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## **A study of early roman fibulae from the excavations NLA1 and NLA13 at Nijmegen (Netherlands)**

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A study of early roman *fibulae* from the excavations NLA1 and NLA13 at Nijmegen (Netherlands)

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A study of early roman *fibulae* from the excavations NLA1 and NLA13 at Nijmegen (Netherlands)

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## Chapter 1 Introduction

### 1.1 Introduction: the framework

Between 2008 and 2009, in Nijmegen-Lent an excavation was done by the archeological department of the municipality of Nijmegen. The excavation was named NLA1, with the trial excavation that was done before it being named NLA13. It was part of a larger series of excavations, NLA1 till NLA5 (see figure 1.2 on the following page for their exact locations).

The reason for the excavation was the realization of a huge building project by the municipality of Nijmegen for the construction of houses, business parks and infrastructure in the area. Since this would be a threat to the archeological finds in the ground, they started with coring the area to determine where places of archeological interest may be. Based on these data some trial trenches have been dug, and eventually a complete excavation has been carried out (van der Linde et al, 2012, P. 7+8).

The following pages contain figures showcasing the different sites and a more close up map from the site NLA1.

The 193 *fibulae* that have been excavated during this excavation will form the basis of this Bachelor thesis.

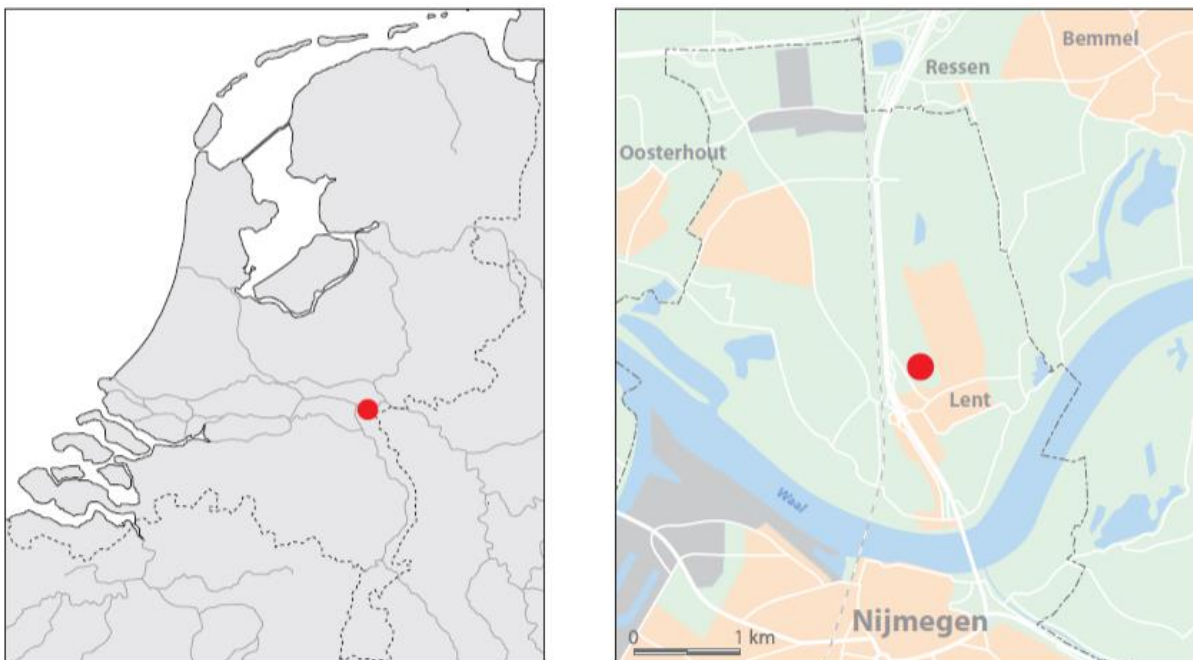


Figure 1.1 The location of the excavation area (van der Linde et al., 2012, P. 7).



Figure 1.2 The locations of the different NLA projects (van der Linde et al., 2012 P. 8).

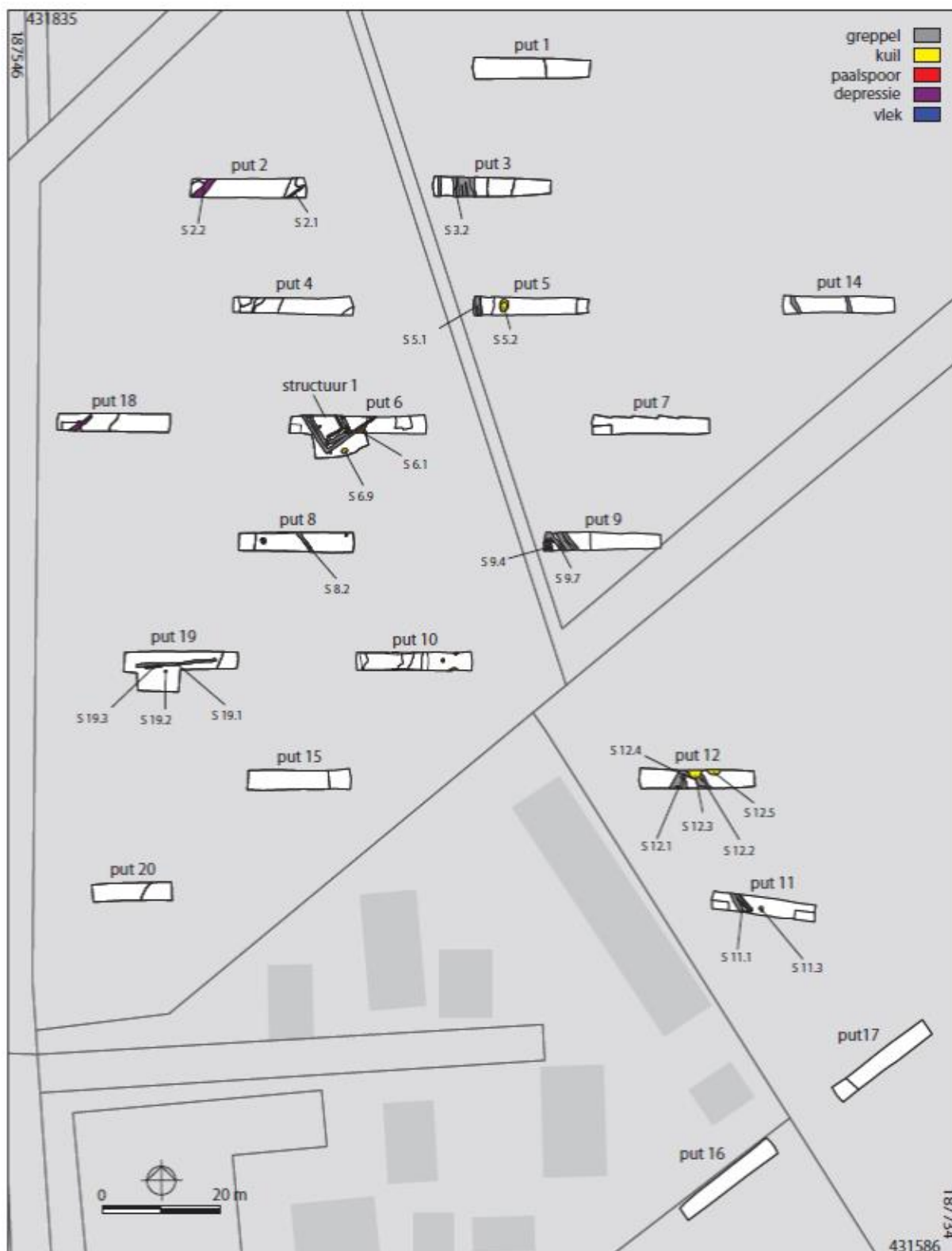


Figure 1.3 A feature map from the site NLA1 (van der Linde et al., 2012, P. 28).



## 1.2 Why this research

The reason for a closer inspection of the *fibulae* from this excavation site is simple: *fibulae* can provide a wealth of information, especially when (relatively) well preserved and present in a decent enough quantity. Both of these conditions are met: the preservation status of most of the *fibulae* is good or even excellent, and a total of 193 have been excavated, resulting in a large enough sample size to work with.

Before I could start working on what the *fibulae* could tell us however, I had to classify them. After the excavation they ended up in the archeological depot of the municipality of Nijmegen, without them being classified. This resulted in a material practical over a period of a couple of months. A more in depth description on this part of the research can be found in chapter 2.

The hope is that this research will not only help in better documenting the *fibulae* from the site Nijmegen-Lent, but that it will also help further our understanding of rural sites in the Netherlands in the Early and part of the Middle Roman Period.

## Chapter 2 The aims of the research and its structure

### 2.1 The aim of the research and the data

The aim of this thesis is to help create some more insight in what we can learn from early Roman *fibulae* in the area around Nijmegen. Although we do know a lot already about the area, the *fibulae* in this specific part of Nijmegen have not really been researched yet (as far as I have been able to discern). In this particular case, the *fibulae* had even yet to be classified, which is why previously to this thesis I have done a material practical analyzing all 193 *fibulae* from the excavations mentioned above (see appendix for the full database, see methodology for the classification process).

### 2.2 The research questions

In its most basic form, the Roman *fibula* can be described as an article of clothing, with as task to keep other pieces of clothing pinned together. But look further and you see it is so much more than that. *Fibulae* are part of a lifestyle, they can help define and show who you are to others. The shape, decorations and materials used, all these parts and more work together to help show off your place in Roman society (Heeren and van der Feijst, 2017, P. 340).

The main research question that rolled out of the material practicum, is “*What can the Roman fibulae from the excavation NLA1+NLA13 tell us about early Roman society and presence in Nijmegen during that period?*”

Since this question is a bit broad to answer, it will be split up in multiple smaller sub-questions, and answering those will hopefully answer the main question as well in the end.

The smaller sub-questions are as follows:

- To which specific periods date the different *fibulae*?
- To whom did the classified *fibulae* belong?
- In what state are the *fibulae* found?
- How do the *fibulae* compare to other datasets found in the region?

I chose these sub-questions for different reasons, but all with the same goal: to help generate data for a more complete answer to the main research question. The first sub-question is concerned with dating the *fibulae*. Dating them and putting all those dates together will help create an insight into which exact period we are dealing with to begin with.

The second sub-question deals with the wearers of the *fibulae*. Using them will help create a profile of the different people that have lived at the site, and thus will help us in answering the main question from a social point of view: who were the people that lived there?

The third sub-question is concerned with the state the *fibulae* are found in. this is split between the state of how well are they preserved and the state of are they complete, and are they in an open or a closed position. How well they are preserved helps in determining how useful they are for the research (a well preserved *fibula* can give a lot more information than a few badly preserved fragments). And complete or not, and open or closed position can both give hints to the way they were deposited: on purpose (which can both mean thrown away after breaking or deposited in a ritualistic manner) or by accident (which would indicate loss whilst being in use). This can help us in better understanding possible ritual processes during the period.

The final sub-question has as goal to help determine if and how the Nijmegen-Lent dataset can be compared to other more extensively researched sites, such as Tiel-Passewaaij. This in an effort to see if those sites are able to help us better understand this one, and if there is a homogenous *fibula* culture in the region.

The sub-questions will be answered based both upon the data generated by the material practical, as well as extra literature that has been written on the subject of Roman fibulae, for example the books “*Die römischen Fibeln aus Augst und Kaiseraugst*” by Riha written in 1979 and “*Prehistorische, Romeinse en Middeleeuwse fibulae uit de Lage Landen: beschrijving, analyse en interpretatie van een archeologische vondstcategorie*” written by Stijn Heeren and Lourens van der Feijst. Both of these books have played a major role during the material practical itself and ordering the data directly afterwards, and they will also be some of the more important sources in this thesis itself as well.

### 2.3 The methodology

The way I have done the research can be divided in a couple of steps. The first step was the material practical that generated the raw data needed. This raw data being a complete database with all the *fibula* classified as far as possible. Further information concerning the *fibulae* such as dating, were they complete, and if not what parts were present was added as well.

First I will give a quick description of the process of determining the *fibulae* types.

To come to a determination for the different *fibulae* I used the following method. As a start, the first thing I determined was what type of general closing mechanism did the *fibula* use. This was either a spring or a hinge. Knowing this, I could go to the appropriate section in Riha’s book “*Die römischen Fibeln aus Augst und Kaiseraugst*”, and start comparing my *fibula* to hers. I used both the written descriptions in the book as well as the drawings of the different *fibulae* for the process of comparing them. In a few cases this book was not enough, and I had to use additional literature.

In the case of a spring mechanism, the first step was seeing if the spring chord was on the inside or the outside of the bow. Inside the bow meant I was most likely dealing with a *fibula* that belonged to her type 1, whilst outside of the bow meant I was most likely dealing with a type 2 *fibula*. In the few rare cases where the spring was completely encased in a cylinder the *fibula* belonged to her type 4. In the case of a hinge mechanism, there was not really any other feature in the mechanism itself to help specify it even further. This meant I had to skip ahead to other defining features.

When the right type group(s) had been determined, I focused on the more general details such as the shape of the bow and the foot and the approximate size of the *fibula*. This helped to further narrow down to which subtypes the *fibula* might belong.

In some cases this was sufficient, as for example for type Riha 1.6. The simplistic shape and general lack of decorations made it relatively easy to classify this subtype, since it still differed enough from others, also due to its relatively large size.

In most cases however, general shape and/or size was not enough, and the smaller details such as the decorations were needed to come to a classification. Most decorations consisted of knobs, and they could be present almost anywhere on the *fibula*. Both the placement and size of the different knobs were of importance for the classification.

Another important decoration and defining set of features were the ridges and/or grooves that many of the more elaborately decorated *fibulae* had.

What made determination sometimes difficult, was that for some *fibula* types, decorations could be optional. This meant that the presence or lack of a certain decorative feature was not always a defining part of the *fibula* type. In other cases, due to damage to the *fibula*, a decorative knob on for example the foot could be completely missing. In such cases, I closely compared the other features that were still present with Riha’s drawings, in an effort to still come to a conclusive classification.

Having made the database, the main research question was formed afterwards: “*What can the Roman fibulae from the excavation NLA1+NLA13 tell us about early Roman society and presence in Nijmegen during that period?*”. This was then split up further into the sub questions mentioned in the previous paragraph.

With this step completed, I started combining the relevant parts of the database with the different sub questions I had generated in an effort to answer the main research question. The dating of the different types for example were all added together to help understanding which time frame I was dealing with for the sub question regarding to what periods I could date the different *fibulae*. For every sub question I decided which parts of the database I could use as a data source.

Then came the process of studying literature already written related to those more specific subjects in my sub questions. Once more the book by Heeren and van der Feijst proved to be an invaluable source of information, since they had done extensive research on the broad subject of Roman *fibulae* in the Netherlands.

This, combined with many other sources that focused more on relatively specific parts of *fibula* research formed the literary base part.

Combining my raw data from the database with the knowledge from the written literary sources was the final step in the process: I added them together in an effort to answer the multiple sub questions, and by answering those I hope to be able to answer the main question as well in a satisfactory manner at the end of this thesis.

## 2.4 The format of the thesis

The first chapter will be a quick background for the area around Nijmegen during the Roman Period, and a closer look at the site Nijmegen-Lent from which the *fibulae* were excavated.

This will be followed by a chapter showcasing the different *fibulae* types in the dataset and their sub types. This will include first the total amounts of *fibula* in that belong to each type group, followed by a few more graphs going into more detail showcasing them split up into their sub groups.

Then, a total of four chapters will deal with the individual sub questions in the order they have been mentioned above on page 8.

The last real chapter will be a quick discussion concerning the used methodology, followed by a final chapter quickly summarizing the previous chapters’ conclusions and answering the main research question.

## Chapter 3 Historical background of the area

### 3.1 *The general area*

Before the founding of the well-known city of Ulpia Noviomagus, a long series of smaller settlements and military encampments succeeding/co-existing with each other were present in the region. The first of these with a Roman origin was the military encampment on the “Hunerberg”, build in the Augustinian period (Driessen, 2007, P. 25).

Around 12 BC a part of the army stationed here leaves the camp, and in 10 BC a new military settlement is build, this time in the area known as “het Kops Plateau. This camp was in use until 70 AD, and is split into three different build phases (Driessen, 2007, P. 65).

