	1st-2nd century AD	find date unknown, gifted to RMO in 1979	dredging	presumed washed-out from a Roman complex	Bronze with silver plating	(Van Es, 1984; Van der Heijden & Koster, 2017, p. 33)
28	Cheek piece from infantry helmet	cheek piece	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	bought by RMO 1878	dredging	Unknown	Bronze	(Klumbach, 1974, p. 56; Connolly, 1988, p. 23)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
29	Cheek piece from infantry helmet	cheek piece	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	transferred to RMO in 1938, transferred to Valkhof museum in 2023	dredging	Unknown	Iron with silver plating	(Braat, 1939; Ypey, 1966)
30	Cheek piece from infantry helmet	cheek piece	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st-3rd century AD	transferred to RMO in 1938, transferred to Valkhof museum in 2023	dredging	Unknown	Iron with silver plating	(Braat, 1939; Ypey, 1966)
31	Fragment from infantry helmet	near complete crest	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	2nd-3rd century AD	bought by RMO in 1931	Unknown	Unknown	Gilded bronze	(Robinson, 1975; Bishop & Coulston, 1989; Zienkiewicz, 1994, p. 14; Miks, 2014, pp. 222-223)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
32	Infantry helmet (Buggenum type)	near complete helmet	Waal, Millingen aan de Rijn, Gelderland, Netherlands	River (running water)	1st century BC-1st century AD	Unknown	dredging	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 18)
33	Infantry helmet (Buggenum type)	near complete helmet	Old Waal arm (Oude Waal), Pannerden, Gelderland, Netherlands	River (running water)	1st century BC-1st century AD	Unknown	dredging	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 19)
34	Infantry helmet (Buggenum type)	near complete helmet	Meuse, Buggenum, Limburg, Netherlands	River (running water)	1st century BC-1st century AD	1951	dredging	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 19)
35	Infantry helmet (Hagenau type)	near complete helmet	beach on Texel, Noord-Holland, Netherlands	Sea (running water)	1st century AD	1949	found	Possibly from a drowned soldier, 'Firon' or 'Piron', on board	Bronze	(Klumbach, 1974, pp. 34-35; Robinson, 1975, p. 27; Bloemers et al., 1981, p. 81; Van der

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
								of the Hirundo		Heijden & Koster, 2017, p. 20)
36	Infantry helmet (Hagenau type)	near complete helmet	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	Find date unknown, bought by the RMO in 1884	dredging	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 19)
37	Infantry helmet (Hagenau type)	near complete helmet	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	Unknown	found	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 21)
38	Infantry helmet (Hagenau type)	near complete helmet	Rhine, Lobith, Gelderland, Netherlands	River (running water)	1st century AD	Unknown	found	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 22)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
39	Infantry helmet (Hagenau type)	near complete helmet	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	find date unknown, bought by RMO in 1881	found	Unknown	Bronze	(Klumbach, 1974, p. 32; Robinson, 1975, p. 80; Brouwer & Spies, 1993, pp. 18-19; Van der Heijden & Koster, 2017, p. 22)
40	Infantry helmet (Hagenau type)	near complete helmet	Meuse, Alem, Gelderland, Netherlands	River (running water)	1st century AD	1960	dredging	Unknown	Bronze	(Van Hemert, 2010, pp. 35-36, 64; Van der Heijden & Koster, 2017, p. 28)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
41	Infantry helmet (Hagenau type)	near complete helmet	Köln, Germany	Unknown	1st century AD	before 1937, when it was given to Landesmuseum Bonn	Found	Unknown	Bronze	(Klumbach, 1974, p. 23; Feraudi, 2020)
42	Infantry helmet (Hagenau type)	near complete helmet	Mulheim, Köln, Germany	River (running water)	1st century AD	before 1895, when it was given to Landesmuseum Bonn	dredging	Unknown	Bronze	(Klumbach, 1974, p. 24)
43	Infantry helmet (Hagenau type)	near complete helmet	Flüren, Wesel, Germany	River (running water)	1st century AD	Unknown	thought to be dredging	Unknown	Bronze	(Klumbach, 1974, pp. 25-26)
44	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	Unknown	dredging	Unknown	Bronze	(Klumbach, 1974, p. 27)
45	Infantry helmet (Hagenau type)	near complete helmet	Wardt-Lüttingen, Wesel, Germany	River (running water)	1st century AD	Unknown	gravel dredging	Unknown	Bronze	(Klumbach, 1974, p. 28)
46	Infantry helmet (Hagenau type)	near complete helmet	Hönnepel, Kalkar, Germany	River (running water)	1st century AD	Unknown	gravel dredging	Unknown	Bronze	(Klumbach, 1974, pp. 28-29)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
47	Infantry helmet (Hagenau type)	near complete helmet	Wissel, Kalkar, Germany	River (running water)	1st century AD	1937	dredging	Unknown	Bronze	(Klumbach, 1974, pp. 29-30)
48	Infantry helmet (Hagenau type)	near complete helmet	Kesteren, Gelderland, Netherlands	River (running water)	1st century AD	2010	found	possibly Germanic spoil of war from Batavian Revolt	Bronze	(Van der Heijden & Koster, 2017, p. 21; Swinkels, 2020)
49	Fragments from infantry helmet (Hagenau type)	parts of helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 45, 47, 178)
50	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 46, 109, 180)



Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
51	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 180, 182)
52	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 111, 182)
53	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 110, 182)
54	Infantry helmet (Hagenau type)	near complete helmet	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 47, 182, 185)
55	Cheek piece from infantry helmet (Hagenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 45, 185)
56	Cheek piece from infantry	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al.,

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
	helmet (Hagenau type)			g water)						1993, p. 185)
57	Cheek piece from infantry helmet (Hagenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 185, 187)
58	Cheek piece from infantry helmet (Hagenau/Port type)	cheek piece	Waal, Nijmegen, Gelderland, Netherlands	River (running water)	1st century AD	Unknown	found	Unknown	Bronze	(Klumbach, 1974, p. 57)
59	Fragment from infantry helmet (Intercisa type)	near complete crest	Rhine, near Spijk, Gelderland, Netherlands	River (running water)	3rd-4th century AD	Unknown	dredging	presumed washed-out from a Roman complex	Iron	(Kuipers, 2021, p. 7)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
60	Infantry helmet (Montefortino type)	near complete helmet	Wardt-Lüttingen, Wesel, Germany	River (running water)	Before 1st century AD	Unknown	Found	Unknown	Bronze	(Klumbach, 1974, p. 20)
61	Infantry helmet (Niederbieber type)	near complete helmet	Hönnepel, Kalkar, Germany	River (running water)	2nd century AD	before 1963	gravel dredging	Unknown	Bronze	(Klumbach, 1974, p. 43)
62	Fragments from infantry helmet (Niederbieber type)	parts of helmet	Rhine, Amerongen, Utrecht, Netherlands	River (running water)	2nd century AD	Bought by RMO in 1966	dredging	Unknown	Bronze	(Klumbach, 1974, p. 44; Robinson, 1975, pp. 98-99; Stuart, 1986, pp. 112-113)
63	Infantry helmet (Niederbieber type II)	near complete helmet	Empel, Noord-Brabant, Netherlands	Well (man-made)	2nd century AD	1989–1991	excavated	Presumed Offering (Well)	Iron	(Jonkergouw, 2019, pp. 52-53)
64	Fragments from infantry	only the bronze fittings	Zoeterwoude, Zuid-Holland, Netherlands	River (running water)	1st century AD	found in 2016/2017,	found	Unknown	Iron	(Van Roemburg, n.d.)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
	helmet (Weisenau type)			g water)		bought by RMO in 2018				
65	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Meuse, Venlo, Limburg, Netherlands	River (running water)	1st century AD	Unknown	dredging	Unknown	Iron	(Klumbach, 1974, p. 55; Van der Heijden & Koster, 2017, p. 12)
66	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556,

