



Universiteit  
Leiden  
The Netherlands

## **Between mountains and frontiers: the Roman settlement system in the provinces of Germania Superior, Raetia and Noricum**

Pazmany, K.

### **Citation**

Pazmany, K. (2019, June 6). *Between mountains and frontiers: the Roman settlement system in the provinces of Germania Superior, Raetia and Noricum*. Retrieved from <https://hdl.handle.net/1887/73849>

Version: Not Applicable (or Unknown)

License: [Leiden University Non-exclusive license](#)

Downloaded from: <https://hdl.handle.net/1887/73849>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/73849> holds various files of this Leiden University dissertation.

**Author:** Pazmany, K.

**Title:** Between mountains and frontiers: the Roman settlement system in the provinces of Germania Superior, Raetia and Noricum

**Issue Date:** 2019-06-06

## 5. Beyond urban dynamics

So far, several elements often used to describe an urban centre have been used as a guide in the search for a better understanding of the Roman settlement system in the northern Alpine region. The focus has mainly been on identifying characteristics of urban centres or places with town-like and central place functions. This has included the Roman administrative description of a town, urban or central place services and architectural characteristics. Overall, previous chapters looked at urban developments within individual Roman centres. In what will follow the emphasis will shift from approaches in which Roman centres are considered as isolated hubs to an approach in which the relationship between different settlements and between urban and rural environments will be explored.

The aim of this chapter is to move beyond the urban dynamics of single centres, and focus on the entire settlement system. The first section deals with the Roman settlement system of the northern Alpine region as a whole. An essential element within the settlement system that has not yet been discussed concerns the rural settlements. Rural habitation will play an important role in the second section of this chapter. The great critics of urban studies P. Horden and N. Purcell have noted that these rural forms of inhabitation are often excluded from research on urbanism, including ancient urbanism.<sup>676</sup> Of course, the relationship between an urban centre and its hinterland, or even broader landscape relations, is key to understanding the dynamic behind any particular form of urbanism. I have included three case studies in which the dynamics between urban centres and their hinterlands will be discussed in more detail, namely the regions of Regensburg (north-east Raetia), Mayen (north-west Germania Superior) and Salzburg-Wels (north-west Noricum). These choices have been governed by a number of factors. I have tried to find areas for which sufficient research on rural sites was available and which were at the same time broadly comparable. All three case studies involve an area located in the immediate hinterland of the frontier and the military zone. At the same time, I also looked for regions that were to a degree distinctive: different economic systems drove these areas and different kinds of centres characterised the three local settlement hierarchies.

### 5.1 From individual centres to settlement systems

Braudel's famous statement that 'a town is a town wherever it is' is in need of deconstruction. As will be clear from the earlier chapters, there exists no single definition of an urban centre. Moreover, any definition creates aporia of different kinds, from too static to unmanageable considering the available sources. The wide meaning of 'urban', is not only due to its complex nature or its changeable contents, but even more so because of the interconnectedness of towns with their environments.<sup>677</sup> Studies of urban history have often considered towns as the driving force of a society, or considered towns as isolated urban clusters. The research has thus been dominated by a division of urban and rural.<sup>678</sup>

---

<sup>676</sup> Horden and Purcell 2000, 96.

<sup>677</sup> *Ibid.*, 90-91; 92 ff.

<sup>678</sup> *Ibid.*, 90-91.

Nevertheless, since the late 1970s, voices pleaded for a reunion of the city with its natural and immediate environment.<sup>679</sup> Among others M. Finley underlined that the town and its hinterland formed one unit, in terms of administration, cult and economy.<sup>680</sup> That hinterland did not *per se* always correspond to any actual territory of the centre, but could also refer to the region that was affected by the centre's institutions and practices.<sup>681</sup> Older theories attempting to take into account the entire settlement network, such as Christaller's Central Place Theory or Zipf's rank-size rule, have been criticized for being too narrow in scope, too inflexible, or deviating from the archaeological reality.<sup>682</sup> A new era might have started with P. Horden and N. Purcell's *The corrupting sea: a study of Mediterranean history*, published in 2000, in which they plead for a 'microecological' model that considers towns only as loci or contact points of different systems.<sup>683</sup> However the feasibility of this model might stand under pressure and a reversal in the tradition of urban studies seems still far away. As becomes clear from J.W. Hanson's *An Urban Geography of the Roman World, 100 BC to AD 300* which was published in 2016,<sup>684</sup> or the case studies discussed later in this chapter, the information needed for such analyses is seldom accessible.

### 5.1.1 The Roman settlement system: geographical determination or historic influence?

In order to gain an overview of the patterns of the Roman settlement system in the northern Alpine region, single definitions of urban centres must be surpassed and the information derived from the different approaches used in previous chapters has to be amalgamated. When the three aspects of size, monumentality and administrative status are combined, different groups of centres belonging to different levels of the administrative order can be defined (i.e. settlement tiers). I distinguished five tiers of settlements relying on different features, as is shown in Table 5.1. In doing so, an attempt has been made to approach the various parameters equally, so that the attention is not diverted by one single definition, focusing solely on status or size for example. In total 306 sites were included in this analysis.

Tier	Size (ha)	Urban monuments and public infrastructure	Municipal status	Number of sites	Possible extra number of sites *	Total (n=306)	%
1	100+	Present	Colonia/Municipium Civitas Legionary base	2 2		6	1%
	95+		Subordinate centre Garrison settlement	1			
	80-99		Colonia/Municipium Civitas Legionary base	1			
	80-95		Subordinate centre Garrison settlement				

<sup>679</sup> Abrams 1979, 2-24; Hopkins 1979, 36; Horden and Purcell 2000, 99.

<sup>680</sup> Finley 1999, 123-126. Similar ideas can be read in the work of M. Millet (Millet 1995, 30.), P. Erdkamp (Erdkamp 2012, 245-246.) and J.W. Hanson (Hanson 2016, 18-19.).

<sup>681</sup> Smith 2010, 138.: Urban settlements are places that serve as the setting for institutions and practices that affect a larger, regional hinterland.

<sup>682</sup> Horden and Purcell 2000, 102-104.

<sup>683</sup> Ibid., chapter 4; p100; 108ff.

<sup>684</sup> Hanson 2016.

2	60-79	Present	Colonia/Municipium Legionary base	4		13	4%
	40-59		Colonia/Municipium Legionary base	2			
	60-79		Subordinate centre Garrison settlement	1			
	40-59		Subordinate centre Garrison settlement	3 1			
	40-79		Civitas	2			
3	20-39	Present/assumed	Colonia/Municipium Legionary base	5 1		52	17%
			Civitas	8			
			Subordinate centre Garrison settlement	20 10	4( ) 3( )		
	10-19		Colonia/Municipium Legionary base	1			
4	10-19	Relative high level	Civitas	1	1(/)	39	13%
			Subordinate centre Garrison settlement	6 5	2(/) 1( )		
		Low level	Civitas				
			Subordinate centre Garrison settlement	13 6	1(/) 3( )		
5	1-9	Relative high level	Civitas			156	51%
			Subordinate centre Garrison settlement	5 2	4(/)		
		Low level	Civitas	1			
			Subordinate centre Garrison settlement	23 46	26(/) 2( ) 46(/) 1( )		
NOT_IDENTIFIED			Subordinate centre Garrison settlement	18 22		40	13%

The group of Roman centres assigned to tier 1 includes the largest places in the northern Alpine region, independently of their position within the municipal hierarchy. These largest places had sizes of 80 ha and more. In addition to their exceptional dimensions, these centres were characterised by an extensive number of public monuments and infrastructures of a high urban level. The colonia *Augusta Raurica*/Augst, for example, belongs to this group of Roman centres. The centre's size is estimated at around 106 ha and was built up with public monuments, such as a forum-basilica complex, spectacle buildings, bathhouses and religious buildings. The coloniae of *Aventicum*/Avenches and *Vesontio*/Besançon had similar centres. The best example to illustrate that not only centres which enjoyed a high municipal status grew that large or were characterised by a high level of urban infrastructure and monumentality and to emphasise the importance of combining the different definitions of an urban centre, is the subordinate centre of *Epamanduodurum*/Mandeure. It is believed that this place was more than 200 ha and functioned as the religious heart of the *civitas Sequanorum*, characterised by a theatre building, baths and several temple- and sanctuary sites within the centre. Also the legionary bases of *Lauriacum*/Enns and *Mogontiacum*/Mainz belonged to the biggest places in the northern Alpine region, since the size of both centres, including the forts and the civilian occupation surrounding them, exceeded 100 ha. Although, administrative buildings, such as a basilica, were absent here one finds urban-like buildings, such as market halls, spectacle buildings, *porticoes* and religious buildings.

Tier 2 comprises the centres which, according to the observations made in chapter 2 and chapter 3 concerning the size of self-governing centres and legionary bases and of subordinate centres and garrison settlements respectively, became relative large places regarding the average size of a Roman centre in the northern Alpine region. This implies a size of more than 40 ha or 60 ha for places with a high municipal status, such as *coloniae* and *municipia* on the one hand and for subordinate centres and garrison settlements on the other hand. Also, these Roman centres were generally characterised by a high level of urban monumentality. Examples of centres included in this category are the Norican *municipia* of *Celeia/Celje* and *Virunum/Zollfeld*. It is apparent that *Nida/Frankfurt-Heddernheim* and *Borbetumagus/Worms* appear to be some of the largest and monumental *civitas* centres. This observation may reinforce the suggestion made earlier that these places may have been possible chartered towns, based upon the attestation of municipal offices in epigraphical sources. The estimation of a size of around 50 ha for the garrison settlement of Echzell is exceptional. The archaeological remains of the settlements are, however, of a lower urban character, just as in the subordinate centre of Chassey-les-Montbozon. It is believed that the latter was also 50 ha. However, the public infrastructure and monuments in these larger centres of a lower position within the municipal hierarchy are rather limited to bathhouses and temples.

Tier 3 includes the centres which enjoyed a high municipal status (i.e. *colonia*, *municipium*, legionary base) but which remained of a relatively modest size (10-19 ha and 20-39 ha) compared to other centres that enjoyed this status. The *municipia* of *Aguntum/Lienz*, *Cetium/St. Pölten Flavia Solva/Wagna*, *Iuvavum/Salzburg*, *Teurnia/St. Peter in Holz* are good examples. Furthermore, tier 3 also includes relatively large centres that enjoyed fewer municipal freedoms, such as the *civitas* centres of *Lopodunum/Ladenburg*, *Med./Dieburg*, *Neuenstadt am Kocher* or *Riegel*. One can suggest that subordinate centres and garrison settlements which reached a similar size of 20 to 39 ha might have been more important within the settlement system than other centres of their kind which remained smaller or less developed. These centres, such as the potter's centre of *Rheinzabern* or the centre of *Vidy* equipped with among other public buildings a *forum* and a theatre, are therefore also assigned to tier 3.

The settlements categorised as tier 4 and tier 5 belong to the smaller ones within the size-spectrum of Roman centres. Nevertheless, a considerable distinction could still be made between the number of public monuments and infrastructure that could be attested at the sites. The small subordinate centre of *Gleisdorf* in *Noricum* for example was characterised by a large monumental amphitheatre. Equally, excavations on the site of *Eisenberg* (*Germania Superior*) revealed the remains of possible public administrative buildings. These two examples illustrate the major contrast with other small subordinate centres, such as the production site of *Mayen*, where no sign of any public investment in public monuments or infrastructure has been attested. Similarly, it was illustrated in chapter 4 that certain garrison settlements, such as *Iciniacum/Theilenhofen* and *Quintana/Künzing* had more public infrastructure than others, including an amphitheatre or possible multi-purpose halls. Regardless that fact that the appearance of these public infrastructures was less imposing than their urban equivalents, these garrison settlements accommodated functions their neighbouring centres did not.

Unfortunately, archaeological research has not provided sufficient insight into the character of all Roman centres that were included in this analysis. Forty Roman settlements could not be assigned to any of the tiers explained above. However, since so little is known about them, or since many left so few remains, one could reasonably assume that those places were small and little monumentalised

centres. The character of the majority of these 'unidentified centres' was probably similar to that of the centres assigned to tier 5.

From the analysis one can conclude that the Roman centres of tier 1 and tier 2 form the exception, at only 5 %. Those centres were mainly *colonia*, *municipia* and legionary bases. Interesting too is that there appear to have been slightly more settlements of the type of tier 3 (17%) than of tier 4 (13%). A relatively large number of Roman centres must have taken a middle-ground position within the wider settlement system, including *civitas* centres, subordinate centres and garrison settlements. 51% of the centres were categorised as tier 5 and were almost solely subordinate centres and garrison settlements. However, taking into account the 'unidentified places' and the large number of Roman sites that still need to be researched or discovered, tier 5 most likely represents not half but the majority of Roman centres.

The geographical distribution of the five settlement tiers (Fig. 5.1a) shows us that the centres of tier 1 mainly occurred along the frontier or in the southern area of Germania Superior. Centres belonging to tier 2 appear to correspond with centres which became of importance for the provincial administration, such as *Augusta Vindelicum*/Augst in Raetia, *Ovilavis*/Wels and *Celeia*/Celje in Noricum or with centres along important trading routes, especially in southern Germania Superior. It is worth stressing that the area that originally belonged to Gaul, but later on formed part of the province of Germania Superior is the area in the northern Alpine region with the most dense concentration of these very highly ranked centres. Well distributed over the entire region are the centres of tier 3. They seem to be located at certain intervals along important arteries, such as the road south of the Danube frontier or the *Rheintalstraße*, and bridge the distance between the larger centres. The smaller centres of tier 4 and tier 5 which still showed a relatively high level of monumentality and public infrastructure were mainly located in southeast Germania Superior, southeast Noricum or along the *limes*. It has already been suggested that some of those places also performed certain central functions or that some were unidentified *civitas* centres. The majority of the centres with a small size and a low urban profile – identified as tier 4 and 5 with a low level of public infrastructure – can be found along the frontier and along older frontier lines.

One of the key challenges here is to find answers to the question of why the Roman settlement system in the northern Alpine region developed in this way. There are, of course, influential geographical factors which have to be taken into account. The Alpine mountains are a factor that determines the northern Alpine region and had without doubt an enormous impact on the development of the settlement system also in Roman times. The distribution pattern of Roman centres is clearly affected by the presence of these high mountains, resulting in an urban vacuum in southern Raetia and central Noricum. Apart from road stations along the major Alpine passes, no Roman centre developed in this highly rugged, mountainous terrain. Larger centres only appeared at the foot of the mountains and often at locations well connected to these Alpine passes, such as *Brigantium*/Bregenz and *Curia*/Chur in Raetia or *Salzburg*/Iuvavum and *Virunum*/Zollfeld in Noricum. Furthermore, these larger centres were generally situated no higher than about 700 m above sea level. This contrasts with the road stations, for example the well-researched site of *Immurium*/Moosham, which was located at an altitude of 1,100 m. Equally, the Roman centres that developed in the Jura region were presumably located no higher than 500m above sea level, such as the *coloniae Augusta Raurica*/Augst and *Iulia Equestris*/Nyon or the centres of *Eburodunum*/Yverdun and *Petinesca*/Studen. Outside the core zones of the mountain ranges, the northern Alpine region is

characterised by a fairly similar climate, with average temperatures varying between 8 and 11°C and average rainfall everywhere well above 400mm per annum. Climatological reasons are therefore not the origin of the distribution pattern and of the urban development in the entire region.

In addition to the elementary geographical elements, the Roman settlement system seems to have been shaped mainly by historical events and human actions and interactions – as far as one can disconnect these from the landscape. Many centres appear to have been located along roads, including the main trade and communication routes, some of which predated the Roman period. The Roman centres in the southern region of Germania Superior, corresponding with today's Franche-Comté and the Haut-Marne for example, were located within the Rhône-Sâone-Seine network that has connected places, people and goods since the Late Iron Age.<sup>685</sup> Flourishing Roman centres, such as those in Langres and Besançon, were located along these trade routes and were often successors of existing places. The Roman centres in Augsburg, Bregenz or Kempten in Raetia were equally situated along the main arteries of communication within the province, expanded during Roman rule by the *Via Claudia Augusta* and other new roads. However, these places were strategically chosen by the Romans for military or administrative reasons. Also, the *Rheintalstrasse* formed an important connecting route and was the location of many agglomerations (Fig. 5.1a).