There was a civilian settlement as well, which most like was founded during the rule of Augustus, but really started growing during the rule of his successor, Tiberius, in the second and third decade of the first century AD. Sources from around that time tell us it was called *Oppidum Batavorum*, roughly translatable as city of the Batavians (Willems, 1990, P. 31-32).

This is a slightly misleading name, since the city was build according to Roman doctrine, and was built mainly because they decided the region needed its own capital. Archeological finds indicate that most of the population inside the town likely was not of local origin either, with most of the material culture and building types found not being native to the area but instead being imported (Willems, 1990, P. 31-35).

After the Batavian revolt in 69-70 AD which burned down *Oppidum Batavorum* the Romans came back in force and established a new large military camp on the Hunerberg. Together with this camp, a new town was established slightly west of the old one burned down during the revolt (Enckevort and Heirbaut, 2015, P.291).

Around the year 100 AD this town was given several town privileges, including the right to hold a market, which gave it its name *Ulpia Noviomagus* (Enckevort and Heirbaut, 2015, P.294).

This whole process also led to an even further romanization of the area, with many roman civil customs being imported, ranging from the way the city was governed to the elite starting to live in *villae* (Enckevort and Heirbaut, 2015, P.296).

The second part of the first century AD seems to have been a period of rapid growth in population, with estimations of growth of up to 20%, although we have to be careful of archeological bias with pottery from that time being easier to date helping us date sites more easily. Three other smaller cities come into existence as well and can be seen as secondary local centers (Cuijck, Wijchen and Elst), but they were ultimately part of the larger main center Ulpia Noviomagus (Willems et al., 2005, P. 116-117).

Most of the second century AD seems to have been a prosperous time for the city, but the last quarter that changed radically. A combination of civil unrest, invasions and disease ultimately ended with a large portion of the city going up in flames. This was followed by a short period of renewed growth in the third century AD, but around 280 AD the city was abandoned (Enckevort and Heirbaut, 2015, P.298).

### 3.2 A closer look at the site Nijmegen-Lent

During the Early Roman Period, the excavated area did not fall within the borders of either of the cities Oppidum Batavorum or its successor Ulpia Noviomagus, which were both situated on the south side of the river Waal. The site Nijmegen-Lent was situated on the north side of the river. This north side of the river was mainly settled by local communities, which were culturally heavily influenced by the Roman presence next to them. The conscription of many locals into the army further increased this heavy Roman influence on the locals, as can be seen in an increasing Romanized assemblage of items as time advances (van der Linde et al., 2012, P. 12).

The local peoples generally lived in small communities, or even in small isolated farmsteads. The excavation of just a single houseplant in the entire area reinforces this idea of small communities (see figure 3.1 below).

The settlements were generally build on slightly higher spots in the landscape, a result of sediment deposits by the river Waal (van der Linde et al. 2012, P. 12).

The large amount of gullies and ditches dated to the Roman Period indicates intensive water management in the area during this period (van der Linde et al., 2012, P. 12).

The excavation site contained traces of a house plan (in trench 6), and a multitude of gullies and pits. For most of those the exact function is unclear, although two features (S12.3 and S12.6) were likely wells, but neither of them contained any finds (van der Linde et al., 2012, P. 29).

Feature S6.1 is a pit which contains a wide range of finds and materials, and has been determined to have been most likely a garbage pit. The finds from this pit have been dated to the second half of the first century AD, which correlates with the dating of the house plan (van der Linde et al., 2012, P. 29+93).

Since the excavation report does not link specific find numbers to features it is not really possible to link the specific *fibulae* to their respective find locations. However from the text it does become clear that most finds from the excavation were done in either garbage pits or the gullies that are present all around the landscape.

The report does however mention that the large quantities of pottery that have been found lead to a rough dating for the site at the last quarter of the first century AD, with only one phase of habitation. The site seems to be in line with what we already known from previous rural sites with local habitation (van der Linde et al., 2012, P. 37).

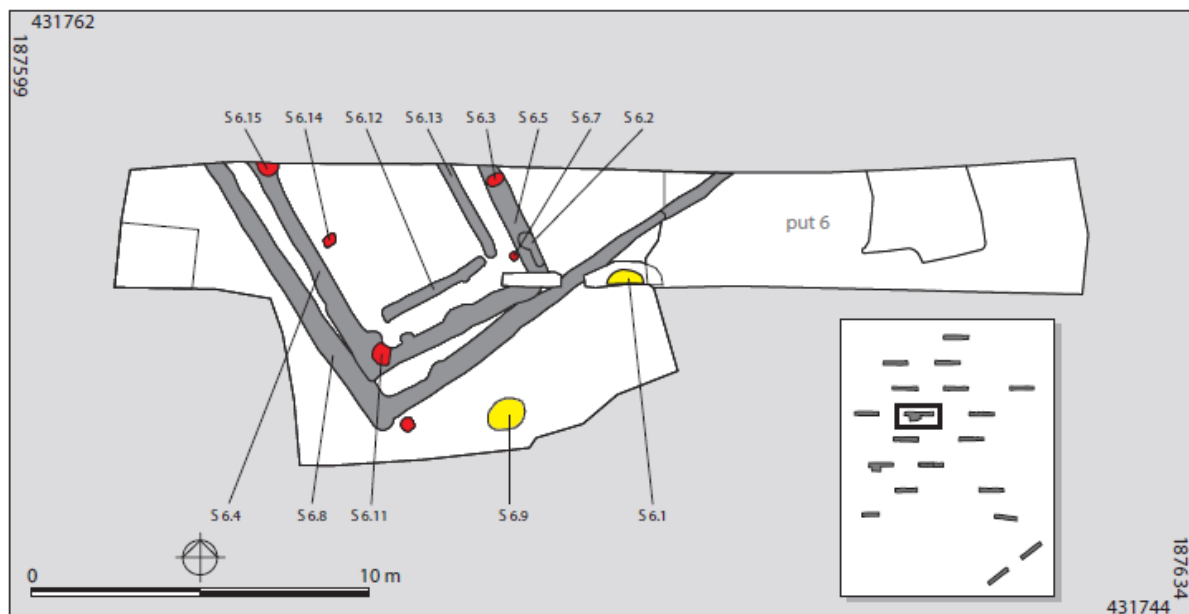


Figure 3.1 the only houseplant found, located in trench 6 (see figure 1.2) at excavation NLA1 (van der Linde et al., 2012, P. 29).

## Chapter 4 Presenting the data

### 4.1 The data

The dataset that followed as a result of the practical will be the foundation on which this thesis will be based. In the appendix an overview of all the *fibulae* and their classification can be found. In figure 4.1 below, a diagram can be seen showcasing the different *fibulae* types that have been classified in the material practicum. On the next pages, all types will be split up in their subtypes, and their respective type from Heeren and van der Feijst will be added as well (which will be shortened to HvdF). Further chapters will go deeper into the different sub types and what they might tell us, this chapter is purely to showcase which *fibula* types and sub types are present and in what quantities.

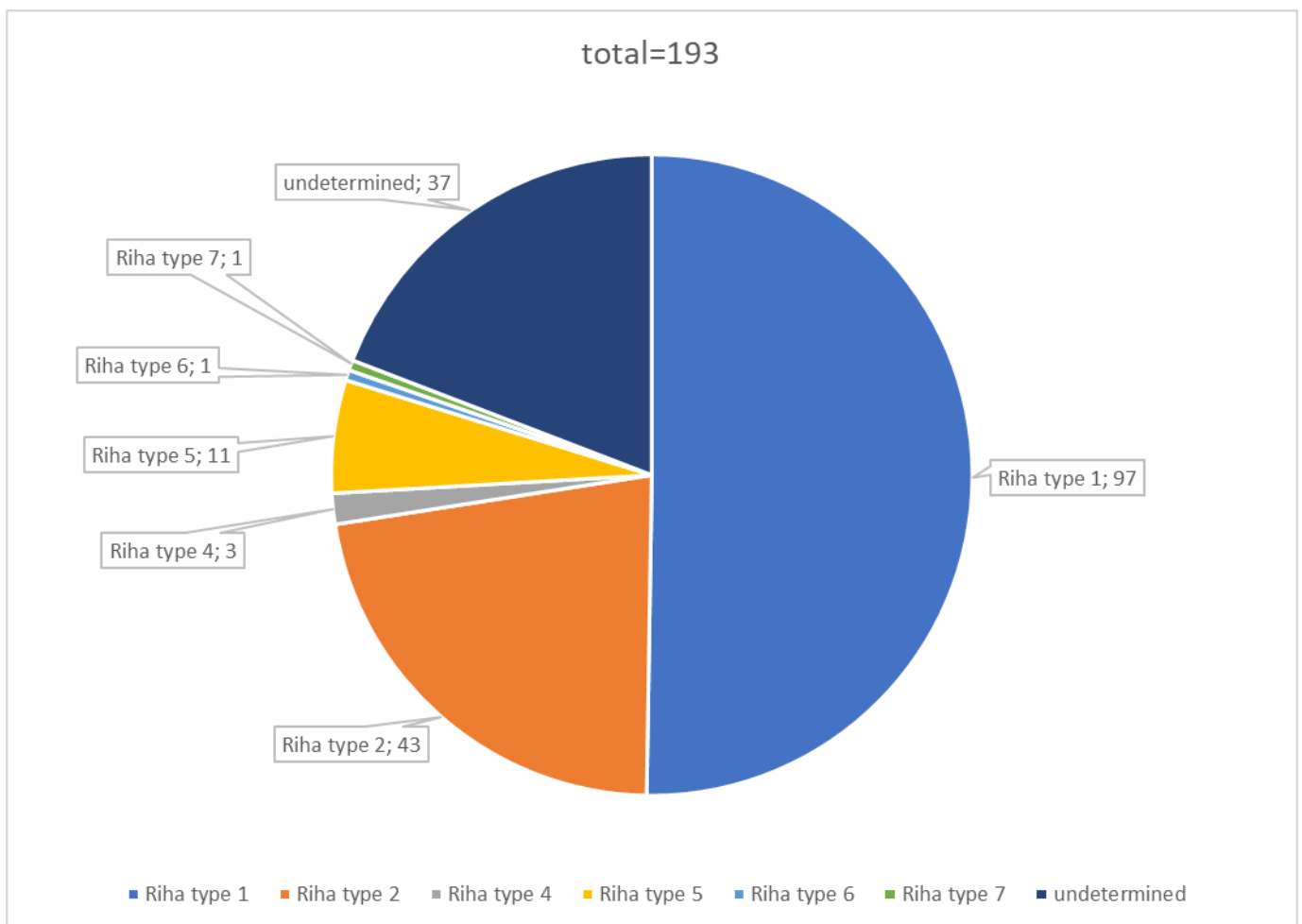


Figure 4.1: a diagram showing the different *fibulae* types and their amount from the dataset.

As can be seen in the diagram, it was not possible to determine the type of all the *fibulae*, but that was to be expected. However for the large majority of them I have been able to come to a classification. The ones that have not been classified were too badly damaged or were missing too much of the defining features due to only some fragments of them being excavated to be able to come to any conclusive classification.

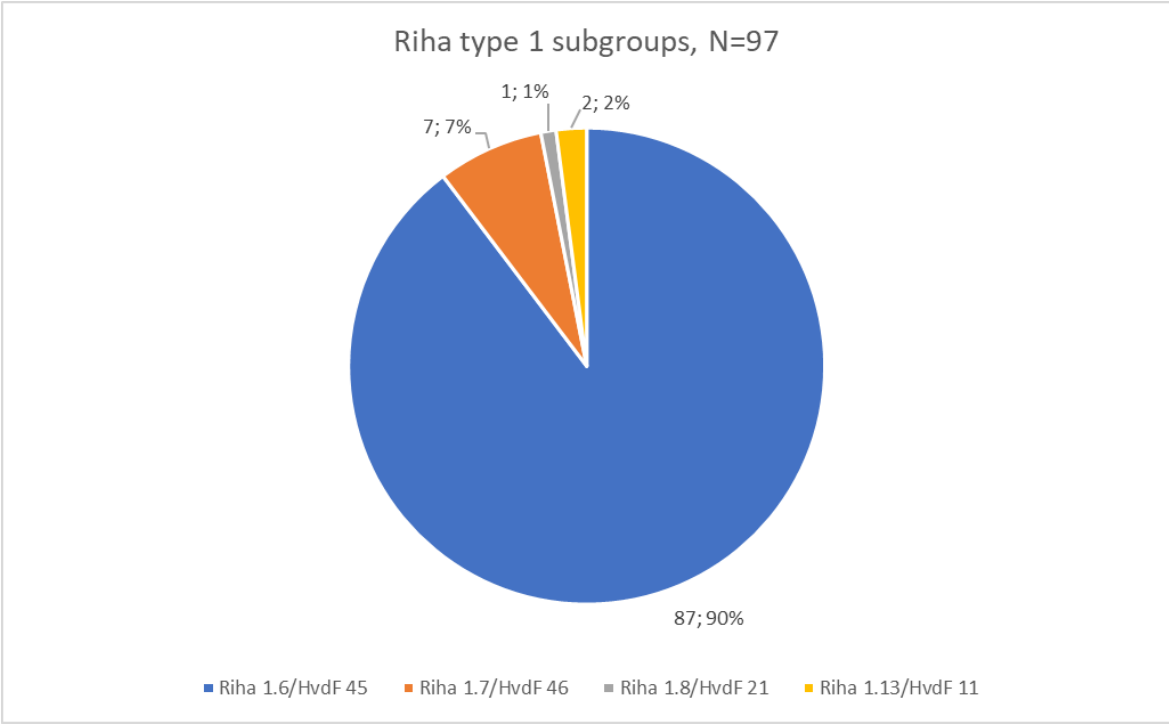


Figure 4.2.1: all subtypes from Riha type 1.

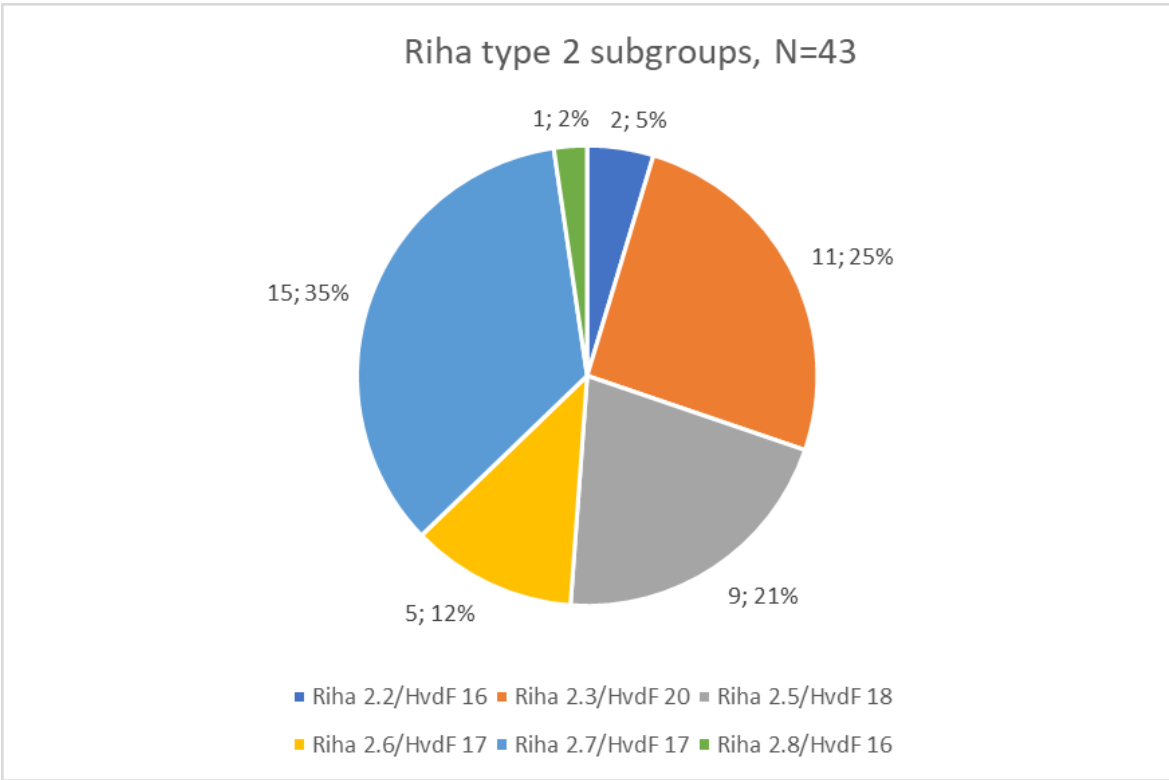


Figure 4.2.2: all subtypes from Riha type 2.