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
										896, 1165-1167)
67	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)
68	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster,

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
										2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)
69	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
70	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Hofstad, Houten, Utrecht, Netherlands	Ditch (man-made)	1st century AD	2004	excavated	Presumed Offering (Ditch)	Iron	(Vos, 2009, pp. 160-162, 201; Van der Heijden & Koster, 2017, p. 12; Van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167)
71	Infantry helmet (Weisenau type)	near complete helmet	floodplains of the Meuse, near Hedel, Gelderland, Netherlands	River (running water)	1st century AD	Find date unknown, <i>see additional notes</i>	found	Unknown	Iron	(Ypey, 1982; Nicolay, 2005, pp. 131-132)
72	Infantry helmet (Weisenau type)	near complete helmet	Niedermörmter, Kalkar, Germany	River (running water)	1st century AD	Unknown	gravel dredging	Presumed washed-out from a Roman	Bronze	(Klumbach, 1974, pp. 37-40)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
								complex (Vetera II)		
73	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 188-189)
74	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 188-189)
75	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 188, 190)
76	Cheek piece from infantry helmet	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, pp. 188, 190)



Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
	(Weisenau type)									
77	Cheek piece from infantry helmet (Weisenau type)	cheek piece	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Bronze	(Schalles et al., 1993, p. 191)
78	Fragments from unidentified helmet	fragments of the bronze lining	Floodplain ('t Spijk) near Amerongen, Utrecht, Netherlands	River (running water)	Unknown	1972-1975	dredging	presumed washed-out from a Roman complex	Bronze	(Kuipers, 2021, p. 12)
79	Fragments from unidentified helmet	fragment	Rijswijkse Buitenpolder, Rijswijk, Gelderland, Netherlands	River (running water)	1st-2nd century AD	1979	dredging	presumed washed-out from a Roman complex	Unknown	(Kuipers, 2021, p. 14)

Number	Face Mask/Helmet Type	Part of the Mask/Helmet	Find Location	Type of Wet Context	Date of Origin	Find Date	Find Method	Find context	Material Composition	Source
80	Fragments from unidentified helmet	fragment	Rijswijkse Buitenvolder, Rijswijk, Gelderland, Netherlands	River (running water)	1st-2nd century AD	1979	dredging	presumed washed-out from a Roman complex	Unknown	(Kuipers, 2021, p. 14)
81	Fragments from unidentified helmet	fitting	Ijzendoorn, Gelderland, Netherlands	Unknown	4th-5th century AD	2013?	excavated	Unknown	Bronze	(Van der Heijden & Koster, 2017, p. 10)
82	Fragments from unidentified helmet	fragments	Xanten, Germany	River (running water)	1st century AD	1982-1992	dredging	Unknown	Iron	(Schalles et al., 1993, pp. 47, 194-195)

Appendix table A1: Table of the dataset

## Appendix B: Individual helmets

### Cavalry

#### *Cavalry face masks*

##### **1 Waal, Spoorbrug in Nijmegen**

*Collectie Gelderland, inventory number: XXI.I.4*

This 1<sup>st</sup> century cavalry face mask was found near Nijmegen in the river Waal around 1915. The mask is thought to belong together with a 'Nijmegen-Kops Plateau' type helmet. The top of the helmet is has corroded away and there is a there is a decorative brow band on the mask's forehead with five small busts that are thought to be characters from Roman myths, specifically the god Bacchus and his entourage. Both the helmet and the decorative brow band are made of silver-plated and partly gilded bronze. The face mask is presumed to be an offering as glass beads were found to have been placed inside the helmet (Culre, 1915; Klumbach, 1974, pp. 61-62).

##### **2 Matilo, Roomburg, Leiden**

*RMO, inventory number: ELo 2001-500*

During an excavation in 1996 this bronze cavalry face mask was found in the old riverbed of the Corbulo channel. It was in near perfect condition as it had lying below the groundwater level where no oxygen could cause it to corrode. The face mask shows a very detailed young man's face with curly hair. The hinge on top of the helmet that was used to connect the face mask to a helmet is in bad shape but visible, together with two small holes behind the ears of the mask where leather straps were connected to allow the soldier to wear his mask behind his head. The face mask was dubbed 'Gordon' as students present at the excavation saw a resemblance to the eponymous Dutch artist. The face mask is thought to have been thrown in the channel as an offering to the gods (Hazenberg, 2000, p. 53; Brandenburg & Helsing, 2014).

##### **3 Waal, near Nijmegen**

*RMO, inventory number: e 1931/2.18a*

This silver-plated bronze mask was bequeathed to the Rijksmuseum van Oudheden in 1931. It is thought that it was dredged up in the river Waal and dates to the second half of the first

century AD. Like with the Matilo face mask, there is hinge on the helmet that connected the face mask to a helmet. As the face mask was dredged up, the find context of the mask was lost (von Lipperheide & Rickelt, 1896, p. 323; Robinson, 1975, pp. 122-123; Akkermans & Spies, 1992, p. 92; Brouwer & Spies, 1993, pp. 48-50; van der Heijden & Koster, p. 31).

#### **4 Vechten, Utrecht**

In 1947, four fragments that were restored into one bigger fragment and one separate piece of a bronze tripartite cavalry mask were found. The first set of fragments is decorated with curls of hair and belongs to the left side of the face. The second fragment is much smaller and from the right side of the face mask and is also decorated with curls of hair. There are holes in both of the pieces where rivets for the strap that connected the face mask to a helmet. The pieces were covered in dark green patina and found in a ditch fill, which could point to a ritual deposition if it was thrown into the ditch on purpose (Kalee, 1989, pp. 203-205).

#### **5 Vechten, Utrecht**

This barely corroded bronze fragment of a bi- or tripartite face mask was found in a ditch fill during excavations in 1947. It comes from the left side of the face and is thought to belong to a bi- or tripartite helmet. The piece is cracked on the surface in a couple of places and there are tears on all edges. On the inside of the mask the hammer marks from its production are still visible. The fragment was found in a ditch and could be deposited there with ritual intentions (Kalee, 1989, pp. 206-207).

#### **6 Nijmegen-Noord/De Steeg (gem. Rheden)**

The first cavalry face mask from my database that was found in a wet context is made of bronze and part of a Pseudo Attic cavalry helmet of the Kalkriese type from the 1<sup>st</sup> century AD. It was found in 2014 in De Steeg (gem. Rheden) by two metal detectorists who were going through a gravel depot. It is possible that the face mask was picked up during sand and gravel dredging at near Nijmegen, but it could also be that it was dredged up in the Rhine near Rees (Germany), as the depot held the gravel and sand from both locations. The face mask was found dented, but only the dent and breaks on the nose, which could have happened during a fight, seem to have happened before it was deposited as there is evidence that it was fixed with tin. There is

no evidence of a ritual deposition as the context of the face mask was lost (van der Heijden & Koster, 2017, p. 25; Koster, 2018).

### *Decorated cavalry helmets*

Decorated cavalry helmets made up 20 of the 49 cavalry items in my database. The majority of these helmets (12) had been deposited in wet contexts, with 7 in dry contexts and 1 in an unidentified context.