The dense concentration of centres in the northern half of the province of Germania Superior and north of the Danube in Raetia must undoubtedly be connected with military events and the changeable frontier. As discussed before, many Roman centres here developed from a military base around which a smaller or more extended agglomeration emerged, often inhabited by people related to the soldiers or attracted by the opportunities for trade. As a consequence of the regularly redefined frontier during the 1<sup>st</sup> century AD, the army units stationed in these garrison settlements moved away. However, many of these settlements remained inhabited and developed into flourishing regional centres. The settlement pattern in this area indeed shows the linear stretches of the former frontier, resulting in parallel roads with agglomerations at regular intervals. Without the presence of the Roman army the Roman settlement system would have looked different here. All this suggests to me that the urban developments in the northern Alpine region during the Roman period were heavily influenced by historical events, including a deliberate Roman policy.

One may then also expect to find a well interconnected settlement system in which people and goods could travel back and forth to these central places within one a day. It has been argued that within a market-based settlement system the centres should ideally not be located further from each other than a distance that could be bridged under optimal circumstances in three to four hours, allowing a return within a day for rural populations taking advantage of marketing and other services in central places; this corresponds approximately with a distance of 30 km.<sup>686</sup> Figure 5.1b shows this distance of 30 km between the Roman towns and centres with town-like functions which were discussed earlier. It has been claimed that military sites should be excluded from so-called central places.<sup>687</sup>

Previously, I argued, however, that garrison settlements must have played a significant role in the Roman settlement system in this region. The garrisons settlements assigned from tier 1 to tier 4 have

---

<sup>685</sup> King 1990, 115-117.

<sup>686</sup> Millett 1995, 31; Bintliff 2002, 216-217.

<sup>687</sup> Kunow 1988, 55.

therefore been considered centres with a catchment area that stretched further than the military logistics. The 30 km distance is represented by a circular buffer with a radius of 15 km. The interconnectedness of the settlement system in the northern Alpine region is expressed here by the fact of joining buffer areas around many centres in large parts of the study area. Even more, in certain parts of the northern Alpine region the centres could be reached in less than a one-day return journey, since the buffer areas frequently overlap, such as in northern Germania Superior and northern Raetia. In these parts of the northern Alpine region one could speak in geographical terms of a two-dimensional service centre system. Various factors could be suggested as the driving force for the the settlement system in these specific regions to develop according to the 'provisioning principle', not in the least the fertile soils and a relatively high population living in both rural and more urbanised places. Similar developments could be assumed for northern Noricum. J. Kunow also observed parallel trends for the adjacent region of southern Germania Inferior.<sup>688</sup> These northern areas contrast with the southern parts of the provinces of Raetia and Noricum. Here the settlement system seems to occur as a one-dimensional linear system, often associated with the limes region, where one main road connects the different centres.<sup>689</sup> The zones of the different phases of frontier development exhibit in particular a well connected settlement system. It is of course self-evident that the army provided an optimal communication and supply system, which resulted in a well-connected (garrison) settlement system. This characteristic development, also called the 'transport principle', could possibly be explained in these southern areas of the northern Alpine region by the rougher terrains of the Alps and a less fertile environment which was consequently less densely inhabited.

Furthermore, the map shows that the supposed catchment areas of the Roman centres, displayed schematically on figure 5.1b as Thiessen polygons, are often larger than the 30 km buffer area used to analyse a market based settlement system.<sup>690</sup> These catchment areas depend on and can vary related to the needs of the population living outside the particular centre. A centre's catchment area will be larger when it provides more unique services than when it offers functions which other centres also offer.<sup>691</sup> A market would be found in more centres than a theatre, for example. In areas where the buffer area does not correspond with the theoretical hinterland of a centres, a low population density could offer a possible explanation, as in the Alps, for example. Elsewhere, the archaeological research might have not revealed the remains of some Roman sites. The land east of Augsburg and west of Salzburg is an example of such a less integrated zone. It has been suggested that due to the state of preservation and the state of archaeological research, some agglomerations might still be undiscovered.<sup>692</sup> Previous occupation, such as the Late Iron Age centre in Manching, nevertheless proved that the area was suitable for successful urban development.

Furthermore, the fact that no centre has yet been found does not mean that such 'empty' areas were not inhabited during the Roman period. There is after all still one type of agglomeration that has so far not been paid much attention so far and that might explain certain gaps in the settlement system,

---

<sup>688</sup> *Ibid.*, 64.

<sup>689</sup> *Ibid.*, 56-57.

<sup>690</sup> The catchment area of a town refers to the hinterland from where people come to make use of the services and institutions provided by or available in the centre, see: *ibid.*, 56. .

<sup>691</sup> Bekker-Nielsen 1989, 5.

<sup>692</sup> Steidl 2016, 77-78.

namely rural settlements. As will be discussed later, certain Roman *villae* estates may indeed have performed specific central functions.

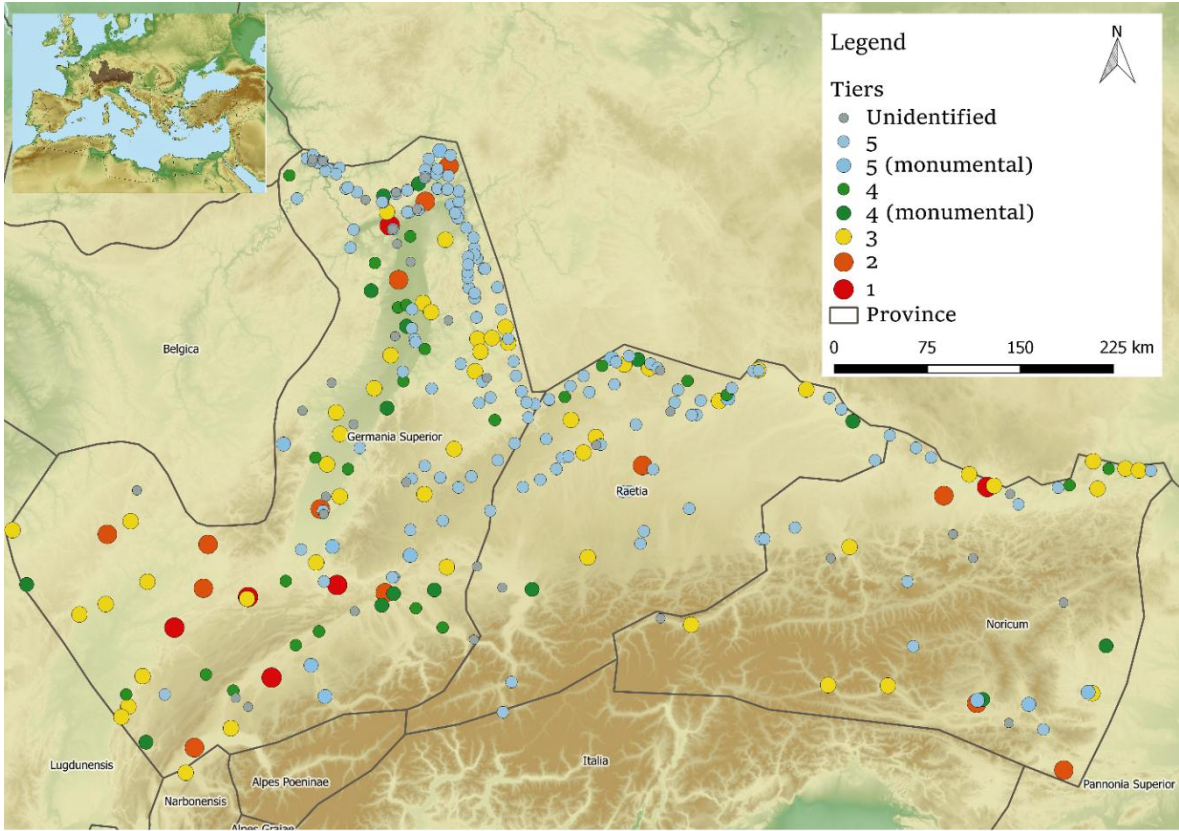


Fig. 5.1a : Geographical distribution of the settlements divided into 5 tiers

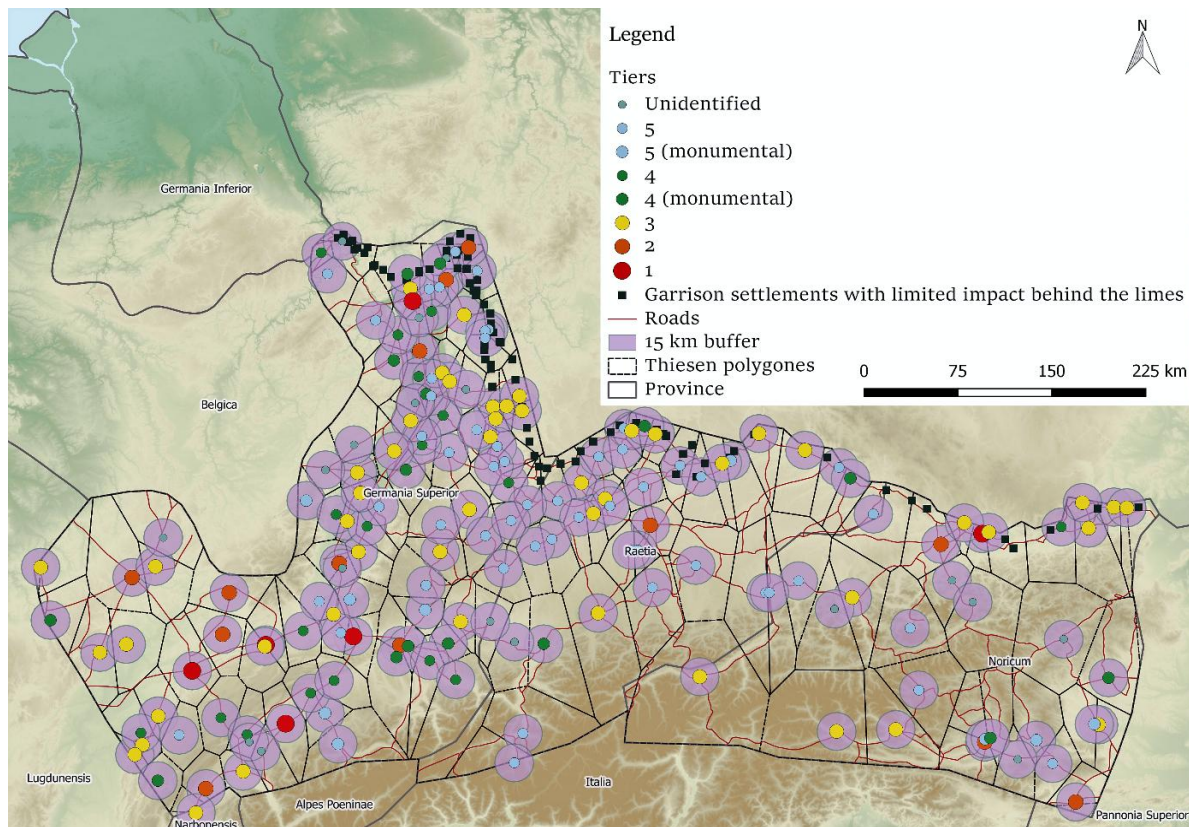


Fig. 5.1b: The interconnectedness of the Roman settlement system in the northern Alpine region

## 5.2 The rural settlements

Although initially little studied, since the 1990s works on the rural landscape and its inhabitation have increased in number. The doctoral research on the environment of Roman Regensburg by Thomas Fischer was one of the earliest studies questioning the relationship between pre-Roman occupation and the rural settlements of the Roman period.<sup>693</sup> Over recent decades more research has focused on both the agricultural use of land in Roman times as well as on rural habitation. These studies often stress the high number of rural inhabitants together with a relatively intensive cultivation of the land compared to earlier, or to following, eras.<sup>694</sup> More effort has been put into compiling inventories of known rural sites for specific areas, for example in Upper Austria<sup>695</sup> or in the regions of France and Germany.<sup>696</sup> These studies include old excavations as well as new discoveries. Indeed recent archaeological research, especially in the form of geophysical survey, has extended the knowledge of rural sites.<sup>697</sup> This has led to deeper and more detailed case studies on the dynamics between farming estates, both in terms of chronology and function.<sup>698</sup> The increased interest in rural

<sup>693</sup> Fischer 1990.

<sup>694</sup> Focusing on the German provinces: Wendt and Zimmermann 2008, 191-195. Studies more specific on the Eifel region: <http://web.rgzm.de/> (9-12-2016); Baur 2012.; Giljohann 2012; Grünewald and Wenzel 2012.

<sup>695</sup> Traxler 2004: Römische Guts- und Bauernhöfe in Oberösterreich, 13 ff; Kastler, Lang and Traxler 2017, 40: overview of new archaeological (field) investigation done after 2004.

<sup>696</sup> Ferdière *et al.* 2010.

<sup>697</sup> Henrich and Mischka 2012, 327-335; Kühne 2012b, 205-211; 2012a, 85-88; Lambers 2017, 181-186.

<sup>698</sup> A good example for the Middle Aare valley (Switzerland) can be found in: Schucany 2011, 275-283.

habitation has also generated further insights into the constellation of the archaeological remains and the related terminology.

The research on the rural settlements in the northern Alpine region has now resulted in the identification of a relatively high number of rural sites (Fig. 5.2). The majority of the northern Alpine region had a favourable climate for agricultural activities. One notices densely populated hinterlands in the vicinity of larger centres, such as the legionary base of *Mogontiacum*/Mainz or the *colonia Augusta Raurica*/Augst.<sup>699</sup> Nevertheless, the largest clusters of known rural sites was located in the immediate vicinity of the *limes*, and more specifically in the area north of the Danube and parts of the *Agri decimates*. A minimum of 4,000 rural estates and farms have been attested along the so-called *Obergermanisch-Raetische Limes* and the *limes* in Raetia and west Noricum.<sup>700</sup> The northern frontier region must have been of great importance for the food supply within the Empire: the region operated as one of Rome's agricultural gardens.<sup>701</sup> The extent to which the rural habitation is investigated remains an academic deadlock. The number of rural sites that have not yet been discovered or have not been recognised as part of the Roman settlement system is unknown. Equally, problems concerning the terminology and definition of these rural sites have an impact.

The term *villa* is ubiquitous in research on the rural aspects of the Roman society. Despite its Latin origin, the meaning of the modern term of 'villa' – a large country home - differs from the Roman idea best translated as 'farm'. Such an agricultural estate included a large luxurious residence (*pars urbana*) accompanied by several additional buildings including a bathhouse and secondary buildings for agrarian or craft purposes as well as farmland (*pars rustica* and *pars fructuaria*). In modern archaeological and historical research the term *villa rustica* is often used to refer to the entire estate, which is incorrect according to its Roman meaning.<sup>702</sup> More recently, suggestions have been made towards the implementation of more neutral and modern terms such as farming estate, farmstead and rural village.<sup>703</sup> The description of *villae* as known from the writings of classical authors, such as Cato, Varro or Columella, is derived from the situation in the Mediterranean region. According to R. Kastler, F. Land and S. Traxler this is another important reason to avoid the Latin term, since the rural settlements in the Roman provinces were characterised by their own development. Adhering too much to the writings of the Roman agronomists may mean that the individuality of provincial rural occupation becomes overlooked.<sup>704</sup>

Due to a fairly late incorporation into the research agenda, most of the Roman rural sites are - if not destroyed - probably either still undiscovered or only partially excavated.<sup>705</sup> Regardless of the nature of the Roman remains found in rural contexts, these sites are frequently labeled as *villae (rusticae)*.

---

<sup>699</sup> The correlation between a more densely occupied hinterland and larger centres or places with a high position in the settlement hierarchy has been analysed by Hodder and Millett 1980, 74-75.

<sup>700</sup> Flügel and Valenta 2017, 52.

<sup>701</sup> *Ibid.*, 54.

<sup>702</sup> Traxler 2004, 5-6.