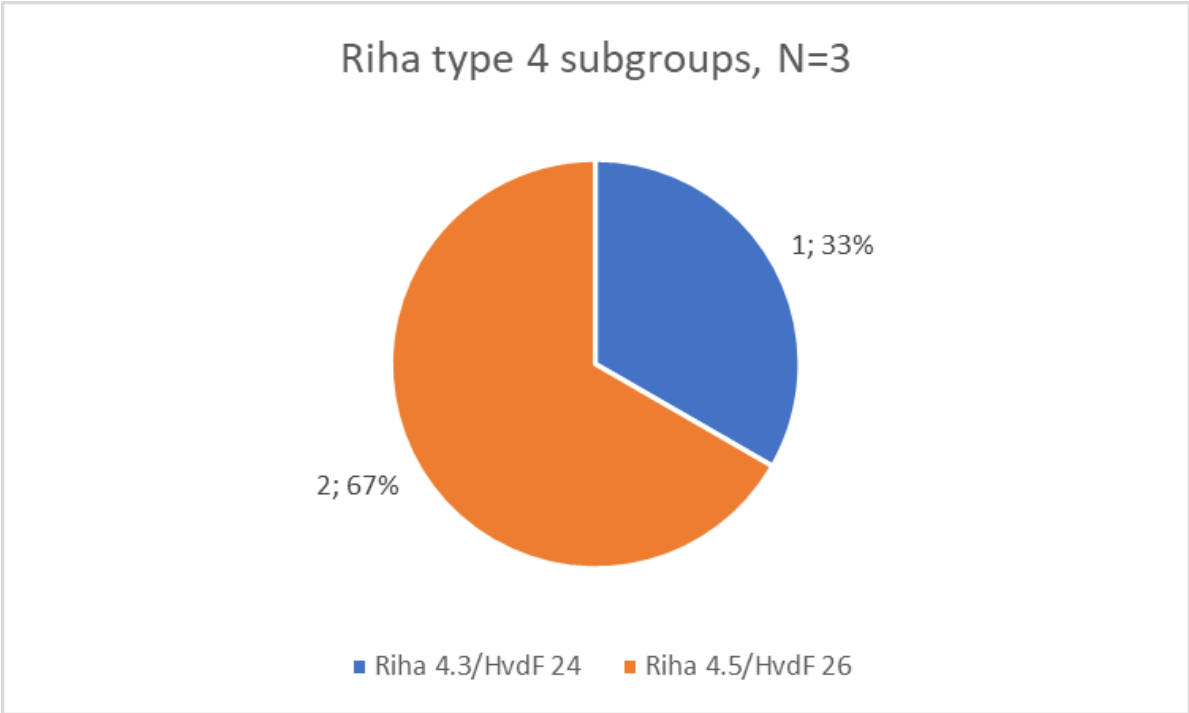


Figure 4.2.3: all subtypes from Riha type 4.

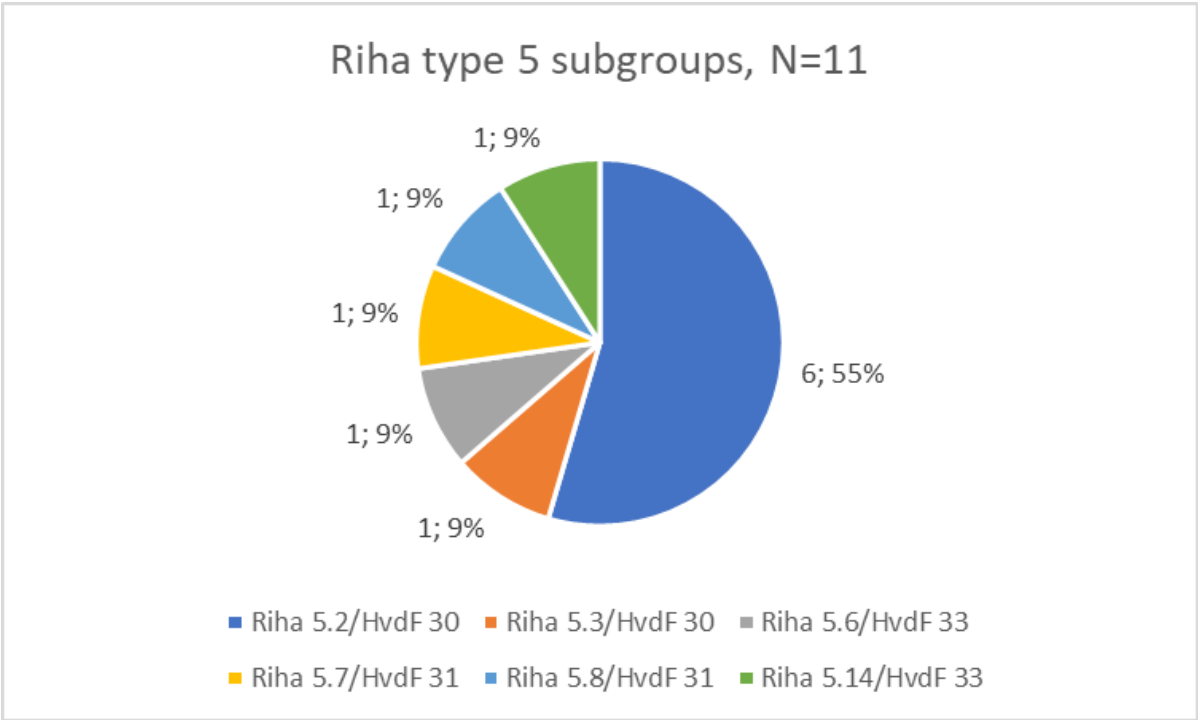


Figure 4.2.4: all subtypes from Riha type 5.

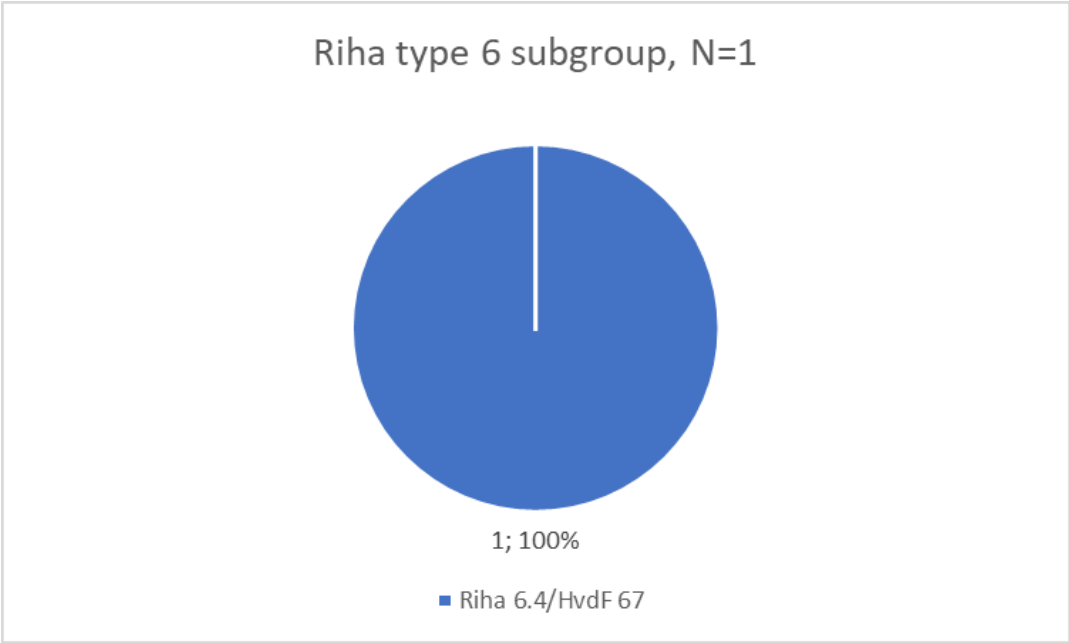


Figure 4.2.5: the subtype from Riha type 6.

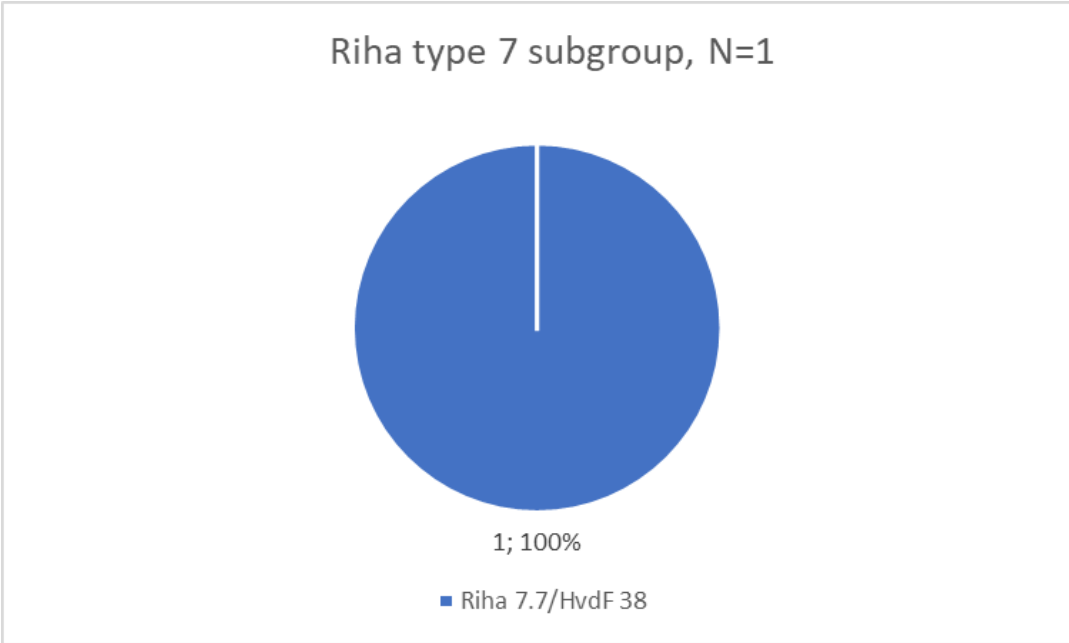


Figure 4.2.6: the subtype from Riha type 7.

## Chapter 5 Which *fibula* in which period

### 5.1 Dating the *fibulae*

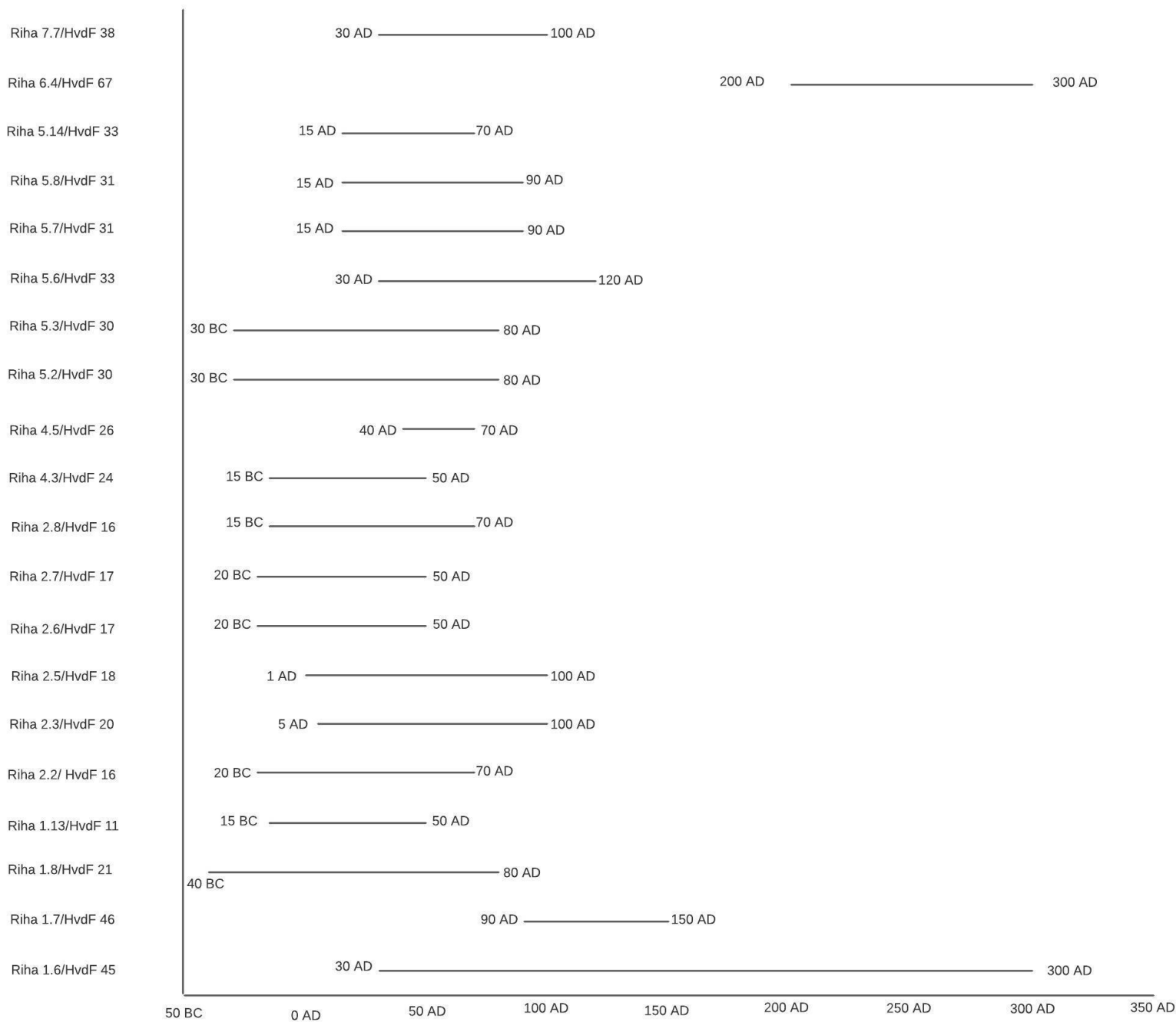
one of the most important steps to take when dealing with *fibulae* classification, is placing them in the right period after you have determined what type they are. When it is known to which period they belong, it becomes possible to gather information from them concerning that period.

This chapter will be dedicated to that task, of creating a chronological timeline in which the different *fibulae* types can be placed, to gain a better understanding of when they were present, which types were popular for a long time and which were just short lived, and show which types might be a succession from the ones before them.

The research sub-question that is related to this task is “To which specific period are the different *fibulae* dated?” and hopefully at the end of the chapter this question has been answered, as well as any other questions that are related to it.

On the following page, a figure can be found in which every *fibula* type has been dated. The dating has been based on the book by Heeren and van der Feijst which has been mentioned before in chapter one, since that is the most recent publication on the subject, and probably also the most complete one there is at this point in time.

The oldest dating that is present goes back to 40 BC but was in use until 80 AD, whilst the most recent dating starts at 200 AD and ends at 300 AD. This shows that the dataset spans just over three centuries, and is mainly placed in the early roman period but with a small extension into the middle roman period in the case of the *fibulae* that have been dated to the later part of this range.



*Figure 5.1: every fibula type and their respective time period as found in sites NLA1 and NLA13 (Nijmegen-Lent). HvdF stands for Heeren and van der Feijst.*

## 5.2 What can the dating tell us?

Looking at the dating, it becomes clear that the main period for the *fibulae* falls between 50 BC and 150 AD. Almost all of the *fibula* types fall between these two dates, except for notably types Riha 1.6/Heeren-van der Feijst 45 and Riha 6.4/Heeren-van der Feijst 67. The first of these two does have its beginning in this time period at 30 AD, but goes on far beyond 150 AD and is dated all the way up to 300 AD, marking it as the longest lifespan of a *fibula* type in this dataset. The second of the two falls completely outside of the 50 BC-150 AD boundary, and is actually dated between 200 AD and 300 AD.