#### **7 Peel region, near Deurne**

*RMO, inventory number: k 1911/4.1-5*

This gilded silver helmet was found in 1910 by peat cutters and bought the following year by the Rijksmuseum van Oudheden. The helmet is made of an iron cap that is lined with leather, covered with about 370 grams of silver sheets which are decorated simple figures and pearl borders at their edges. There are inscriptions on the helmet that read 'Marcus Titus Lunamis', who is interpreted as the maker of the helmet; and 'Stablesia VI', which is the sixth cavalry unit of the *equites stablesiani*, who were a mobile elite corps that accompanied the emperor on his travels through the Roman empire. The helmet was part of a bundle of items, including shoes, horse gear, and a sword sheath, and is thought to have been offered to the gods by an officer who had completed his years of service and was given a piece of land in the area (Klumbach, 1974, pp. 65-66; Brouwer & Spies, 1993, pp. 16-17; van Driel-Murray, 2000; Pouls & Cromptvoets, 2006).

#### **8 Old riverbed of the Rhine, near Bodegraven and fort Wierickerschans**

*RMO, inventory number: h 1937/10.4*

This decorated cavalry parade helmet made of silver-plated and gilded bronze was found during sand extraction operations in 1937 and was gifted to the Rijksmuseum van Oudheden in October of the same year. It was dated between the last quarter of the 2nd century and the beginning of the 3rd century and except for the fact that the cheek pieces are missing, the helmet is complete and in good condition. It has a large guard with a handle attached to it for carrying and there are inscriptions on the inside that are thought to be the names of the soldiers that owned the helmet. The first name is interpreted as Q(uintus) Salonius from Ionus'

Turma (cavalry unit); while the second name is that of Popnus, who claimed the helmet legally belonged to him (Vos et al., 2016, p. 75). It is covered in engraved patterns of plants, people, and sea animals. Though the hinges to which a face mask could be attached are missing, it is likely a mask used to be attached to it (Vos et al., 2016, p. 75). While the helmet was deposited in a wet context, the reason behind its deposition is unknown (Braat, 1939, pp. 29-32; Klumbach, 1974, pp. 53-54; Robinson, 1975, p. 102; de Bruin, 2020, p. 35).

## **9 Singel, Woerden**

In 1999, a 2<sup>nd</sup> century decorated bronze cavalry helmet was found during dredging operations in the Singel canal in Woerden. It has a wide neck guard on which no inscriptions have been found and convex edges around the ears. The crest on top of the helmet resembles the head of an eagle and though no face mask was found, it is believed the owner wore one together with the helmet. The helmet is thought to be a unique type as it has features of both Niederbieber variant I helmets (the simple shape of the hood of the helmet), and Weiler-Guisborough (the stylized eagle's head). Since the helmet was dredged up, we do not know anything about its deposition other than the fact it was deposited in a wet context (Kok et al., 2001, pp. 228-230).

## **10 De Meern, Utrecht**

This item is a decorated forehead band that was part of a cavalry helmet and dates to the 1<sup>st</sup> century AD. It was found during excavations in De Meern in 2004 at the bottom of a well. Of the helmet, only the brow band made of silver-plated brass has been found, which depicts a bust of a woman with long curly hair with wild animals on both sides of her: a lion and a wild boar on one side, and a lion and a panther on the other side. The animals are thought to be symbols of Africa. The fact that the brow band had been destroyed before its deposition in combination with it being thrown in a well are strong arguments for a ritual deposition (Langeveld et al., 2010, pp. 297-304; van der Heijden & Koster, 2017, p. 1).

## **11 Waal, near Nijmegen**

*RMO, inventory number: e 1939/6.1*

The original find date of this helmet is unknown, but it was bought by the Rijksmuseum van Oudheden in 1939. It is a near complete iron helmet with a bronze frame and a brow band

that is decorated with a wreath of oak leaves and a woman's head in the middle. One of the cheek pieces is missing, but the remaining cheek piece is decorated with a figure on horseback who is killing another person with his spear. There are also inscriptions on the brow band that are thought to be the name of the helmet's owner: Vannius. The helmet is dated to the 1<sup>st</sup> or 2<sup>nd</sup> century AD. The wreath of oak leaves was a high distinction in the Roman army so the owner might have been an officer who earned it as helmets like this one would have been very expensive. It is possible that the helmet was thrown into the river, but loss or wash-out from a fort or settlement is also possible (Braat, 1939, pp. 40-42; Klumbach, 1974, pp. 46-47; Robinson, 1975, pp. 98-99; Brouwer & Spies, 1993, p. 20).

## **12      Waal, near Nijmegen**

*RMO, inventory number: NS 182+287*

This bronze brow band is decorated with a laurel wreath and the head of a male figure with some sort of low flat headgear at each end. An accurate estimation of the items dating has not been provided, but we do know it is somewhere between the 1<sup>st</sup> and 3<sup>rd</sup> century AD. It was bought by the Rijksmuseum van Oudheden and was found near Nijmegen in the river Waal in October of 1878 during dredging operations, which caused a loss of find context (Klumbach, 1974, pp. 47-48).

## **13      Waal, near Nijmegen**

*RMO, inventory number: e 1931/2.19a*

In 1931, the Rijksmuseum van Oudheden bought this decorated iron cavalry helmet with bronze fittings that was found in the Waal. The helmet was restored by the RMO after most of its iron had corroded away and only one of the cheek pieces was retrieved. The brow band is decorated with are figures in frames that represent Eros, the Roman god of love, and the faces of women. The helmet has a wide neck guard to protect its wearer, who is believed to have been a soldier from the auxiliary troop, from enemy blows. The find context of the helmet was lost (Braat, 1939; Klumbach, 1974, pp. 50-51; Robinson, 1975, p. 101; Henrich et al., 2015, pp. 63-72)

#### **14 Waal, near Nijmegen**

This bronze piece consists of part of the left ear guard and part of the brow band. This brow band is decorated with an embossed wavy pattern that is framed with embossed double stripes at the top and bottom and single stripes on the sides. Not much else is known about this piece other than the fact that it was dated to between the 1st and 3rd century AD and found during dredging operations in the Waal some time before 1974 (Klumbach, 1974, pp. 49-50).

#### **15 Waal, near Nijmegen**

*Rijksmuseum G. M. Kam, inventory number: 10 1942.1*

These bronze fittings from a brow band and neck guard are from the 1<sup>st</sup> to 3<sup>rd</sup> century AD and have been found in the river Waal. There are still remains of the thin ear guard. The neck guard is roughly crescent shaped with a hole in the middle where a rivet used to be. The reason for its deposition is unknown as the find context was lost (Klumbach, 1974, pp. 51-52).

#### **16 Rhine, Amerongen, Utrechtse Heuvelrug, Utrecht**

*RMO, inventory number: f 1960/10.4*

In 1960, the Rijksmuseum van Oudheden bought a near complete bronze brow band from a decorated cavalry helmet. It had been found during dredging operations in the Rhine near Amerongen. The brow band is decorated with portraits that are thought to represent members of the imperial family that have been slightly damaged by the dredger mouth, and it is believed that the band was originally covered with some sort of bearing metal ('witmetaal') layer. The find context of this item was lost (Braat, 1961; Klumbach, 1974, pp. 52-53; Robinson, 1975, pp. 138-139; Stuart, 1986, pp. 113, 115).

#### **17 Rhine, near Xanten (Kat Mil 15)**

*RLMB Inv. 86.0070*

This decorative cavalry helmet is made iron and covered with a rather thick silver layer. The back of the helmet extends far down vertically, and it has a narrow, outward sloping neck guard at its end. The cheek pieces of the helmet have been preserved and their design, together with the design of the rest of the helmet, are characteristic of the mid-1<sup>st</sup> century AD Weiler type cavalry helmets. It was found during dredging operations in Xanten-Wardt some time between



1982-1992. During this process, the find context was lost and the intentions behind its deposition remain unknown (Schalles et al., 1993, pp. 47-48, 191).