<sup>703</sup> Smith 1997, 10-11; King 2004, 349-350; Roymans and Derks 2011, 2. In the German literature *Baurnhöfe* or *Gutshöfe*: Traxler 2004, 6.

<sup>704</sup> Kastler, Lang and Traxler 2017, 21.

<sup>705</sup> For Britain, Bavaria and northwest Noricum: Hingely 2004, 330-333; Traxler 2004, 3-4; Moosbauer 2009, 148; Kühne 2012b, 205-206.

All too often, the interpretation of a *villa* site relies on a few finds, including indications of prosperous living standards, such as mosaic tiles, fragments of wall paintings or of hypocaust heating, and at other times is based on isolated remains, such as stone foundations. The lay-out of a Roman *villa* was, however, not unique and is very strongly reminiscent of that of a road station or other form of inhabitation.<sup>706</sup> It is unclear whether the sites of, for example, Bad Reichenhall Langacker, Kraiburg am Inn or Tittmoning in north-west Noricum, belonged to a rural agglomeration or to a farm estate.<sup>707</sup> I. Heitmeier therefore warns against an often too simple outcome found in ascribing such archaeological structures to a Roman *villa* site, while other rural living forms are ignored.<sup>708</sup> This questions the idea, introduced by Th. Fischer among others, that in the northwestern provinces no other kind of rural inhabitation existed than these typical Roman *villae* domains.<sup>709</sup> In Gaul, however, research has proven that *villae* often stimulated the emergence of rural villages.<sup>710</sup> Moreover, rural inhabitation in local building style has often been wrongly ascribed to pre-Roman societies.<sup>711</sup>

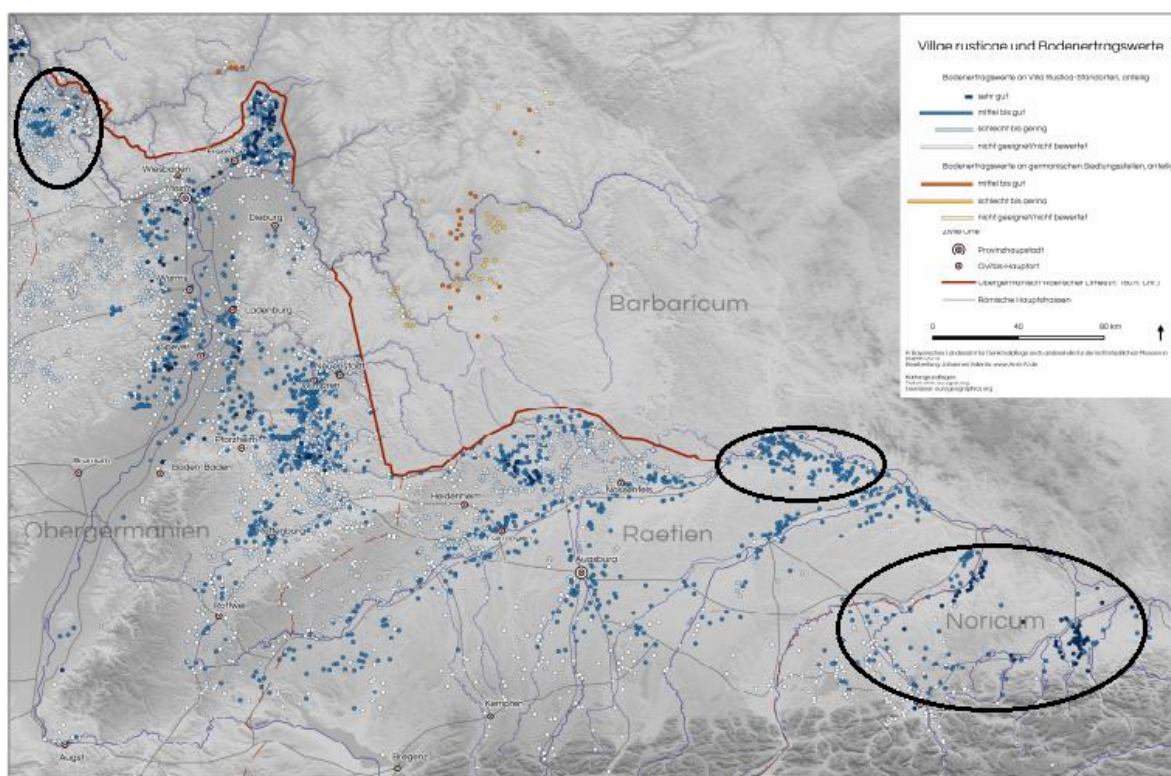


Fig. 5.2: Archaeological sites of rural settlements in the frontier regions of Germania Superior, Raetia and Noricum (indicated in blue and white), state of research 2016. The regions encircled are those discussed in the three case studies. Online: [http://www.museen-in-bayern.de/fileadmin/Daten/Landesstelle/Zivilkarte\\_30062016\\_300dpi\\_01.pdf](http://www.museen-in-bayern.de/fileadmin/Daten/Landesstelle/Zivilkarte_30062016_300dpi_01.pdf)

<sup>706</sup> Bender 1975, 19; Pöll 2001, 246; Grabher 2010, 248-250; Kastler 2010b, 40-41.

<sup>707</sup> Kastler, Lang and Traxler 2017, 8.

<sup>708</sup> Heitmeier 2005, 106.

<sup>709</sup> Ibid., 106.: '... in nördlichen Provinzen des römischen Reiches bestimmte ausschliesslich der römisch-mediterrane Bautypus der *villa rustica* das Erscheinungsbild der ländlichen Siedlung. Neben den Villen existierende Siedlungsformen, etwa Bauerndörfer einer weniger romanisierten Bevölkerung, sind in den Provinzen Obergermanien, Raetia und Noricum nicht bekannt.', by Th. Fischer (römische Landwirtschaft, 273.) This idea can be found in the work of many others, such as: Oelmann 1990, 174.

<sup>710</sup> Leveau 2002, 7-8.

<sup>711</sup> Hingely 2004, 327; Roymans and Derks 2011, 2.

Studying the inhabitation and activities in the countryside is highly important, since the majority of people will have spent their lives there, but also because its relationship with urban and smaller centres will have been vital for the way life was organised in antiquity.<sup>712</sup> The population living in central places was never fully or primarily engaged in agrarian activities.<sup>713</sup> Despite a certain level of production expected in every centre, one assumes that some of them outgrew their own production capacities and therefore needed supplies from the country side.<sup>714</sup> The presence of the army, too, will have raised the demand for agrarian products in the northern Alpine region considerably.<sup>715</sup> Suggestions regarding the nature of the interaction between centres and the countryside range from consumer- or parasitic models to modular systems and symbiotic relations, but overall every situation remained unique.<sup>716</sup>

The three following case studies - including the regions of Regensburg (northern Raetia), Mayen (north-west Germania Superior) and Salzburg-Wels (north-west Noricum) - will shed light on the wide range of possible dynamics (Fig. 5.2). Due to limited textual sources, local researchers have sometimes attempted to broaden their understanding of rural life in these areas by looking for possible parallels in other regions of the Empire, such as North Africa.<sup>717</sup> Nevertheless, conclusions will mainly have to be drawn from observations made based on the archaeological record. The case studies should allow a supra-regional comparison of the interaction between rural and urban centres and influences such as local resources or the presence of the Roman army.

---

<sup>712</sup> Mansuelli 1990, 330; Horden and Purcell 2000, 92; Roymans and Derks 2011, 1.

<sup>713</sup> There is a tendency to assume a relatively high agrarian lifestyle for many central places, especially for subordinate centres: Hiddink 1991, 215-216.

<sup>714</sup> Hopkins 1979, 73-77; Finley 1999, 125; Wilson 2011, 161-162.

<sup>715</sup> Wendt and Zimmermann 2008, 212; citation of Th. Fischer 1999, 46; Sommer 2013.

<sup>716</sup> Finley 1999, 123-125. For the consumer city model see: Parkins 1997, Roman urbanism beyond the consumer city. For argumentation on a modular town system see: de Ligt 2016.

<sup>717</sup> The work of E. Kostner concerning the region of Mayen and P. Herz regarding the rural life in northwest Noricum are two examples which will be cited later on.

### 5.3 Case study 1: Rural life in Raetia. The countryside around *Castra Regina*/Regensburg

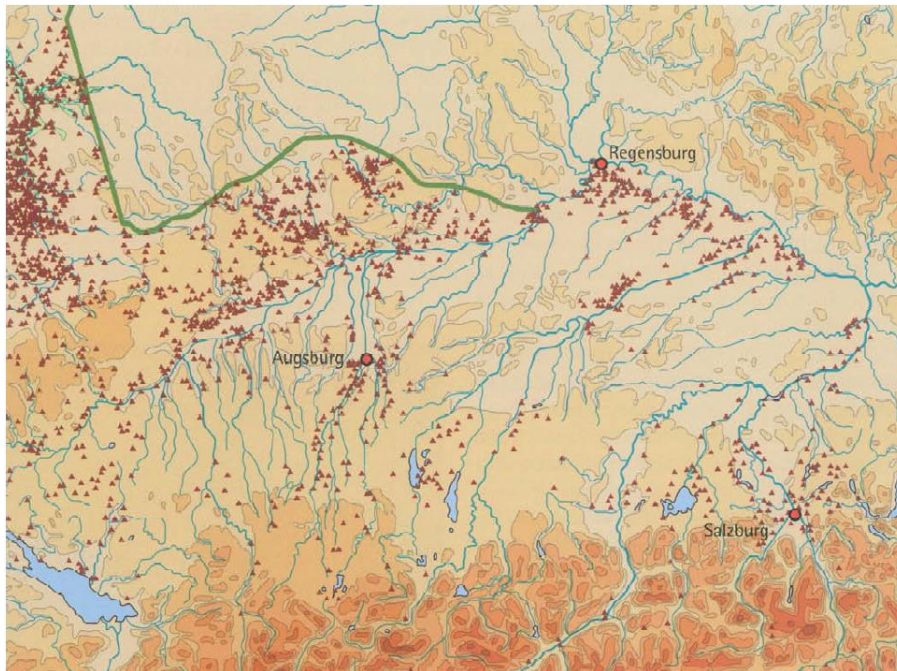


Fig.5.3: Distribution of *villa*-sites and rural settlements north of the Alps in Raetia (Sommer 2013, 5: map by A. Faber based on the state of investigation in 2005.)

Due to the natural geographical features, not least the Alpine mountains, rural inhabitation in the southern areas of the province of *Raetia* remained limited. By contrast, the northern half the province was characterised by fertile soils. The densest concentrations of *villa* sites from the Roman period in Raetia have been found in the northern parts of the province and more specifically in the northwest, in the area north of the river Danube and south of the frontier (Fig. 5.3). According to C. S. Sommer, the formation of such farm estates is clearly linked to the presence of the army. As he points out, the oldest foundation dates of these rural sites go back to the late 1<sup>st</sup> and 2<sup>nd</sup> centuries AD and were thus contemporary with most of the military installations at the frontier.<sup>718</sup>

Nowhere else in the province could a similar density of farming estates be observed from the archaeological finds. River valleys, however, such as the Lech- and Wertachthal south of Augsburg, were also regions with a relatively densely occupied countryside. With regard to the number of rural sites identified, the region between the garrison settlement of *Castra Regina*, modern Regensburg, and the river Isar to the east is also worthy of note. This last region will be the focus of this case

---

<sup>718</sup>Some have argued for a desolate landscape since LT D1 which needed complete new rehabilitation of the countryside during the imperial period, among others Th. Fischer 1990, 23; S.C.Sommer 2013, 134-135. More recently, voices were raised disagreeing with this thesis and calling for more continuity of rural inhabitation. At the *villa* site of Bad Abbach (Poing), remains of a late Iron age farm have been identified within the structures of the later Roman estate. G. Moosbauer therefore suggested that the presence of the army did not necessarily stimulate the emergence of more farmsteads. He calls instead for an intensification of production while accepting a slight increase in the number of farms (Moosbauer 2009, 154-158.).

study. The area around Regensburg is one where the rural Roman occupation is slightly better investigated than elsewhere in *Raetia*. At this moment, around 200 occupation sites are known, of which half are categorised as farmsteads.<sup>719</sup> This relatively dense concentration of rural sites seems heavily connected to the presence of the legionary base in Regensburg.

### 5.3.1 The legionary base and rural occupation

When in the Flavian period the frontier in eastern *Raetia* was extended to the north, a first cohort base was established in Regensburg around AD 80.<sup>720</sup> With the violence of the Marcomannic wars between AD 160 and AD 170, the basecamp was destroyed along with the residential areas around it. In response to this disorder a new permanent legionary camp was founded, *Castra Regina*, in AD 179.<sup>721</sup> The legionary fort was surrounded on its east, south and west sides by residential areas.<sup>722</sup> The streets of the garrison settlement were partly paved and sometimes equipped with porticos. The central zones were characterised by modest strip houses, but elsewhere, such as in the western quarters, bigger house complexes have been found. These were of 75 m x 35 m in size, and had a courtyard, a nymphaeum and hypocaust heating. These wealthier houses can probably be ascribed to military officers or to prosperous civilians. No more urban-like infrastructure, such as a *forum-basilica* complex, has been found<sup>723</sup> and it is assumed that administratively the inhabitants fell under the supervision of the army.<sup>724</sup>

It is believed that under the influence of this new legionary base, the population number within this small area in eastern *Raetia* increased within a few decades to somewhere in the region of 12 000 to 15 000 people. This must have had a major impact on the environment, both in terms of construction materials as well as on the demand for food. It is estimated that 30,000 m<sup>3</sup> of stone was needed for the construction of the fort alone and in addition a huge amount of timber, excluding the building materials used for the barracks and houses.<sup>725</sup> G. Moosbauer suggested that for the strip of frontier between the fort of Eining in the west up to Passau, including about ten forts, one of which was a legionary base, 5,000 tonnes grain had to be provided on a yearly base. This would feed all soldiers and military staff, civilians and animals. He asserts that a *Raetian villa* of 100 ha could easily produce 50 tonnes of grain. He therefore puts the minimum number of farmsteads around Regensburg at 200 in order to feed both the inhabitants of the garrison settlements and the farmers themselves.<sup>726</sup>

With its dry and warm summers, mild autumns, and its precipitation of 600-700 mm the region of Regensburg is one of Germany's most fertile areas. The landscape is defined by low terraces with loamy soils, high terraces with *löss* soils and hills which stretch out to the Danube. Most Roman farmsteads have been found, either on the *löss* soil terraces or in the hilly areas, in other words the

---

<sup>719</sup> Waldherr 2009, 199-201.

<sup>720</sup> Moosbauer 2009, 145-147.

<sup>721</sup> Waldherr 2009, 186-188; Fischer 1990, 26. The two legionary bases of Regensburg and Enns were taken into use around the same time.

<sup>722</sup> The garrison settlement did not develop from one large core habitant, but from different concentrations of smaller agglomerations, such as the settlement at Grossprüfening at the debouchment of the Naab or at Mangolding. (Waldherr 2009, 192; Dietz 1979, 248; Fischer 1990, 40.).

<sup>723</sup> Dietz *et al.* 1979, 230; Waldherr 2009, 194-198.

<sup>724</sup> 2009, 194-198. The juridical status of the garrison settlement in Regensburg was also discussed in chapter 2.

<sup>725</sup> *Ibid.*, 187-188.