Most of the *fibulae* seem to have been popular for up to a century or in some cases a bit more, but generally not more than that or even less. Type Riha 4.5 has been dated to have spanned just 30 years even, marking it as the shortest time span in this dataset.

It is easy to observe that at almost any given time a multitude of *fibulae* were in fashion. This is a bit of a surprise to me. I of course had expected to see multiple *fibulae* in fashion at the same time, but just not at this scale, at a site where most likely common indigenous people lived. A possible explanation for the large variety in *fibulae* is the abundant changes to the concept of identity that were taking place in the region during this period (Heeren, 2009, P.253+254).

It does show that *fibulae* fashion ran out around halfway into the second century, marking a clear changing point in fashion in which *fibulae* were no longer prevalent. More on that subject can be found in chapter 3, so it will not be discussed further in depth here.

## 5.3 Conclusion

In conclusion, and to answer the sub-question, most of the *fibulae* types can be traced back to between the last half of the first century BC, and the first half of the second century AD. The exceptions being the aforementioned types Riha 1.6 and 6.4 which extend into the third century AD. This dates them generally to the early Roman Period.

Most of the types existed at the same time, showing a large variety in *fibula* fashion, with no clear linear progress in types. Not even in the different closing mechanisms used, indicating that whilst new closing types were created, it did not mean that the older (and sometimes more vulnerable) types were discarded and replaced by these new techniques.

Based on this data we cannot just simply come to the conclusion that *fibulae* fashion ran out around the second half of the second century AD, but it is a factor that might have played a role and has to be kept in mind.

# Chapter 6 to whom did the *fibulae* belong?

## 6.1 The cultural roles of a *fibula*

As mentioned in the introduction, *fibulae* are more than an article of clothing. They are a way to represent yourself to others and inform them about your status in Roman society. They are part of an image you want to convey to the people around you (Heeren and van der Feijst, 2017, P. 340).

Since they can be related to status and standing, it makes sense to take a closer look to that subject and use it to gain some insight in the types of people who were present in the area. It makes them an integral part of status in society, the same way an expensive watch or a specific brand of clothing does today. The figure below, made by Tatiana Ivleva, shows the different ways a *fibula* can be used in society, ranging from simply pinning cloth to showing different forms of emotional or economic value.

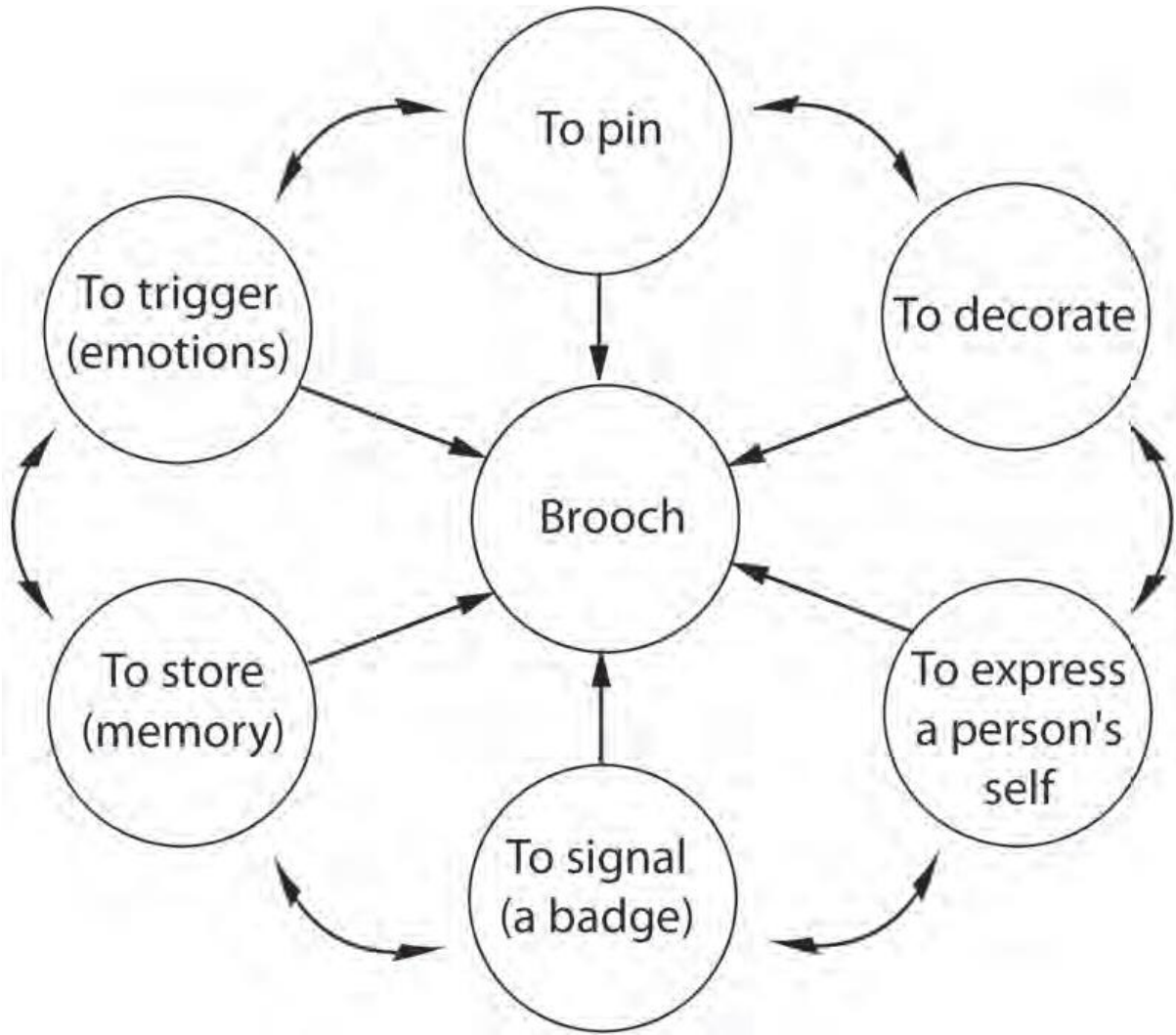


Figure 6.1 Different ways a *fibula* can be part of society (Ivleva, 2017, P. 76).

Linking *fibulae* and identity is a relatively new concept that only became popular less than 30 years ago, and showcases a shift in the way we view and study them (Ivleva, T., 2017, P. 71-72).

Of course it is important to note that not all *fibulae* would have been an integral part of someone their identity. Based on archeological data from settlements in the southern part of the Netherlands, a large portion of them were most likely nothing more than a basic tool which could be afforded by all layers of society. These *fibulae* would just fulfill its primary role: pinning together pieces of clothing, without any further cultural value added (Heeren and van der Feijst, 2017, P. 343).

Heeren and van der Feijst mention in their book that there are some problems with ascribing *fibulae* types to groups or individuals. For example ethnically linking them has been a popular practice for a long time, but it has a few notable drawbacks. First of all, how do you decide which people belonged to which ethnic group? We cannot know how people defined themselves. And how important is that actually for understanding the identity of the wearer? They argue that it is only a small aspect of a person's identity that can change based on time or location, and thus not in fact a good defining feature (Heeren and van der Feijst, 2017, P.347).

A second option would be to associate *fibulae* types with their regions of origin. But yet again they state that although that does tell us more about the origins of the *fibulae* themselves, it is not an indication of their owners identity (Heeren and van der Feijst, 2017, P.348).

Another way to ascribe identity to *fibulae* that might help negate these problems would be the more recent practice of shifting from identification to experience, as stated by Tatiana Ivleva " *Here, identity is seen as being created through the social interactions of an individual person (self) with their surroundings (the other), and that these social interactions produce norms and rules for that individual to follow or reject*" (Ivleva, 2017, P. 72). Which simply put says that identity is not simply who you are, but who you are in relation to others and how you interact with them. For *fibulae* this means we should look for patterns both in use and in the context they are found in. based on archeological data, we can conclude the contexts they were used in were not limited to being worn or simple identity markers. They were also for example used as trade items, to commemorate, and even to accompany the dead (Ivleva, 2017, P. 72-73).

## 6.2 Determining the wearers gender

Most *fibulae* could probably be worn by both men and women, although it is very difficult to be sure about most to whom they belonged due to a lack of information. But there are some exceptions (Riha, 1979, P.41). *Fibulae* that are probably more male specific are for example the ones that are related to military garb. Being a soldier was a male only job, and thus *fibulae* worn (almost) exclusively by the soldiers can therefore be classified as male only *fibulae*. Those however will be discussed more in depth in a later part of this chapter, and thus will not be mentioned here specifically.

And in some cases there are *fibulae* types that were very likely exclusively worn by women. These are the *fibulae* types that have been classified by Riha as 1.7, 5.6 and 5.7, and have been found mainly in context of female graves (1.7 being found usually as part of a two-piece set), hence the probable conclusion that these types were female-only (Riha, 1979, P.41+P.62).



Figure 6.2: from left to right: a type 1.7 a type 5.6 and a type 5.7 fibula

Next to those three, so-called disk *fibulae* are likely to have been female *fibulae* too, of which I have one in my dataset ( type Riha 7.7) (Riha, 1994, P. 19).



Figure 6.3: a type Riha 7.7 disk fibula



If indeed only these few types were female specific, that would mean only 10 *fibulae* (7 times type Riha 1.7, and the other three all once), or 5.2% of my dataset consists of female *fibulae*.

Type Riha 2.3 (Heeren-van der Feijst type 20) is also found in female grave contexts, so if we decide to include those as well as female specific *fibulae*, then we have 11 more. This results in a total of 21 female specific *fibulae*, or 10.9% of the total, which still is only a small percentage.



Figure 6.4: a Riha type 2.3 fibula

Other *fibulae* that were probably (mainly) for females are the smaller ones with heavy decorations (Riha, 1994, P.19), which were not very suitable for pinning thick layers of clothing together. They seem to have had a more decorative function only. Also *fibulae* that were worn in pairs, sometimes with chains linking those together are most likely female (Riha, 1979, P. 41-42). Those chains seem to have been more of a cosmetic decision as well since one *fibula* works just as well as two.

*Fibulae* that have small rings on the top of the head are good examples of probably female *fibulae*, since chains could be fastened to those rings. This does not mean that *fibulae* without those rings are not female by definition or that if they did have a ring it could only have been a female *fibula*. this makes me hesitant to blindly mark them as female only for this dataset (Heeren and van der Feijst, 2017, P. 351).

Types that have most likely been worn by both men and women include Riha 2.6/2.7 (Heeren-van der Feijst type 17) and Riha 5.2/5.3 (Heeren-van der Feijst type 30) (Heeren en van der Feijst, 2017, P. 354).



Figure 6.5.1: a type 2.6 fibula



Figure 6.5.2: a type 2.7

Figure 6.5.3: (below) a type 5.2 fibula



### 6.3 Fibulae and their wearers role in society

*Fibulae* distinctions are not just limited to genders, but also to other aspects of society. One of the easiest distinctions to make would be rich versus poor, however that is not really applicable in my case, since there are not really any very expensive and richly decorated ones present in this dataset.

Another distinction that can be actually made based on the dataset is military versus civilian. The most obvious one in this case would be the Riha type 1.6 *fibula*, which has been actually dubbed the soldier *fibula*. However nowadays it is seen more as a name for classification, and not as marking it as exclusively for soldiers. This *fibula* type was very popular in the legions among common soldiers due to their easy of manufacture, making them cheap to buy, easy to discard when broken and easily replaceable when needed. In most cases it was probably so that they could even be manufactured locally in the military camps themselves.

Thus we can say it is sure they were very popular in military use, but there are clear signs that amongst the (male) civilian population they were in popular use as well (Riha, 1979, P.41). Which makes sense: they were cheap and easy to manufacture, so for civilians with an outdoor job who needed a thick cloak to keep warm, they might have been in demand as well.

The recent book from Heeren and van der Feijst goes even further, and makes the claim that these *fibulae* were not even male specific, but also worn by women. They base this conclusion on for example the fact that we have had to revise the way we see Roman military camps. We used to believe they were mainly lived in by men, but that has turned out to be a misconception influenced by 19<sup>th</sup> and 20<sup>th</sup> century military culture where women were not present or even allowed in army camps. In Roman times soldiers might have had families living with them in the camp, and there were prostitutes and other female workers present as well (Heeren en van der Feijst, 2017, P. 350). This still means they were very popular in military settings, but it does away with the notion that they were just military *fibulae*, or even just male specific.

Another *fibula* that has been most likely been part of military garb is the Riha 6.4 type. Heeren and van der Feijst argue that based on the way these *fibulae* are spread, it makes sense to see them as military related. They can be found all along the Limes, and even all the way east to Syria. They are also present in the hinterlands behind the Limes, but it is argued that that is probably the result of veterans settling there after their military service (Heeren and van der Feist, 2017, P. 177).



Figure 6.5: a type Riha 1.6 fibula



Figure 6.6: a type Riha 6.4 fibula

## 6.4 Changes over time

An interesting trend over time in who was wearing which type of *fibulae*, can be seen in the general *fibulae* design and the overall popularity of *fibulae*.

Where in the 1<sup>st</sup> century AD there was still a massive production of *fibulae*, in the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD that production slows down massively in the north-western parts of the Roman Empire, most notably in Gaul and the Rhineland (Riha, 1979, P. 42). This shows that there must have been a massive change in the way people dressed, or at least in the way people were fastening their clothes together.

Important to note is that this is mainly the case in larger urban settings which are more Romanized in culture, whilst in more rural settings *fibulae* are kept in use even into the early Middle Ages (Heeren and van der Feijst, 2017, P. 337).

Interestingly, this is also the case when looking at the military. There *fibulae* were kept in use extensively during the second and third centuries AD, which can also be seen in figure 2.1 where it shows that both type 1.6 and type 6.4 were the only ones from my dataset that were present during the second half of the second century and the entire third century AD.

I think that an important reason for that is that the military had to make long marches, and spent most time outside generally, no matter what time period you look at. And the *fibulae* that kept up in popularity were mainly the ones with a large bow which could fit a lot of cloth between it, thus having a clear functional role and not just a cosmetic one (Riha, 1979, P. 42).

## 6.5 Conclusion

In the end, to answer the question to whom did the *fibulae* belong, we can conclude for this dataset that most of them were most likely military related. Especially if we keep in mind that women were likely actually part of roman army camps, which means that even the female *fibulae* are quite possibly in a way part of a military setting. Even if they were not worn by the soldiers themselves but by the people around them. The only side note here being the Riha 1.6/HvdF 45 type *fibula*, since those were popular amongst both military and civilian populations.

This was in line with my expectations, since not only was Nijmegen a militarized settlement, but the specific area from which my *fibulae* came was located in the on the north side of the river where the locals lived, many of whom who were part of the roman military as auxiliaries.

We see some shifts over time in who were wearing the *fibulae*, mainly in the sense that amongst the civilian (urban) population their popularity declines in the 2<sup>nd</sup> and 3<sup>rd</sup> century AD, whilst in the military their popularity remains.

Surprisingly few *fibulae* have been identified as female specific, however as mentioned above, some of the other ones might have belonged to females as well. Or at the very least they have been worn by both men and women. I just do not know for sure and thus am hesitant to make that claim without further evidence. It is however good to keep in mind that we should be careful with stereotyping *fibulae* as is shown by this example, since we actually still know very little about *fibulae* fashion.

As for the status in society of the owners of the *fibulae*, based on the simplicity and cheap materials used in the *fibulae*, they were most likely all part of the commoners, be it a common soldier or just a regular civilian, since for the higher layers of society I would expect more elaborately designed and decorated *fibulae* with more expensive materials involved such as silver or gold, and maybe even gemstones as decorations.

## Chapter 7 In what state are the *fibulae*

### 7.1 States of the *fibulae*

This chapter deals with the question “In what state are the *fibulae* found?” This can be answered in a few different ways. The first one is how are they preserved? Which is a quick and easy question to answer: almost all of them have been very well preserved. There is some discoloration on a large chunk of them, but overall most are not heavily rusted (assumably due to them being made from a copper legate and not from iron) or damaged (except for some cases with the pin and/or spring being bend if either part was still present), which helped with the task of classifying them.