## **18      Waal, near IJzendoorn**

*RMO, inventory number: e 1963/6.1*

This 1<sup>st</sup> century cheek piece is decorated with the image of Mars, the Roman god of war, who is wearing a helmet and holding a sword and shield. The edges of the bronze cheek piece have segmented bands, and the top corner has an ear that have all been embossed. It was bought by the Rijksmuseum van Oudheden in 1963, but the find date and everything else about its context is unknown (Klumbach, 1974, p. 59; Stuart, 1986, p. 113; Brouwer & Spies, 1993, pp. 20-21; van der Heijden, 2017, p. 6).

### *Standard cavalry helmets*

## **19      Klein Hoogsteen, Breda**

This bronze helmet was found in a water well fill during excavations somewhere between 1999 and 2000 and is dated to somewhere between the 2<sup>nd</sup> and 3<sup>rd</sup> century AD. It is described as being onion-shaped and thought to come from the eastern part of the Roman Empire as similar helmets have been found in Dacia. It is believed to have been brought home by its owner and then thrown in the water well with ritual purposes (van der Weerden et al., 2020, p. 1177).

## **20      Waal, near Nijmegen**

This bronze cheek piece is from the right side of the helmet and was found during dredging operation some time before 1974 in the river Waal near Nijmegen. The center of this cavalry cheek piece is slightly raised and there is a stylized ear at the top edge. Sand and iron oxide were caked together on the back of the piece and its find context is unknown (Klumbach, 1974, p. 57).

## **21 & 22      Hofstad, Houten, Utrecht**

These two iron cheek pieces belong to different Weiler type helmets but were found during an excavation in 2004 in the same ditch, all dating to the 1<sup>st</sup> century AD. They were neatly stacked on top of each other together with five infantry cheek pieces (nr. 66, 67, 68, 69, and

70), which is a strong indication of intentional deposition that could well be with ritual purposes (Vos, 2009, pp. 160-162, 201; van der Heijden & Koster, 2017, p. 12; van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167).

### **23 Rhine, near Xanten (Kat Mil 16)**

*Inv. RMX 91,21.003*

This iron helmet that represents an important part of the protective armaments of the cavalry of around the middle of the 1<sup>st</sup> century AD was found in an old river arm in Xanten-Wardt during dredging operations between 1982 and 1992. Most of the helmet and the neck guard, though partially dented, and one of its ear guards have been preserved. Its cheek pieces were not retrieved. There are reddish-brown traces of textile-like structures on the helmet, which consist of three elements: along the length of the helmet lie series of strands close together; in some places net-like braids run down from underneath the series of strands; and finally, a broader hair-like strip runs across the crown of the helmet, with two similar strips start on the forehead, run along the sides of the helmet and meet in the neck area. The helmet also features impressions of omega-shaped hooks in the forehead- and neck area. The restoration process of the helmet revealed that it was already damaged before it ended up in the river as they were not repaired, which could suggest intentional destruction of the item as a preparation for ritual deposition (Schalles et al., 1993, pp. 47-48, 114-116, 191-193).

### **24 Rhine, near Xanten (Kat Mil 17)**

*Inv. RLMB 86,0069,01*

This iron cavalry helmet was completely caked with sand and gravel when it was found during dredging operations in Xanten-Wardt some time between 1982 and 1992. It had been thrown into the river during the Roman period when the Rhine ran through the area, though it is unclear with what intentions. It is a 1<sup>st</sup> century AD Weiler type helmet with most of its edges broken off, and holes in its cap and neck guard as a result of corrosion. The cheek pieces, together with any form of decoration have not been preserved, though bronze rivets and hinges that have remained suggest a multi-part decorative sheet metal fitting made of bronze, perhaps partially also silver, like a hair cap made of hammered bronze. It can be assumed that an additional forehead plate and ear guards were attached to the helmet, as is common with this type of helmet (Schalles et al., 1993, pp. 48, 192).

**25 Rhine, near Xanten (Kat. Mil 18)**

*Inv. RMX 91,17.008*

These two iron fragments belong to a Weiler type cavalry helmet from the 1<sup>st</sup> century AD. They were found during dredging operations, being heavily corroded with numerous breaks. One of the pieces is from the right side of neck and neck guard of the helmet, and the other piece is from the forehead and part of the left side of the cap. Two small, bronze rivets can be found on the neck fragment above the ear. A small, silver sheet fragment that is folded inward is attached to the upper rivet. It can be assumed that this helmet was also decorated with a sheet of silver or other decoration, as is common for Weiler type helmets. The helmet was thrown into the river Rhine as it ran through the area in Roman times, but since its find context was lost during the dredging process, the intentions behind its deposition are unknown (Schalles et al., 1993, pp. 48, 192, 194-195).

## Infantry

**26 Rhine, Roodvoet, Rijswijk, Buren, Gelderland**

*RMO, inventory number: "WD onbekend 75"*

In 1979, a helmet of Imperial Gallic type that was found during dredging operations in the Rijswijkse Buitenpolder. The helmet dates to between the 1<sup>st</sup> and 2<sup>nd</sup> century AD and is made of bronze. It has a wide neck guard where at least three names are inscribed, two of which are believed to be from the owners of the helmet. The names of the supposed owners are 'Titus Allienus Martial(n)is' and 'Statorius Tertius', the third name is 'Antonius Fronto' who is thought to have been the centurion of both soldiers. The find context was lost, though it is possible that it was deposited with ritual intentions (Robinson, 1975; van Es, 1984; van der Heijden & Koster, 2017, p. 29; Kuipers, 2021, p. 14).

**27 Rhine, Roodvoet, Rijswijk, Buren, Gelderland**

*RMO, inventory number: "WD onbekend 75"*

The top of this helmet has corroded away but most of the bronze, sometimes silver plated, parts remained in relatively good condition. It is dated to between the second half of the 1<sup>st</sup> century and the 2<sup>nd</sup> century AD and was gifted to the Rijksmuseum van Oudheden in 1979. The helmet was found during dredging operations on the floodplains of the Rhine together

with Roman building material, which suggests there could have been a castellum there and this helmet part was washed-out (van Es, 1984; van der Heijden & Koster, 2017, p. 33).

**28 Waal, near Nijmegen**

*RMO, inventory number: NS 104*

This right cheek piece was found during dredging operations in the Waal and bought by the Rijksmuseum van Oudheden in 1878. It is made of bronze and was attached by the Rijksmuseum van Oudheden to a helmet with inventory number *NS 429* until 1974. Comes from an infantry helmet of undisclosed type with an unknown find context (Klumbach, 1974, p. 56; Connolly, 1988, p. 23).

**29 Waal, near Nijmegen**

*RMO, inventory number: e 1931/2.19c*

This right cheek piece is made of iron and covered with silver-plated copper tin. Its find date is unknown, but it was found in the Waal some time before 1938, as it was transferred to the RMO in that year, and again in 2023 to Valkhof museum. It is dated to somewhere between the 1<sup>st</sup> and 3<sup>rd</sup> century AD with an unknown find context (Braat, 1939; Ypey, 1966).

**30 Waal, near Nijmegen**

*RMO, inventory number: e 1931/2.19b*

This 1<sup>st</sup> - 3<sup>rd</sup> century left cheek piece was found during dredging operations in the Waal in an undisclosed year before it was transferred to the Rijksmuseum van Oudheden in 1938 (the inventory number suggests 1931). It is made of iron and covered with silver-plated copper tin. The dredging operation caused the loss of the find context of this item (Braat, 1939; Ypey, 1966).

**31 Waal, near Nijmegen**

*RMO, inventory number: e 1931/2.20*

In 1939, the Rijksmuseum van Oudheden bought this near complete crest of a Roman infantry helmet. The crest is made of gilded bronze and dates to between the 2<sup>nd</sup> and 3<sup>rd</sup> century AD. There are small holes on the front side of the crest, perhaps for the attachment of a Christogram. The exact context of the crest is unknown as it was dredged up from the river

Waal near Nijmegen (Robinson, 1975; Bishop & Coulston, 1989; Zienkiewicz, 1994, p. 14; Miks, 2014, pp. 222-223).

