THE MILITARY VICI OF NORICUM

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TABLE OF CONTENTS

LIST OF MAPS AND FIGURES

Map/Figure

LIST OF PLATES

Plate

LIST OF TABLES

Table

THE MILITARY VICI OF NORICUM

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ABSTRACT

This dissertation examines the civilian settlements that developed next to the auxiliary forts on the Danube frontier of the Roman province of Noricum. Chapter one of this study provides a brief consideration of the history of Roman frontier studies, a field in which the vici generally have been overlooked. Chapter two gives a short history of the Norican *limes* in particular. Chapter three includes descriptions of the fourteen Norican auxiliary forts and their vici, relying on archaeological material as the main basis for information about the sites. Chapter four provides an analysis of the character and development of the vici during the Roman occupation of Noricum (1st through the 5th centuries CE), including their location, layout, physical structures and the role that they played on the frontier. Chapter five considers the later history of the vici and the possibility of their survival into the early Middle Ages.

Introduction

The subjects of this study are the Roman civilian settlements that developed outside of the military installations garrisoned by auxiliary troops on the northern frontier of the province of Noricum during the period of Roman occupation from the 1st through the 5th centuries. These civilian settlements, the vici, form a narrowly defined group based on their similar origins, location, and physical structures.[1] In the history of Roman frontier studies, the military installations have received the majority of scholarly attention. The forts and fortresses of the *limes* have been the starting points for excavation and investigation. This situation, however, has been beneficial for the recognition of the vici as the scholarship of the last several decades has begun to take into consideration the civilian population on the frontier. The forts have provided a starting point for research, which has led to the secondary discovery and investigation of the civilian settlements in their immediate vicinity.

For Roman frontier studies in general, the relatively new interest in the vici has focused on their ability to produce more information about the nature and activity of forts and the military population on the frontier. The vici have not often been considered as a group, either for large regions of the Roman empire, individual provinces or smaller sections of provinces or the frontier. Only two publications focus on the vici in the provinces. Monica Rorison has studied the vici of Roman Gaul and C. Sebastian Sommer has studied the vici of Roman Britain.[2]

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[1] The terms vicus (pl. vici) and canabae (pl. canabae) are not italicized in this work.
[2] Rorison (2001) included in her study all of the small civilian settlements of Roman Gaul.

The vici of Noricum have never been considered as a group, although they form an easily defined set of settlements associated with the forts on the Norican Danube frontier. Many of the forts on this section of the *limes* have been investigated over the last two hundred years and the military history and development of this part of the frontier is fairly well known, especially when compared to knowledge of the *limes* in other nearby provinces such as Dacia or Raetia.

As the forts of Noricum have been researched, many of the vici also have been excavated. The evidence for their study comes almost exclusively from material gained through archaeological excavation. When the results of this research have been published, they often have appeared over the course of long spans of time and in a variety of Austrian publications. Comprehensive information regarding their physical character and development rarely appears in any type of publication.

As attention has turned to the vici in the last two decades, C. Sebastian Sommer clearly has emerged as the scholar at the forefront of their study. His investigation of both British and German vici has established a model for the consideration of the physical character, function and development of the vici relying in large part on material remains. His work has provided a starting point for the understanding of the vici as a type of Roman provincial civilian settlement. This study follows the model he has laid out in utilizing available excavation reports for the Norican vici to document and describe their physical remains and then to begin to analyze their character and development.

Chapter 1 of this study briefly examines the state of Roman frontier studies during the last several years. This consideration concentrates on the works relating to the northern frontier of the empire from Britain to Austria. The focus of this survey is the

primary interest of scholars in the military history and structures of the frontier and the lack of attention that has been paid until recently to the civilian population and their settlements in the frontier area.

Chapter 2 provides a narrative for the development of the *limes* in Noricum. As frontier settlements, the vici were directly affected by the events on the *limes*. This chapter focuses on the physical growth of the *limes* through the building of a series of forts, fortresses and smaller military installations over the history of the Roman occupation of the province.

Chapter 3 considers each of the sites on the Norican *limes* at which a fort has been identified and at which a vicus has been documented or is assumed to have existed. The physical setting and standing remains for each site are briefly described and a short summary of the excavation history is provided. The history of the fort or fortress at the site is outlined. A description of the location, physical structures and development of the vicus is included for each site at which the civilian settlement has been identified and documented. The primary materials used in this consideration of the vici are the archaeological remains.

The descriptions of the vici provide the groundwork for their analysis in Chapter 4. The vici are considered individually and as a group with regard to their locations in relationship to the forts or fortresses with which they were associated. They are classified according to a typology developed by Sommer based on their layout and growth. The physical structures of the vici are discussed, with particular attention paid to the residential structures. The commercial or industrial buildings in the settlements also

are considered, and a brief description of the associated activities pursued by the vicus inhabitants is provided.

Chapter 5 discusses the development of the vici during the late antique period (the 4th and 5th centuries). The civilian settlements were affected to an important extent by the crises in the empire at the end of its life due to invasions from the north by the Germanic tribes. The character and even location of the vici in some instances changed dramatically, and the relationship of the vicus residents with the forts and fortresses and their inhabitants was significantly altered.

The study of the Roman military installations on the frontiers provides valuable information about the history of the *limes* defenses. But the forts and fortresses were not the only structures built at the borders of the empire. The vici also got their start, grew and developed in the frontier zone, subject to many of the same historical events, challenges and developments as the forts. The vici were a persistent element at the edges of the empire, and their study provides more information about the basic nature of the frontier.

Chapter 1: Roman Frontiers Reconsidered

The Nature of Traditional Roman Frontier Studies

The Roman provinces and the Roman frontier have received much attention over the last century and a half. Hundreds of historians of the ancient world and archaeologists have directed their attention to the Roman frontier. Their interest can be seen by publications that deal with those subjects, and the number of organizations and conferences that have been devoted to the regular consideration of the Roman frontier.

Among these is the International Congress of Roman Frontier Studies (also known as the *Limeskongress*), which first met in 1949 when it was associated with an already established pilgrimage to Hadrian's Wall. Since then it has met regularly throughout Europe, and had its first meeting outside Europe in 2000 in Jordan (the 18th meeting of the Congress). The Congress has regularly published its proceedings in a series of *Limes* volumes, also titled *Roman Frontier Studies*. These volumes showcase the trends in the studies of the Roman frontier, and the approaches different scholars have taken in their considerations of the frontier.

Interest in and the study of the Roman provinces and the Roman frontier definitely predates the founding of the *Limeskongress*. In his introduction to the proceedings of the 18th Congress, Robin Birley provided a history of the *Limeskongress*, noting that its beginnings, and indeed the whole history of frontier and provincial studies were closely tied to three things. The first was regular pilgrimages to Hadrian's Wall that date back to the 19th century, and the interest in Britain in the Roman frontier that was mainly based among local archaeological societies. The second was the "scientific"

Limesforschung in Germany that also go back well into the 19th century. The third was the work of Theodor Mommsen who led the move to establish the *Reichslimeskommission* in 1892.[3]

Considerations of the Roman provinces and frontier have traditionally been descriptive and historical. Study has been primarily concerned with the military nature of the frontier and with composing a narrative that details how various regions have been brought into the Empire. Such a military history may be concerned with such things as the position of the *limes* at various times, battles that were fought, troop movements and stationings, and the building of forts and fortresses.

In addition there are histories of individual frontiers, like the work of Dietwulf Baatz for the Roman frontier of the Rhine and Danube.[4] Another series of works is *Der römische Limes in Österreich* (the *RLÖ* series), published by the Austrian Academy of Sciences. This is one of the oldest series, and it also gave impetus to the formation of the regular *Limeskongress*. There are currently forty-three volumes, dating back half a century, documenting excavation and research on the Austrian frontier. These works are mainly descriptive and chronicle the sites, mainly military or connected to the military, that are located along the Danube. Some of the volumes are specifically topical; others provide syntheses of research or sites. There is also quite a large collection of works dedicated to the examination and discussion of that most famous of frontiers, Hadrian's Wall in northern England.

[3] Birley 2002.
[4] Baatz 2000.

Occasionally scholars have limited their field of vision when examining the frontier and worked to develop typologies for the frontier structures. These focus on the forts and fortresses that were built along the frontier(s). Such studies of the frontier include the work of Petrikovits who looked at the interior buildings of Roman forts.[5] There is also the work of Johnson who looked at the types of forts. Both of these are descriptive, looking at certain aspects of Roman forts.[6]

There are studies of provincial administration and policy. These tend to try to figure out how the frontier functioned and how it fit into the larger scheme of empire-wide policies and plans. Many of the surveys and histories are concerned with the policy and strategy of the frontier, or perhaps with its development. Some examples are the works by Wells and Luttwak.[7] Works of this sort have explained the strategy and development of the frontier – the frontier policy. Other studies have concerned themselves with figuring out how the frontier itself functioned, for example, whether or not it was defensive or offensive.