<sup>726</sup> Moosbauer 2009, 158-159. Slightly different calculations can be found by Waldherr 2009, 204-205, who claims a yearly consumption of 7500 ton of grain.

more fertile soils in the region. The emergence of these farms was also connected with the road network, as the many finds along the road between *Castra Regina*/Regensburg and Straubing illustrate.<sup>727</sup>

The best investigated *villa*-site in the region of Regensburg is Burgweinting-West. The *villa* was surrounded by a trapezoidal wall and included an area of 9,700 m<sup>2</sup> in which a total of 11 structures have been found. This site shows us a second more modest living house, in addition to the main residence building - in this case provided with hypocaust heating, a bath and a well. The majority of the buildings, however, performed the function of a workshop, a storage room or a barn.<sup>728</sup> This description corresponds very well with the general characteristics Th. Fischer sums up for the Roman farmsteads in the Regensburg area for which he mentions a surrounding wall (rectangular or trapezoidal), at least one stone-built luxurious house, a bath and several outhouses for different kinds of activities. The water supply was mostly provided via private wells. A bath installation, sanctuary and private graveyard were standard elements of a Roman *villa* in the region around Regensburg.<sup>729</sup>

Many of the farmsteads show traces of crafts, such as tiles (*tegulae*) or glass production, metal and iron processing. The assumption is that most of this production was not intended for trade, although the ceramic production at the villa of Barbing-Kreuhof may be an exception.<sup>730</sup>

As has already been mentioned, most of the farms were located on slopes orientated southwards, while the lower lands were often used for herding.<sup>731</sup> In analyses of the animal bones, one finds pigs and horses in addition to cattle, which were an important source of power as well as of leather for which a strong demand existed among the soldiers. Sheep and goats were also kept, providing meat, milk and cheese, but also leather and wool. In the fields barley was the most common summer crop, while in winter it was replaced by spelt.<sup>732</sup> It is thought that the size of the *villa*-domains varied between 40 ha to over a 100 ha, depending on their location. Those located in hilly areas tended to be smaller (40-70 ha) while in more flat land their size could reach 60 ha and even 120 ha.<sup>733</sup> Studies on Roman farmsteads in general give population estimates of 20 people. The number of people actively working on the fields might have still varied depending on the season.<sup>734</sup>

It is assumed that a percentage of the *villae* were probably managed by veterans, either as tenants or as owners.<sup>735</sup> Evidence for such an assumption is found in the many *militaria* found at some *villa* sites, as for example at Treuchtlingen-Weinbregshof.<sup>736</sup> One assumes that it was in general ex-

---

<sup>727</sup> 2009, 198; 201; 204.

<sup>728</sup> Moosbauer 2003, 64; Hornauer 2009, heading 3.5.2.

<sup>729</sup> Fischer 1990, 41.

<sup>730</sup> Waldherr 2009, 206-211.

<sup>731</sup> *Ibid.*, 204.

<sup>732</sup> Moosbauer 2009, 154-155; Waldherr 2009, 204-205.

<sup>733</sup> Moosbauer 2009, 148-149; Waldherr 2009, 205.

<sup>734</sup> It has been suggested that in harvest time potential seasonal workers came to the farm estates. These were most likely inhabitants of nearby villages. Moosbauer 2009, 149-153. Hiddink 1991, 214-215.

<sup>735</sup> Waldherr 2009, 203.

<sup>736</sup> The luxurious golden necklace and other exotic finds even point in the direction of an ex-officer or other higher positioned ex-soldier who owned the estate. For more see: Koch 1993, 51-52. The *villa* of Treuchtlingen-Weinbregshof was however not located in the hinterland of Regensburg, but a good 100 km more to the west.

legionnaires or former military officers who became engaged in the ownership of an agricultural estate rather than veterans from an auxiliary unit.<sup>737</sup>

### 5.3.2 Food for the army

It seems obvious that most of these farmsteads around Regensburg supplied agricultural produce to the legionary base and the nearby garrison settlements, especially since no other centre existed in this area. Both roads and rivers, such as the Isar or the Danube, will have provided an efficient transport network. Some sites seemed to have functioned as important hubs within the supply network. The large harbour at the garrison settlement of Straubing indicates that the site was an important emporium.<sup>738</sup> Other places may have been equipped with large halls which could be used for the storage and redistribution of goods.<sup>739</sup> If on these farmsteads goods of non-agrarian origin were produced for the market seems unlikely; where evidence has been found, it seems rather small-scale. It has been argued that the *villae's* primary occupation was farming and that other kinds of production were performed elsewhere, such as in the garrison settlements.<sup>740</sup> The *tegula*-production site of Sittling (nearby Eining) confirms this assumption. The workshops here stood under supervision of the legion and had a rather wide distribution area - ranging from Eining to Passau.<sup>741</sup> The relationship between the countryside around the legionary base and the army becomes reaffirmed if indeed veterans moved to these rural areas and managed such an agricultural estate or farm. A general trend of decline in the late 3<sup>rd</sup> century is not only noticeable at the garrison settlements along the frontier but also in the rural inhabitation.<sup>742</sup> Where the rural population moved to is unclear. The centres of Regensburg and Augsburg seem two plausible options, but no archaeological evidence exists to support this idea.<sup>743</sup> A general trend towards more inhabitation in areas farther away seems to appear, since rural sites seem to have experienced a revival in the late 3<sup>rd</sup> century, such as Denning (München) and Koningsbrünn (South of Augsburg).<sup>744</sup>

---

<sup>737</sup> A parallel can be found in the involvement of ex-military personnel who took up municipal offices, as, for example, Derks 2011, 109, argues.

<sup>738</sup> The harbour was probably found together with the Flavian fort (IV), Fischer 2015, 196.

<sup>739</sup> Moosbauer 2009, 145-147. Examples of big hall-shaped structures have been found elsewhere, as for example in Oberstimm (Manching), Tannet and Künzing. Onken assumes that even every garrison settlement in Northern Britain did have a *horreum* to keep the stock, see: Onken 2003, 62-63.

<sup>740</sup> Dietz *et al.* 1979, 259. Onken also suggests that craftsmen at the garrison settlements were either in the fort or had their workshop in the surrounding settlement, especially if they were involved in metal processing or weapon making or if they worked as black smiths,; Onken 2003, 152.

<sup>741</sup> Moosbauer 2009, 206-209.

<sup>742</sup> *Ibid.*, 159 ff; Waldherr 2009, 203.

<sup>743</sup> There are no archaeological indications for an expansion of these two centres nor for an increased population density.

<sup>744</sup> Czysz 2013, 358-360.

## 5.4 Case study 2: Rural life in northern Germania Superior. The region of Mayen and its stone quarries

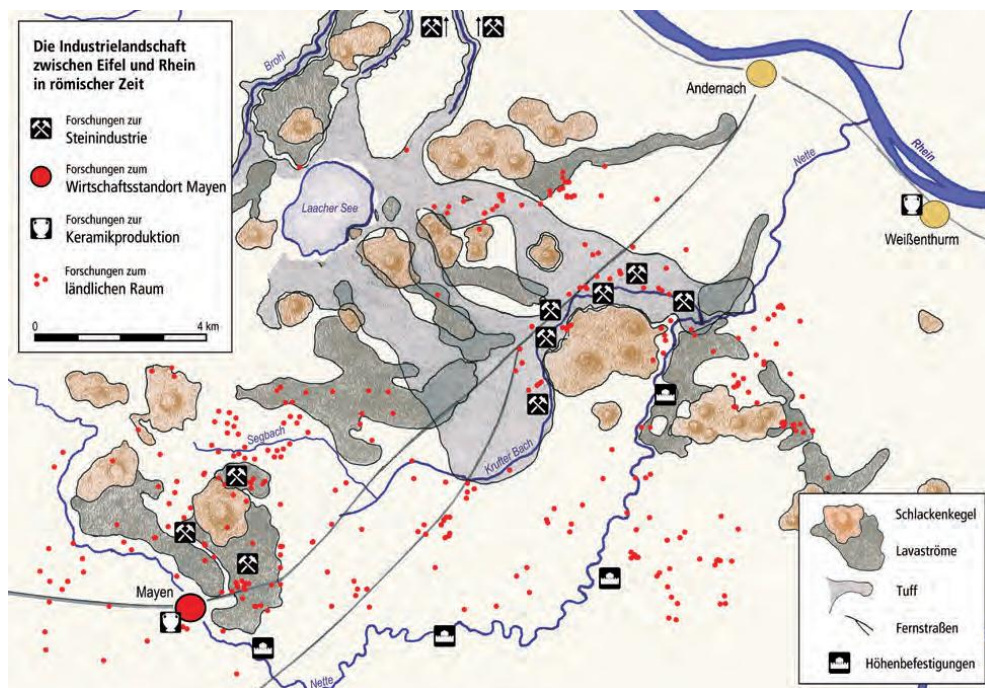


Fig. 5.4: The region between Andernach and Mayen is especially rich in Tuff, while the region immediately north of Mayen is high in basalt. The rural settlements are indicated with red dots. (Map: Hunold 2016, 168).

P. Wendt and A. Zimmermann stated that a stable economic situation can be assumed within the province of Germania Superior, implying that the region was usually self-sufficient in terms of food production.<sup>745</sup> The focus in this second case study will be on the specific region between Andernach and Mayen in the eastern Eifel (North Rhineland-Pfalz). My attention was drawn to this particular area because of its economic importance for developments in their garrison settlements and larger urban centres in both eastern Germania Inferior and northwestern Germania Superior. It is a region that is naturally very rich in volcanic rock (Fig. 5.4). The stone deposits were exploited even during the Iron Age, with an increase from the Augustan period onwards.<sup>746</sup> The local tuff stone was suitable for the construction of military forts, for the creation of public buildings and for inscriptions. Likewise, the basalt stone was used for the production of millstones, which are found at many military camps (Fig. 5.5), including along the Lippe in Germania Inferior.<sup>747</sup>

<sup>745</sup> Wendt and Zimmermann 2008, 212. Others have argued that the region of the Germanic provinces was not always capable of producing enough to maintain the army and parts of the Gallic stable had to be brought in, see: Wierschowski 2002, 280-281.

<sup>746</sup> Hunold 2016, 169 afb.3.

<sup>747</sup> Giljohann 2012, 247; Glauben 2012, 89-93; Hunold 2016, 167.

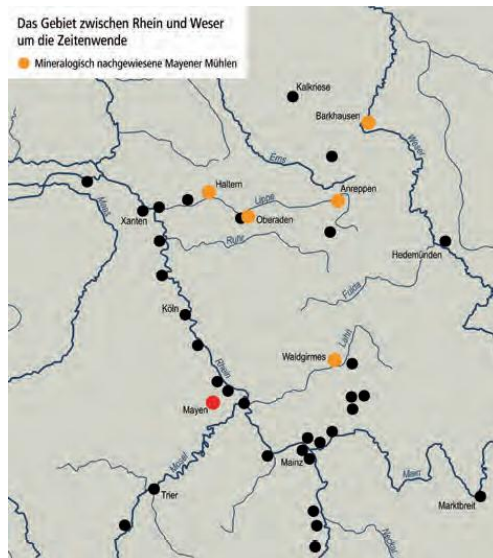


Fig. 5.5: Archaeological sites (in orange) of millstones from Mayen (in red): (Map: Hunold 2016, 170.)

#### 5.4.1 The production centre of Mayen and its surroundings

It is believed by E. Köstner, amongst others, that this region was originally governed as an imperial estate with the village of Mayen as its administrative centre, although little evidence to endorse this assumption has been found. The hypothesis relies mostly on a comparison with Roman North Africa<sup>748</sup> The site of Mayen itself has so far not revealed any official buildings of any kind. The Roman settlement of Mayen was already encountered in chapter 3 as an example of a production centre of millstones and pottery. The archaeological remains indicate a rather modest settlement. Apart from a bathhouse and a 2<sup>nd</sup> century temple no other public buildings are known. The houses were rather small and combined living and working space. Waste material from stone working suggests that there was no labour division but that every workshop – of which are seven known so far - undertook the entire production process, of millstones for example. The dynamics in the region probably changed a little during the 2<sup>nd</sup> century. E. Köstner believes that the area was by then no longer run as an imperial domain but was leased out to tenants. Nevertheless, most military installations and administrative centres in the vicinity were erected around this time and the state's interest in the quarries might have diminished.<sup>749</sup> It is around the 2<sup>nd</sup> century that the pottery production at Mayen began. A total of 17 pottery kilns have been found. The location of the workshops adjacent to the street was probably to facilitate the supply of raw materials and the transport of goods for sale. Many roads as well as the river Nette, a tributary stream of the Rhine, passing by this centre will have encouraged the distribution of the products from Mayen's various workshops.<sup>750</sup>

The landscape in the vicinity of the settlement of Mayen was densely studded with rural farmsteads during the imperial period (Fig. 5.4). There are indications of continuity in land use from the pre-Roman to the Roman period, both at graveyards and at *villa* sites, such as those of 'Brasil' and 'am Kendel' (Mayen).<sup>751</sup> Some of the farmsteads can be dated to the 1<sup>st</sup> century AD, but a strong increase is noticeable during the 2<sup>nd</sup> century.<sup>752</sup> In the area between Andernach and Mayen alone a total of 75

<sup>748</sup> Köstner 2012, 79-81. The argument is mainly based on comparison with Roman North Africa.

<sup>749</sup> Ibid., 79-81.

<sup>750</sup> Baur 2012, 241; Glauben 2012, 89-93; Hunold 2016, 172.

<sup>751</sup> Baur 2012, 241-242; Giljohann 2012, 252.

<sup>752</sup> It is hard to judge to what extent this observation is influenced by the transition from timber to stone constructions and thus by a higher visibility grade of the archaeological remains.

sites was known in 2012. Most of the discoveries were made during the development works of the 1950s, but unfortunately none of the sites has been entirely excavated. It is likely that only a small percentage of all Roman rural habitation has been identified and it is assumed that the region probably had at least twice as many rural farmsteads.<sup>753</sup> Since the soil in the immediate vicinity of the stone quarries is of poor quality, most rural sites were situated in areas where tuff stone was absent. The *villae* were generally well connected to the road network.<sup>754</sup>

The sizes of the *villa* domains are estimated between 30-50 ha up to 70-80 ha, although for the farmland of the *villa* of Lungenkärchen (Mendig), 100-120 ha has been suggested.<sup>755</sup> Just as in the region of Regensburg, the architecture of these estate residences generally shows signs of a prosperous lifestyle. Sometimes a small wall separated the *pars urbana* from the *pars rustica*, as for example at the sites of Fraukirch in Thür or 'Am Kendel' in Kruft. The lay-out of the domain could be either of the dispersed or of the axial type and the *pars rustica* contained various kinds of workhouses. A surprisingly high number of water pipes have been found spread over the entire region. The water provision of some of the rural sites happened most probably via small aqueducts, made out of timber, basalt stone or masonry, which conducted water over several hundreds of metres through the fields to the estates. The generally prosperous nature of these farmsteads is often attributed to the business of stone quarrying in the region and contrasts strongly with the modesty of the Roman craft centre of Mayen itself.<sup>756</sup>

#### *A prosperous estate: Lungenkärchen-Mendig*

The *villa* site of Lungenkärchen (Mendig) is an example of such a rich estate (Fig. 5.6). The main building had projecting wings (*risalits*), hypocaust heating, a bath complex and decorative additions such as pillars and wall paintings and large water basin in front. The *pars rustica* of the farmstead, however, had rather moderate dimensions. The barns and the possible *horreum* confirm agricultural activities. Nonetheless, it is suggested, based on the small size of the work space, the rather extravagant look of the main building and its prominent location, that this could be the residence of either a *conductor* of an imperial estate or a landowner.<sup>757</sup> Confirmation of this suggestion has been found in deposits of basalt stone at sites such as 'Am Kendel' (Kruft) and 'Im Winkel' (Mendig), varying from raw material to semi-finished products, suggesting the presence of stone workshops at these *villae*.<sup>758</sup>

---

<sup>753</sup> Hunold 2016.