### **32 Waal, near Millingen aan de Rhine**

*Collectie Gelderland, inventory number: XXI.I.3*

This is a helmet of the 'Buggenum type' that is dated to between the second half of the 1<sup>st</sup> century BC and early in the 1<sup>st</sup> century AD. The helmet is made of tinned bronze and has a semi-circular shape and short neck guard. There is a cone-shaped anther on top of the helmet where a plume could be slid in and two holes where rivets used to be on either side of the helmet. These rivets could be used to attach the cheek pieces to the helmet. The find context of this helmet was lost (van der Heijden & Koster, 2017, p. 18).

### **33 Waal, near Pannerden**

*Collectie Gelderland, inventory number: BE.XIV.8b*

This 'Buggenum type' helmet was found during dredging operations in an undisclosed year and has a semi-circular shape and a short neck guard. There are holes on either side of the helmet near the ears for the attachment of hinges for cheek pieces and a small tube next to the anther where a plume could be inserted. It dates back to between the second half of the 1<sup>st</sup> century BC and the early 1<sup>st</sup> century AD. Possibly belonged to a soldier from the nearby castellum Carvium, could have ended up in the river accidentally (e.g. through washing-out), or intentionally (e.g. with ritual purposes) (van der Heijden & Koster, 2017, p. 19).

### **34 Meuse, near Buggenum**

*Historiehuis Roermond, inventory number: 4507*

This helmet was found during a dredging operation in 1951, during which the find context was lost. It was crafted from a single piece of bronze somewhere between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD. The short neck guard has a faded inscription that is thought to read 'K.A.P. XI-XII G. K.A.P.', which could indicate the name and unit of the helmet's owner. The anther was used for attaching a plume, and the holes on either side of the helmet were for attaching cheek pieces. The helmet and the cheek pieces are believed to have had an inner lining made of leather or some other fabric (van der Heijden & Koster, 2017, p. 19).

### **35 Texel, Noord-Holland**

*RMO, inventory number: g 1949/5.1*

In 1949, this 'Hagenau type' bronze helmet was found on one of the beaches of Texel. Its brow band and the cheek pieces are missing, and the anther where a plume could be attached has been badly damaged. There is an inscription on the neck guard that is interpreted as the owner of the helmet 'Firon' or 'Piron', who was a freedman of 'Publius', and a soldier on the warship 'Swallow'. If this interpretation is correct, the ship could have been one of the ships Germanicus had built in 16 AD that perished in a storm off the Dutch coast, where the owner would have lost it (Klumbach, 1974, pp. 34-35; Robinson, 1975, p. 27; Bloemers et al., 1981, p. 81; van der Heijden & Koster, 2017, p. 20).

### **36 Waal, near Nijmegen**

*RMO, inventory number: NS 663*

The Rijksmuseum van Oudheden bought this 'Hagenau type' helmet in 1884 after it was found during dredging operations in the river Waal near Nijmegen. There are inscriptions on the small neck guard that are believed to be the name of the owner, 'T. Vettius' from the centuria of 'Sextus Dullus'. There is also a name of a second centuria, Reonius, inscribed on the helmet, but this one is more difficult to read. The second centuria could mean that the owner changed army unit, or his first centurion was killed or retired. How the helmet ended up in the river is unknown (van der Heijden & Koster, 2017, p. 19).

### **37 Waal, near Nijmegen**

*Collectie Gelderland, inventory number: XXI.I.1*

This semicircular helmet is classified as a 'Hagenau type' with a short neck guard with a bronze ring attached to it, which could have been used as a handle to carry the helmet around. There is a hole on each side of the helmet that can be used to attach hinges for the cheek pieces and the brow band is attached with heavy rivets. It was found in the river Waal near Nijmegen and its find context was lost (van der Heijden & Koster, 2017, p. 21).

### **38 Rhine, near Lobith**

*Collectie Gelderland, inventory number: 8.4.30*

This 'Hagenau type' helmet was found with ownership inscriptions that are interpreted as 'Iunius Secundus' from the centuria of 'Iulius Irvus'. It has a semicircular shape and a small neck guard. The exact context of the helmet was lost, but the helmet is dated to the 1<sup>st</sup> century AD and was found in the river Rhine, near Lobith, at the eastern end of the Dutch Limes (van der Heijden & Koster, 2017, p. 22).

### **39 Waal, near Nijmegen**

*RMO, inventory number: NS 429*

A 'Hagenau type' helmet with a wide neck guard where traces of carrying handle can be seen, and hinges for the attachment of cheek pieces on either side of the helmet near the ears. There are inscriptions on the neck guard that are believed to be the names of the owners of the helmet and their units. The first two names are interpreted as 'Caius Apius' and 'Lucius Cornelius' from the centuria of 'Catulus'; and the other name is that of 'Quintus Valerius' from the centuria of 'Quintus Petronius'. The three different names suggest that the helmet was reused. Its find context is unknown as it was found in the river Waal in an undisclosed year and bought by the Rijksmuseum van Oudheden in 1981 (Klumbach, 1974, p. 32; Robinson, 1975, p. 80; Brouwer & Spies, 1993, pp. 18-19; van der Heijden & Koster, 2017, p. 22).

### **40 Meuse, near Alem**

The semicircular shape of this bronze infantry helmet is reminiscent of a 'Hagenau type' helmet but the neck guard that curves downward suggests that it is a transitional form between 'Hagenau type' and 'Niederbieber type'. The brow band and cheek pieces have not been preserved. On the left and right side of the neck guard where the carrying handle used to be, the names of two of the presumed helmet's owners are inscribed: *SERVATI / V · M[.]XVMI*, which is interpreted as 'Valerius Maxumus from the centuria of Servatus'; and *GRATI M(arci) RVFI*, which is thought to read 'Marcus Rufus from the centuria of Gratus'. It was found in 1960 during dredging operations in the river Meuse near Alem, where a Roman port is believed to have been located. The reason behind the deposition in the river is unknown as its find context was lost when it was dredged up (van Hemert, 2010, pp. 35-36, 64; van der Heijden & Koster, 2017, p. 28).

#### **41 Rhine, near Köln**

*Reinisches Landesmuseum Bonn, inventory number: 37, 46*

The top of this 'Hagenau type' helmet has not been preserved, nor has the brow band. The hinges of the left cheek piece are still present. There are four inscriptions on the neck guard of the helmet that are interpreted as the names of the owners of the helmet and their unit: *[(centuria) PRITONI , INIITVRI, [...]CVS, [...]C[...]M, [(centuria) Comini, [V?]aleri l(egionis) XVI, [(centuria) Valeri, [...] P(ubli) Petroni*. The presence of multiple names would suggest it changed hands several times. It was in private collection until the early 20<sup>th</sup> century, without a known find context (Klumbach, 1974, p. 23; Feraudi, 2020).

#### **42 Rhine, near Köln-Mulheim**

*Reinisches Landesmuseum Bonn, inventory number: D 66*

This is a bronze 'Hagenau type' helmet with a flattened top. The anther and brow band have been lost but the hinge that was used to attach the right cheek piece has been preserved. The large neck guard suggests a dating after the middle of 1<sup>st</sup> century AD. It was found in the Rhine near Köln during dredging operations between 1811 and 1813 for the construction of a harbor. The find context of the helmet was lost in the process (Klumbach, 1974, p. 24).