In all of the previous scholarship, the traditional focus has been on describing the frontier: how it developed, the story of the frontier put together chronologically, or documenting the Roman military by typing its structures – all in an effort to construct the military provincial narrative. But just as an examination of literature from the 19th century and first two-thirds of the 20th century reveals an almost strict adherence to such traditional approaches, more recent studies reflect new approaches.

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[5] Petrikovits 1975.
[6] Johnson 1983.
[7] Wells 1972; Luttwak 1976.

Marcia Okun's study of the Roman frontier of Upper Germany gives a good summary of how approaches to the study of the frontier have changed over the last several generations.[8] Approaches have moved from historical narratives or military histories or descriptive accounts of the frontier and its physical parts, to try to reconstruct the processes that took place at the frontier and how life was lived there. In that sense, the focus has turned from things to people, and from historical narratives to socio-cultural processes. Okun reports that only recently (in the 1980s or so) have archaeologists started to address those aspects of the frontier other than its military history. She believes that this leads to better understanding of the frontiers and frontier processes, and that we must go beyond chronology and typology to address questions about cultural and social processes.[9]

The works of C.R. Whittaker and of Hugh Elton are good examples of the trend to go beyond descriptions of military history and military architecture to look at more social issues.[10] Whittaker's book is subtitled 'A Social and Economic Study,' and Elton writes in his introduction to his work that he wanted to "present a perspective on frontiers of people." They both wanted to look at the lives and experiences of the people living on the frontier.

Other examples that display this change of focus are Burnham and Johnson's *Invasion and Response* and Brandt and Slofstra's *Roman and Native in the Low Countries*, and Martin Millett's *The Romanization of Britain*.[11] Okun points out that the

[8] Okun 1989.
[9] Okun 1989.
[10] Whittaker 1994; Elton 1996.
[11] Burnham and Johnson 1979; Brandt and Slofstra 1983; Millett 1990.

publications of the International *Limeskongress* have also showcased these trends in the consideration of the frontier.

The concept of Romanization is connected necessarily to the consideration of the provinces and the frontier. Romanization, like the study of the frontier (and provinces), is often tied to the work of Theodor Mommsen. Mommsen saw Romanization as a one-way process of acculturation, in which the triumphant and civilized Romans brought their superior culture to the grateful, if uncivilized, inhabitants of newly conquered lands. Such a view, even the idea that Romanization took place at all, understandably has come under sharp scrutiny and criticism in the last decade or more. It seems reasonable to suggest that the criticism or reexamination of the idea of Romanization has been tied to the growing pains felt over the years as Classical Archaeology has come to terms with the New Archaeology – if only because this has brought about a reexamination of most if not all traditional views and structures in Classical Archaeology.

The study of Romanization combines historical and archaeological methods with additional consideration of settlement patterns, social systems and cultural processes of individual provinces. Since the 1970s this expanded focus has led to a more interdisciplinary approach to the study of the Roman provinces. British and Dutch scholars in particular have employed such methodology and helped define this emerging field at symposia held in Amsterdam (1980) and Oxford (1989). The most noteworthy papers presented at those conferences sought to combine anthropological, historical, classical, linguistic and archaeological approaches to reach a new understanding of acculturation in the Roman Empire. However, the "theory" of acculturation as it was understood previously (a unidirectional flow of power and influence from superior to

inferior culture) was rejected. The participants realized that Romanization was not a static, simple or one-sided event, but a continuous and complex process in which the two participating cultures acted as partners.

The Study of Frontier Settlements

As scholars have become interested in doing more than just narrating the story of the frontier or putting together the chronology of military history, they have turned to an examination of provincial and frontier society, which means that they have gone into the settlements where these people lived. This relatively new interest in frontier settlements has focused some attention on the vici.

Vicus is a term used in several ways by ancient authors and modern scholars. Vicus often is used by archaeologists to describe a village, a usage connected to the size of the settlement and the fact that it is not a city, lacking monumental architecture. The term also shows up in the classifications of Roman urban settlements by scholars of the Roman world. It denotes the lowest rank of urban (or pseudo-urban) settlements, below *colonia*, *municipium*, and *civitas*. Although it can be seen as a classification in this ranking system, the vicus had no official or recognized status. The term vicus also is used to signify a division of a city, so that in this sense it indicates the individual neighborhoods of a larger town – for example, the many vici of Rome. Finally, vicus is the term used to describe a civilian settlement that grew up next to a Roman (auxiliary) fort.

There is a greater adherence to the modern usage of canabae as the term to denote the civilian settlement next to a Roman legionary fortress. Nevertheless, some modern authors use the word canabae also to designate those settlements next to auxiliary forts.

Since the terms vicus and canabae have been and are so variously employed, it is necessary to clarify how the two terms may be used to discuss the two types of civilian settlements that grew up around the military installations in the provinces of the Roman Empire. There is not as much trouble with the term canabae, if we make clear that this should always and only be used to describe the civilian settlement next to a Roman legionary fortress. The term vicus is more problematic, since it may describe any number of types and situations of small settlements, or even a district in a larger city. It thus becomes wise to employ the phrase "military vicus" to describe the civilian settlement next to a Roman auxiliary fort.[12] This usage is by no means universal, but seems to be developing a strong following among some scholars who consider these provincial Roman settlements.

Vicus studies or considerations of the vicus (the military vicus) tend to show up in three or four places. The military vici often are mentioned in studies of the frontier, as settlements that grew up next to the forts. They are sometimes included in studies of a particular province, as civilian settlements that developed along with the occupation of the area. It is not uncommon to find the site report and/or study for a particular vicus. More infrequently, you may find studies of the vici as a group for a particular province or area.

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[12] C.S. Sommer (1984) uses this term in his examination of the military vici of Roman Britain. The strongest adherence to this terminology or system does seem to take place in Britain. Also, the equivalent term *Auxiliarvicus* appears in German publications and is used consistently among many German scholars (A. Faber 1994).

The subject of the vici shows up briefly in C.R. Whittaker's book on the frontiers of the Roman Empire.[13] In a study concerned with the social and economic history of the frontier, it is not surprising that the author would consider the vici in the same context, and center his consideration of these settlements on the role they played in the economic life of the frontier areas. Therefore, when the vici show up in this type of general discussion of frontier or provincial settlements, their character or nature is really not of particular interest. Instead they are considered in light of their relationship to the more visible and historically important structures of the frontier, such as the auxiliary forts, or the larger urban sites of the province, or even the large villas of the countryside.

Whittaker views the vici as physically separate from the forts, but still dependent on the military for both their administration and for their economic survival. He does not necessarily mean by this, though, that the vicus inhabitants were able to completely make their living through trade with the fort's soldiers. In fact in one instance, he states just the opposite – that the vicus inhabitants could not have relied solely on commerce with the military. Whittaker sees the military vici as dependent on the supply networks put in place and used by the army. The native population and methods of subsistence could not have sustained or provided for the large groups of people who followed the auxiliary units and then settled down – either temporarily or permanently – next to them. In terms of the army's ability to rely or exist on goods and supplies provided or produced by the vici, Whittaker is of the opinion that the army could not have met its needs either through

[13] Whittaker 1994.

the production of the countryside, or through the production of the vici, but would have had to rely – at least in the early days – on imports.[14]

When Whittaker does briefly consider the character of the vici and the nature of the inhabitants, he distinguishes carefully between military vici – those settlements that were still civilian in nature, but tied closely to the military installations both geographically and economically – and the other civilian villages that were separated in distance and contact from the army. He writes that these military vici, and the native inhabitants who took up residence in them, are characterized by their constant exposure to Roman goods. These military vici resembled "towns, with shops, inns, and a wide range of Roman imports, Latin documents and coinage" in contrast to the more isolated small villages.

Such mentions or discussions of the vici occasionally show up in general studies of the Roman frontier or other provincial studies. There are some areas, however, in which direct attention has turned to the vici – not just their relationship to the military or its forts, but to the individual nature and development of the vicus sites themselves. Two areas that have benefited greatly from this attention, and that have also enhanced and expanded our knowledge about this type of settlement, are Britain and Germany.