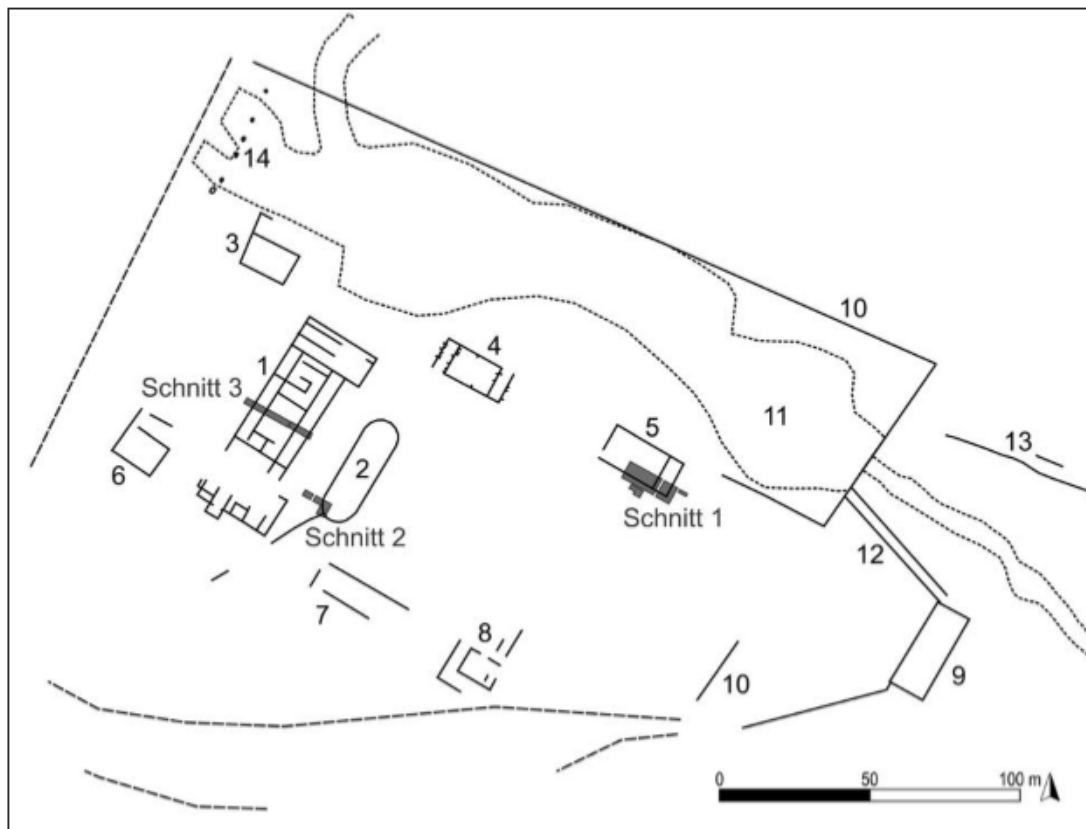
<sup>754</sup> Baur 2012, 235.

<sup>755</sup> Giljohann 2012, 250-251; Grünewald 2012, 171-172.

<sup>756</sup> Baur 2012, 235-236; Giljohann 2012, 254; Hunold 2016, 173-174.

<sup>757</sup> Grünewald 2012, 165-174.

<sup>758</sup> Giljohann 2012, 252-254; Wenzel 2012, 133; Hunold 2016, 175-178.



**Abb. 6** Mendig, »Lungenkärchen«. Ausgrabungsschnitte (grau) und Umzeichnung (schwarz) der geophysikalischen Untersuchungen sowie Luftbilder. – 1 Hauptgebäude. – 2 Zierbecken. – 3, 6-8 – Nebengebäude. – 4 *horreum* (?). – 5 Stallungen. – 9 Mühle (?). – 10 Hofgrenze. – 11 Stausee (?). – 12-13 Mülhkanäle (?). – 14 Aquädukt (?). – (Graphik B. Streubel, RGZM).

Fig.5.6: Site plan of the *villa* in Lungenkärchen (Mendig). Map: (Grünewald 2012, 66.).

Nevertheless, a relatively large part of the activities at these rural estates will also have included agricultural production. Due to the emergence of bigger and monumentalized centres, the presence of the army, and consequently a higher number of workmen in the stone quarries, the population in this region will have increased along with the demand for food.<sup>759</sup> It is assumed that the many drain pipes found in the region of the Segbachtal not only provided the *villae* with water, but were also part of the drainage systems that helped in the reclamation of land for crops.<sup>760</sup> Further indications of agricultural activity can be found in the few *burgi* (fortified depots) - such as the one on the Katzenberg nearby Mayen and at Obermendig close to the *villa*-site of "Im Winkel" - which were erected along the Nette during the period of late antiquity. Analysis of carbonised botanical plant remains from the *burgus* at "Im Winkel" have shown a cleaned harvest, meaning that almost all weeds were removed. Spelt was the most common type of grain in the sample, which is not surprising since it was a very common grain in the north-western provinces during the Roman period. A more interesting find was the identification of apples. The function of a storage hall in a *burgus* is not unusual, since the function of defence and depot were often combined, especially in the vicinity of *villae*.<sup>761</sup> It is estimated that a capacity of 128, 000 kg of grain, corresponding with the harvest of 80 ha, could be stored in the *burgus* at Obermendig. This would keep around 400 men fed for an entire year. It is most likely that the surplus of several *villae* was stored together here. *Militaria*

<sup>759</sup> Grünewald and Wenzel 2012, 218; Hunold 2016, 172.

<sup>760</sup> Grünewald and Wenzel 2012, 219.

<sup>761</sup> Wenzel 2012, 140-146. The contents of other Roman *burgi* and *horrea* have shown a similar stock, including both grains, seeds and different type of fruits. See for more: Zerl 2012, 210.

among the small finds suggest that the stock was controlled by the army and probably used to feed the workers in the stone industry.<sup>762</sup>

#### 5.4.2 State business?

The stone quarried and processed in the region of Mayen was mainly distributed to the army bases along the Rhine and Lower Rhine, civic centres, and in smaller quantities also to the countryside. The workshops where the raw stones were worked into products ranging from stone blocks to millstones, are found either in domains in the countryside which had the same appearance as *villae*, or in the centre of Mayen. The revenues from this business were not displayed in large, highly monumentalised centres. On the contrary, the settlement of Mayen was rather modest. Some of the farmsteads, on the other hand, proved to be more luxurious than in other places. The most prosperous rural estates, such as the site of Lungenkärchen (Mendig), may have belonged to the *conductores* or managers of the quarries and the surrounding land.<sup>763</sup> The role of the army in the organisation of these quarrying districts is probably not to overestimate, even after the establishment of the military infrastructures. Evidence of the role of the military can also be found in the *burgi*, which were supervised by the army and contained food supplies for the miners. The region continued to flourish until the late antique period; it is only in the remains of 5<sup>th</sup> century the occupation of the that a decline can be observed.<sup>764</sup>

### 5.5 Case study 3: Rural life in north-west Noricum. A combination of Roman civil and military life<sup>765</sup>

The last case study concerning the dynamics between the countryside and its urban context focusses on the region of northwest Noricum (modern southeast Bavaria and Upper Austria) which is believed to have been one of the most densely populated areas in the province. It is also one of the better investigated parts of Noricum in terms of rural settlements, together with the surroundings of *Flavia Solva* (Wagna).<sup>766</sup>

The data for this section have been derived from a number of key works. Firstly, the doctoral research of Dr. S. Traxler: *Römische Guts- und Bauernhöfe in Oberösterreich*, which contains a discussion of the archaeological evidence as well as a catalogue with all the possible rural sites in the region of Upper Austria as of 2004.<sup>767</sup> Secondly, the work of L. Lambers, who – for the purpose of her doctoral research – carried out rural surveys in the region and kindly shared with me information about new discoveries as well as ideas about the region.<sup>768</sup> Also of high interest was the doctoral

---

<sup>762</sup> Wenzel 2012, 137; Hunold 2016, 177-180.

<sup>763</sup> Rural surveys in the western Eifel have revealed indications for a *villa* hierarchy. The larger, more prosperous farm estates tended to have up to thirteen other smaller farms in their vicinity. This might indicate a deliberate organisation of the rural land and the subordination of some farms to bigger estates, according to Henrich and Mischka 2012, 328-329.

<sup>764</sup> Baur 2012, 245.

<sup>765</sup> Without the support, time and information I was given by Dr. Felix Lang (University of Salzburg), Dr. Stefan Traxler (Oberösterreichisches Landesmuseum) and Lena KühneLambers (LMU München and University of Leiden), this case study would have been impossible to realise. I therefore wish to express my gratitude towards them once more.

<sup>766</sup> Kastler *et al.* 2012, 69-71.

<sup>767</sup> Traxler 2004.

<sup>768</sup> Kühne 2012b, 203.

thesis of Dr. F. Lang on artisanal production in this particular part of Noricum.<sup>769</sup> The publication *Neue Forschungen zur ländlichen Besiedlung in Nordwest-Noricum* appeared just before the finalisation of this research.<sup>770</sup>

The region of northwest Noricum was bounded by natural features, such as the river Inn to the west; the river Danube to the north and the river Enns to the east. The Alps formed a natural barrier to the south.<sup>771</sup> In contrast to the regions of Mayen and Regensburg, two self-governing centres were present in this area, namely the *municipium Iuvavum* (modern Salzburg) and the *municipium Aelium Ovilavis* (modern Wels).<sup>772</sup> Traditionally it was believed that the entire region was governed from these two centres (Fig. 5.7). However, no clear evidence concerning the region's organisation exists.<sup>773</sup>

The region was well inhabited during the pre-Roman period. Some of the Roman settlements, such as Hallhein and Kuchl, were inhabited long before the Roman conquest.<sup>774</sup> Also new agglomerations arose during the first decades after the conquest. The oldest occupation levels at *Ovilavis*/Wels and Hallstatt-Lahn, for example, date to the first half of the 1<sup>st</sup> century AD.<sup>775</sup> The Roman centre in Salzburg was the first self-governing centre north of the Alps when it was given municipal rights by Claudius. An important centre in the territory of *Iuvavum* was the emporium and sanctuary site of *Bedaium*/Seebruck, 45 km west of the town. This settlement, located on the banks of the lake Chiemsee, performed important economic functions, not least in the terms of the supply of food. *Il-viri* of *Iuvavum* regularly organised festivities for the god of the lake. Also a road station and a post for *beneficarii* existed in *Bedaium*.<sup>776</sup> The Salbach flowed right through the Roman centre of *Iuvavum*. Several vital roads also met here, providing a connection to *Teurnia* and *Virunum* in the south of Noricum, to the *municipium* of *Aelia Augusta* in Raetia, and to the centre of *Ovilavis* and the southern Danube road in the north. The territory of *Iuvavum* therefore had several road stations, such as *Artobriga*, *Bedaium* and Pfaffenhofen, the latter probably at the western end of the town's territory, and eastwards *Tarnatone* and Mösendorf which is thought to have been on the border of the territory with *Ovilavis*.<sup>777</sup> This town had also a good location, on the banks of the river Traun and immediately adjacent to the important east-west route which ran south of the Danube. The community of *Ovilavis* gained municipal rights under Hadrian. The eastern border of the centre's territory probably coincided with the river Enns and in the north with the Danube and the military frontier. The administrative changes of the late 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD must have had an impact on these borders. For instance when the legionary station of *Lauriacum* in modern Enns was founded, or when *Ovilavis* became an honorary *colonia* and housed the seat of the provincial governor.<sup>778</sup>

---

<sup>769</sup> Lang 2011.

<sup>770</sup> Lang, Traxler and Kastler 2017.

<sup>771</sup> Kastler, Lang and Traxler 2017, 7.

<sup>772</sup> The latter became a *colonia* under Caracalla: *colonia Aurelia Antoniniana Ovilavensium*.

<sup>773</sup> Kastler, Lang and Traxler 2017, 7.

<sup>774</sup> *Ibid.*, 10.

<sup>775</sup> *Ibid.*, 11.

<sup>776</sup> Keller 1981, 121-123; Burmeister and Schröter 1998, 73-74; Grassl 2016, 121-123. The site in Seebruck is also discussed in chapter 3.

<sup>777</sup> Moosleitner 2004a, 12-14.

<sup>778</sup> Kastler, Lang and Traxler 2017, 12-13.

It was around AD 179 - the same time as the establishment of the legionary base in Regensburg – that another legionary unit was sent to *Lauriacum*. A small centre, including a road station and a military base, existed here already before the arrival of the *Legio II Italica*, probably since the middle of the 1<sup>st</sup> century AD. The suggestion that *Lauriacum* became a self-governing centre is controversial, but it is certain that the arrival of the legion increased the overall population and influenced the local economy.<sup>779</sup> According to P. Herz, this event doubled the number of soldiers stationed in *Noricum* and consequently also the market demand for food, clothing and other products.<sup>780</sup>

### 5.5.1 The rural sites in north-west *Noricum*, their appearance and their production

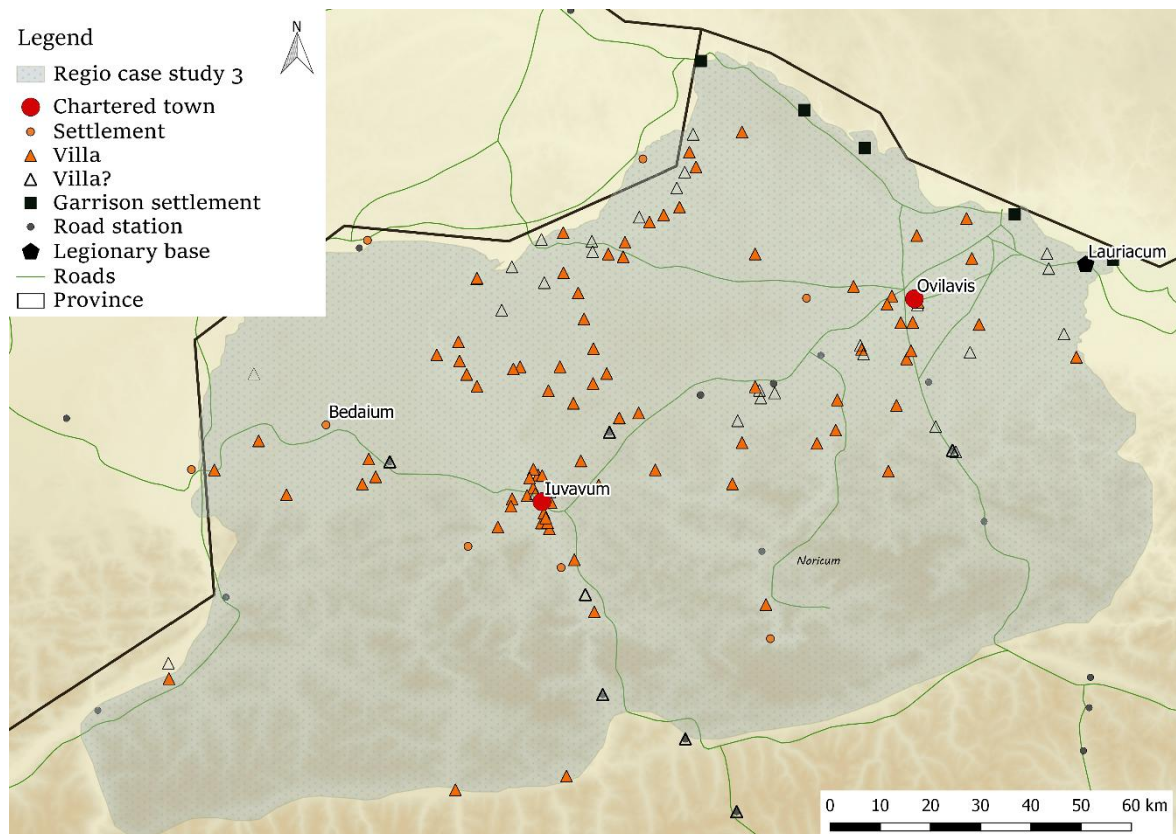


Fig. 5.7: Overview of all sites included related to case study 3

For the analysis of rural life in north-west *Noricum* data were collected relating to 145 sites (Fig. 5.7), including 88 *villae* sites, a further 29 possible farmsteads,<sup>781</sup> 6 garrison sites including one legionary base (*Lauriacum*), the two self-governing centres of *Iuvavum* and *Ovilavis*, and 20 settlements of which 13 probably performed as (or hosted) a road station. It must be stressed that these 145 sites

<sup>779</sup> Traxler 2009, 190-191. In response to the strong increase in population around the end of the 2<sup>nd</sup> century around Enns, one assumes a more densely occupied and farmed hinterland. Yet, these *villae* are not archaeologically attested. The low number of archaeological sites may be explained by modern building projects or the destructive factor of modern agricultural techniques. Another possible explanation is that the food for the legion and its followers was supplied from elsewhere, via the Inn and the Danube (Kastler, Lang and Traxler 2017, 19.).