#### **43 Rhine, near Flüren**

*Reinisches Landesmuseum Bonn, inventory number: 68.270*

The exact location of this helmet is unknown, but it is thought to have been found during dredging operations on the right bank of the Rhine near Flüren, where its find context was lost. Its top is flattened, and its cheek pieces and brow band have not been preserved. The helmet appears to not have had an anther, which is common for a 'Hagenau type' helmet (Klumbach, 1974, pp. 25-26).

#### **44 Rhine, near Xanten**

*RMO, inventory number: M 1953/10.1*

This 'Hagenau type' helmet has a typical semicircular shape and an anther on top where a plume could be attached. Both hinges for the cheek pieces are preserved, but not the brow band. There are ownership inscriptions on the neck guard: 'FIRII C. REVI', which is interpreted as the name of the helmet's owner: 'Caius Revius from the centuria of Firijs'. The helmet was



found during dredging operations in the river Rhine near Xanten, but as it was collected and sold by an antique dealer, the find context was lost (Klumbach, 1974, p. 27).

#### **45 Wardt-Lüttingen**

*Reinisches Landesmuseum Bonn, inventory number: 59,379*

This helmet was found during gravel-dredging operations near Wardt-Lüttingen and is classified as a bronze 'Hagenau type' helmet. The cheek piece hinges on both sides of the helmet and the carrying handle on the neck guard are still attached. As it was found close to Xanten, it is thought to have belonged to a soldier that was stationed at Castra Vetera. Why and how this helmet ended up here is unknown, as context was lost during the dredging process (Klumbach, 1974, p. 28).

#### **46 Hönnepel**

*Reinisches Landesmuseum Bonn, inventory number: 58,516*

This 1<sup>st</sup> century 'Hagenau type' helmet was found during gravel dredging operations near Hönnepel. The helmet has a semicircular shape, and the brow band and right cheek piece have been preserved. There are several ownership inscriptions on the neck guard:

- (8) C - AMILISI - T(iberi) - CALVENTI
- (9) C - SATRI - C(aius) - CAILCIUS - PR
- (10) C - SATRI - P(ubli) - MESSI
- (11) ..IATISTI - NAEVI
- (12) C MILES CO(ho)RT(is) VII
- (13) TI(beri) CALVATI
- (14) MILIS; (8) AN..TIA (?)

It is unknown how and why this helmet was deposited, as gravel dredging caused its context to be lost (Klumbach, 1974, pp. 28-29).

#### **47 Wissel**

*Reinisches Landesmuseum Bonn, inventory number: 37,45*

The upper half of this helmet has been largely destroyed and restored. The anther is damaged, and the cheek piece hinges are still intact. The inscriptions on the straight neck guard of this 'Hagenau type' helmet read:

(1) C (centuria) - CORNIILI - R VFI - SVPIIR⊙DIILLIVS

(2) C - DECII (?) ALBANI SVPER - (below larger E or B)

This interpreted as the helmet belonging to 'Dellius Super' from the centuria of 'Cornelius Rufus', and then 'Decius Albanus'. The helmet was found during gravel dredging operations near Wissel, but its find context was lost in the process (Klumbach, 1974, pp. 29-30).

#### **48 Kesteren**

*Collectie Gelderland, inventory number: 2011.7*

This 1<sup>st</sup> century infantry helmet of the 'Hagenau type' was found in 2010 near Kesteren and is thought to come from a river dune or, at the time, water-bearing residual channel. It is made of bronze and there are three ownership inscriptions on the neck guard:

(1) (centuriae) L(ucii) Metti(i) (...) T(iti) Varroni(i)

(2) (centuriae) S(e)x(ti) Vet(i) C(aii) Iuli(i)

(3) (centuriae) Rufi Petoni(i) / T(iti) Iuli(i)

(4) (centuriae) M(arci) Hiri(i)

These are interpreted as:

(5) Titus Varronius from the centuria of Lucius Mettius

(6) Gaius Iulius from the centuria of Sextus Vetius

(7) Titus Iulius from the centuria of Petonius

(8) From the centuria of Marcus Hirus

It could have been deposited by a Roman soldier or veteran who had been stationed in a nearby border fort on the Rhine at the end of his military career as a way to thank the gods for his survival, or it could have been taken as spoil of war during the Batavian Revolt and deposited with other, or without any intentions (van der Heijden & Koster, 2017, p. 21; Swinkels, 2020).

#### **49 Rhine, near Xanten (Kat. Mil 1)**

*Inv. RMX 90,15.013*

This bronze helmet was found in four fragments (top of the cap, neck guard, forehead, and forehead band) in Xanten-Wardt during dredging operations between 1982 and 1992, the damages it endured were partially caused by the dredger. It is a Hagenau type helmet dated to the first half of the 1<sup>st</sup> century AD. It has a relatively short neck guard that has a hole in it

where a carrying handle could have been attached. On it are at least two inscriptions that are interpreted as two of the helmet's owners. The inscriptions read:

*LEG · XXI[R?]*

*>P·P·L·CVN[--]*

A 'V' was later added above this inscription.

In the middle of the neck guard:

*[-]VTIC[ani(?)]*

To the left of the carrying handle hole:

*//*

To the right of the carrying handle hole:

*backwards S(?)*

On the right edge of the neck guard:

*[2-3]INI*

The legionary information is that of the 21<sup>st</sup> legion, which was stationed in Vetera I from 9-43 AD, and then in Vindonissa until 69 AD. The rest of the inscriptions are interpreted as the name of the owner and his officer, as both are in the same style. The helmet would then have belonged to '...inus, from the century of Primpilus L....cu(n)dus'. The open plume holder shows holes and slots for attaching a helmet plume, which suggests the helmet belonged to a higher-ranking legionnaire. The cheek pieces were not retrieved. How and why it ended up in the Rhine is unknown (Schalles et al., 1993, pp. 45, 47, 178).

## **50 Rhine, near Xanten (Kat. Mil 2)**

*Inv. RMX 91,15.006*

This near-complete, nearly undamaged bronze helmet was found during dredging operations in Xanten-Wardt. This helmet has a relatively short neck guard, which is characteristic for helmets of the Hagenau type. A hole has remained in the place where a carrying handle used to be. The cap of the helmet has dented and cracked in a few places, and the open plume holder that shows holes and slots for attaching a helmet plume has slightly dented into the

helmet. There is also a sleeve above where the cheekpieces used to be attached, where feathers or other similar items could have been slid in as a way of designating the wearer's rank. The cheek pieces are missing and the find context was lost during the dredging process somewhere between 1982 and 1992 (Schalles et al., 1993, pp. 46, 109, 180).

**51 Rhine, near Xanten (Kat. Mil 3)**

*Inv. RMX 91,15.005*

This almost completely preserved bronze helmet of Hagenau type was found in Xanten-Wardt during dredging operations some time between 1982 and 1992. Its cheek pieces are missing, and its cap is slightly dented. It is a Hagenau type helmet that is dated to the first half of the 1<sup>st</sup> century AD. It has a wider forehead band and neck guard than previous models, which could suggest a transitional model between Hagenau and Weisenau. It probably belonged to a legionnaire with a low rank as the plume holder was closed. It is unknown why the helmet was deposited in the river as its find context was lost when the helmet was dredged up (Schalles et al., 1993, pp. 180, 182).

**52 Rhine, near Xanten (Kat. Mil 4)**

*Inv. RMX 91,21.001*

This bronze, Hagenau type helmet is complete, except for its cheek pieces and forehead guard. The cap is slightly dented and cracked. Its plume holder is closed, meaning it probably belonged to a lower-ranking legionnaire. It was deposited with unknown intentions in an old arm of the Rhine between Wardt and Xanten. It was found during dredging operations between 1982 and 1992 and is dated to the first half of the 1<sup>st</sup> century AD (Schalles et al., 1993, pp. 111, 182).