For both provinces the leading author on the subject of the vici is C.S. Sommer, who has published widely on the vici there. Sommer began an article on the Saalburg-vicus by observing that there is another series of questions we need to be asking when studying the stationing of any Roman military unit. Along with questions concerning the size of the fort, when was it built and who was stationed there – questions that help

[14] Whittaker 1994, 99-104.

establish the military history of a site or region – we should also be asking questions about where the soldiers went to relax, find wives and get their laundry done.[15] Sommer did note in this same article that those questions about the "outside" life of soldiers were considered even one hundred years ago, by Louis Jacobi when he studied the Saalburg site in Germany, along with many of his colleagues and contemporaries in the Reichs-*Limes*kommision.[16]

The study of the provincial settlements in France has gained ground over the last several decades. The work is documented in a number of individual and collective studies of village sites in the former Roman province of Gaul.[17] These studies of settlements in France encompass the various villages of the frontier and countryside, making no distinction between the military vici and the other small civilian settlements that could also fall under the most general heading of vicus – that of any village.

For example, the 1975 *Actes du Colloque le vicus Gallo-Romain* showcase such Gallo-Roman villages as a group.[18] The publication begins with a consideration of the word and concept of vicus in ancient texts and sources, as well as the epigraphic examples in which vicus and related words (e.g. *vicani* – the inhabitants of a vicus) show up. The essays following this introductory discussion include short summaries on the nature of vici in Belgium, or that of the group of vici around Paris, as well as papers that introduce various individual sites, detailing the state and nature of the vicus remains. Other chapters discuss ideas about the administration of these small towns as well as their

[15] Sommer 1997, 105.
[16] Sommer 1997, 105.
[17] The term village and not vicus is used here to make the distinction between any small settlement and the military vicus associated with a fort.
[18] Piganiol 1976.

relationship to the villas of the countryside. As a whole, the authors represented at this 1975 meeting concerned themselves mainly with the questions of official status of these vici/villages, and the role that they played in the development and life of the province of Gaul.

A recent volume in the *Journal of Roman Archaeology*'s Supplementary Series documents recent research on Roman Germany and provides a good look at the work done to advance knowledge about the vici there.[19] The editors of the volume begin their introduction with a lament that information about research in Roman Germany has not been published much in English in several decades. This led them to suggest, and then take part in, a session on Roman Germany in 1997 at the Second International Roman Archaeology Conference. The authors give a good summary of the various publications in German that keep up-to-date accounts of archaeological research in Germany.
The editors report that one of the common themes that have emerged in archaeological research in Germany (as it has in the studies of other provinces) is that of acculturation. This is demonstrated by the creation of "The Romanization Project" in Germany.[20] This is tied to an interest in the study of urbanization in Roman Germany, as researchers have tried to make advances in understanding the beginnings of urbanism in the provinces of Germany and Raetia during the early empire, which have still not been investigated much archaeologically. One of the research questions posed is how quickly new towns "equipped themselves with public buildings." Some excavations have the

[19] Wilson and Creighton 1999.
[20] Wilson and Creighton 1999, 11.

purpose or hope of answering this question, a topic related to Romanization and acculturation.[21]

Attention in Germany also has been focused on the *limes*, in particular on the frontier of the 2nd century, a chronology of the various forts and other military structures that are known and their functions, and Roman frontier policy. In addition to the information that has been gained about the nature of the forts themselves, German researchers also have learned more about the vici that surrounded the forts, thanks largely to the work of C. S. Sommer.

Sommer's work on the Saalburg vicus show that is and has been one of the most extensively explored settlements of this type on the Upper German/Raetian *limes*. But there have been typical problems, which have hitherto reduced understanding. Due to the state of excavation techniques in the 19th century and at the beginning of the 20th century, it was normal to look for and try and point out walls, cellars, wells, pits and the like. Only in a small part were postholes and small pits observed to document the traces of buildings erected in wood and that no longer survive. Accordingly, practically none of the buildings there is fully understood in ground plan and frequently the order of the often many-phased finds is unclear.[22]

In this volume, Sommer also gives a report of recent work in Germany, particularly in the southwestern part of the modern country, formerly the provinces of Upper Germany and part of Raetia.[23] In recent years excavations have been carried out at

[21] Wilson and Creighton 1999.
[22] Sommer 1997, 157.
[23] Sommer 1999, 161-6.

such vicus sites as Zugmantel[24] and Wallheim on the Neckar *limes*.[25] The military vicus at Aislingen also was discovered in the recent past, and a large part of the settlement has already been uncovered, revealing a systematic layout of several houses.[26]

All of this documented activity allows Sommer to conclude that the military vici of Germany have been a "major focus of excavation activities and subsequent research during the 1980s and early 1990s, and fresh knowledge gained was considerable."[27]

In a similar fashion, in Austria serious interest in the military vici only dates back two or three decades. Although interest in Austria's antiquity dates back to the Renaissance, and the rulers of the Austro-Hungarian Empire were among the first to take advantage of the rediscovery of Pompeii and Herculaneum to stock their own collections, the beginnings of scholarly archaeological research can be traced back to the end of the 19th century.

In the late 1800s several local societies and museums got their start, including the *Musealverein Enns und Umgebung*. These societies conducted excavations at local sites, depositing the material they collected in small regional museums. In 1897 the *Limeskommission* was founded for the investigation of the Roman frontier in Upper and Lower Austria. A year later the Austrian Archaeological Institute was founded. These two organizations then began their long history of working with the *Heimat*- and *Museumsvereinen* for *Limesforchung*.

Systematic and regular archaeological work took place along the Norican *limes* from the beginning of the 20th century. Excavation has been hindered by a number of

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[24] Sommer 1988.
[25] Planck 1991; Körtum and Lauber 1998.
[26] Czysz et al. 1996.
[27] Sommer 1999, 170.

factors over the years. The most obvious is the fact that many of the Roman sites have been continually built upon over the centuries, making large-scale excavations impossible. The Austrian *Bundesdenkmalamt* has played a vital role in conducting rescue or salvage operations as opportunities have presented themselves. With new construction work, the building of private homes and public works, chances often arise to make quick investigations of forts and vici along the Danube. Two world wars also significantly slowed archaeological activity. They provided sudden interruptions as well as contributing to an overall lack of funding for excavation work.

In Austria as elsewhere in the empire, the majority of research into the military history of Noricum has centered on the forts. Archaeologists have continually taken advantage of opportunities to investigate their physical structures, development and the history of troop movements along the *limes*. In the last twenty years, however, interest has increasingly turned to the vici, although not all of the civilian settlements expected to accompany the forts have been identified.

Traditional archaeological methods of excavation and documentation have provided the majority of our information about the vici. In the last ten years, archaeologists have increasingly made use of new technology in their study of these settlements. Geophysical techniques and the accompanying computer applications such as AutoCAD and GIS have been employed in several areas, both where excavations have taken place and where digging has not been possible. As archaeologists in Austria continue to utilize a variety of tools to provide more information about these important frontier settlements, our knowledge about the population of Noricum continues to improve.

Chapter 2: A History of the Norican *Limes*

Like much of Europe, Austria was subject to the Celtic migrations that took place at the beginning of the La Tène Ib period (c. 400 BCE), and was quickly inhabited by the Celts. Within two centuries the composition of the pre-Roman population in Austria was in place, as these new immigrants settled in with the earlier Iron Age inhabitants of the region. The La Tène culture then became the prominent one in Austria.[28]

A centralized power grew up in southern Austria after the second half of the 3rd century BCE. The Celtic inhabitants of the modern province of Carinthia established their power through the control of the rich iron deposits present and their military superiority.[29] This entity was later recognized as a kingdom; Roman authors refer to it as the *regnum Noricum*.

The Roman historian Livy provides the first known reference to contact between the Romans and the Celtic population in Noricum. He refers to diplomatic activity that took place after the Celts came into northern Italy to build an *oppidum*. The matter was resolved peacefully, and the Romans began a nearly two-century relationship with the *regnum Noricum*.

The Romans quickly recognized the benefit of having access to the rich iron and gold deposits in central Austria. The first Roman pioneers into the area were the gold-

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[28] Alföldy 1974, 14. At the end of the early Iron Age and before the appearance of the Celts, the Hallstatt culture was dominant in Austria. Alföldy points out that it still survived in some areas of Austria into the 1st century CE.
[29] Alföldy 1974, 28.

hunters and traders. They began to come into the area in increasing numbers from the end of the first century BCE.[30]

The narrative for the Roman presence in Austria from the 2nd century BCE has been composed from a variety of sources. No one literary or historical source provides information about the early history of the area, as Tacitus does for Germany. Instead, a number of classical authors provide scattered bits of information. Authors such as Livy make brief references to the earliest interactions between the Romans and the Celtic peoples in Austria while recounting the spread of the Romans into northern Europe. Other authors such as Polybius, Strabo, Livy the Elder and Ptolemy briefly mention the geography and the occasional topographic landmark in the area, or ethnographic information about the native inhabitants. Very few ancient authors discuss any specific historical events in detail or provide accounts for a period of any length for the region.[31]

One work written in the 6th century does provide a narrative for the last decades of the Roman presence in Austria. The *Vita Sancti Severini*, written by his disciple Eugippius in 511, was the first in a series of biographies of Saint Severinus. It is regarded as the best literary source describing life and the events of the last decades of the 5th century on the Norican *limes*.