<sup>780</sup> Herz 2012, 56-60. He mentions a minimum of 12,500 more people living at the Norican frontier after AD 180.

<sup>781</sup> The places categorised as *villa* are sites where the archaeology shows the clear infrastructure of a farm estate, such as a residence house with several additional buildings or where at least signs of a luxurious life style are attested, such as wall paintings and mosaics.

are only a proportion of those inhabited during the Roman period.<sup>782</sup> The oldest *villae* sites were concentrated around the centre of *Iuvavum*/Salzburg and date to the early 1<sup>st</sup> century AD. Their number increased during the Flavian period, when *villae* also appeared around *Ovilavis*/Wels and along the river Inn in the west. It is assumed that until the second half of the 1<sup>st</sup> century AD the Late Iron Age (rural) settlements, including villages consisting of simple huts, also remained inhabited. The question arises whether the model of the Roman *villa* displaced the indigenous living traditions. Since it was only by the end of the 1<sup>st</sup> century that stone-built constructions became common in the region, it remains difficult to estimate the overall level of rural occupation. Other forms of settlement evidence remain more difficult to detect and wooden dwellings often escape archaeological research.<sup>783</sup>

### *The character of rural inhabitation*

In general, the *villa* sites in north-west Noricum did not differ from the general description of Roman farmsteads elsewhere in the northwestern provinces. In the region, both estates with an axial- and a scattered layout are known, although the latter seems the dominant type.<sup>784</sup> Some of these *villa*-domains were fenced, such as those at Goldegg-Hausfeld, Loig and Lederau.<sup>785</sup> Geophysical survey has revealed more examples, such as the *villa* in Steinhaus.<sup>786</sup> In other cases, for example Berndorf, Kerath-bergheim and Pfongau II,<sup>787</sup> neither excavations nor surveys showed any evidence for a fenced area, leading to the suggestion that some farmsteads were perhaps lined by vegetation or were left unenclosed. In many cases, the dimensions of these domains are poorly known.<sup>788</sup>



Fig. 5.8: Number of residences on a villa domain

<sup>782</sup> S. Traxler speaks of a gap in Roman farmsteads north of Wels and around Enns which he attributes to the current state of research (Traxler 2004, 167; 2014, 118-120.).

<sup>783</sup> Kastler, Lang and Traxler 2017, 15-16; 23-24.

<sup>784</sup> Traxler 2004, 177; Kastler, Lang and Traxler 2017, 21.

<sup>785</sup> Goldegg: Hampel and Imre 2017, 94. ;Loig: Gruber 2014, 60.; Lederau: Schulz and Jäger-Wersoring 2004, 66-72.

<sup>786</sup> Traxler 2014, 120-121.

<sup>787</sup> Respectively: Kastler *et al.* 2012, 69-88; Ries 2012, 275; Kastler 2010a, 96.

<sup>788</sup> Traxler 2004, 190.

As elsewhere, the Roman rural estates of northwest Noricum were characterised by an ostentatious main residence building, which generally shows a high level of architectural variation.<sup>789</sup> Similar to the *villae* in the region of Regensburg,<sup>790</sup> two residences have regularly been identified on one estate. The bar chart above includes 27 sites on which information about the residence could be collected (Fig. 5.8). This shows that a second manor has been found at one-third of the *villae* sites researched in north-west Noricum. In these cases, the private bathhouse was usually situated between the two houses.<sup>791</sup> In general, the main residence tended to be two or three times bigger than these second residences (Table 5.1).

Name	Residence 1 (m <sup>2</sup> )	Residence 2 (m <sup>2</sup> )	Multiplier	Decorative elements residence 2	Reference
Bachloch	?	176		<i>Porticus</i> Hypocaust Wall paintings	(Schulz and Jäger-Wersoring 2004, 37-45.)
Bad Endorf	667	360	1.9	Hypocaust	(Kühne 2012a, 85-86.)
Bernau	936	240	3.4		(Kühne 2012a, 87.)
Berndorf				Hypocaust Wall paintings	(Kastler, Zickgraf, Buthmann <i>et al.</i> 2012, 69-88.)
Erlstätt				Hypocaust mosaic	(Kühne 2012b, 206.)
Glas	1,440	484	3		(Kastler 2010c, 568-575.)

It is mainly the presence of architectural and decorative elements, such as a *porticus*, wall paintings or mosaics, that distinguishes these second residence houses from workhouses on the property. One has to take into account the need for living space for the permanent labour forces and their families on these *villae*, but these secondary residences seem too luxurious to have served that purpose. More modest accommodation is usually interpreted as homes of the work forces, for example buildings F en G of the *villa*-site in Pfongau I.<sup>792</sup> Several explanations have been given for the existence of two residences on one farm estate. R. Kastler has found a possible explanation by considering the main manor as the residence for the owner of the estate and ascribing the secondary one to the manager. However, he refers also to Hell's interpretation of possible *tabernae* or inns and to J. T. Smith's suggestion of shared ownership.<sup>793</sup>

In some cases the residential area was separated from the agricultural part of the estate by a wall, for example in Bad Endorf and in Oberschauersberg.<sup>794</sup> At the site of Pfongau II small fences seem to indicate separate allotments for gardening or livestock.<sup>795</sup> However, additional buildings and workshops on these estates have been less well investigated, since originally excavations were mainly focused on the *pars urbana*. Furthermore, these buildings for artisanal and agrarian work

<sup>789</sup> Lambers 2017, 188. For a more elaborate typology on the *villae* in northwest Noricum, see Traxler 2004, 179.

<sup>790</sup> Fischer 1990, 41.

<sup>791</sup> Kastler, Lang and Traxler 2017, 30.

<sup>792</sup> *Ibid.*, 33.

<sup>793</sup> Smith 1997, 195-198; Kastler 2010a, 99; Lambers 2017, 189. If these secondary residences were *tabernae*, one would expect to find more individual guest rooms. When J. T. Smith speaks of joint ownership, he is referring to large estates that housed two separate living compartments.

<sup>794</sup> Bad Endorf: Kühne 2012b, 208. Oberschauersberg: Tober 2004, 87-93.

<sup>795</sup> Kastler 2010a, 95.

were often timber constructions, as is presumed for the site of Weyregg am Attersee for example.<sup>796</sup> As a consequence, their archaeological visibility is also much lower. At some sites more than ten additional buildings have been found. As little is known about their chronology, it is unfortunately impossible to say whether or not all these workshops were used simultaneously.<sup>797</sup>

The *villae* of northwest Noricum were often located close to a stream or a river and were generally well connected to the road network.<sup>798</sup> A very small number had an exclusive location, as for example the *villa* of Weyregg which overlooked the Attersee. This estate was probably in the hands of a member of the elite of one of the neighbouring towns. Three hundred metres from the *villa* a small harbour installation, dating from the 2<sup>nd</sup> to the 3<sup>rd</sup> century, was discovered at the lakeside. It seems unsuitable as a mooring place for boats, but it must have been a good fishing spot.<sup>799</sup>

### Rural production

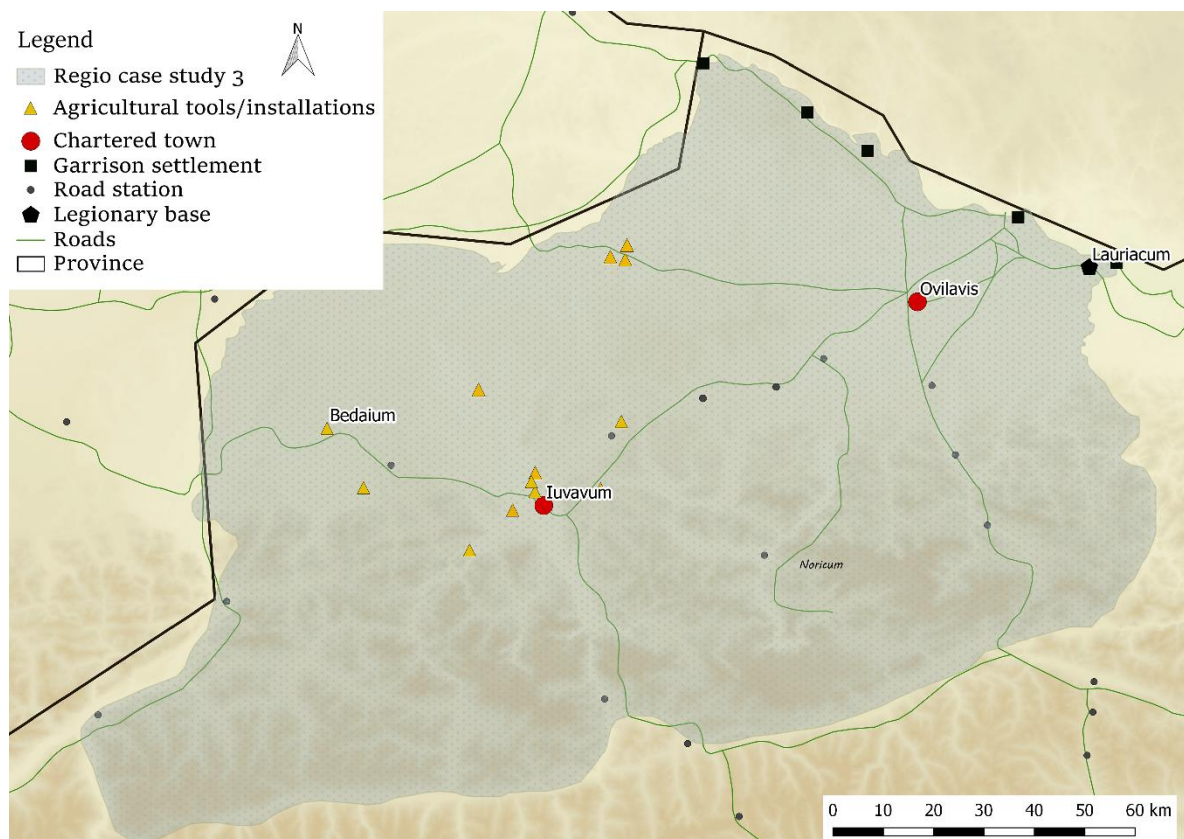


Fig. 5.9: Sites with indications of agricultural activity

Undoubtedly the vast majority of *villae* in north-west Noricum were primarily involved in agricultural production. The archaeological evidence for these farming activities is, however, very hard to identify. Figure 5.9 shows the *villa* sites where indications of such activities have been found, either

<sup>796</sup> Traxler 2004, 94-110.

<sup>797</sup> This issue formed one of the aims in the recently published doctoral research by T. Schubert, in which the central focus was on the artisanal and agrarian buildings on Roman *villae*, their use and chronology (Schubert 2016.).

<sup>798</sup> Kastler *et al.* 2012, 69-71; Kastler, Lang and Traxler 2017, 24; 33.

<sup>799</sup> Traxler 2004, 94-110; Breitwieser and Jansa 2012, 12 ff.

in the form of tools, such as at Hof-Elsenwang, or of oast installations,<sup>800</sup> as has been attested in, for example, Holzhausen, Karlstein, Liefering, Neumarkt-Pfongau and Salzburg-Forellenweg.<sup>801</sup> The most fertile lands of the region were to be found south-east of the river Inn, north-west of Salzburg and Wels. Not everywhere was the soil suited for crop growing and a significant role for animal husbandry is assumed.<sup>802</sup> This would correspond nicely with the intensive textile production that is assumed in the region of Salzburg, based on the high number of textile tools found on rural sites in the region and on a marble relief from a tomb stone picturing a scene of cloth packing, found in Salzburg.<sup>803</sup>

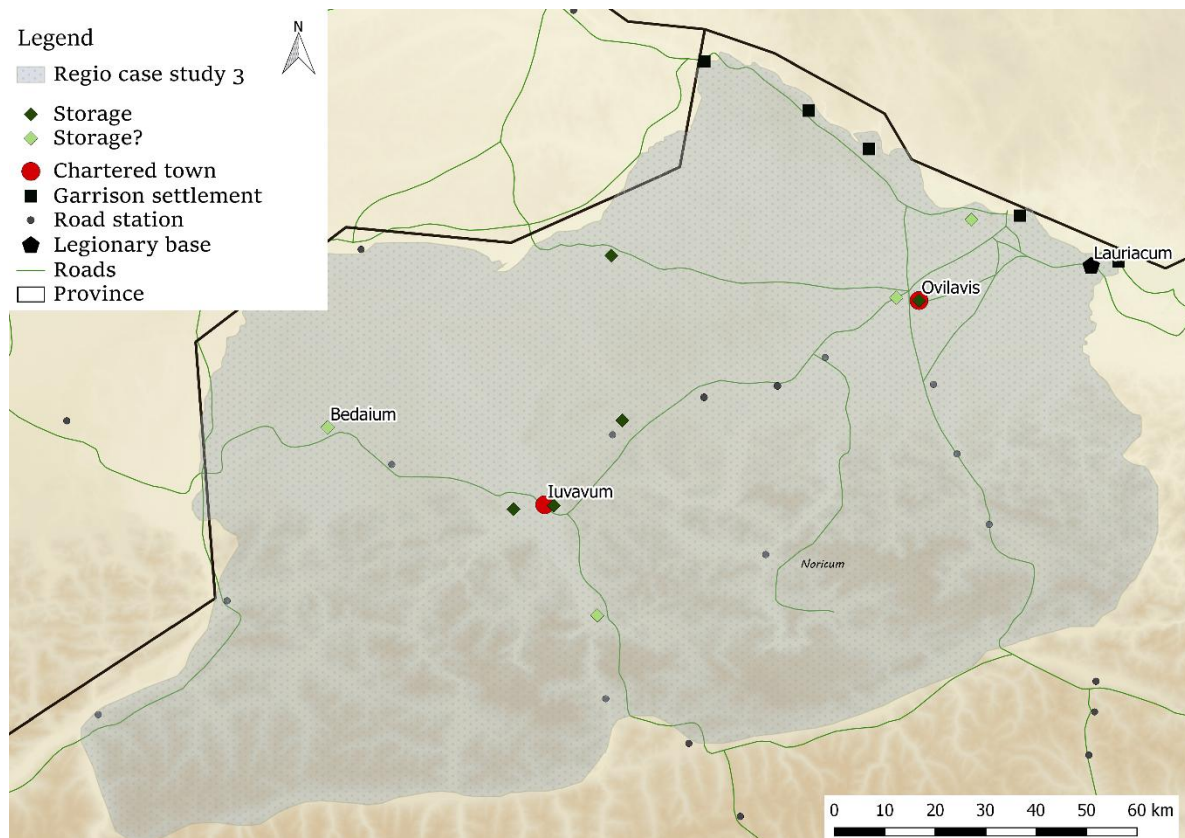


Fig.5.10: Sites with indications of storage of agrarian products and other goods

Some sites have yielded remains of *horrea* or storage halls. Based on the current state of research the majority of these buildings have been found on sites near town centres themselves (Fig.5.10). Several rooms with traces of grain were excavated in Wels, for example. These rooms have been interpreted as *horrea*.<sup>804</sup> The *villa* sites of Altheim-Simetsberg and of Pfongau I show that rural estates, too, were provided with halls used for storing crops. It is assumed that these buildings had drying or storage rooms on the first floor, while on the ground floor other activities might have been

<sup>800</sup> An oast house is a drying kiln for wheat and other crops (German: eine Darre).

<sup>801</sup> Lang 2011, 77.

<sup>802</sup> Traxler 2004, 190. Concerning the research conducted on Roman rural settlements in northwest Noricum, the use of land remains one of the underexposed topics (Kastler, Lang and Traxler 2017, 7.) In conversations with L. Lambers, I learned that the modern land use in the region still consists of a mixed form of agriculture.

<sup>803</sup> Gostenčnik 2013, 72-74. Textile production was probably an important industry for Noricum, since this business is mentioned in both the Dioceltian Price Edict and the *Expositio totius mundi*: 2009, 55.