**53 Rhine, near Xanten (Kat. Mil 5)**

*Inv. RMX 91,21.002*

During dredging operations in Xanten-Wardt, this near-complete Hagenau type helmet was found. The bronze cap of the helmet was found with several cracks and dents. It is dated to the 1<sup>st</sup> century AD, and thought to have belonged to a lower-rank legionnaire, as the plume holder was closed, making it impossible to attach a plume and in that way designate the wearer's rank. The helmet was found some time between 1982 and 1992, and its find context was lost when it was dredged up (Schalles et al., 1993, pp. 110, 182).

**54 Rhine, near Xanten (Kat. Mil 6)**

*Inv. RMX 92,17.001*

The cap of this bronze Hagenau type helmet was torn all around and dented. Though the cheek pieces are missing, the forehead guard and carrying handle were still attached to the helmet. It was deposited between Xanten and Wardt in an old arm of the Rhine with unknown intentions, as the find context was lost during the dredging operations between 1982 and 1992. As it is a Hagenau type helmet, it can be dated to the 1<sup>st</sup> century AD (Schalles et al., 1993, pp. 47, 182, 185).

**55 Rhine, near Xanten (Kat. Mil 7)**

*Inv. RMX 88,11.045*

This bronze right cheek piece of a 1<sup>st</sup> century AD Hagenau helmet was found in Xanten-Wardt. It was thrown in the river Rhine with unknown intentions as its find context was lost during dredging operations between 1982 and 1992. It has two hinges at the top where it would have been attached to a helmet, and a ring on the inside for the attachment of a chinstrap. It probably belonged to the same helmet as cheek piece 56 (Schalles et al., 1993, pp. 45, 185).

**56 Rhine, near Xanten (Kat. Mil 8)**

*Inv. RMX 88,8.036*

During dredging operations in Xanten-Wardt, this bronze left cheek piece was found where the river Rhine used to run. Its shape points to a 1<sup>st</sup> century AD Hagenau helmet, and it is thought that it belonged to the same helmet as cheek piece 55. A chinstrap would have been attached to the ring on the inside of the cheek piece and the cheek piece would have been attached to a helmet with the hinges at the top. It was found some time between 1982 and 1992 and, as it was dredged up, its find context was lost (Schalles et al., 1993, p. 185).

**57 Rhine, near Xanten (Kat. Mil 9)**

*Inv. RMX 92,9.001*

This item is the left cheek piece of a Hagenau type helmet. It is made of bronze and dated to the 1<sup>st</sup> century AD. There is a ring on the inside that was used to secure a chinstrap to, and hinges at the top for attaching it to a helmet. It was found during dredging operations in an old arm of the river Rhine in the area between Xanten and Wardt, some time between 1982 and

1992. The cheek piece was thrown into the river Rhine with unknown intentions (Schalles et al., 1993, pp. 185, 187).

#### **58 Waal, near Nijmegen**

*Collectie Gelderland, inventory number: XXI.I.2*

This bronze cheek piece comes from the left side of either a 'Hagenau type' or a 'Port type' helmet. The hinge is still attached and bent backwards, and there is a bronze ring attached to the bottom of the cheek piece. It is dated to the 1<sup>st</sup> century AD and was found in the Waal. How and why it ended up in the river is unknown (Klumbach, 1974, p. 57).

#### **59 Rhine, near Spijk**

This near complete crest was found during dredging operations in the river Rhine near Spijk. It is made of iron and belongs to a 3<sup>rd</sup> or 4<sup>th</sup> century 'Intercisa type' helmet. The dredging process caused a loss of this item's find context (Kuipers, 2021, p. 7).

#### **60 Wardt-Lüttingen**

*Niederreinisches Museum Duisburg, inventory number: 71: 36*

This semicircular bronze helmet was found in a gravel pit and is classified as a 'Montefortino type' helmet. It has an anther at the top where a plume could be attached and a short neck guard on which names have been inscribed. The inscription reads: 'C(centuria): Q(uinti) - ACELI - C(aius) - EPIVS', and is interpreted as 'C. Epius from the centuria of Q. Acelius'. It is unknown whether this helmet ended up in the river accidentally (e.g. through washing-out), or intentionally (e.g. with ritual purposes (Klumbach, 1974, p. 20).

#### **61 Hönnepel**

Somewhere before 1963, this 'Niederbieber type' helmet was found during gravel dredging operations, which caused a loss of context. It is a near complete bronze helmet with a semicircular shape and a short neck guard. The ear protection strips are driven out of the same bronze plate the helmet is made of, instead of having them attached with rivets. It has a brow band that curls down in the middle. The cheek pieces are missing and there is a single inscription on the interior of the neck guard that reads: 'II.VI' (Klumbach, 1974, p. 43).

## **62 Rhine, near Amerongen**

*RMO, inventory number: f 1966/10.1*

This 'Niederbieber type' helmet was found during dredging operations in the river Rhine near Amerongen and bought by the Rijksmuseum van Oudheden in 1966. It is dated to the 2<sup>nd</sup> century AD and has a low neck guard, on which 'VIII' was inscribed. The helmet has been restored as it was in bad condition, missing parts like the brow band and cheek pieces. The reason for this helmet's deposition is unknown as it was taken out of its context during the dredging process (Klumbach, 1974, p. 44; Robinson, 1975, pp. 98-99; Stuart, 1986, pp. 112-113).

## **63 Empel**

This 'Niederbieber type II' helmet was found in a waterwell (303) at the Roman temple complex of Empel during excavations between 1989 and 1991. It is made of iron with bronze fittings and has a hole on one side that seems to have been done purposefully, which would correspond with the idea that armor was deliberately sabotaged before it was gifted to the gods. There are no ownership inscriptions on the helmet. The presence of a large amount of building material in and around the well could indicate the well was used to shove excessive building material into when part of the temple was demolished (Jonkergouw, 2019, pp. 52-53).

## **64 Zoeterwoude**

*RMO, inventory number: h 2018/7.1*

This helmet was found in 2016 or 2017 by a metal detectorist in landfill soil from infrastructural works in Zoeterwoude. The material that was found is believed to come from two different helmets, though they are listed under the same inventory number. Most of the iron of this item has corroded away, but the bronze fittings are in relatively good condition. Both helmets are thought to be helmets of the Weisenau type with wide neck guards, and bronze decorations of dolphins and what appear to resemble temples. The soil in which the parts were found consisted of relatively clean sand, which suggests they came from an old riverbed of the Rhine, though the exact find context was lost (van Roemburg, n.d.).

**65 Maas, near Venlo**

*Collectie Gelderland, inventory number: 11.8.21*

During dredging operations in the river Maas near Venlo, this 1<sup>st</sup> century cheek piece was found. It is classified as belonging to a the right side of a 'Weisenau type' helmet. It is decorated with a bronze strip along its edge and what appears to be the front of a temple with four pillars with a crescent moon on its roof in the middle of the cheek piece. How it ended up in the river is unknown (Klumbach, 1974, p. 55; van der Heijden & Koster, 2017, p. 12).

**66, 67, 68, 69 & 70 Hofstad, Houten, Utrecht**

The five iron cheek pieces were found neatly stacked on top of each other together with two cheek pieces that are thought to belong to 'Weiler type' helmets (nr. 21 and 22). These five cheek pieces, however, are classified as belonging to 'Weisenau type' helmets dating to the 1<sup>st</sup> century AD. The fact these seven different cheek pieces were deposited in this manner might suggest deposition with ritual purposes (Vos, 2009, pp. 160-162, 201; van der Heijden & Koster, 2017, p. 12; van Renswoude & Habermehl, 2017, pp. 556, 896, 1165-1167).