Along with literary examples, we have a number of specialized sources that help construct especially the military history of the area from the 3rd century until the end of the Roman occupation of the province. Three travel books or maps describe the physical

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[30] Sasel-Kos 1997, 23-6. The Augustan settlement and trading center on the Magdalensberg in southern Austria is good evidence of the strong relationship that the Romans and Celtic population built (Gassner and Jilek 1997, 26-7).
[31] Both Alföldy (1974) and Gassner (Gassner et al. 2002) provide good summaries of the contributions of these authors to our knowledge of Noricum.

structures and troop presence on the late antique Norican *limes*. The *Notitia Dignitatum* provides information on the troop strength and distribution at the end of the 4th century in the provinces. The *Itinerarium Antonini* is a travel guide with a list of roads, road stations and distances between them. The *Tabula Peutingeriana* is a medieval copy of a late antique map, also providing the locations of road stations and distances.

Another source of information for the area as a whole are the many inscriptions that have been found in Austria. Well over two thousand have been recorded. Most are funerary, providing more information about the inhabitants of the area and their lives and customs than historical information. The remainder of the epigraphic sources concerns a variety of topics, from building to dedicatory inscriptions.

The archaeological sources for the history of the Norican *limes* have been one of the most valuable resources for reconstructing its history and development. The archaeological information has been gained through a variety of techniques over the last century and a half. The majority has come through the traditional practice of excavation. In more recent years, aerial photography, the anthropological investigation of human remains from cemeteries, and the new technologies of archaeometry and geophysical investigation have also provided material for study. All of these sources have helped scholars construct a history for the Roman occupation of Austria.

By the 1st century BCE, the *regnum Noricum* was well known to the Romans. They had firm ties with the people who inhabited it, and they had known almost exclusively only peaceful relations with them. The next stage in their relationship began in the last decades of the 1st century BCE during the course of Augustus' campaigns to expand the empire north and over the Alps. The numerous Alpine passes in western

Austria connecting Italy and Germany were seen as useful additions to Roman territory. Also, the long history of trade in and through the area had established a substantial road network. This was seen as useful for the transport of troops through the region.

The exact date or process of the annexation of the *regnum Noricum* into the Roman empire is not known; no authors describe it in any accounts. The date is traditionally given as 15 BCE, based on activities in the neighboring newly established provinces.[32] It was at least from this point in time that the Romans regarded the region as being under their control and at their disposal, particularly in the area of military affairs. Their inclusion of the *regnum Noricum* in their geographical sphere of influence helped secure the new imperial frontier from the Rhine to the Danube, and it also secured their economic interests in the region.

The new province took the name Noricum from the earlier Celtic kingdom, and encompassed the area that had been under that previous entity's control, with hardly any difference. During the 1st century CE the borders were set and did not change until the reign of Diocletian. (Map 2.1)

The modern country of Austria encompasses all of the former Roman province of Noricum. In the north, the border was set at the Danube. In the east, the boundary between Noricum and the province of Pannonia was eventually settled to be a line almost straight south from the site of Zeiselmauer. This border lay to the west of the plain of the Vienna basin, along the eastern edge of the Alps. In the west, the border was shared with the province of Raetia and set by the River Inn. In the south, the border with Italy was the southern crest of the Alps.

[32] Alföldy 1974; Gassner and Jilek 1997; Gassner et al. 2002.

Not much is known about the formal nature of the relationship between the *regnum Noricum* and Rome before the middle of the 1st century CE, at which point Noricum seems officially to have been declared a Roman province. Alföldy suggests that it was a state of occupation.[33] Roman army troops were in the province at this early date, although they were not there in large numbers as there were strong forces already present in the adjoining provinces of Raetia and Pannonia. These early troops, detachments from the legions and auxilia mainly from the Pannonian army, were dispersed throughout the interior of Noricum and were not yet stationed on the Danube *limes*.

It probably was under Claudius that the first permanent military installations were built to house the army units that were being moved up to the Danube frontier from the interior of the province.[34] They were established at strategic points on trade routes and to guard over river estuaries, serving as the military bases of the army and Danube fleet. These military bases were connected by roads built by Roman army engineers, enabling quick troop movements among the sites.[35] These early bases were garrisoned exclusively by auxiliary troops. Although surviving remains for the mid 1st century *limes* in Noricum are sparse, it seems that the earliest military sites were established at Linz and Lorch-Enns.

During the last half of the 1st century, the Roman government began work to further stabilize the frontier situation on the Danube, initiating a new concept in frontier defense. More military bases on the south banks of the Danube were built to join with the earliest installations in a string of forts along the river. These early complexes were

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[33] Alföldy 1974, 62.
[34] Noll 1958.
[35] Gassner and Jilek 1997, 45.

built of wood and earth. Traces of earth walls, the palisades that were built on top of them, the ditches that were built in front of them and wooden interior buildings have been identified at Linz, Mautern, Traismauer, Zwentendorf and Tulln.

At the end of the 1st century and beginning of the 2nd century, in the wake of Domitian's Germanic wars, the Norican Danube *limes* was further strengthened. This probably is when the forts at Wallsee and Zeiselmauer were built. At this point in time the Norican army was composed of at least eight auxiliary units: three alae and at least five infantry cohorts.[36] There also may have been some smaller detachments from other units stationed in the province.

The northeastern sector of the limes, the Tullnerfeld between the Wachau and Wienerwald, at this point in time was the most threatened area of the *limes*. For this 50 km stretch of frontier there were no less than five forts: Mautern, Traismauer, Zwentendorf, Tulln and Zeiselmauer.

By the middle of the 2nd century, almost all of the forts on the *limes* were being rebuilt in stone. The earth walls and their wooden palisades were replaced with stone defenses, still encircled by one or more defensive ditches. The interior buildings of the forts sometimes survived in wood for a little longer, but they were eventually replaced as well.

One of the most significant events in Noricum during the 2nd century was the struggle between the emperor Marcus Aurelius and Germanic tribes led by the Marcommani and Quadi who invaded the empire, coming across the Danube into the northern provinces and reaching as far as northern Italy in their assault. The immediate

[36] Alföldy 1974, 144.

effects of these invasions on the population along the *limes* have been differentially assessed over the years. Earlier 20th century scholars examining the coins, inscriptions and archaeology for the second half of the 2nd century believed that these remains provided evidence of heavy destruction in both the military installations and civilian towns along the frontier.[37] More recent assessments, aided by the results of the last five or six years of archaeological excavations on the *limes*, have questioned this evaluation.[38] This new information may indicate that many of the sites, such as Linz, Lauriacum and Mautern, were not sacked or totally destroyed.

One of the more concrete results of the invasions that did directly affect the Norican *limes* was the build up of both the army and the frontier defenses. In Noricum help came in the form of the newly created *legio II Italica* and *legio III Italica* who moved into a new legionary fortress at Albing before moving on to the site at Lorch-Enns. Along with the erection of two new fortresses a new string of defensive buildings was erected along the Danube. The fortlet at Schlögen was constructed and a chain of watchtowers was built. Many of the older forts also appear to have benefited from repair and in some cases rebuilding. All of this activity in the province indicates its increasing military importance. The Norican *limes* had become a first line of defense against the increasing number of attacks from outside the empire.

The treaty that Commodus secured with the Germanic tribes at the end of the 2nd century brought relative peace to the frontier for a few decades.[39] But by the 230s a new threat to the *limes* had developed in the form of the Alamanni. The unrest and instability

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[37] Alföldy 1974; Genser 1986c.
[38] Gassner et al. 2002.
[39] Alföldy 1974, 159; Gassner and Jilek 1997, 33-4.

caused by this next wave of attacks was compounded by the 3rd century crisis in the empire as a whole. Modern scholars do seem to agree that this wave of attacks did result in substantial destruction to the frontier posts and settlements.[40]

Fighting against the Alamanni, who were later joined by the Juthungi, continued on and off during the 3rd century and through the reigns of Aurelian and Diocletian and the Tetrarchy. Each emperor in turn attempted to respond to the pattern of invasions and make adjustments in strategic defense on the frontier. By the time of Constantine, a division of army units had been put in place. They were now either *comitatenses* who were at the disposal of the emperors or other very senior members of the administration, and who were allocated to one of the field armies; or *limitanei* who were assigned to garrison a specific area, usually on the frontier, and who were under the command of the *dux* assigned to that area.[41]

Another of the significant adjustments to the provinces and their defense involved the reduction of the large provinces established under the Principate to smaller and more numerous areas of command. Around the year 304/305 Noricum was divided into two smaller administrative entities. It was halved west to east along the line of the Alps into a southern province called Noricum Mediterraneum, with its administrative center at Virunum, and a northern province called Noricum Ripense, with major administrative centers Lauriacum and Ovilava. The troop situation does not appear to have changed too significantly with this division. Although the two provinces did have separate administrations, there is no evidence that there were any large military units stationed in Noricum Mediterraneum, reflecting a continuation of the practices of the previous three

[40] Alföldy 1974; Gassner et al. 2002.
[41] Goldsworthy 2003, 202.

centuries. The Norican army remained concentrated on the Danube frontier, with one important addition. A new legion, the *legio I Noricorum*, was raised in Noricum, and posted at both Wallsee and Mautern.