Other questions about the state of the *fibulae* that might be more important to answer are based on which general types of the *fibulae* are present, or are they even still complete and what can be said about those?

### 7.2 The complete *fibulae*, open or closed?

Of the 193 *fibulae* that I have in my dataset, 30 were still (closely to) complete. Only 2 of those were still in a closed position (pin still in the pin catcher), the other 28 were all in an open position.

For those 28, 8 had a broken pin catcher, and the other 20 had their pin catcher intact (see figure 7.1 below).

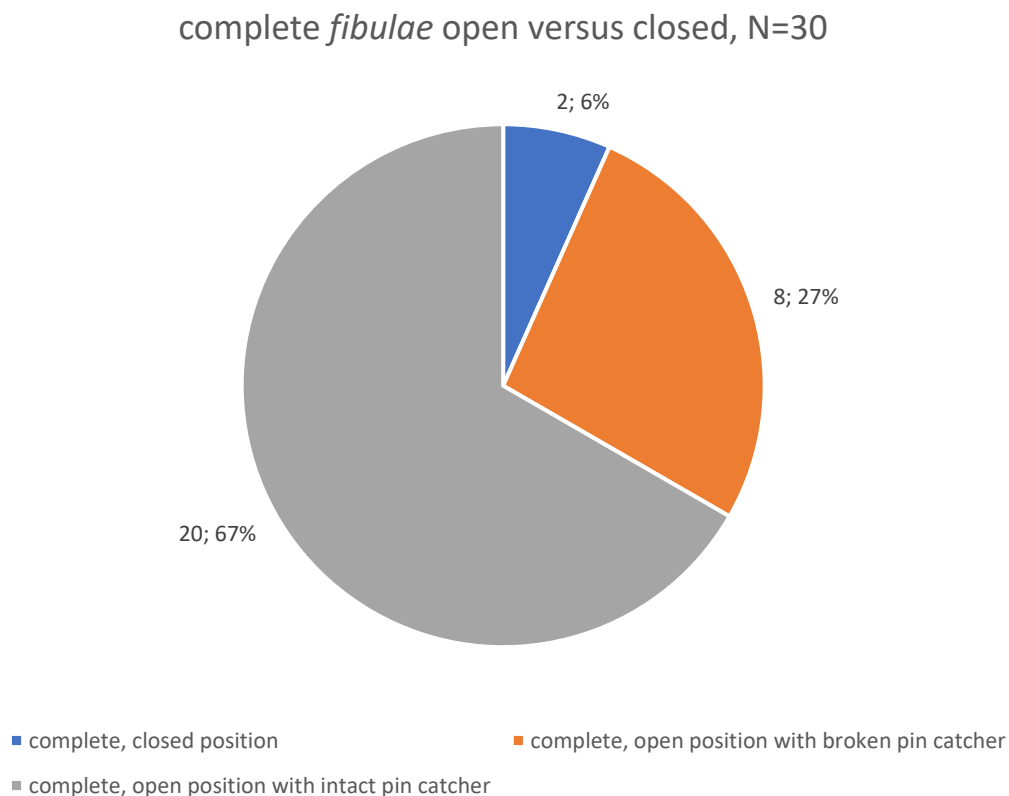


Figure 7.1: a diagram of the complete *fibulae* their open versus closed state.

### The closed *fibulae*

The two still closed *fibulae* are the most interesting ones, since they are still complete and in closed position. This means they were not only still functional, but also unlikely to have been lost. Since they are still closed, they cannot have accidentally fallen of the clothing as might be the case for the intact but open *fibulae*.

These two *fibulae* both come from the main excavation NLA1 and consist of a type Riha 1.6/HvdF 45 (find number v00808MBR) and a type Riha 5.2/HvdF 33 (find number v02479MBR) as can be seen below. The *fibula* from *spoor 5020* comes from a layer that has been dated to the Roman Period and is part of a gully, whilst the *fibula* from *spoor 5010* comes from a layer that is actually dated as Post-Roman, and is part of sediment deposits on the bank of the river Waal (*van der Linde et al., 2012, P. 26*). This leads me to think the second *fibula* was likely at some point in the river itself but got deposited on its river bank in a later period due to unknown reasons, since it is in origin a Roman type *fibula*.

MXX fibulae_MH							
PROJECT	PUT	VLAKE	SPOOR	VONDSTNUMMER	VOLG_NR	METAALSOORT	VOORWERP
Nla1	028	001	5020	v00808MBR	1	MCU	fibula

MXX fibulae_MH							
PROJECT	PUT	VLAKE	SPOOR	VONDSTNUMMER	VOLG_NR	METAALSOORT	VOORWERP
Nla1	043	001	5010	v02479MBR	1	MCU	fibula

Figure 7.2 The two still complete and closed *fibulae* and their find locations.

Being closed implies they might have been deliberately deposited, as *fibulae* are known to have been deposited as offerings (*van Driel-Murray, 2000, P. 306*).

Many of the deliberately deposited *fibulae* have likely been part of some form of ritual, and are often found in so called “wet contexts” such as rivers or bogs (*Heeren and van der Feijst, 2017, P. 357*). Other wet contexts include locations closer to habitation such as water wells or gullies (*Driessen and Besselsen, 2014, P. 168*).

Rivers and such have been seen as locations of great spiritual importance since long before the Romans entered the region. Using a river or any of the other wet contexts mentioned above as a place to make offerings is thus a logical next step. If you wanted to appease some god or goddess or maybe even the spirit of an ancestor, or maybe ask them for help or protection, it was common practice to leave some sort of offering for them in return (*Taelman, E. 2008, P. 42-43*).

Another form of deliberate deposition could simply be hiding/storing wealth. In this case they are put in a hoard, often with other items of value. This would sometimes be done with valuable *fibulae* as a means to keep them safe. An example of this is a Roman coin hoard in Knustford, Cheshire, in England. Here three silver-gilded trumpet *fibulae* were found amongst the other valuable materials (*Ivleva, 2017, P. 73-74*).

The two *fibulae* mentioned above from the Nijmegen-Lent excavation, were both found in a context that can be (indirectly in the case of the river bank) seen as being part of a wet context. This means they might have been deposited as part of some (personal) ritualistic process and thus have been deposited consciously as opposed to just being lost. Seeing how they are very basic and common *fibula* with no high value, it does not seem likely they were deposited in an effort to hide them because of either their economic or sentimental worth or their uniqueness.

### The open *fibulae*

As mentioned above, 20 of the open *fibulae* were still intact, whilst 8 of them had a broken pin catcher.

For the 20 open but intact *fibulae*, only four were not of the type Riha 1.6/HvdF 45. There is one type Riha 5.2/HvdF 33 (same as one of the two closed *fibulae*), one type Riha 1.13/HvdF 11, one type Riha 2.3/HvdF 20 (an eye *fibula*) and one type Riha 2.5/HvdF 18 (a bow *Fibula*).

For the 8 open *fibulae* but with a broken pin catcher, six of them were of the type Riha 1.6/HvdF 45. The other two were both of the type Riha 1.7/HvdF 46. See figure 7.3 below for a more detailed overview.

PROJECT	findnumber	fibula type	Type Riha	type heeren	open or closed
NLA1	v00771MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v00026MCU	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v00672MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v01035MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v01116MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v01407MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher broken
NLA1	v00630MBR	wire <i>fibula</i>	Riha 1.7	type 46	open, pin catcher broken
NLA1	v00885MBR	wire <i>fibula</i>	Riha 1.7	type 46	open, pin catcher broken
NLA1	v02430MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00394MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00587MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00590MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00639MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v01559MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v02065MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00833MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00864MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v01695MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v01040MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v01061MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v01576MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
NLA1	v00636MBR	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
Nla13	Nla13.00411MXX1	aucissa <i>fibula</i>	Riha 5.2	type 30	open, pin catcher complete
Nla13	Nla13.00444MXX1	bow <i>fibula</i>	Riha 2.5	type 18	open, pin catcher complete
Nla13	Nla13.00293MXX1	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
Nla13	Nla13.00392MXX1	wire <i>fibula</i>	Riha 1.6	type 45	open, pin catcher complete
Nla13	Nla13.00391MXX1	cap <i>fibula</i>	Riha 1.13	type 11	open, pin catcher complete
Nla13	Nla13.00376MXX1	eye <i>fibula</i>	Riha 2.3	type 20	open, pin catcher complete

Figure 7.3 all the complete but open *fibulae*.

For the open *fibulae*, the ones with a broken pin catcher would have become unusable at the moment of breaking. They would have either been lost instantly due to them falling of the clothes, or they might have been thrown away shortly after by their owner.

The open ones with their pin catcher still intact were most likely simply lost whilst being worn, since they are still completely functional, and there is generally no reason to deliberately throw them away. There is a good chance they just sprung open and as a result slipped from the wearer's clothes, after which they got lost.

Another possible explanation is that they could have been deliberately deposited, as part of a ritualistic process just like the closed ones, especially when they are found together in larger quantities. This is for example the case at the excavation of Voorburg-Arentsburg in 2007-2008 that is mentioned in the book "*Voorburg-Arentsburg Een Romeinse havenstad tussen Rijn en Maas*" written by Mark Driessen and Elles Besselsen. Here a large quantity of complete *fibulae* are found, some closed but also many open, during excavations of the gully. It is argued that the high quantity of open *fibulae* in combination with the high quality of some of them might indicate that these too have been deliberately deposited there in some sort of offering, as opposed to all of them just being lost (Driessen and Besselsen, 2014, P. 168).

Since in this case it are only rather basic and common *fibulae* with no high value, and they were not deposited together as a large hoard, it would make more sense to assume they have been lost whilst being in use opposed to having been deposited deliberately as a ritualistic offering. We cannot exclude the possibility that at least some of them might have been intentionally deposited, but it will be impossible to say for sure they were.



### 7.3 The broken fibulae

The remaining 163 *fibulae* were all broken at least to the point that it is clear they were far beyond being usable. Some of the damage might have been done post-deposition, which would be highly likely the case for the fragmented ones for example. But the more minor damages are probably the result of damages sustained during the active use period of the *fibulae*. This would also make those damages the most probable reason for them being discarded.

When looking at the broken *fibulae*, a general trend becomes visible: the parts that are broken or even completely missing are mainly either the pin or the spring/hinge. This is easily explainable: on both the pin and the spring/hinge mechanism there is a lot of pressure when the *fibula* is in a closed state. Combining that with the fact that those parts are the most vulnerable anyway, since they are usually the thinnest, and it becomes self-evident that if any piece of the *fibula* will give in to the wear and tear it is one of those parts.

Of the broken *fibulae* for which the closing mechanism could be classified 130 made use of the spring mechanism, and only 15 made use of the hinge mechanism. 18 were too broken to be classified in even those broad categories.

As can be seen in figure 7.4 on the following page, 4 out of 5 broken *fibulae* made use of the spring mechanism. This is not a real surprise, for two reasons: first of all the dataset contains mostly *fibulae* with the spring mechanism anyway. Most prevalent among those the “soldier” *fibulae*, from Riha her 1.6 type.

The other reason is simply the fact that when a spring mechanism *fibula* broke, there was no easy way to repair it. It is possible, but it is a difficult process. The hinge mechanism *fibulae* however could be more easily repaired, because the pin was often replaceable by opening up the hinge it was placed in. It is impossible to say if this was done often, since when done well it would leave no visible traces of being repaired. But we do know for sure they were repaired, since there is archeological evidence in the form of bad repair jobs that likely went wrong (Heeren and van der Feijst, 2017, P. 355). This practice of reparations could help explain the large difference between the amounts of hinge and spring mechanism type *fibulae* in the complete dataset: less of them would have to be thrown away if they could be repaired easily thus resulting in a lower amount of the being found. However this is of course just one piece of the puzzle and by no means the sole answer, since other factors might have had an (large) impact as well.

Examples of this being general popularity and affordability, but also the practice of recycling (pieces of) broken *fibulae*. As mentioned by Heeren and van der Feijst, in their dataset there are a lot of *fibulae* that are broken in places that do not make sense, and most likely are the result of deliberate actions. Examples are *fibulae* fragments such as only the foot or bow. They argue that most likely they were destroyed to be re-used either on the spot, or to be traded in at places where the metal could be re-used (Heeren and van der Feijst, 2017, P. 356).

The Nijmegen-Lent dataset contains a few of these fragments as well, a total of 16, of which 14 came from the main excavation NLA1 and 2 came from the trial trenches from project NLA13.

They have generally only either a foot or a bow present, but in a few cases parts from both but still not complete. In figure 7.5 on the next page their find numbers will be mentioned, as well as the fragments present, and in the few cases it is known their general type and their more specific sub-type.

I do not count the fragments with only a pin or a pin with its spring still attached, since those are logical pieces to find separately: those are the parts that generally break off during use.

broken fibulae closing mechanisms, N=163

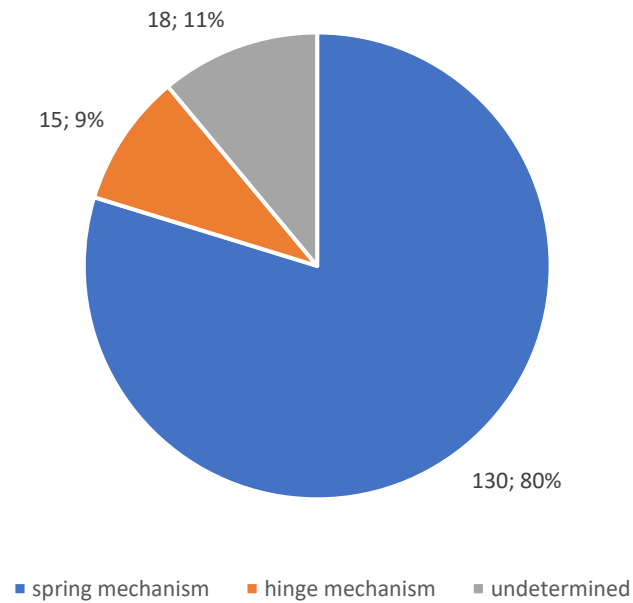


Figure 7.4: a diagram of the broken fibulae their closing mechanisms.

Project and find number	Fibula type	Riha/HvdF type	Parts present
NLA1 v01021MBR	-	-	Foot + part pin catcher
NLA1 v01675MBR	-	-	Part foot
NLA1 v00033MXX	-	-	foot
NLA1 v01889MBR	-	-	Part bow
NLA1 v00250MBR	-	-	Part foot
NLA1 v00254MBR	-	-	Part bow
NLA1 v00853MBR	-	-	Part bow, small part foot
NLA1 v00844MBR	-	-	Bow
NLA1 v01882MBR	-	-	Part foot, part bow
NLA1 v01037MBR	<i>Aucissa fibula</i>	Riha 5.3/HvdF 30	Bow
NLA1 v01696MBR	<i>Aucissa fibula</i>	Riha 5.3/HvdF 30	Part bow, part hinge
NLA1 v00669MBR	<i>Bow fibula</i>	Riha 2.5/HvdF 18	Bow, bow knob
NLA1 v00692MBR	<i>Kink fibula</i>	Riha 2.7/HvdF 17	Bow
NLA1 v01016MBR	<i>Wire fibula</i>	Riha 1.7/HvdF 46	Bow, bow knob
Nla13.00015MXX1	-	-	Part bow, part hinge
Nla13.00133MXX1	-	-	Part foot, bow

Figure 7.5 All the fibula fragments that might indicate recycling.

## 7.4 Conclusion

To quickly summarize the answer to the question in what state are the *fibulae* found: most of them are in relatively good condition, but still broken. Something which is not really a surprise, since most *fibulae* you find are broken in one way or another. That is generally the reason they are discarded in the first place, unless they were part of a deliberate deposition as might be the case for the two complete and closed *fibulae*.

In the case of the broken *fibulae*, many are from the more simplistic spring mechanism variety, which once again was not really surprising. Not only because a large part of the dataset consists of that type anyway, but also since that type of mechanism was more prone to breaking, and it could not easily be repaired afterwards. This in contrast to the hinge type mechanism, which could be opened up and have the pin or hinge replaced if needed, meaning it would generally only become unusable if the pin catcher broke. There are some fragments that indicate possible practice of recycling, which is interesting to see.