**71 Floodplains of the Maas, near Hedel**

*Collectie Gelderland, inventory number: 2.1984.1*

This iron helmet was the property of P. T. P. van Dinteren from Druten and brought in by R. S. Hulst (provincial archaeologist of Gelderland) in 1981 to the ROB technological laboratory for conservation. The helmet has stylized eyebrows on the forehead, characteristic for helmets of the 'Weisenau type', which were primarily worn by the auxiliary troops of the Roman army in the 1<sup>st</sup> century AD. The reason behind its deposition is unknown (Ypey, 1982; Nicolay, 2005, pp. 131-132).

**72 Niedermörmter**

*Rheinisches Landesmuseum Bonn, inventory number: 70.0020*

This 'Weisenau type' helmet was found during gravel dredging operations, where its context was lost in the process. There is an anther on top of the helmet and the neck of the helmet is sloping down into a neck guard. The brow band in the forehead of the helmet is decorated with three temples, with a naked figure representing Mars, the Roman god of war, in the middle temple and a dolphin in at the outer ends. There is an eagle standing on a branch and



pointing to the left in the middle of the top edge of the brow band. Another unidentified naked figure who is carrying a basket is standing to the right and 'sea centaur' blowing a trumpet next to it. This 'sea centaur' has the upper body of a human, the front legs of a horse and the tail of a fish (or dolphin). The side of the neck guard is decorated with more 'sea centaurs' which have a tail that ends in three large points. There are also ownership inscriptions on the brow band that read: 'LEG - XXX (?) VIP - VIC - L - SOLLIONI - SVPERI', which is interpreted as 'Lucius Sollionius Super, from Legio XXX Ulpa victrix' (Klumbach, 1974, pp. 37-40).

**73 Rhine, near Xanten (Kat. Mil 10)**

*Inv. RMX 88,8.043*

This left cheek piece was found in Xanten-Wardt and belonged to a Weisenau type helmet from the 1<sup>st</sup> century AD. Its hinges are bent and there are remains of the iron pin that was used to secure it to a helmet still in them. There are cutouts next to where the mouth, ear, and eye would be, and a protruding ridge that follows the edge of the cheek piece. The cheek piece is made of iron with bronze sheeting and is thought to have belonged to the same helmet as cheek piece 11. It was thrown in the river Rhine with unknown intentions, where it was dredged up between 1982 and 1992 (Schalles et al., 1993, pp. 188-189).

**74 Rhine, near Xanten (Kat. Mil 11)**

*Inv. RMX 88,11.046*

This iron right cheek piece with bronze sheeting was thrown into an old arm of the river Rhine between Xanten and Wardt with unknown intentions. It belonged to a 1<sup>st</sup> century AD Weisenau type helmet and is made of bronze. The only thing that has not been preserved is the ring where the chinstrap would have been attached to, as even the iron pin inside the hinges has remained. The cheek piece is slightly curved as is normal for cheek pieces of this type, and it features cutouts next to where the mouth, ear, and eye would be. As this cheek piece almost exactly mirrors cheek piece 10, it is likely they belonged to the same helmet (Schalles et al., 1993, pp. 188-189).

**75 Rhine, near Xanten (Kat. Mil 12)**

*Inv. RMX 88,11.034*

This right cheek piece of a 1<sup>st</sup> century AD Weisenau helmet is made of iron with bronze sheeting and was found having been affected by corrosion, leaving badly damaged edges and holes. The hinges that would have been used to attach the cheek piece to the helmet was lost,

but the ring for the connection of a chinstrap was preserved. There are cutouts for the ear, eye, and mouth of the soldier as is common with this type of cheek piece. It was found during dredging operations in Xanten-Wardt in the old river arm of the Rhine, where it lost its find context in the process (Schalles et al., 1993, pp. 188, 190).

**76 Rhine, near Xanten (Kat. Mil 13)**

*Inv. RMX 89,7.009*

This right cheek piece is made of bronze; is slightly curved; has a protruding ridge that follows the edge of the cheek piece; and has cutouts where the eye, ear and mouth of the wearer would be. These characteristics, together with its overall shape, place this cheek piece under the Weisenau type from the 1<sup>st</sup> century AD. Its edges are bent inward, and its hinges are preserved, though also slightly bent. It was found in Xanten during dredging operations and was deposited in the river Rhine when the river ran through the area during the Roman period. Its find context was lost when it was dredged up between 1982 and 1992 (Schalles et al., 1993, pp. 188, 190).

**77 Rhine, near Xanten (Kat. Mil 14)**

*RLMB Inv. 86,0069.02*

The edges and hinges of this left cheek piece are slightly bent. It is slightly curved and has cutouts for the eye, mouth and ear of the wearer and is classified as a Weisenau type helmet. The cheek piece is made of bronze and has a protruding ridge that goes along its edge. It is dated to the 1<sup>st</sup> century AD and was deposited in an old arm of the Rhine in the area between Xanten and Wardt. It was found during dredging operations some time between 1982 and 1992. The reason behind its deposition is unknown as its find context was lost (Schalles et al., 1993, p. 191).

## Unidentified

**78 Floodplain ('t Spijk) near Amerongen**

Between 1972 and 1975, these fragments of the bronze lining were found during dredging operations, where the context of the find was lost. It is thought to have been fitted to an iron helmet, though the iron has not been preserved. Since it has not been classified as either a cavalry or infantry type helmet, I have marked it as *unidentified*. There is an inscription on it

that reads 'REBVRRI', which is interpreted as the name of the leader of the owner's unit: 'Reburrus' (Kuipers, 2021, p. 12).

### **79 Rijswijk-Rijswijkse Buitenpolder, Gelderland**

These fragments of a helmet were found in 1979 during dredging operations in a sandy deposit that was covered by about 3 meters of clay. It is not sure whether the finds come from a washed-out fort or a rural settlement, as arguments could be made for both. It is also unknown whether they ended up in the river accidentally (e.g. through washing-out), or intentionally (e.g. with ritual purposes). The fragments have not been identified as belonging to a cavalry or an infantry helmet, which is why they were put under *unidentified* (Kuipers, 2021, p. 14).

### **80 Rijswijk-Rijswijkse Buitenpolder, Gelderland**

The dredging operations at Rijswijkse Buitenpolder were regularly visited over a period of six months by archaeologists because of the previous find of a Roman helmet. Among other finds (e.g. nr. 79), they found these fragments of an unidentified Roman helmet. Though the helmets would suggest a fort nearby, the presence of large quantities of pottery could also point to a rural settlement (Kuipers, 2021, p. 14).

### **81 IJzendoorn**

*Collectie Gelderland, inventory number: 2013.20*

Excavations in an old levee near IJzendoorn brought bronze fittings of a helmet to the surface on which a Christogram is depicted. A Christogram is the combination of the letters X and P, which together form the abbreviation for 'Christ' in Greek. The piece shows signs of gilding on its front and back and was probably fitted on the front of the helmet crest. Details about its find context are missing (van der Heijden & Koster, 2017, p. 10).

### **82 Rhine, near Xanten (Kat. Mil 19)**

*Inv. RMX 91,8.002*

This fragment of an iron helmet was found during dredging operations in Xanten-Wardt, it was heavily corroded, and its surface was damaged. It has a hinge sleeve with pin attached to it, which leads to believe that this fragment is of the temple of a helmet since such hinges were typically used to attach cheek pieces to the helmet. The heads of the rivets on the fragment

have been chipped off and the bronze decorative band with two grooves is slightly bent at its edges. Such a decoration is found in both Weisenau type helmets as well as Weiler type helmets. Given the small size of the fragment, the type of the helmet can not be determined. The reason behind the helmet's deposition can also not be determined, as the find context was lost during the dredging process (Schalles et al., 1993, pp. 47, 194-195).