The *Notitia Dignitatum* gives the composition of the Norican army in the 4th century. Two legions were stationed in Noricum Ripense: the *legio II Italica* and the *legio I Noricorum*. There also were six cavalry units stationed in the province, along with three infantry cohorts and several fleet detachments with the Danube navy.[42]

The last significant changes to the Norican *limes* came in the 4th century from the reigns of Constantine through Valentinian I. The physical structures on the *limes* underwent the greatest modifications. Wall defenses were strengthened through the building of fan towers along the lengths of the walls and heavy rounded towers at the corners. At many sites these fan towers were followed and sometimes replaced by horseshoe towers. These changes have been observed at Mautern, Traismauer, Tulln and Zeiselmauer. The line of the Danube frontier also was built up through the construction of more watchtowers, the *Burgi*, along the river.

This late 4th century strengthening of the military installations on the Danube was the last. After the reign of Valentinian I, the *limes* slowly began to suffer. There was a drastic reduction of the forts' area through the installation of small strongholds, the *Restkastelle*, within the defenses of the former forts. These structures are evident at Wallsee, Mautern, Traismauer and Zeiselmauer, and probably date to the late 4th century. It was also during this time that the civilian population who had lived around the forts

[42] Ubl 1983.

and fortresses for centuries began to move inside the walls and defenses of the military complexes, and life on the *limes* began to change.

Chapter 3: The Norican *Limes* Fortifications and Their Vici

The northern frontier of Noricum, and also a section of the Roman Empire, was formed by the Danube. From the 1st century CE a series of fortifications was established along this boundary both to safeguard this stretch of the frontier and provide some stability and protection to the newly established province of Noricum. The majority of the military installations set up in the 1st century were auxiliary forts. One legionary fortress, built to house a contingent from a previously established legion, was built at Albing during this early history of the province; other legions and legionary fortresses would follow, as would a string of fortlets and watchtowers.

In several cases, the ancient name for a fort (and its vicus) has been disputed over the years; some attributions remain contentious, and several remain uncertain. Since, for the purposes of this study, the unassailable knowledge of the ancient name of a site is not completely necessary, the most probable ancient name for the fort has been accepted and used.[43] Kurt Genser, in his consideration of the *limes* in Noricum, provides exhaustive accounts for all of the sites discussed in this work and of the debates over the naming of these forts and vici.[44]

The Norican series of fortifications and their associated civilian settlements will be considered in this chapter in the order of their geographic order, from west to east along the Danube.

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[43] There is no evidence that a vicus would have been known by a name separate or different from that of the fort.
[44] Genser 1986c.

Passau / Boiodurum / Boiotro

Geographical Setting and Standing Remains

The modern city of Passau lies not in Austria but in Germany. The old city (Altstadt) of Passau today is situated on a small island of land, jutting out into the water at a point where the river Inn flows into the Danube and the river Ilz comes in to join them from the north. Roman remains have been found in this area, and would have been part of the province of Raetia. To the south of the Altstadt, across and on the right bank of the Inn, is the present day town of Passau-Innstadt. This area in Roman times was part of the province of Noricum, the river Inn having formed part of the boundary with Raetia. The remains of two Roman military complexes and a civilian settlement are located here at the westernmost edge of Noricum.

Remains of the middle imperial fort of Boiodurum and the later fortlet of Boiotro still are visible today. At the edge of a large parking lot, one of the towers from the east gate of the fort still stands between a modern private home and the Church of St. Egidi. (Plate 3.1) A good portion of the walls and the interior courtyard of the fortlet of Boiotro still are visible in the yard of a modern museum at the site. (Plate 3.2) The two southern fan towers are preserved to a height of over three meters. (Plate 3.3) The vicus of Boiodurum lay mainly on the southern side of the main road from Passau to Linz and has been completely built over in modern times by a hotel, school and supermarket. (Plate 3.4)

Before the Roman occupation of the province the area was the site of a Celtic settlement, the center of which was an *oppidum* on the half-island between the Danube

and Inn rivers.[45] This late-Celtic settlement broke off without any continuity almost a century before the Roman occupation began.

The exact name for the Celtic *oppidum* is not known, but its identity is indicated in the name for the middle imperial Roman fort on the site, Boiodurum.[46] That name was then handed down and preserved in the late antique Boiotro, the name of the nearby fortlet that succeeded the fort at Boiodurum after its destruction.

Boiodurum is mentioned in five ancient sources: in Ptolemy (as Boioduron); in the *Tabula Peutingeriana* (as castellum Bolodurum); in the *Itinerarium Antonini* (as Boioduro, a road station on the frontier); and in the *Notitia Dignitatum* (as Boiodoro). Boiotro is mentioned in the *Vita Sancti Severini*.

The Auxiliary Fort

From the end of the 19th century until the 1970s, the area that had been occupied by the middle imperial fort and its vicus was used as an industrial zone. There therefore had been a good deal of harsh activity on the site, and a fair bit of the Roman remains had been destroyed. Further damage was done to the northern section of the fort at the beginning of the 20th century when the railroad line was built along the shoreline of the river. The constant working of the ground did lead to the initial discovery of the fort at the beginning of the 20th century. More excavations followed in the 1950s and 1980s. The last major investigation of the fort took place in 1995. Archaeologists uncovered substantial remains of the fort's surrounding defensive walls, several of the gate and wall

[45] Niemeier and Wolff 1999, 31.
[46] The name means something like fortification of Boius or city of the Boii (Brandl 1997a).

towers and traces of some of the interior structures. Almost none of the western circuit of the fort's walls has been investigated, and the Inn has washed the northern wall of the fort away.

The first fort at Passau-Innstadt was a small wood and earth structure, in the shape of a slightly irregular rectangle with long sides running parallel to the Inn, covering an area of only 1.3 or 1.4 ha. It is believed to date to the reign of Domitian (c. 90 CE). In the 2nd century this complex was rebuilt in stone. (Figure 3.1) Evidence of destruction to this structure is thought to date to the middle of the 3rd century, and has been tied to the Alamannic invasions that took place at that time.[47]

Brick stamps have been found in the vicus with the formulas NVM B (*numerus Boiodurensis*) and ALAE (*alae*), and indicate either that one or more of these types of units was garrisoned in the fort or played some role in its construction. Ulrich Brandl, one of the investigators of the site, has remarked that this fort of modest size only would have been able to house a small unit, such as a *numerus*, which was a unit of native soldiers under the command of a Roman officer, or a *cohors quinquenaria equitata*, which was a cohort of 1/3 cavalry and 2/3 infantry and about 500 men strong. In 1998 a brick was retrieved from the baths in the vicus with the stamp [C] OH V BR.[48] This find indicates that the *cohors V Breucorum equitata civium Romanorum* was involved in construction at the site or may even have been stationed at the fort. We do know that this cohort was stationed in Noricum at least into the 3rd century.[49]

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[47] Brandl 1997b, 152-3.
[48] Niemeier and Wolff 1999, 36.
[49] Genser 1986a, 25.

After the destruction and abandonment of the larger fort of Boiodurum in the 3rd century a smaller fortlet with an area of about 0.14 ha was built about 1 km to the west, still on the south bank of the Inn. This fortlet also was located near a crossing point of the Inn and the *statio Boiodurensis*, a Norican toll or customs station, which is mentioned in at least two inscriptions although the site of the station never has been exactly located.[50]

This fortlet, called Boiotro, is mentioned in the *Vita Sancti Severini* as the site of a small monastery.[51]

The fortlet was discovered in 1974, during the construction work for a new kindergarten that was to be erected on the site. Wall remains were uncovered and the archaeologist R. Christlein stepped in for the *Bayerische Landesamt für Denkmalpflege* to oversee the work and work to maintain and preserve the Roman remains. (Plate 3.5) He was successful: the kindergarten was moved to a different location, and the remains were conserved on the site. During the 1980s, further conservation and restoration of the fortlet took place and it was opened to the public, along with a museum that had been established in a modern house on the site.