The truly interesting *fibulae* were the still complete ones. Two of those *fibulae* were in a closed position, implying a deliberate deposition instead of either loss or being thrown away after breaking. They were both found in a wet context, adding credibility to the possibility of their deliberate deposition. If indeed deposited deliberately, they were like some form of offering, as offerings are known to be deposited in wet contexts such as rivers (as is the case here). As mentioned before these types of places are often seen as spiritually important, and were often used in religious practices.

The complete but open ones have a more “simplistic” nature: it is likely that they were lost during their use period. They would have just slipped from the clothing of the wearer and not have been retrieved afterwards due to it either not being noticed or they ended up in a hard to reach place, resulting in them ending up lost.

As mentioned before, there are indications that complete but open *fibulae* sometimes were used as offering, just like the closed ones. In the case of the Nijmegen-Lent *fibulae* however I do not believe that to be likely, at least not for the majority, since they are not found together as larger hoards which could indicate a repeated ritual process but separately.

## Chapter 8 Comparing them to others in the region

### 8.1 The plans for comparing them

This chapter will be concerned with putting the *fibulae* I have in my dataset into a broader picture for comparison purposes, and thus answering the sub question of “how do the *fibulae* compare to other datasets found in the region?”. The goal of doing this is to create a better understanding of how my dataset fits into the general *fibulae* trends from the Early Roman Period.

I will begin with comparing my assemblage with other *fibulae* from datasets from Nijmegen, followed by comparing them to the rich assemblage from Tiel-Passewaaij.

The plan is in and of itself a simplistic one: Since I mainly have relatively basic *fibulae* in the Nijmegen-Lent dataset, so I will limit myself to comparing them to the more basic types in the other data sets as well. It is not really possible to compare them to the richly decorated and expensive ones due to the lack of presence of those in my case.

I expect to find a lot of similarities between my assemblage and the ones I compare it with, especially concerning the military *fibulae*.

## 8.2 Comparing them to other fibulae from Nijmegen

This part of the chapter will deal with the task of comparing the *fibulae* from my dataset with others found in the region of Nijmegen, to create a comparison and see how my dataset fits into the broader picture.

For this comparison, the book by Heeren and van der Feijst will be used, since they give a detailed description of the different *fibulae* types and their find contexts (military camps, civilian cities). Next to that, they have created, at this point in time, the most complete and extensive collection of *fibulae* found in the Netherlands according to the most insights in classification.

For the relatively long-lived roman military camps in Nijmegen, they use the one at the Kops Plateau, separating it in Early Period and Middle Period *fibulae*. For the civilian urban areas, they use Oppidum Batavorum as Early Roman settlement and Ulpia Noviomagus as Middle Roman settlement.

The rural sites are excluded here since the next part of this chapter will be a more in-depth case study of the rural site of Tiel-Passewaaij where I will compare that site one on one with the Nijmegen-Lent site, which can also be classified as rural in nature.

First I will list all of those *fibulae* in figure 8.1, containing a group of tables below, followed by a table with *fibulae* from Nijmegen-Lent, also in figure 8.1.

This will be followed by a comparison between both Nijmegen-Lent and the military site at the Kops Plateau and a comparison between Nijmegen-Lent and the two civilian sites.

Since there are too many *fibulae* types to list them all, I will show the ones that were present in much higher quantities than average in the tables below. Many types are represented in such low quantities that even when all of them combined they only represent a small percentage of the total amount of *fibulae*, and thus they will be as mentioned above excluded here.

All tables are formed based on the tables in chapter six (from pages 279 till 299) in the book “Fibulae uit de lage landen” (2017) by Heeren and van der Feijst, except for the last table, which is formed based on the Nijmegen-Lent database I created myself.

These are the high quantities for the Early Period *fibulae* from the Kops Plateau:

Types	HvdF types	Amount (total of 378)
Gallic	HvdF 13, 15, 16 and 23-26	75 (13.5% of total)
Military	HvdF 18, 30 and 99	177 (31.9% of total)
Regional upper spiral	HvdF 17, 18, 20	133 (24% of total)

These are the high quantities for the Middle Period *fibulae* from the Kops Plateau:

Types	HvdF types	Amount (total of 61)
Regional lower spiral (1 <sup>st</sup> and 2 <sup>nd</sup> century AD)	HvdF 45 and 46	49 (80.3% of total)
Above regional military	HvdF 33 and 43	5 (8.2% of total)

These are the high quantities for the Early Period *fibulae* from the settlement of Oppidum Batavorum:

Types	HvdF types	Amount (total of 288)
Gallic	HvdF 13, 15, 16, and 23-26	39 (13.5% of total)
military	HvdF 18, 30 and 99	52 (18.1% of total)
Regional upper spiral	HvdF 17, 18, 20 (both Augustan-Tiberian and Claudian-Flavian)	117 (40,6% of total)
Regional	HvdF 19 and 22	29 (10.1% of total)

These are the high quantities for the Middle Period *fibulae* from the settlement of Ulpia Noviomagus:

Types	HvdF types	Amount (total of 283)
Regional lower spiral (1 <sup>st</sup> and 2 <sup>nd</sup> century AD)	HvdF 45 and 46	113 (39.9% of total)
Above regional bow/disk	HvdF 55 and 57	33 (11.7% of total)
Regional lower spiral (2 <sup>nd</sup> and 3 <sup>rd</sup> century AD)	HvdF 47 and 48	60 (21.2% of total)

These are the high quantities *fibulae* for Nijmegen-Lent:

Types	HvdF types	Amount (total of 193)
Regional lower spiral (1 <sup>st</sup> and 2 <sup>nd</sup> century AD)	HvdF 45 and 46	94 (48.7% of total)
Gallic	HvdF 13, 15, 16, and 23-26	19 (9.8% of total)
Regional upper spiral	hvdF 17, 18 and 20 (both Augustan-Tiberian and Claudian-Flavian)	41 (21.2% of total)

Figure 8.1 a series of tables containing the most prevalent *fibulae* types from different sites around Nijmegen.

### 8.2.1 The fibulae from the military site Kops Plateau compared to Nijmegen-Lent

For the Early Roman Period, at the Kops Plateau site Heeren and van der Feijst show 3 broad *fibula* types that are present in much larger amounts than the others. These are gallic, military, and regional with an upper spiral. These three groups together form 69.4% of the total. To each of these groups multiple hvdF sub groups can be ascribed, as can be seen in the table.

I will compare the table as a whole with the Nijmegen-Lent site table, and see if there are notable differences, and if there are why that might be the case.

Both sites contain large quantities of both the gallic *fibulae* (13.5% versus 9.8%) and the regional ones with an upper spiral (24% versus 21.2%).

The gallic ones are likely the result of Roman armies bringing them with them when coming from Gaul (Heeren and van der Feijst, 2017, P. 61) it thus makes sense to mainly find them in sites with an early Roman military presence.

The regional ones with an upper spiral are, as the name implies, native to the area. All of the sub types in this group are found in large quantities in the Netherlands, with the main concentrations in Nijmegen and along the Limes (Heeren and van der Feijst, P.62, 65, 75).

Both sites have a third dominant group, but they do differ. Kops Plateau has a third group broadly described as military, which are good for 31.9% of the total *fibulae* from that site. This is logically to be expected, since it was a military camp. The third dominant group at Nijmegen-Lent is known as regional *fibulae* with a lower spiral (dated to the 1<sup>st</sup> and 2<sup>nd</sup> century AD), and they make up 48.7% of all the *fibulae*. Their lack of presence at the early site of Kops Plateau can easily be explained by that fact, since they are dated to the first and second century AD, meaning the site predates their use, since the earliest encampment was present only from around 12 BC till 10 AD (Willems, 1991, P. 211).

For the Middle Period, there is a clear shift in dominant *fibula* types visible at Kops Plateau, where mainly one group is represented showing possibly some more unity in *fibula* use. This is the same group that is the most represented one at Nijmegen-Lent: regional *fibulae* with a lower spiral. Here, 80.3%(!) falls in that category, but the sample size is smaller so that might influence the results slightly (only 61 total *fibulae* versus 378 from the earlier period).

The only other group that has more than 1 or 2 *fibulae* is classified as above regional military, and contains a total of 5 (8.2%). They can be found not just in the Netherlands, but also down south until northern France, hence the name above regional. Since they are almost exclusively found in military contexts, they are classified as military *fibulae* as well (Heeren and van der Feijst, 2017, P. 104, 120-121).

As mentioned before in chapter 6, the *fibulae* from type HvdF 45 and 46 were originally classified as soldier *fibulae* by Riha. However newer evidence shows that whilst they were indeed very popular in military encampments, they were also most likely used extensively by civilians, possibly even both men and women. But it does mean there is a logical reason they are present so dominantly in the Middle Period military settlement Kops Plateau.

### 8.2.2 The fibulae from the early Roman settlement Oppidum Batavorum compared to Nijmegen-Lent

Although Oppidum Batavorum is the civilian capital of the region before the Batavian revolt, its *fibula* assemblage is relatively similar to that from the early part from Kops Plateau. They both have the same three type groups, although in slightly different percentages as can be seen in the tables, and Oppidum Batavorum has a fourth one as well. This logically results in there being a lot of similarities between here and Nijmegen-Lent as well.

The fourth type, broadly classified as regional, is the biggest difference between Oppidum Batavorum and Nijmegen-Lent. Whilst they make up 10.1% of the *fibula* assemblage in the city, none of them have been found at Nijmegen-Lent. They are mainly found in and around the area of Nijmegen, although a few have shown up in other locations, all the way to northern France (Heeren and van der Feijst, 2017, P. 68, 80).

The other difference between the two is the same difference that can be seen between Nijmegen-Lent and the early period Kops Plateau: the lack of regional *fibulae* with an lower spiral (dated to the 1<sup>st</sup> and 2<sup>nd</sup> century AD) at Oppidum Batavorum. Here the same explanation can be given: the site likely predates the wide spread use of this type.

### 8.2.3 The fibulae from the middle Roman settlement Ulpia Noviomagus compared to Nijmegen-Lent

The settlement Ulpia Noviomagus has a slightly more different *fibula* assemblage if compared to any of the other sites, including Nijmegen-Lent. Whilst both sites have the regional *fibulae* with an lower spiral (dated to the 1<sup>st</sup> and 2<sup>nd</sup> century AD) as most dominant type (48.7% for Nijmegen-Lent and 39.9% for Ulpia Noviomagus), there the similarities end. The other dominant types are completely different, and the other two dominant categories from Ulpia Noviomagus are not present at all at Nijmegen-Lent: above regional bow/disk (11.7%) and regional lower spiral (2<sup>nd</sup> and 3<sup>rd</sup> century AD)(21.2%).

This might be the result of their relatively late dating, with the site at Nijmegen-Lent having most *fibulae* dated to no later than 150 AD (see chapter 5 figure 5.1).

Same goes for the other two dominant types at Nijmegen-Lent, gallic and regional upper spiral *fibulae*, which are completely absent from Ulpia Noviomagus according to the corresponding table in Heeren and van der Feijst (Heeren and van der Feijst, 2017, P. 299).



### 8.3 A comparison to Tiel-Passewaaij

A good case-study for a more direct comparison are the *fibulae* from the sites at Tiel-Passewaaij. This area has a large and well documented *fibula* assemblage from different settings, and is roughly dated to the same period as mine although habitation took place over a longer period. The settlements date from somewhere between 60 to 30 BC till somewhere halfway into the third century AD, but population started declining gradually from the second century AD onwards (Heeren, 2009, P. 228-229). The site can be seen as a relatively standard rural Bavarian settlement (Heeren, 2009, P. 223), and has been heavily influenced by the roman military as well (Heeren, 2009, P. 250) this makes it ideal for the purpose of comparing with Nijmegen-Lent.

The area includes multiple sites of habitation: “Oude Tielseweg”, “Passewaaijse Hogeweg” and other small sites in the Passewaaij region that are not named specifically. Together, including the grave field, they yielded over 1000 *fibulae* (Heeren and van der Feijst, 2017, P. 302).

The book mainly focuses on the site Tiel-passewaaijse Hogeweg since most of the *fibulae* come from that site, and it was by far the largest site as well. Therefore I will use that one for my case study and as a comparison to the Nijmegen-Lent site. The Tiel site has a larger amount of *fibulae* (732 versus the 193 from Lent) but it is a larger site as well so that makes sense.



Figure 8.2 The site Tiel-Passewaaijse Hogeweg. White is the excavated area, Black are the main buildings and grey are additional buildings (Heeren, 2009, P. 42).

Figure 8.3 below will showcase the most prevalent *fibula* types from the site Tiel-passewaaijse Hogeweg for both the Early Roman Period as well as the Middle Roman Period, as well as once more the most prevalent *fibula* types from Nijmegen-Lent. The first two tables are formed using the tables in chapter six (from pages 303 and 308) in the book “Fibulae uit de lage landen” (2017) by Heeren and van der Feijst, except for the last table, which is formed based on the Nijmegen-Lent database I created myself.

These are the high quantities for Early Roman Period *fibulae* from Tiel-passewaaijse Hogeweg:

Types	HvdF types	Amount (total of 262)
Regional lower spiral	HvdF 10 and 11	24 (9.2% of total)
Regional upper spiral	HvdF 17, 18 and 20 (both Augustan-Tiberian and Claudian-Flavian)	129 (49.2% of total)
Regional (1 <sup>st</sup> century AD)	HvdF 19 and 22	54 (20.6% of total)
Gallic	HvdF 13, 15, 16, 23-26	13 (5% of total)

These are the high quantities for Middle Roman Period *fibulae* from Tiel-passewaaijse Hogeweg:

Types	HvdF types	Amount (total of 470)
Regional lower spiral (1 <sup>st</sup> and 2 <sup>nd</sup> century AD)	HvdF 45 and 46	296 (63% of total)
Regional lower spiral (2 <sup>nd</sup> and 3 <sup>rd</sup> century AD)	HvdF 47 and 48	102 (21.7% of total)

These are the high quantities *fibulae* for Nijmegen-Lent:

Types	HvdF types	Amount (total of 193)
Regional lower spiral (1 <sup>st</sup> and 2 <sup>nd</sup> century AD)	HvdF 45 and 46	94 (48.7% of total)
Gallic	HvdF 13, 15, 16, and 23-26	19 (9.8% of total)
Regional upper spiral	hvdF 17, 18 and 20 (both Augustan-Tiberian and Claudian-Flavian)	41 (21.2% of total)

Figure 8.3 a series of tables containing the most prevalent *fibulae* types from the sites Tiel-Passewaaijse Hoogweg in both the Early and the Middle Roman Period and the site Nijmegen-Lent.

## The early period

Starting the comparison with the early period at Tiel-Passewaaij, both sites have a decent quantity of gallic *fibulae* (5% at Tiel, 9.8% at Lent). Since as mentioned before those were most likely brought into the region by Roman legions, we can assume for both sites that from early on onward they were likely in some capacity involved with the military.

Same goes for the regional upper spiral *fibulae*. Both are present at both sites, although in Tiel in a much larger relative quantity (49.2% versus 21.2% in Lent). A possible explanation here could be the relatively early dating of these types, with none of them dating beyond 100 AD. The site at Tiel came into existence a lot earlier than Nijmegen-Lent, so it is no surprise to see a larger quantity of early dated *fibula* in the assemblage.

The main difference is the almost lack of early Roman regional lower spiral *fibulae* at Nijmegen-lent (only a total of 2, both HvdF 11), whilst they were still the third most present type at Tiel (9.2%). These types were generally in use up to at the least around 50 AD but slightly later might be possible in specific cases (Heeren and van der Feijst, 2017, P. 52) this time frame once more likely explains the almost complete lack at Nijmegen-Lent, whilst they are relatively often present at the early habitation period in Tiel.

The regional lower spiral *fibulae* that are dated to the 1<sup>st</sup> and 2<sup>nd</sup> century AD are another difference, but since they do show up in the Tiel area for the middle period I will not mention them further here and instead will look at those later.

## The middle period

After the comparison with the early period, I will now proceed to compare the middle period with Nijmegen-Lent.