<sup>804</sup> Miglbauer 2012, 122.

carried out. Compared with the *horreum* found at the *villa* in Loig, 4.5 km south-west of Salzburg, these storage halls were of modest size, measuring 7.5 m x 7.2 m and 16 m x 25 m respectively.<sup>805</sup>

The hall at the estate of Loig was 122 m x 50 m when it was constructed during the 2<sup>nd</sup> century AD and 148 m x 50 m after its expansion in the 3<sup>rd</sup> century. Its storage capacity is estimated at a maximum of about 95 000 kg of grain.<sup>806</sup> According to C. Gruber this storage capacity requires farmland of around 350 ha to 450 ha for the enterprise in the 2<sup>nd</sup> century and of 850 ha to over 1,000 ha in the 3<sup>rd</sup> century.<sup>807</sup> It is likely that a large amount of land belonged to the *villa* of Loig, since no other farmsteads are known in its surrounding area. It has been suggested that some of the *villae* within a perimeter of 2.5 km to 6 km were leaseholds of the estate of Loig, including the sites of Gepping, Hellbrunn, Liefering, Maxglan and Morgz.<sup>808</sup> Whether such a large *horreum* existed in Loig because the *villa* functioned as a central depot for the collection of grain, either from its own land or from leaseholds, is a question that C. Gruber leaves unanswered.<sup>809</sup> However, *villae* where *horrea* have been found are often located in the vicinity of main roads and road stations, such as the ones at the *villa* sites of Kellau (Kuchl road station), Pfongau II (Neufahren road station) and at the emporium of *Bedaium/Seebruck* (Fig. 5.10). This may point to a central role in the collection of agricultural surpluses.<sup>810</sup>

Many more activities were carried out on these farmsteads in addition to farming, including the production of ceramics (both building material and pottery), metal processing, bone- and woodwork. The last two crafts are less often attested, partly due to their perishable nature. At some *villa* sites animal bones with cut marks have been found, such as in Anif and Engelhof.<sup>811</sup> At Loig, antlers, intermediate products and pearls were found.<sup>812</sup> There is no doubt that wood was worked at *villa*-sites, but apart from a few tools, the evidence is scarce.<sup>813</sup> It is deemed more likely that the woodwork done at *villae* was for construction purposes and that skilled people from elsewhere were hired for this job.<sup>814</sup> An 11 m long dry dock for logs was found at the *emporium* of *Seebruck/Bedaium*.<sup>815</sup>

At the sites of many *villae* a certain amount of metal processing has been attested. The evidence consists mainly of iron slag and casting waste (Fig 5.11). The size of the workshops or the amount of waste are too small to consider workshops or metal processing as a major source of income. One can therefore only presume metallurgy for home consumption. Nevertheless, compared to the regions of *Gallia Belgica* and *Germania Inferior*, the number of sites in the region of Salzburg where metal

---

<sup>805</sup> Altheim-Simetsberg: Schulz and Jäger-Wersoring 2004, 9-22. Neumarkt-Pfongau: Lang *et al.* 2010, 116-119; Kastler *et al.* 2012, 61.

<sup>806</sup> Gruber 2015a, 20-42.

<sup>807</sup> *Ibid.*, 42 Table 1.

<sup>808</sup> *Ibid.*, 44.

<sup>809</sup> *Ibid.*-45.

<sup>810</sup> That certain *villae* performed a 'central' function has been suggested before. C. Flügel and J. Valenta described the Roman farm in Ingolstadt-Etting in these terms. The remains of a water mill discovered here was probably used to process the crops harvested on the land of many rural estates in the surroundings (Flügel and Valenta 2017, 51.).

<sup>811</sup> Lang 2011, 81.

<sup>812</sup> Gruber 2015b, 371.

<sup>813</sup> Woodworking tools were found at the site of Pfongau II: Kastler 2010a, 100.

<sup>814</sup> Gruber 2015b, 375.

<sup>815</sup> Lang 2011, 74.

objects, such as belt attachments and *fibulae* were made is relatively high. F. Lang has explained this phenomenon by assuming that itinerant craftsmen who owned workshops in larger centres travelled around to do some of their work on site.<sup>816</sup>

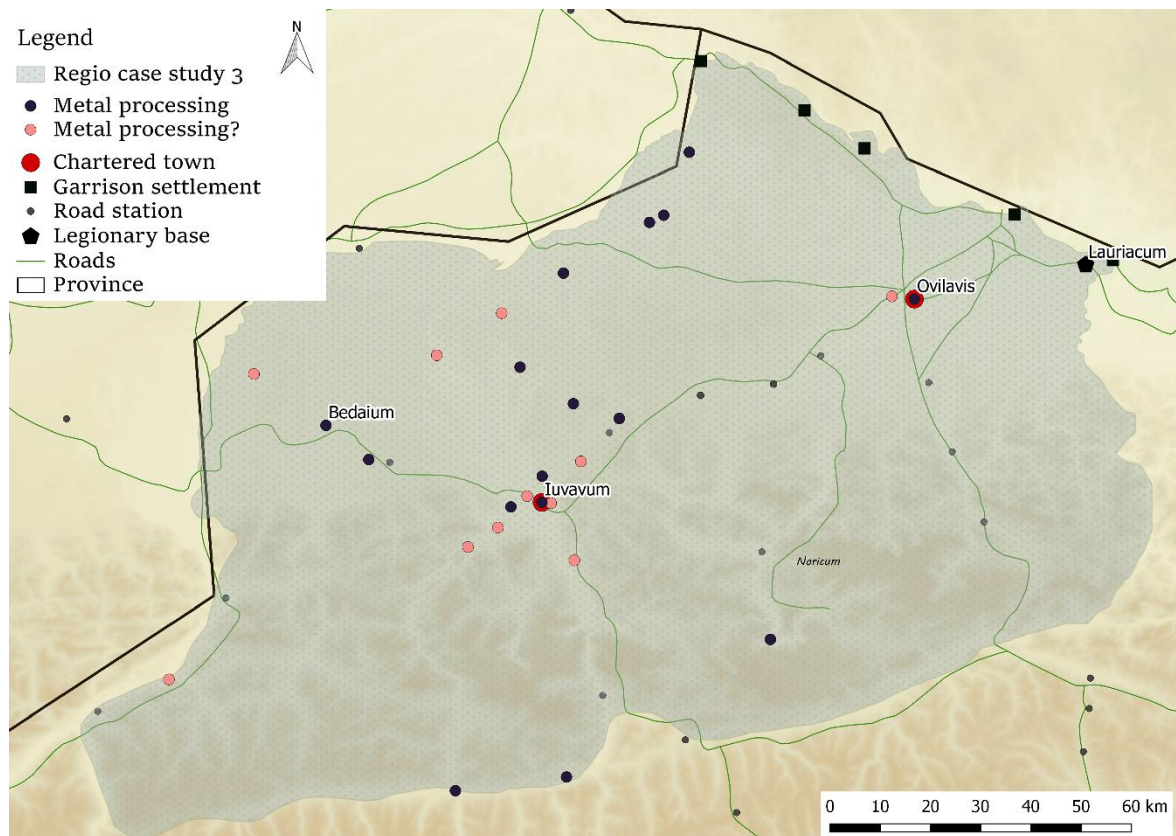


Fig. 5.11: Sites with indications of metal processing

The production of ceramic might have been organised differently. Installations for the production of building ceramics, including *tegulae* and *tibuli*, have been found on farmsteads close to the town centres (Fig.5.12). At the *villae* of Pfongau I, north of Salzburg, two *tegulae* kilns were found which supported a production that was far beyond the needs of a single farmstead. Clay was extracted on the estate itself, or in the direct vicinity (no more than 5 km to 10 km away).<sup>817</sup> When the town centre of *Iuvavum* was rebuilt during the Severan period, a tile production business was founded at the site of Eichtwald, presumably especially for this purpose. It does not seem unlikely that this farmstead belonged to the estate of Loig. Just south of Wels, at Oberschauerberg (Steinhaus) a *villa* was found with a 1,500 m<sup>2</sup> production area committed to the production of building ceramics, including workshops, kilns and drying rooms.<sup>818</sup> Lime too was a popular building material. Recently a battery of at least 12 lime burning kilns was found just outside the legionary fort of *Lauriacum*.<sup>819</sup> A pattern seems to emerge in which ceramic building materials were made especially for construction works near to urban centres.

<sup>816</sup> Ibid., 89-93; 95-103; 2012, 90.

<sup>817</sup> 2011, 107-108; Kastler *et al.* 2012, 64-65; Lang *et al.* 2012, 355-357.

<sup>818</sup> Tober 2004, 87-93.

<sup>819</sup> Traxler and Lang 2016, 19-22.

Cooking wares and fine wares meanwhile appear not to have been mass produced on farmsteads, that is, with one possible exception. In the direct vicinity of the ceramic production centres of Westerndorf and Pfaffenhofen, a concentration of rural sites producing similar wares and even terra sigillata, has been discovered (Fig. 5.13). One of these sites is Amerang-Evenhausen.<sup>820</sup> The connection between this rural production and the ceramic production centres is unclear. It is possible that the local elite tried to join in meeting market demand by producing similar ware or it is even possible that the owners of these workshops were related. Nevertheless, the vast majority of ceramic wares were imported (Fig. 5.14). Some wares were made in workshops in northern Italy or in southern Gaul. Ceramics from the Rheinzabern workshops and their affiliated ateliers could be identified at more sites. In exceptional circumstances *villa* owners used North African terra sigillata, such as in the case of the *villa* in Kellau-Kuchl.<sup>821</sup> U. Ehmig was able to prove that for the import of luxury goods, such as olive oil and wine, the area of Salzburg and Wels relied on the western transport network. These products, originating from the western Mediterranean and especially from Spain, reached north-west Noricum via the river network of the Rhône, Rhine and Danube. This contrasted with the trade contacts elsewhere in the province. Other Norican centres consumed olive oil and wine originating from north-east Italy and the eastern Mediterranean. These products were imported over land, rather than using river transport.<sup>822</sup> Within one province different regions were thus involved in various trade networks, depending on their connectedness and accessibility.

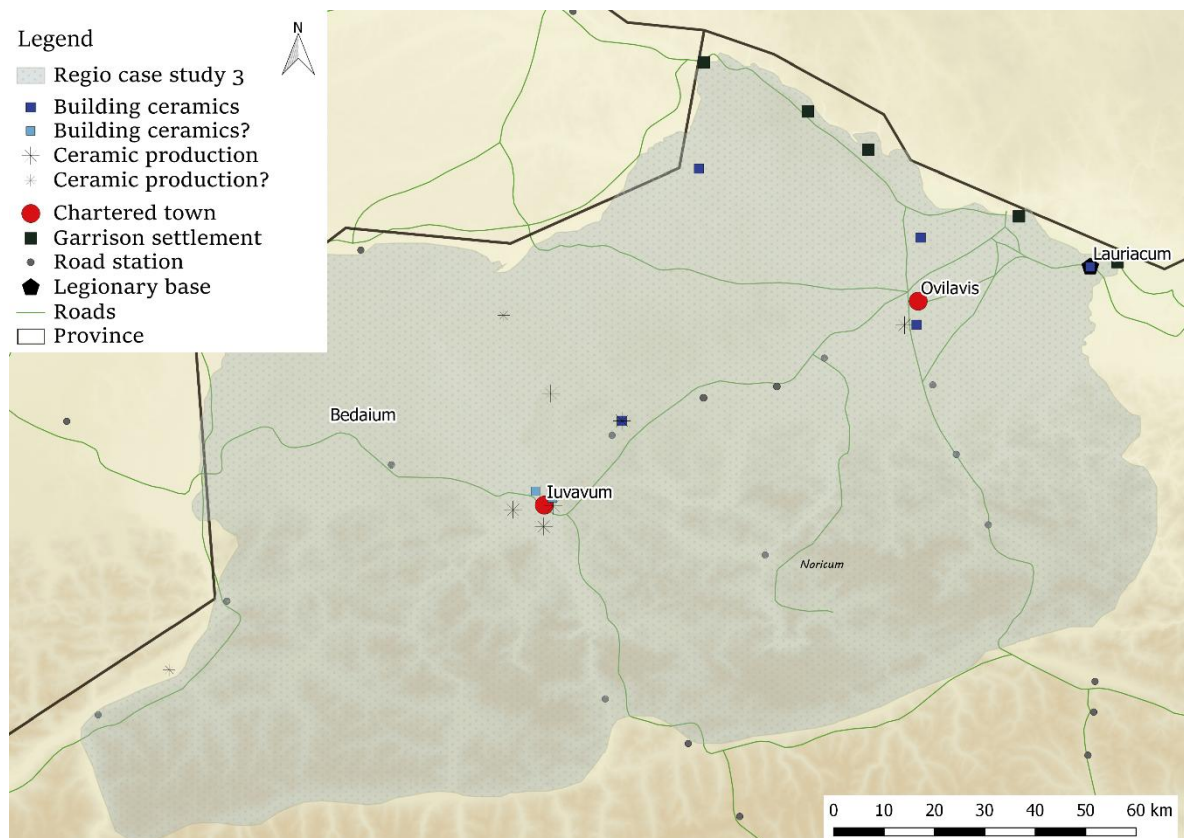


Fig. 5.12: Sites with indications of the production of building ceramics

<sup>820</sup> Lang 2011, 114.

<sup>821</sup> Kastler and Gschwind 2015, 82. The trade route between northern Italy and northern Noricum via Moosham, bringing exotic wares to the Danube, was discussed earlier in the chapter on secondary agglomerations.

<sup>822</sup> Ehmig 2007, 109; 2012, 22-35.

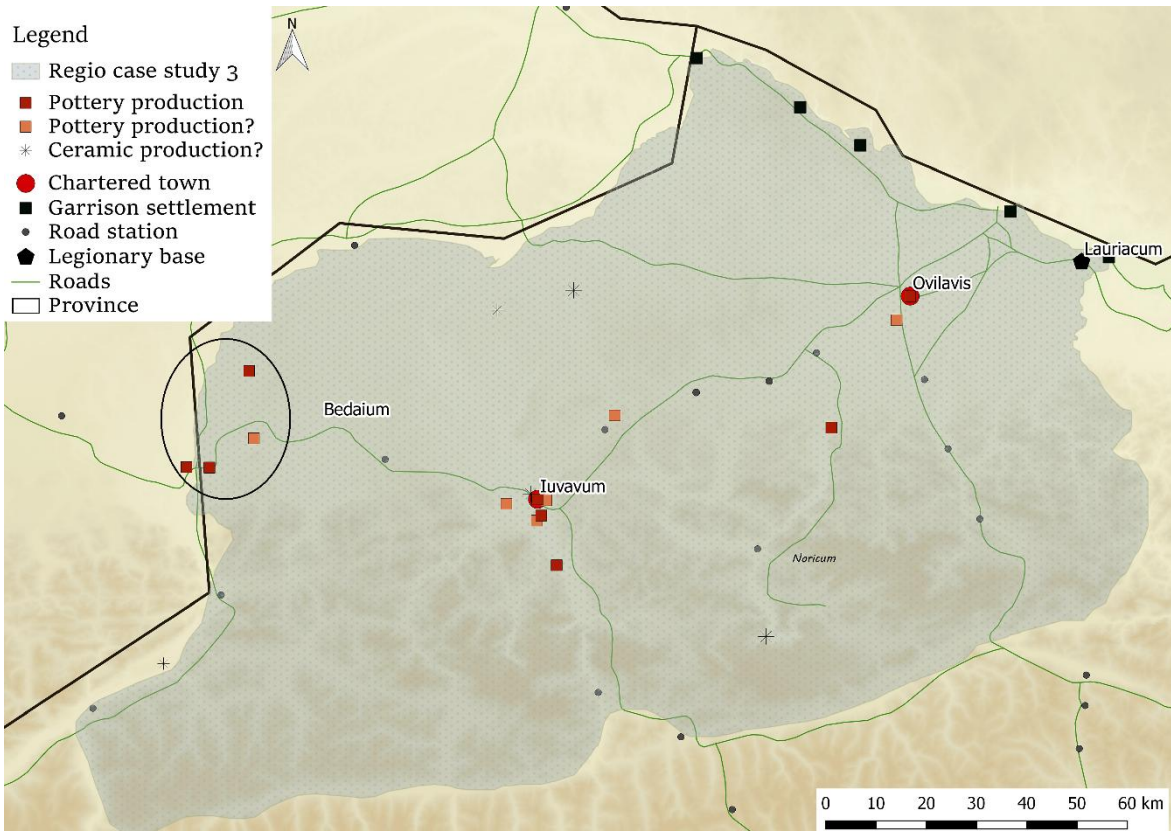


Fig. 5.13: Sites with indications of ceramic production. The rural sites producing terra sigillata ware in line with the manufacturing in the ceramic production centres are encircled.