The fortlet of Boiotro was of an interesting shape and is the westernmost example of a type common in the East Danube provinces.[52] (Plate 3.6) It takes the shape of an

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[50] This toll station is believed to have been in existence at the site at the latest since the end of the 1st century CE (Wolff 1999, 15). A fragment of a bronze votive plaque dedicated to the genius of the station was found in the excavations of the fortlet, as was a grave marker, now serving inside the Severinskirche as a holy water font, for one of the managers of the station (Niemeier and Wolff 1999, 43).
[51] Eugippius 22.1.
[52] Brandl 1997b, 146.

irregular trapezoid, defined by its fan towers at the four corners, and was oriented to the river Inn. (Figure 3.2)

It is unknown which unit or units may have occupied this fortlet. Finds from the site have provided no clues. The size of the fortlet alone suggests that a small unit of the late antique border troops (the *limitanei*) may have occupied the site. This unit would have been composed of maybe 200 to 300 men.[53]

The fortlet was erected sometime at the end of the 3rd century, and was continuously occupied throughout the 4th century. At the end of the 4th century or beginning of the 5th century a stone structure with 1 m thick walls was erected in the southeast corner of the fortlet, between the piers that surrounded the interior courtyard. There is evidence that this structure and perhaps the whole fortlet were destroyed by fire sometime during the 5th century.

The Vicus

The discovery of the fort of Boiodurum at the beginning of the 20th century led scholars to assume the existence of an associated vicus and consider the question of its location. Finds of an appropriate nature for a civilian settlement finally indicated that the vicus had been located to the south and southeast of the fort, at the foot of the Hammerberg, along present day Kapuzinerstraße. (Figure 3.1)

The main excavations of the vicus took place in 1987 and 1998, as the *Bayerische Landesamt für Denkmalpflege* worked to uncover an area of over 3000 m^2. During these excavations the archaeologists uncovered the remains of several houses that were

[53] Brandl 1997b, 149. Evidence for a small port or harbor at Boiotro also has been found but the remains have not been well investigated (Höckmann 1998).

rectangular in plan. The remains, consisting of burnt clay and wood and a series of postholes and pits, indicate that these residences were wooden row houses, ranging in size from 18 m to 35 m in length and up to 8 m in width. Several of the houses had partial cellars beneath them, and one of the cellars had a wooden floor.[54]

The remains of a gravel street running west to east through the settlement were also uncovered, and the row houses were ranged along it. This road ran up to one of the fort's gates and may well have been part of the Roman road running from Passau to Linz.[55] In 1991 and 1992, excavators uncovered another of the vicus' row houses at the eastern edge of the settlement. It had been surrounded by a fence, which the excavators interpret as evidence of a formal boundary for the vicus since no building remains have been found beyond that line.[56]

One house from the vicus was an object of particular interest. It had a well-preserved hypocaust system for a room measuring 4 m by 6 m, and contained numerous fragments of glass and glass waste or molten glass. This led excavators to conclude that this house stood in an area in which glass production took place.[57] The house itself may have been a residence for the workers in the glass workshop. It may also have served as a retail shop for some or all of the glass products that were produced there.

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[54] Niemeier and Wolff 1999, 38.
[55] Brandl 1997b, 152.
[56] Niemeier and Wolff 1999, 38. The vicus may not have extended beyond this house, but the fence itself may have been only a border for that particular property.
[57] The cellar of the house also contained coin dating to the year 212 that, along with the ceramic sherds from the house, date the structure to the first half of the 3rd century. Fragments of burned clay from a wattle and daub wall and burned sherds of terra sigillata have led the excavators to conclude that the house had already been destroyed by the middle of the 3rd century (Niemeier and Wolff 1999, 37).

Also testifying to commercial activity, a pottery workshop with three furnaces and a pit, dating to the second half of the 2nd century, was discovered. A rim sherd from a mortarium from the pit in the workshop had an inscription on it indicating that it had been sold for half a denarius.[58] The evidence for other commercial activity also was uncovered in the form of iron slag.[59]

The commercial enterprises in the vicus would have benefited from their geographical location. The vicus was located on an important water route and at the conjunction of three rivers on the border of the two provinces of Raetia and Noricum. It was also located next to the customs station and the port. Building and construction materials and raw materials for use in the workshops could have easily been transported on these waterways. Terra sigillata was imported to the site in the 1st and early 2nd centuries from southern Gaul, and later from the production centers at Rheinzabern and Westerndorf in central Gaul.[60] In the 3rd century imports were more rare, but terra sigillata chiara from North Africa and from the Argonne has been found throughout both the Altstadt and Innstadt of Passau.[61]

Other finds testify to the importation of and trade in items like wine and olive oil. A grave marker pulled from the Inn in 1981 had been erected for a wine trader named

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[58] Wandling and Wolff 1988. This amount seems a bit high for one piece of this type of pottery.
[59] Wandling 1989a.
[60] During the 1987 and 1998 excavations in the vicus 84 fragments of decorated terra sigillata vessels were recovered. Researchers report that 87% of the sherds belonged to wares produced at Rheinzabern, 7% were from Westerndorf and 6% were identified only as coming from Central Gaulish workshops (Wandling 1989a, 235).
[61] Fischer 1987b.

Publius Tenatius Essimnus from Trient.[62] Numerous remains of amphorae used to transport the oil from other Roman provinces have been uncovered in Passau.[63]

The 1998 excavations in the vicus also uncovered the baths associated with the fort. They lay across from the southern gate of the fort, and were erected in the 2nd century.[64]

The body of ceramic and coin finds from the vicus dates from the middle of the 2nd century into the first half of the 3rd century. Two settlement periods are indicated: one before and one after the building of the gravel street through the site. The first building period dates from the reign of Antoninus Pius to that of Commodus, and indicates that the road was built at the earliest during the reign of Commodus. The second phase of the vicus development came at the beginning of the 3rd century.[65]

This allows a rough history for the vicus to be suggested. The first wooden buildings were erected in the middle of the 2nd century. These structures were abandoned at end of that century, and the gravel street was built through the site, parts of it covering over some former residences. At that point in time there was an enlargement of the vicus towards the east. This east vicus at least seems to have been destroyed by fire around the middle of the 3rd century. It isn't clear whether this large-scale fire destruction resulted in

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[62] Wolff 1987.
[63] An amphora stamp of the Spanish oil handler Publius Clodius Icelus was found in Jesuitengasse (Niemeier and Wolff 1999, 46).
[64] The excavations of the baths have not yet been published, but Niemeier and Wolff (1999, 37) report that the earliest finds from the baths date to the first half of the 2nd century.
[65] Wandling 1989a, 236.

the complete end and abandonment of the whole vicus settlement, but finds do point to an occupation that lasted into at least the second quarter of the 3rd century.[66]

The fact that the earliest finds from the vicus date later than the establishment of the fort has led scholars to suggest that a vicus of the 1st century and early 2nd century may be located to the west of the currently known civilian settlement.[67] This vicus would have later expanded to the east, resulting in the area of the civilian settlement that has been explored. No remains or finds from such a vicus have been found.

No vicus associated with the fortlet of Boiotro has been found or identified, but its presence has been assumed. It is possible that the vicus inhabitants from Boiodurum moved west to settle around the later fortlet at Boiotro.

The cemetery for the middle imperial fort and vicus of Boiodurum lay in the center of the present day Innstadt, west of the modern bridge crossing the Inn, and contained mainly cremation burials. It was extensively overbuilt in medieval times. A late antique cemetery, containing inhumations, has been identified under the Severinskirche, sixty meters west of the fortlet of Boiotro.[68]

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[66] Wandling 1989a.
[67] Niemeier and Wolff 1999.
[68] Excavations conducted by the *Bayerische Landesamt für Denkmalpflege* in 1979 and 1980 in the area of the Severinskirche revealed a number of cremation burials dating to the middle imperial period and later, but they have not been published (Niemeier and Wolff 1999, 46).

Oberanna / Stanacum

Geographical Setting and Standing Remains

The small fort at Oberanna lay directly on the *limes* road, which today corresponds to a main highway (the *Bundesstraße*) in Austria along the south bank of the Danube. During the Roman period the fort would have controlled the mouth of the Ranna River that flows into the Danube from the north.