At both sites, a trend we have seen for all the middle period sites in the region, the most dominant type group are the regional lower spiral (1<sup>st</sup> and 2<sup>nd</sup> century AD) *fibulae*. In Tiel this even goes up to 63% of the total, versus 48.7% in Lent. It is clear that this *fibula* group is the dominant type in the entire region in this period, regardless of the site being civilian or military in nature, or it being a rural place or a larger city.

The other dominant type group is again regional lower spiral, however these are dated to the 2<sup>nd</sup> and 3<sup>rd</sup> century AD, at 21.2% of the total. This automatically implies they are not present at the Nijmegen-Lent site, since they are dated after then end of that site.

In the end, it is safe to conclude that there is a large overlap in *fibulae* between Tiel-Passewaaijse Hogeweg and Nijmegen-Lent, with only small differences that can generally be explained by the fact that the Tiel area had a much longer habitation period than the site at Nijmegen-Lent.

## 8.4 Conclusion

In conclusion, and to answer the research sub question of “How do the *fibulae* compare to other datasets in the region?”, it is clear to see that the *fibula* types in the Nijmegen-Lent are generally widespread throughout the region, and fit well into the bigger picture when compared to *fibula* types at other locations dated to the same time period. This was in line with the expectations mentioned in the beginning of the chapter, since there is a large shared material culture in the general area anyhow, and thus a shared *fibula* culture was not a farfetched expectation to have.

the *fibulae* from the dataset fit in with both sites that have a militarized character, as well as sites that were mainly inhabited in by civilian populations. Partially, this is due to the large abundance of type Riha 1.6/HvdF 45 *fibulae* which were used by all parts of society. Another explanation is that even the civilian areas still had close ties with the Roman army, creating another overlap in *fibula* types.

The site Tiel-Passewaaijse Hogeweg was rather suitable to be used as a case study, given its similar nature to the Nijmegen-Lent site. The extensive documentation of *fibula* finds from the site further made it a good control group to which I could compare the Nijmegen-Lent dataset in an effort to see how well it fits into the bigger picture that we have of the region. This ended up showing it is likely that the Nijmegen-Lent site fits well into the broad picture, and thus can be used as a source of information in an effort to learn more about the region.

## Discussion

This discussion will be concerned with a quick review of the used methodology for answering the research (sub) questions.

The main advantage of the methodology of first classifying all the *fibulae* and putting them into a database has been that a concise and structured list was created from which it is as easy to filter the required information necessary to help answer the different questions. Of course all those questions needed additional information from other literary sources to come to a well-rounded conclusion, but it provided a good base from which to start, and from which I was able to actually formulate questions that might need answering.

Another advantage was that I had clear structured smaller subjects to search for afterwards when trying to answer the different questions, such as trying to find literature on dates for different *fibulae* when dealing with creating a chronological overview based on the different *fibulae* types, making it more doable to search for the right literature and to not get lost in the overwhelming amount of information that is already written on the subject.

A slight drawback from having to classify all those *fibulae* myself and not using an already made database as a base of information was probably that I had no prior experience working with *fibulae*, which made it especially in the beginning hard to classify them, but as time went on and I was able to delve deeper into the subject I found that I really enjoyed it and that it became more easy to discern which *fibula* was which type as my experience with them grew. In the long run this might have even been an advantage, since by having classified them myself I had a better understanding of the literature that I read about them afterwards.

## Conclusion

the main research question from this bachelor thesis was “*What can the Roman fibulae from the excavation NLA1+NLA13 tell us about early roman society and presence in Nijmegen during that period?*”

to help come to an answer to this question, a multitude of sub questions have been answered in the previous chapters. For those sub questions conclusions have been drawn in the chapters themselves, but I will quickly summarize those answers here as well.

For the sub question to which period are the different *fibulae* dated, I came to the conclusion that most of them fall between the years 50 BC and 150 AD. There are a few exceptions that fall later and extend up towards 300 AD, making the entire assemblage span just over 3 centuries in dating, but the heavy focus lies between 50 BC and 150 AD, placing it in the late part of the early Roman Period and even slightly into the middle Roman Period.

For the sub question to whom did the *fibulae* belong I quickly came to the conclusion that most of them are either exclusively military related *fibulae* (for example the crossbow *fibula*), or at least in some way related to the military, but they most likely were used by the civilian population as well (for example the “soldier *fibula*”). Interestingly the only *fibulae* that were still in use after the second half of the second century AD, were the *fibulae* used by the roman army. The *fibulae* used in civilian parts of society are all dated earlier, showing a shift in *fibula* fashion.

when looking at did they belong to either men, women or both, I came to the conclusion that only a small part of my assemblage is with certainty female specific. But a multitude of the others were most likely at least worn by both genders, and in some they cases might actually even have been female specific. This showcases the difficulty in ascribing *fibula* types to gender, since in most cases we lack vital information to draw a conclusion with any real certainty.

For the sub question in what state are the *fibula*, it was quickly concluded that when looking at their physical state, most were well preserved, which proved to be a blessing for the task of determining their types.

More interesting however was the conclusion that only a handful of the *fibulae* were still in a complete state, and that of those which were, just two of them were in a closed position, indicating a possible deliberate deposition. The others that were complete were in an open position, which indicates they were probably lost, most likely whilst being worn. It has been mentioned that even in an open but complete state, there is a possibility of deliberate deposition. However in this case that was not deemed likely due to them being spread out and not together in some form of hoard.

The large majority of the *fibulae* however were broken to the point where they would have become unusable, thus indicating they were most likely discarded. Some of them were broken in places that might indicate they were part of the process of recycling, instead of just being discarded.

For the sub question how do the *fibulae* compare to other datasets in the region, the conclusion was that the *fibulae* from my dataset generally compare closely to those other datasets. This goes for both military and civilian settings. This would indicate a fairly homogenous *fibula* culture in the region, with a heavy influence from the military.

As can be seen by the answered sub questions above, the answer to the main research question is that the *fibulae* provide a wide array of information about different aspects from Early Roman society.

The *fibulae* can be used to date the site from which they have come, placing it generally between 50 BC and 150 AD. This does not mean there was no activity before or after, but the main period of habitation should be sought here, and even more specifically in the last quarter of the first century AD, since other finds such as ceramic mainly fall in that small time frame.

The fact that almost all of the *fibulae* are generic mass produced ones, and the fact that many of them are in some way or form linked to the military results in a conclusion that based on the *fibulae* we can say that the area was if not military in nature itself, at least heavily connected to the military. The fact that based on other evidence we can conclude that locals lived here adds to this conclusion, since many of them served in the military either as auxiliaries or in some other capacity.

In an ultimate conclusion, and as answer to the research question *What can the Roman fibulae from the excavation NLA1+NLA13 tell us about early Roman society and presence in Nijmegen during that period?*, we can state that the *fibulae* tell us that Nijmegen was part of a larger relatively homogenous culture (at least for *fibulae*). As well as that both the earlier settlement of Oppidum Batavorum as well as the later settlement of Ulpia Noviomagus were heavily influenced by military culture as well. Other than that, the *fibulae* can provide information about the status in society their wearers might have had, and help us gain a bit more insight in who exactly might have lived at the site, by comparing them to other sites of similar origin.

## Abstract

This thesis is concerned with the interpretation of the data created by an earlier material practicum, dealing with the classification of roman *fibulae* discovered in an excavation at Nijmegen. The goal of this thesis is to showcase what insights might be gained from those *fibulae*. This ranging from to which periods are they dated and what can that tell about the site, to insights into to whom those *fibulae* belonged and what their places were in roman society, concerning both gender and the roles the people who wore them fulfilled.

The thesis will start with a quick background on the excavation, followed by a chapter detailing the further structure and methodology of the thesis as well as the research question and its sub questions.

Then a short chapter will present the *fibula* data using various graphs to gain a more clear insight in the different types and their respective amounts.

This is followed by a chapter detailing the dating for the different *fibulae* and a chapter about whom those *fibulae* might have belonged to.

After that, the *fibulae* themselves will be studied, to see if it can be explained how or why they showed up in the dataset: were they simply broken or lost and are they just part of the material culture, or where they part of something more elaborate and was the deposition deliberate?

Finally, in the end they will be compared to other *fibulae* from around the region for the purpose of learning more about their spread and possible popularity in a larger area than just the immediate surroundings of the excavation.



## Bibliography

- Brogan, O. (1936). Trade between the Roman Empire and the Free Germans<sup>1</sup>. *The Journal of Roman Studies*, 26(2), 195-222.
- Buchem, H. J. H. (1941). *De fibulae van Nijmegen*. N. V. centrale drukkerij - Nijmegen
- Driessen, M. (2007). *Bouwen om te blijven*. Amersfoort, Rijksdienst voor Archeologie, Cultuurlandschap en Monumenten.
- Driessen, M., and Besselsen, E. (2014). “*Voorburg-Arentsburg Een Romeinse havenstad tussen Rijn en Maas*”. Universiteit van Amsterdam.
- Van Enckevort, H., and Heirbaut, E. N. A. (2015). Nijmegen, from Oppidum Batavorum to Ulpia Noviomagus, civitas of the Batavi: two successive civitas-capitals. *Gallia - Archéologie des Gaules*, 2015, *La naissance des capitales de cités en Gaule Chevelue*, 72 (1), 285-298
- Heeren, S. (2009). *Romanisering van rurale gemeenschappen in de Civitas Batavorum: De casus Tiel-Passewaaij*. Vrije Universiteit Amsterdam. Rijksdienst Archeologie Cultuurlandschap en Monumenten.
- Heeren, S., and van der Feijst, L. (2017). *Prehistorische, Romeinse en middeleeuwse fibulae uit de lage landen. Beschrijving, analyse en interpretatie van een archeologische vondstcategorie*. Amersfoort, Spa Uitgevers.
- Ivleva, T. (2017). ‘Active brooches’: theorising brooches of the Roman north-west (first to third centuries AD). In T. F. martin and R. Weetch (eds.), *Dress and Society Contributions from Archaeology* (pp. 69-93). Oxford.
- Van der Linde, C., van der Leije, J., and Hemminga, M. (2012). *Proefsleuven in het plangebied Laauwik te Nijmegen-Noord*. Gemeente Nijmegen, bureau Archeologie en Monumenten.
- Maes, K., and van Impe, L. (1986). Begraafplaats uit de ijzertijd en Romeinse vondsten op «de Rietem» te Wijshagen (gem. Meeuwen-Gruitrode)». *Archaeologia Belgica*, 2(1), 47-56.
- Riha E. (1979). *Die römischen Fibeln aus Augst und Kaiseraugst*. Amt für Museen und Archäologie des Kantons Basel-Landschaft.
- Riha, E. (1994). *Die römischen Fibeln aus Augst und Kaiseraugst Die Neufunde seit 1975*. Amt für Museen und Archäologie des Kantons Basel-Landschaft.
- Taelman E. (2008). *Rivervondsten en rituele deposities uit de late ijzertijd en Romeinse tijd, in het huidige België en Zuid-Nederland*. Faculteit Letteren en Wijsbegeerte, Universiteit Gent.
- Van Thienen, V., and Vanhoutte, S. (2012). *De studie van de fibulae van het Romeinse castellum van Oudenburg*. *Signa*, 1, 142-152.
- van Driel-Murray, C. (2000). A late Roman assemblage from Deurne (Netherlands). *Bonner Jahrbücher*, 293-308.
- Willems, W. J. H. (1990). *Romeins Nijmegen*. Stichting Matrijs.

Willems, W. J. H. (1991). Early Roman Camps on the Kops Plateau at Nijmegen (NL). *Roman Frontier Studies 1989. Proceedings Of The XVTH International Congress Of Roman Frontier Studies*. University of Exeter Press.

Willems, W. J. H., Enkevort, H. L. H., Haalebos, J. K., and Thijssen, J. (2005). *Nijmegen. Geschiedenis van de oudste stad van Nederland. Prehistorie en oudheid*. Wormer: Inmerc B.V.

#### **Sources used for the database and appendix**

Francis, S. (2012). *Fibulae van de Romeinse cultusplaats te Wijshagen (Meeuwen-Gruitrode)*. Faculteit Letteren & Wijsbegeerte universiteit Gent

Heeren, S., and van der Feijst, L. (2017). *Prehistorische, Romeinse en middeleeuwse fibulae uit de lage landen. Beschrijving, analyse en interpretatie van een archeologische vondstcategorie*. Amersfoort.

Riha E. (1979). *Die römischen Fibeln aus Augst und Kaiseraugst*. Amt für Museen und Archäologie des Kantons Basel-Landschaft.

Riha, E. (1994). *Die römischen Fibeln aus Augst und Kaiseraugst Die Neufunde seit 1975*. Amt für Museen und Archäologie des Kantons Basel-Landschaft.

## Appendix

PRO JEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_MM	ST AT US	open of gesloten (indien compleet)	perio de begin	perio de eind
Nla13	Nla13.00 012MXX 1		draadfi bula			21	9	frag men t			
Nla13	Nla13.00 015MXX 1	scharnier				20	11	frag men t			
Nla13	Nla13.00 017MXX 1	bovendra ads	knikfibu la	Riha 2.7	type 17	33	5	frag men t		20 BC	50 AD
Nla13	Nla13.00 019MXX 1	bovendra ads	knikfibu la	Riha 2.7	type 17	40	9			20 BC	50 AD
Nla13	Nla13.00 026MXX 1	onderdra ads	draadfi bula	Riha 1.6	type 45	41	2			30 AD	300 AD
Nla13	Nla13.00 034MXX 1	bovendra ads	ogenfibu la	Riha 2.3	type 20	46	10			5 AD	100 AD
Nla13	Nla13.00 133MXX 1					31	4	frag men t			
Nla13	Nla13.00 160MXX 1	onderdra ads	kapfibul a	Riha 1.13	type 11	41	8			15 BC	50 AD
Nla13	Nla13.00 174MXX 1	bovendra ads	knikfibu la	Riha 2.7	type 17	42	11			20 BC	50 AD
Nla13	Nla13.00 175MXX 1	onderdra ads	rongde bogen draadfi bula	Riha 1.7	type 46	44	9			90 AD	150 AD
Nla13	Nla13.00 181MXX 1	bovendra ads	boogfibu la	Riha 2.5	type 18	43	13			1 AD	100 AD
Nla13	Nla13.00 236MXX 1	bovendra ads	boogfibu la	Riha 2.5	type 18	42	13			1 AD	100 AD
Nla13	Nla13.00 293MXX 1	onderdra ads	draadfi bula	Riha 1.6	type 45	49	10	com plee t	open, naaldhouder compleet	30 AD	300 AD
Nla13	Nla13.00 341MXX 1	onderdra ads	draadfi bula			41	11				
Nla13	Nla13.00 352MXX 1	bovendra ads	boogfibu la	Riha 2.5	type 18	42	12			1 AD	100 AD
Nla13	Nla13.00 369MXX 1	bovendra ads	ogenfibu la	Riha 2.3	type 20	36	11			5 AD	100 AD
Nla13	Nla13.00 376MXX 1	bovendra ads	ogenfibu la	Riha 2.3	type 20	38	14	com plee t	open, naaldhouder compleet	5 AD	100 AD
Nla13	Nla13.00 377MXX 1	bovendra ads	knikfibu la	Riha 2.7	type 17	41	9			20 BC	50 AD
Nla13	Nla13.00 391MXX 1	onderdra ads	kapfibul a	Riha 1.13	type 11	61	14			15 BC	50 AD