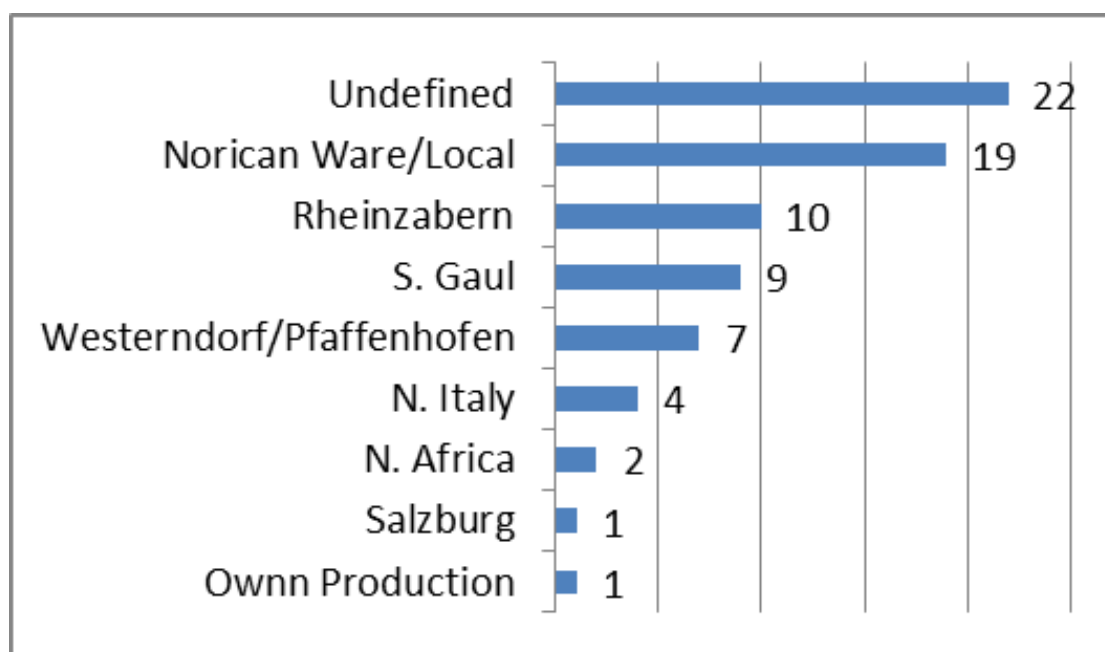


Fig. 5.14: The origin of table ware found in the north-western Noricum

### 5.5.2 The army as an incentive for rural and urban success

The reinforcement of the military presence in northwest Noricum in the 2<sup>nd</sup> century undoubtedly had a great effect on the surrounding area. The arrival of the legionary unit in Roman Enns must have been an important factor for the economic activities, including both local production and long-distance import.<sup>823</sup> The Danube undoubtedly formed one of the main routes to redistribute products. We cannot rule out the possibility that goods were supplied from the southern territory of the province, but, in view of the inconvenience of the landscape created by the Alps, overland transport must have been difficult.<sup>824</sup>

The rural community in northwest Noricum was mainly concerned with the production of agrarian products for both the garrison settlements and the two towns of *Iuvavum*/Salzburg and *Ovilavis*/Wels, including crop cultivation and animal husbandry. The waste from skilled crafts conducted on these rural estates generally indicates a low production level. This was mainly personal consumption or was related to maintenance and construction work on site, possibly carried out by *ad interim* craftsmen. The production of building ceramics remains exceptional in the sense that a few estates seem to have been producing especially for construction works in the towns. Generally, workshops for metal processing and coarse ware, were to be found in medium-sized and larger centres. We know, for instance, that a wide range of crafts were practised in garrison settlements.<sup>825</sup> The exceptionally high number of textile tools found in the garrison settlement of *Favianis*/Mautern indicate that cloth making could take place at these centres.<sup>826</sup> A growing research interest in the remains of workshops and artisanal activities in Roman centres has also broadened the insights on production levels in Roman towns.<sup>827</sup> R. Miglbauer referred to the north-eastern part of *Ovilavis* as the town's production quarter, since most workshops were found in this area, including places with pottery production and metal processing.<sup>828</sup> Bone working took also place here.<sup>829</sup> Archaeological excavations have equally revealed many types of production in the centre of *Iuvavum*/Salzburg.<sup>830</sup> The production in these towns was related to the local demand. Nevertheless, *Ovilavis'* proximity to the frontier seems to have affected the type of goods manufactured, based on the high level of weaponry and armoury.<sup>831</sup>

There are some indications that the rural population in north-west Noricum felt exploited, because of high taxation (*octava* or *decuma*) on their agricultural output.<sup>832</sup> P. Herz based this assumption on the unrest of the *populus*, which is reported in the funeral inscription of officer Tiberius Claudius

---

<sup>823</sup> Strobel 2007, 234-236.

<sup>824</sup> Herz 2012, 59. There are, however, indications of a strong connection between the textile production in *Flavia Solva*/Wagna in southern Noricum and the army stationed along the Danube. K. Gostenčnik suggested that cloth making and textile production had expanded to become a specialised occupation in this Roman centre and that the army ordered inflammable equipment among other things from here, see Gostenčnik 2010, 62-64; 2013, 69-71.

<sup>825</sup> Wamser 2000, 124-129.

<sup>826</sup> Gostenčnik suggests that the textile occupancy in Mautern did not cover the entire process, that for example spinning and sewing were done elsewhere: Gostenčnik 2013, 72.

<sup>827</sup> In the case of the Roman town of Tongeren (Belgium): Vanderhoeven 2015, 199.

<sup>828</sup> Miglbauer 2012, 122.

<sup>829</sup> Gostenčnik and Lang 2010, 204.

<sup>830</sup> Lang, Knauseder and Kovacsovics 2012-117.

<sup>831</sup> Jilek 2005, 165-167.

<sup>832</sup> Herz 2012, 59-60.

Candidus.<sup>833</sup> Revolts by peasants and farmers are known from other regions as well, such as Roman North Africa.<sup>834</sup> Also in Tacitus' *Agricola* one finds the admission that the taxation on the local population of Roman Britain was too high.<sup>835</sup>

Information about the ownership of the rural estates is generally scarce, but a few inscriptions are enlightening. A funerary inscription found in Mondsee belonged to a veteran who lived in *Iuvavum* and owned a farmstead in the countryside.<sup>836</sup> A similar inscription from a veteran of the *Legio II Italica* was found at Litzlberg am Attersee.<sup>837</sup> It is unfortunate that the associated *villae* have not been located yet. In other words, veterans moved away from the garrison settlements into the countryside and the towns.<sup>838</sup>

Taken together, these findings illustrate the local dynamics between the presence of the army, the increase of rural activity during the 2<sup>nd</sup> to 4<sup>th</sup> centuries and the flourishing town centres of *Iuvavum* and *Ovilavis*. It seems that the rural elite had a history in the army and became responsible for the increased prosperity of the countryside and the urban centres in north-west Noricum. It is probably also in this context that one should place the upgrade of *Ovilavis* to a *colonia* during the Severan period.

## 5.6 Conclusion

The relationship between larger centres and their hinterland formed the central focus of this chapter. The academic discourse concerning urbanism in antiquity increasingly endorses the importance of the study of entire settlement systems. It is fair to state that Roman towns *per se* would not have existed without their environment, including all other forms of settlements. In recent times, a strong call for research focused on rural activities has dominated the research agenda. Attempts are being made to overcome the dichotomy between town and countryside.

Recent excavations and especially geophysical surveys carried out over the last few decades have considerably increased not only the number of known rural sites, but also the knowledge about them, including in the northern Alpine region. Three case studies concerning the frontier region in the provinces of Germania Superior, Raetia and Noricum, were discussed in more detail. There remains however a backlog on certain aspects. Older excavations often focused on the main residence for example, resulting in a generally poorer understanding of the size of *villa*-estates and their workshops. Overall, *villa* sites varied between 1 ha and 5 ha, whilst the associated land could be 50 ha to 100 ha large in size.<sup>839</sup> One can state that a rather wide variation of *villae* existed in the northern Alpine region, diverse in terms of their lay-out, their wealth and their size. Furthermore, the rural settlements must have had an even larger variation, including indigenous living forms. *Villae*

---

<sup>833</sup> CIL 2, 4114: adversus rebelles hh(ostes) pp(ublicos) / item Asiae item Noricae

<sup>834</sup> Hauken 1998, 2: concerning the *saltus Burunitanus*; Hobson 2015, 54-56. The increased pressure on the agriculture in N. Africa corresponded, according to M. Hobson with the higher level of export on African ceramics to Italy during the 2<sup>nd</sup> century.

<sup>835</sup> Onken 2003, 61. – Tacitus, *Agricola*. 19.

<sup>836</sup> Schulz and Jäger-Wersoring 2004, 73-79.

<sup>837</sup> Traxler 2004, 139.

<sup>838</sup> More evidence can be found in the large amount of *militaria* and the number of funerary monuments of veterans in *Ovilavis* (Jilek 2005, 165; Hemmers and Traxler 2012, 37-70).

<sup>839</sup> Flügel and Valenta 2017, 51.

were generally located on a region's most fertile soils and were in fact always located relatively close to the road network. The latter was of high importance for the integration of rural sites in the settlement system.<sup>840</sup> It has been shown that the rural estates' primary occupation was agrarian. The few exceptions of specialised artisanal production prove the rule. The stone quarries in the region of Mayen evidently encouraged stone working also in the rural context. Generally, however, smaller and bigger centres formed a more natural habitat for skilled *métiers*. This implies that both garrison and civilian centres were places of consumption concerning agricultural products, but places of production concerning non-agricultural products, although the production level seldom exceeded the demand from the local market. Collaboration between rural estates and urban workshops is also known from elsewhere, for example, the meat supply in the *colonia Augusta Raurica*/Augst in Germania Superior and the *municipium Atuatuca Tungrorum* in Germania Inferior.<sup>841</sup>

The three case studies also confirmed that the arrival of the Roman army must have been a stimulus for the rural inhabitation. The positioning of a legionary unit put more pressure on the countryside in the case of Regensburg and northwest *Noricum*. The stone quarrying around Mayen and the inhabitation of the countryside around it were originally connected to the construction of the infrastructure at the frontier in both Germania Superior and Inferior. The army thus increased the demand of agrarian products, but probably also contributed considerably to the number of rural inhabitants, since many veterans retired on a farmstead not too far away from where they had been stationed. Whilst in the region of Mayen this expressed itself mainly in wealthy estates in the countryside, a stronger connection could be observed between the urban elite of the chartered towns of *Iuvavum* and *Ovilavis* and estate owners in *Noricum*. Roman *villae* must thus have performed essential functions within the settlement system. Certain rural estates even performed a central function, in the collection, storage and redistribution of goods for example. This shows that the Roman settlement system only existed in the way we know it because of the actions and interactions of people who lived in not only the largest but also the smallest agglomerations.

---

<sup>840</sup> Vanderhoeven 2015, 190.

<sup>841</sup> Augst: Deschler-Erb 2002, 232-235.; Tongeren: Vanderhoeven 2015, 192-199. Veldwezelt, Kesselt, Heerlen-Trilandis and Jesseren-Bosstraat, Kerkrade-Winckelen are some of the settlements mainly investing in cattle breeding or nursing mentioned by A. Vanderhoeven and are characterised by byre houses and drinking pits. The butchery installations found in the Hondstraat and the Elisabeth wall correspond well with the idea of cattle breeding in the countryside and workshops in the centre processing the meat and secondary products for sale in the local market.

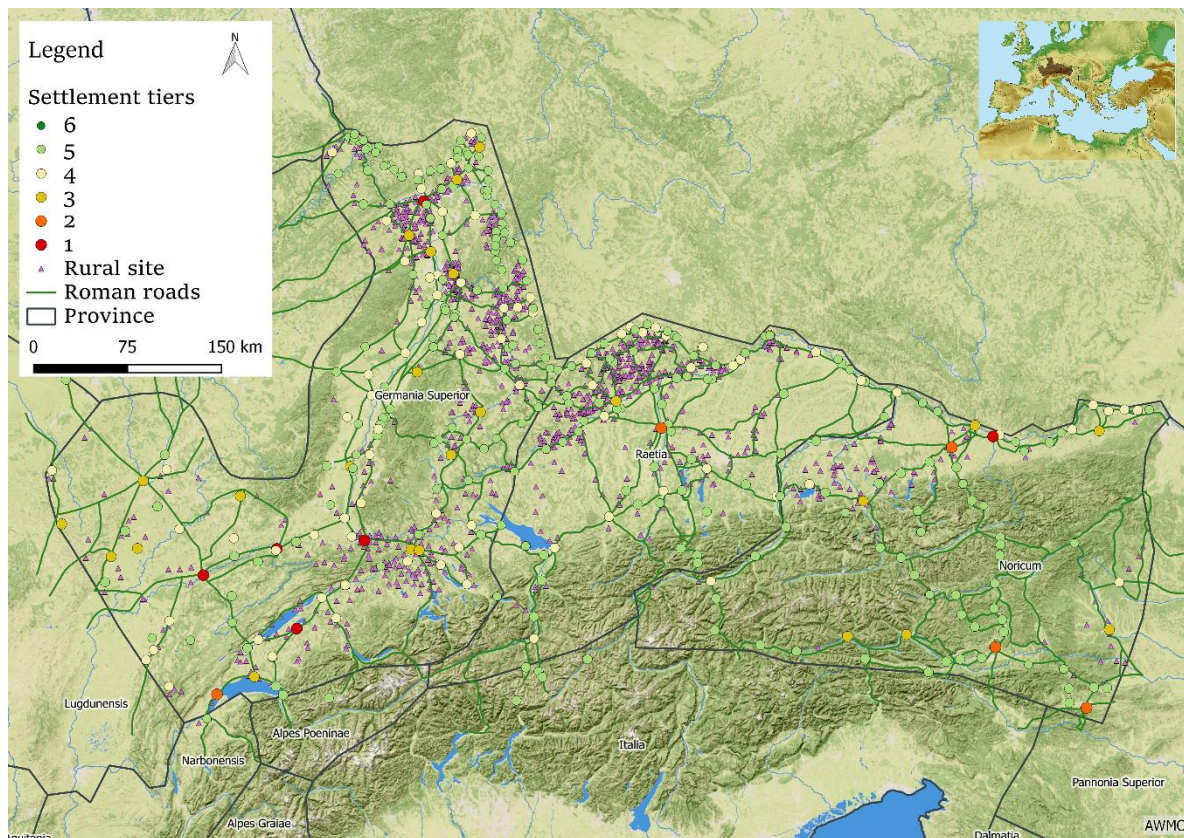


Fig. 5. 15: Settlement system with rural sites

The overall pattern of the settlement system leaned towards a southern area characterised by larger, more monumentalised centres and chartered towns and a northern half which was mainly occupied by smaller centres. Mountains were a dominant feature in the shaping of the settlement system as were rivers, roads and old routes. Rural sites are generally found in the vicinity of most Roman centres. The boom in *villae* in the immediate hinterland of the frontier and especially north of the Danube and east of the Rhine is unmistakably an indication of the granary function the area performed (Fig. 15.6). Due to state and military infrastructures, the settlement system in the northern Alpine region was relatively well interconnected. Nevertheless, not all areas in the region seem to have been densely occupied, which results in gaps within the network. How far this settlement system represents the Roman reality and what percentage remains undiscovered or uninvestigated is an unanswerable question. We can only form an understanding of the Roman settlement system based upon what remains of it today. These remains help us to formulate research questions and at the same time feed the investigations. The way these ancient remnants are managed today is therefore of equal importance.