Today the remains of the fort lie under the modern Gasthaus Familie Wagner Nr. 5 on this *Bundesstraße*. (Plate 3.7) Only a small part of the southwestern wall is visible above ground. (Plate 3.8) These walls were conserved in the 1960s after road construction work in the vicinity. A visitor to the site today already would have to be aware of the fort's presence in order to recognize the significance of these remains. The modern Gasthaus sits back from the highway several meters, about a meter higher than the road surface itself. At the edge of the yard in front of the house, and just back from the road, there is the stretch of wall remains – a long ridge almost completely covered by grass and other foliage a little over 1 m high. Some sharp angles and a few spots of exposed stone reveal the presence of the wall beneath the greenery, but this is all that remains to be seen of the site above ground today.

The only ancient source that provides information about the location or identity of Stanacum is the *Itinerarium Antonini*, which records a milepost with that name in the area of modern Oberanna.

The Auxiliary Fort

Already in 1840 the local antiquarian society at nearby Schlögen was investigating the site at Oberanna. They are credited with the initial discovery of the fort.[69] However, when the finds from a few exploratory trenches proved less than spectacular, the society members left the site and failed to continue the work. The only records that survive to document that exploration are two watercolor prints in the Upper Austrian regional museum that show that the explorers had at that point found and uncovered the southern front of the fort with its two round corner towers.[70]

Further investigation of the site did not occur until 1960, when the *Bundesstraße* was undergoing widening at Oberanna in the area of the fort. The machine excavator , while cutting into the terracing above the highway and in front of the family house, uncovered wall remains from the fort. Lothar Eckhart, from the Upper Austrian regional museum, came out to the site, secured the standing remains and arranged for their conservation before leading some quick on-the-spot investigation of the site. Eckhart drew the plan of the remains of this southern fort wall, which today continues as the definitive plan and record of the site. The only parts of the fort that have been excavated to this day are the southwest front with its towers and a small part of the southeast wall.[71]

Eckhart's investigations of the site during the widening of the *Bundesstraße* revealed that between the highway to the south and the Danube to the north lay a rectangular fort complex, with the short sides oriented north-south. He estimated the

[69] Noll 1958.
[70] Schwanzar 1986b.
[71] Eckhart 1960a, 1960b, 1969, 1983.

dimensions as 12.5 m by 17 m.[72] (Figure 3.3) The southern walls found during the 1960 excavations, which were not destroyed by the excavator, were preserved to a maximum height of 1.60 m. The house of the current landowners covers all of the northern part of the fort.

During this research Lockhart and his team found that the remains of the northern round tower lay under the house and were still reflected in the circular shape of its cellar, which serves the present-day Gasthaus as a *Römerkeller*. The northeastern tower still has not been found or excavated.

Christine Schwanzar's analysis of the remains at Oberanna is that the presence of these round corner towers confirms that the structure was a military building, and that it was in fact a small fort, or an over-large watchtower, built to control that section of the Danube and the Ranna.[73]

Researchers at the site during the highway construction naturally focused their attention on the remains of the southern part of the fort, which had been exposed and were still fairly well preserved. Their reports detail the character of these remains, and these descriptions provide interesting information about the layout. Along the interior of the south wall, between the corner towers, the excavators found a 1.05 m wide niche at floor level, which they interpreted as having been used for a statue of a god or emperor.[74] The niche had a mortar floor, which was probably the same floor as that of the interior room, under which they found the remains of a hypocaust system.

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[72] Eckhart 1960a.
[73] Schwanzar 1997.
[74] Eckhart 1960; Genser 1986c.

The two exposed corner towers were also carefully studied. They appear to have had slightly different plans and uses. The south tower could be reached through a 1.50 m wide passageway from the central building, or interior of the fort. The west tower was divided into two rooms, and was a good bit larger than the south tower.

Schwanzar suggests that the southwest room of this tower had built into it or was used for a small hot bath with hypocausts and in-wall heating. There was a *praefurnium* over a partly bricked heat channel or canal. She believes that the still unexcavated northeastern room of this tower may have served as a second small bath for the complex.[75]

Published reports of these preserved remains of the fort describe a lack of any dated finds from the complex, but Schwanzar writes that the type and building work of the corner towers points to a late antique date, although she does not define it more closely than that.[76] The modern excavations of the site also turned up traces of earlier building remains below the late antique walls and towers. Excavation reports for the site mention only the survival of pieces of stone masonry that are not associated with the late antique remains of the fort. The few ceramic finds from these layers date to the second half of the 2nd century.[77]

Based on this evidence, Genser posits two building periods for the fort at Oberanna, both in stone. An early fort appears to have been built in the middle imperial period. Given the history of the development of the Norican *limes*, it is possible to suggest a date around or just after the time of the Marcommanic Wars. The evidence

[75] Schwanzar 1997.
[76] Schwanzar 1997.
[77] Schwanzar 1997.

from the site seems to be too incomplete to determine the fate of this early fort. There is no mention of any traces or signs of a destruction of that 2nd century building, either accidental or hostile. It may be that it either fell into disrepair some decades later, and then was rebuilt or refurbished, or it simply may have undergone regular or routine alterations during the later imperial period, to bring it in line with new technology and defensive issues on the frontier.[78]

The identity of the unit (or units) stationed at the fort during the imperial period is not known. Nor is there any certainty about the unit that may have occupied the fort during its later history.

Most sources discussing either the site at Oberanna in particular or the Norican *limes* in general consider the remains found at this site to be those of a small Roman fort, one of the string of watchtowers and other auxiliary forts overseeing the defense of the Danube frontier. Thomas Fischer seems to be the only scholar to offer a different interpretation as a possibility for the site.[79] He offers the opinion that the wall remains that have been uncovered might not represent a fort of the middle imperial or late antique period, but instead may be part of a large bath complex, probably associated with an as yet unknown military installation in the immediate vicinity.[80] He reexamines the finds in light of this idea and points out the existence of the hypocaust system and the possibility that the central room could have been the *tepidarium*. The smaller corner tower with its passageway to the central room could have been a *laconium* or *sudatorium* with its round

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[78] The only other clue to a chronology for the development of this area comes from a Roman milestone found near Engelhartszell. The inscription on the milestone recorded that the *limes* road in this area had been laid out during the reign of Caracalla (Winkler 1971; Schwanzar 1997).
[79] Fischer 2002.
[80] There is no evidence for such a fort in the vicinity of these remains at Oberanna.

ground plan. The niches found in the wall courses could have been part of the heating system instead of *aediculae* for statues of gods or emperors.

The Vicus

None of the publications discussing the site at Oberanna provide any information or even mention a civilian settlement associated with the fort. Apparently no remains of a vicus have ever been found. This is not too surprising since the site of the fort itself has hardly been investigated in the last 160 years since its discovery, a situation due in part to the fact that a modern structure covers almost all of the fort's remains. No chance finds have ever been reported in Oberanna that might indicate some widespread Roman-period occupation of the area. The lack of any Roman-period finds, however, does not definitively mean that there was no civilian settlement or vicus at this site.

If the military complex at Oberanna was not one of the regular auxiliary forts in Noricum, as its more moderate dimensions may indicate, and was instead one of the watchtowers or road stations along the *limes*, then it may never have housed a permanent or regular garrison of soldiers. If that was the case, and the troop presence at the site was temporary, rotating and small in number, then a true civilian settlement or vicus never may have developed at Oberanna. Family members of the soldiers, or anyone who had a particularly close relationship with the troops, probably would have resided closer to the installation where their relatives were permanently stationed.

On the other hand, Thomas Fischer's alternative interpretation of the building remains at Oberanna as a bath complex, and not a fort at all, would require a slightly different analysis of the site. A bath complex would not exist without a fort. Therefore,

if we accept Fischer's explanation of the remains, Oberanna must also be the site of a larger auxiliary fort and probably also a vicus. Fischer's explanation of the remains as a bath complex is possible, but without more evidence from the site and a better understanding of the full layout of the complex, it is difficult to give credit to his suggestion.

It seems more likely that Oberanna was the site for one of the watchtowers built along the course of the Danube frontier in the later 2nd century. The lowest level of wall remains at the site does date to that period. The wall courses and towers examined and preserved by Eckhart could belong to a subsequent reworking of the watchtower which resulted in a larger structure that served as a late antique *Burgus*.[81] These structures in the late antique period took on the greater part of the defense of the frontier as the former auxiliary forts and legionary fortresses went out of use and fell into disrepair. They assumed the functions of the former imperial military installations and the watchtowers and were garrisoned by smaller bands of border troops. If we accept this explanation as a reasonable account for the development of the complex at Oberanna, it again seems likely that there would have been no vicus at the site.

[81] With a size of 12.5 m by 17 m, the late antique building at Oberanna may be too large to be considered a watchtower. Seven other watchtowers have been identified on the Norican limes, and they range in size from 9m by 9m (at Au – Rotte Hof and Rossatzbach) to as large as 12.2 m by 12.2 m (at Bacharnsdorf). The earlier structure at the site, however, could have been a slightly smaller building.