PROJEC T	VONDS TNUMMER	HOOFD/ SUBGRO EP	TYPE GROEP	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	periode begin	perio de eind
Nla13	Nla13.00392MXX1	onderdraads	draadfibula	Riha 1.6	type 45	37	5	compleet	open, naaldhouder compleet	30 AD	300 AD
Nla13	Nla13.00411MXX1	scharnier	aucissa fibula	Riha 5.2	type 30	43	14	compleet	open, naaldhouder compleet	30 BC	80 AD
Nla13	Nla13.00444MXX1	bovendraads	boogfibula	Riha 2.5	type 18	45	14	compleet	open, naaldhouder compleet	1 AD	100 AD
NLA1	v00026MCU	onderdraads	draadfibula	Riha 1.6	type 45	47	11	compleet	open, naaldhouder kapot	30 AD	300 AD
NLA1	v00029MCU	onderdraads	draadfibula	Riha 1.6	type 45	50	2			30 AD	300 AD
NLA1	v00033MXX					26	4	fragment			
NLA1	v00037MCU		draadfibula	Riha 1.6	type 45	36	4			30 AD	300 AD
NLA1	v00042MCU	onderdraads	draadfibula			42	9				
NLA1	v00047MCU	onderdraads	draadfibula	Riha 1.6	type 45	45	4			30 AD	300 AD
NLA1	v00048MCU	onderdraads	draadfibula	Riha 1.6	type 45	47	2			30 AD	300 AD
NLA1	v00054MCU	bovendraads	draadfibula			54	8	fragment			
NLA1	v00058MCU	onderdraads	draadfibula	Riha 1.6	type 45	39	3			30 AD	300 AD
NLA1	v00140MCU	bovendraads	knikfibula	Riha 2.7	type 17	39	9			20 BC	50 AD
NLA1	v00144MCU	onderdraads	draadfibula	Riha 1.6	type 45	0	2	verboogen		30 AD	300 AD
NLA1	v00145MCU	onderdraads	draadfibula	Riha 1.6	type 45	43	2			30 AD	300 AD
NLA1	v00150MCU					0	0	fragment			
NLA1	v00161MXX	onderdraads	draadfibula			42	12				
NLA1	v00184MBR	bovendraads	knikfibula	Riha 2.7	type 17	35	10			20 BC	50 AD
NLA1	v00217MBR					38	1				
NLA1	v00218MBR	onderdraads	draadfibula	Riha 1.6	type 45	45	6			30 AD	300 AD
NLA1	v00230MBR	onderdraads	draadfibula	Riha 1.6	type 45	40	5			30 AD	300 AD
NLA1	v00250MBR					16	3	fragment			
NLA1	v00254MBR					21	2	fragment			
NLA1	v00324MBR	onderdraads	draadfibula	Riha 1.6	type 45	48	3			30 AD	300 AD
NLA1	v00344MBR	onderdraads	draadfibula			39	8				
NLA1	v00394MBR	onderdraads	draadfibula	Riha 1.6	type 45	44	9	compleet	open, naaldhouder compleet	30 AD	300 AD

PROJEC T	VONDS TNUMMER	HOOFD/ SUBGRO EP	TYPE GROEP	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	perio de begin	perio de eind
NLA 1	v00567 MBR	onderdra ads	rondge bogen draadfi bula	Riha 1.7	type 46	49	6			90 AD	150 AD
NLA 1	v00568 MBR	bovendra ads	knikfibu la	Riha 2.6	type 17	39	9			20 BC	50 AD
NLA 1	v00569 MBR	bovendra ads	Nertom arusfibu la	Riha 4.3	type 24	65	21			15 BC	50 AD
NLA 1	v00570 MBR	bovendra ads	draadfi bula			30	16				
NLA 1	v00576 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	9			30 AD	300 AD
NLA 1	v00578 MBR	bovendra ads	ogenfibu la	Riha 2.3	type 20	55	18			5 AD	100 AD
NLA 1	v00587 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	48	8	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00588 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	42	3			30 AD	300 AD
NLA 1	v00589 MBR		draadfi bula	Riha 1.6	type 45	41	2			30 AD	300 AD
NLA 1	v00590 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	41	9	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00596 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	52	12			30 AD	300 AD
NLA 1	v00630 MBR	onderdra ads	rondge bogen draadfi bula	Riha 1.7	type 46	46	8	com plee t	open, naaldhouder kapot	90 AD	150 AD
NLA 1	v00636 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	50	12	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00638 MBR	onderdra ads	draadfi bula			36	10				
NLA 1	v00639 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	48	9	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00640 MBR	bovendra ads	knikfibu la	Riha 2.6	type 17	32	11			20 BC	50 AD
NLA 1	v00642 MBR		draadfi bula			4	4	frag men t			
NLA 1	v00664 MBR		draadfi bula	Riha 1.6	type 45	43	2			30 AD	300 AD
NLA 1	v00667 MBR	bovendra ads	gallisch e fibula	Riha 2.2	type 16	67	15			20 BC	70 AD
NLA 1	v00669 MBR	bovendra ads	boogfibu la	Riha 2.5	type 18	26	7			1 AD	100 AD
NLA 1	v00672 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	11	com plee t	open, naaldhouder kapot	30 AD	300 AD
NLA 1	v00673 MBR	scharnier	aucissa fibula	Riha 5.2	type 30	0	0	frag men t		30 BC	80 AD
NLA 1	v00691 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	31	2			30 AD	300 AD
NLA 1	v00692 MBR	bovendra ads	knikfibu la	Riha 2.7	type 17	23	9			20 BC	50 AD
NLA 1	v00694 MBR	scharnier	aucissa fibula	Riha 5.2	type 30	48	14			30 BC	80 AD

PROJEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	period e begin	perio de eind
NLA 1	v00697 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	21	8			30 AD	300 AD
NLA 1	v00698 MBR	scharnier	kruisbo og fibula	Riha 6.4	type 67	22	16			200 AD	300 AD
NLA 1	v00718 MBR		draadfi bula			0	0	frag ment			
NLA 1	v00719 MBR	scharnier	schijffib ulla	Riha 7.7	type 38	25	27			30 AD	100 AD
NLA 1	v00720 MBR		draadfi bula			41	2				
NLA 1	v00724 MBR	bovendra ads	ogenfib ulla	Riha 2.3	type 20	46	11			5 AD	100 AD
NLA 1	v00771 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	11	com plee t	open, naaldhouder kapot	30 AD	300 AD
NLA 1	v00801 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	3			30 AD	300 AD
NLA 1	v00802 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	3			30 AD	300 AD
NLA 1	v00805 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	42	2			30 AD	300 AD
NLA 1	v00806 MBR	scharnier	aucissa fibula	Riha 5.2	type 30	30	8			30 BC	80 AD
NLA 1	v00807 MBR	scharnier				47	7				
NLA 1	v00808 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	47	10	com plee t	gesloten	30 AD	300 AD
NLA 1	v00809 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	10			30 AD	300 AD
NLA 1	v00826 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	35	7	verb oge n		30 AD	300 AD
NLA 1	v00830 MBR	onderdra ads	rondge bogen draadfi bula	Riha 1.7	type 46	51	3			90 AD	150 AD
NLA 1	v00831 MBR	bovendra ads	ogenfib ulla	Riha 2.3	type 20	35	7			5 AD	100 AD
NLA 1	v00832 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	2			30 AD	300 AD
NLA 1	v00833 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	49	11	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00834 MBR	scharnier	rozetfib ulla	Riha 4.5	type 26	0	0	frag ment		40 AD	70 AD
NLA 1	v00835 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43	9			30 AD	300 AD
NLA 1	v00837 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	29	3			30 AD	300 AD
NLA 1	v00844 MBR					30	2				
NLA 1	v00846 MBR	scharnier	rozetfib ulla	Riha 4.5	type 26	0	0	frag ment		40 AD	70 AD
NLA 1	v00853 MBR					22	3	frag ment			
NLA 1	v00863 MBR	bovendra ads	knikfibu la	Riha 2.6	type 17	45	12			20 BC	50 AD

PROJEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	period e begin	perio de eind
NLA 1	v00864 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	9	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v00865 MBR	bovendra ads	knikfibu la	Riha 2.6	type 17	19	7			20 BC	50 AD
NLA 1	v00867 MBR					0	0	frag men t			
NLA 1	v00877 MBR	bovendra ads	draadfi bula			7	15	frag men t			
NLA 1	v00878 MBR		draadfi bula			22	3	frag men t			
NLA 1	v00885 MBR	onderdra ads	rondge bogen draadfi bula	Riha 1.7	type 46	36	10	com plee t	open, naaldhouder kapot	90 AD	150 AD
NLA 1	v00891 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43	7			30 AD	300 AD
NLA 1	v00893 MBR	bovendra ads	knikfibu la	Riha 2.7	type 17	42	12			20 BC	50 AD
NLA 1	v00896 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43	5			30 AD	300 AD
NLA 1	v00898 MBR					26	12	frag men t			
NLA 1	v01004 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	9			30 AD	300 AD
NLA 1	v01005 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	2			30 AD	300 AD
NLA 1	v01007 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	4			30 AD	300 AD
NLA 1	v01008 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	23	2			30 AD	300 AD
NLA 1	v01015 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	51	2			30 AD	300 AD
NLA 1	v01016 MBR	onderdra ads	rondge bogen draadfi bula	Riha 1.7	type 46	34	3			90 AD	150 AD
NLA 1	v01017 MBR	scharnier	scharni ervleug el fibula	Riha 5.7	type 31	44	13			15 AD	90 AD
NLA 1	v01020 MBR	bovendra ads	boogfib ula	Riha 2.5	type 18	40	15			1 AD	100 AD
NLA 1	v01021 MBR					23	5	frag men t			
NLA 1	v01023 MBR	onderdra ads				33,5	10	frag men t			
NLA 1	v01025 MBR	bovendra ads	boogfib ula	Riha 2.5	type 18	31	14			1 AD	100 AD
NLA 1	v01030 MBR	bovendra ads	ogenfib ula	Riha 2.3	type 20	42	15			5 AD	100 AD
NLA 1	v01032 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	10			30 AD	300 AD
NLA 1	v01034 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	41	3			30 AD	300 AD
NLA 1	v01035 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	18	com plee t	open, naaldhouder kapot	30 AD	300 AD

PROJEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	perio de begin	perio de eind
NLA 1	v01037 MBR	scharnier	aucissa fibula	Riha 5.3	type 30	33	6,5			30 BC	80 AD
NLA 1	v01039 MBR	bovendra ads	gallische fibula	Riha 2.2	type 16	49,5	14			20 BC	70 AD
NLA 1	v01040 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	41	10	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v01055 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	4,5			30 AD	300 AD
NLA 1	v01061 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43,5	11	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v01066 MBR	scharnier	kruisvor mige scharni erfibula	Riha 5.8	type 31	26	15,5	frag men t		15 AD	90 AD
NLA 1	v01071 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	3			30 AD	300 AD
NLA 1	v01076 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	13			30 AD	300 AD
NLA 1	v01077 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	50	4			30 AD	300 AD
NLA 1	v01078 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	37	1,5			30 AD	300 AD
NLA 1	v01079 MBR	bovendra ads	knikfibu la	Riha 2.7	type 17	53	16			20 BC	50 AD
NLA 1	v01080 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	41	8			30 AD	300 AD
NLA 1	v01116 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43	9	com plee t	open, naaldhouder kapot	30 AD	300 AD
NLA 1	v01153 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	5			30 AD	300 AD
NLA 1	v01407 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	10	com plee t	open, naaldhouder kapot	30 AD	300 AD
NLA 1	v01412 MBR	bovendra ads	boogfibu la	Riha 2.5	type 18	44	10			1 AD	100 AD
NLA 1	v01525 MBR	onderdra ads	knikfibu la	Riha 1.8	type 21	40	20			40 BC	80 AD
NLA 1	v01537 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	50	3			30 AD	300 AD
NLA 1	v01541 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	35	10			30 AD	300 AD
NLA 1	v01546 MBR	bovendra ads	dolkfibu la	Riha 2.8	type 16	55	13,5			20 BC	70 AD
NLA 1	v01559 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	48	10	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v01560 MBR	scharnier	Sterk geprofil eerde scharni erfibula	Riha 5.14	type 33	38	12			15 AD	70 AD
NLA 1	v01562 MBR	onderdra ads	draadfi bula			20	7				
NLA 1	v01576 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	43	10	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v01592 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46,5	12			30 AD	300 AD
NLA 1	v01593 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	47	2			30 AD	300 AD



PROJEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	perio de begin	perio de eind
NLA 1	v01602 MBR	bovendra ads	ogenfib ula	Riha 2.3	type 20	34	16			5 AD	100 AD
NLA 1	v01611 MBR					8	7	frag ment			
NLA 1	v01614 MBR	onderdra ads	ronde bogen draadfi bula	Riha 1.7	type 46	47	4			90 AD	150 AD
NLA 1	v01616 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	42	2,5			30 AD	300 AD
NLA 1	v01655 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	3			30 AD	300 AD
NLA 1	v01656 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	42	11			30 AD	300 AD
NLA 1	v01658 MBR	bovendra ads	knikfib ula	Riha 2.6	type 17	29	14			20 BC	50 AD
NLA 1	v01659 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	2			30 AD	300 AD
NLA 1	v01660 MBR	onderdra ads	draadfi bula			42	10,5				
NLA 1	v01675 MBR					19	2	frag ment			
NLA 1	v01686 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	48	9			30 AD	300 AD
NLA 1	v01689 MBR	bovendra ads	ogenfib ula	Riha 2.3	type 20	25	13	verb oge n		5 AD	100 AD
NLA 1	v01694 MBR	bovendra ads	boogfib ula	Riha 2.5	type 18	37	10			1 AD	100 AD
NLA 1	v01695 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	9	com pleet	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v01696 MBR	scharnier	aucissa fibula	Riha 5.2	type 30	21	7			30 BC	80 AD
NLA 1	v01803 MBR	bovendra ads	ogenfib ula	Riha 2.3	type 20	30	12			5 AD	100 AD
NLA 1	v01809 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	50	12			30 AD	300 AD
NLA 1	v01819 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	47	10			30 AD	300 AD
NLA 1	v01826 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	46	3			30 AD	300 AD
NLA 1	v01845 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	48	2			30 AD	300 AD
NLA 1	v01846 MBR	bovendra ads	knikfib ula	Riha 2.7	type 17	36	12			20 BC	50 AD
NLA 1	v01859 MBR	bovendra ads	knikfib ula	Riha 2.7	type 17	41	7			20 BC	50 AD
NLA 1	v01862 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	31	10			30 AD	300 AD
NLA 1	v01865 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	51	11			30 AD	300 AD
NLA 1	v01866 MBR	onderdra ads	draadfi bula			29	6				
NLA 1	v01867 MBR	bovendra ads	knikfib ula	Riha 2.7	type 17	45	13			20 BC	50 AD
NLA 1	v01868 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	47	4			30 AD	300 AD
NLA 1	v01881 MBR	bovendra ads	knikfib ula	Riha 2.7	type 17	28	6			20 BC	50 AD

PROJEC T	VONDS TNUMM ER	HOOFD/ SUBGRO EP	TYPE GROE P	TYP E Riha	TYP E HvdF	LENG TE_M M	BREE DTE_ MM	ST AT US	open of gesloten (indien compleet)	period e begin	perio de eind
NLA 1	v01882 MBR					41	4	frag ment			
NLA 1	v01889 MBR					15	12	frag ment			
NLA 1	v01890 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	2			30 AD	300 AD
NLA 1	v01974 MBR	bovendra ads	knikfibu la	Riha 2.7	type 17	40	10			20 BC	50 AD
NLA 1	v02002 MBR	scharnier	Sterk geprofil eerde scharni erfibula	Riha 5.6	type 33	38	17			30 AD	120 AD
NLA 1	v02025 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	11			30 AD	300 AD
NLA 1	v02036 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	44	2			30 AD	300 AD
NLA 1	v02065 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	42	10	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v02111 MBR	onderdra ads	draadfi bula			31	11				
NLA 1	v02190 MBR		draadfi bula			29	5	frag ment			
NLA 1	v02216 MBR		draadfi bula			21	8	frag ment			
NLA 1	v02282 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	38	2			30 AD	300 AD
NLA 1	v02288 MBR	bovendra ads	ogenfibu la	Riha 2.3	type 20	38	11			5 AD	100 AD
NLA 1	v02318 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	1			30 AD	300 AD
NLA 1	v02412 MBR	bovendra ads	knikfibu la	Riha 2.7	type 17	23	13			20 BC	50 AD
NLA 1	v02430 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	40	9	com plee t	open, naaldhouder compleet	30 AD	300 AD
NLA 1	v02431 MBR	onderdra ads	draadfi bula	Riha 1.6	type 45	45	9			30 AD	300 AD
NLA 1	v02479 MBR	scharnier	aucissa fibula	Riha 5.2	type 30	33	8	com plee t	gesloten	30 BC	80 AD