Schlögen / Ioviacum

Geographical Setting and Standing Remains

The fort and vicus at Schlögen lie at the beginning of a narrow spot of the Danube, on the bend of a striking S-curve in the river. The site is located on the modern *Nibelungenstraße* that leaves the Danube valley at this point at Schlögen on its way from Linz to Passau. The largest part of the fort currently lies under a modern hotel, the Gasthof M. Stadler – M. Gugler, *Zur Schlögener Donauschlinge*, and in the west fruit garden of that establishment. (Plate 3.9) In Roman times, the fort was situated on the *limes* road, coming from the watchtower at Haibach, and running to the south of the fort. The fort is bounded on both sides by two streams that flow into the Danube: the Adlersbach on the west and the Mühlbach on the east. In the past, both the Danube and the Adlersbach may have flowed closer to the fort than they do today. The vicus lay to the west of the fort, on the so-called *Hochgupf*, which is currently a modern campground.

The site of Ioviacum is mentioned in several ancient sources. The *Itinerarium Antonini* names it as a post station on the *limes* road, half way between Lauriacum (Lorch-Enns) and Boiodurum (Passau-Innstadt). In the *Notitia Dignitatum*, Ioviacum is the location where a naval detachment of the *legio II Italica* was stationed. The site also shows up briefly in the fifth-century *Vita Sancti Severini*, named as an *oppidum* visited in the course of Saint Severin's travels through Noricum.[82]

[82] There is some difference of opinion regarding the significance of the application of this term (*oppidum*) to Schlögen. If it is true that this term was often applied to towns (or military sites) that later became important "urban" centers in the Middle Ages, then the term should not really be used for the site of Schlögen (Eckhart 1969). It seems more likely that the author Eugippius was in the habit of using various terms (*locus*, *civitas*,

The name Ioviacum itself may be of Celtic origin. The –*acum* suffix was sometimes attached to a personal name to construct a place name. This is true of Lauriacum (Laureos, -acum), the location of the legionary fortress in Noricum. Ioviacum may be the combination of a personal name, something like Iovius, with the –*acum* suffix attached. This is a reasonable assumption based on the fact that these sites are located in an area inhabited by Celtic tribes before the Roman occupation of the province.[83]

The Auxiliary Fort

The first true archaeological research of the site took place in the first half of the 19th century. In 1838, a local antiquarian society, interested in the early history of the region, in conjunction with the Upper Austrian regional museum in Linz,[84] undertook excavations in the area of the fort and vicus. There were other scattered finds and tracings of wall courses for the next few years,[85] but it would be a century before any more substantial archaeological work took place on the site.

In 1937, Erich Swoboda, a professor from the University in Graz, opened new excavations in the vicus and fort. He published several short reports in a local chronicle, only regionally published and distributed. In 1952 and 1954 some isolated finds were made during construction work in the courtyard of the Gasthof. The current knowledge

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urbs) interchangeably in his descriptions of Norican sites, and so has no real implications in its use to describe Schlögen/Ioviacum. Eckhart remarks that the main significance of the description is that it indicates that the site was still inhabited in the second half of the 5th century.

[83] Genser 1986c, 57.

[84] These excavations at Schlögen also were apparently the first to be conducted in the whole region of Upper Austria (Eckhart 1969).

[85] See for example Trampler 1905.

about the site was written up and published by Rudolf Noll in volume 21 of *Der römische Limes in Österreich* (1958).

The first truly modern excavations, composed mainly of strategically placed exploratory trenches, took place from 1957 to 1959 under the direction of Lothar Eckhart.[86] The work was done during a series of five campaigns, undertaken with permission of the Gasthof owners, in coordination with the planting of new trees in the hotel fruit garden. In 1984, Christine Schwanzar returned to the site to investigate part of the vicus. Eckhart apparently had hoped that the finds from the 1957-59 excavations would be published fairly quickly, but they were not. Schwanzar began work on some of the ceramic material from those earlier campaigns following her 1984 work in the vicus, but the rest remained untouched.

In 1989 an Austrian endowment fund provided the resources for a team of researchers and a group of students from the University of Passau finally to begin work on all of the finds from the excavations of Lothar and Schwanzar, as well as all of the material from earlier investigations at the site. This evaluation was completed in 1995 and published in 2003.[87]

The fort was situated approximately 35 m south of the Danube, c. 10-11 m above the river. In plan, it presents an irregular trapezoid, with blunted or rounded corners. (Figure 3.4) The north wall measures c. 109.5 m, the south wall 96.5 m, and both the east and west walls measure 68 m in length, giving a total area of about 0.65 ha. The fort was divided into two parts of different sizes by a road or path leading toward the Danube through the middle of the *retentura* (the rear of a camp or fort). Only the western gate of

[86] Eckhart 1969.
[87] Bender and Moosbauer 2003.

the fort has been excavated, so in truth researchers do not know the total number of gates for the fort, or their exact locations, although it is assumed that the fort did have the usual four gates, one in the center of each fort wall.[88]

No evidence has been found for any defensive ditches surrounding the fort walls, and it is very likely that it had none;[89] nor is there any evidence for wall or corner towers.

The best-known interior buildings all date to the late antique period. Excavators have found and identified the *principia*, and next to it the remains of various different large buildings, whose function and connection are not clear.[90]

Beyond the north wall of the fort, on the shore of the Danube, lies a slightly curving, stone wall course. The remains suggest that his may have been part of a harbor, port or ship's landing, associated with the fort, providing some idea about the function of this fort and the activities that took place at this point on the frontier.

Knowledge of the building history of the fort appears to be fairly straightforward, if minimal. Eckhart first suggested, and later excavators have agreed, that the fort went through two building periods in stone, with the later fort walls having been built on top of the remains of the earlier ones. All of the publications appear to agree that the fort was first built during the course of the second century, probably one of those in a series of small forts erected on the *limes* to add to the empire's defenses after the Marcomannic

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[88] It seems clear, with the path leading through the middle of the fort, that this way would have had to at least been going to and through a gate on the north side, to the Danube, even if it did not connect with another gate on the south side.

[89] Fischer (2002, 33) attributes this lack of defensive ditches to the danger or problem with flooding here this close to the river.

[90] Brandl et al. 1997. Eckhart (1969) does identify the large rectangular building just to the north of the principia as a fabrica or workshop, and the building to the south of the principia as a/the praetorium. Neither identification has been confirmed.

Wars.[91] A foundation in the second century means that the fort's defenses as well as the important interior buildings[92] were built in stone from the beginning, and that there probably was not an earlier wood and earth fort on the site, and it is true that no traces of one have ever been found. However, Schlögen does sit at an important location on the *limes* road, and may have been the site of a road post or station that was later fortified to secure the route.[93]

A point on which the different research teams have differed is the dating for the beginning of the second building period. It is clear that the two building periods are separated by the fire destruction of the first phase of the fort. A burned layer of soil, building remains and artifacts attest what was probably an extensive destruction of the fort and its interior buildings by fire. Eckhart dated that destruction of the first fort (end of Period 1), on the basis of coin finds, to the end of the 3rd century, around the year 300 or a little later. The subsequent evaluation of the collection of artifacts from the site, however, caused Bender and his team to propose a new date for the fire and the destruction of the first stone fort in the 5th century, as much as or more than a century after the date set by Eckhart.[94] The second stone fort built on the site then would have been a short-lived establishment, although finds do indicate that the fort was occupied well into the 5th century, and that it became in the late antique period the true nucleus of the settlement.[95]

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[91] Genser 1986c, 66.
[92] Fischer 2002.
[93] Bender and Moosbauer 2003.
[94] Bender and Moosbauer (2003) reinterpret the burned layer of the first fort as the evidence for an earlier fire at the site that did take place in the 3rd century.
[95] Bender and Moosbauer 2003, 235.

The identity of the unit (or units) stationed at the fort during the imperial period is not known. Nor is there much certainty about the units who may have occupied the fort during its later history. In the late antique period, on the grounds of historical sources, it is likely that only a small naval detachment was operating on the Danube near the site.[96]

The Vicus

The vicus is located west of the fort, in the area of the modern camping ground. It lay on a plateau about 17 m above the river, and so was higher than the fort and its buildings. The vicus is laid out in an east to west orientation, and the remains of the settlement indicate that it was about 200 m by 70 to 80 m in size. (Figure 3.4) The vicus was separated from the fort by a fairly wide and swiftly moving stream, the Adlersbach. This would or could have affected communication and traffic between the fort and the vicus, but would not necessarily have presented a problem or real hindrance.[97]

There is little published information about the vicus and its structures. The finds from the site have been examined, but it appears that no one yet has taken on the task of commenting on the settlement and its buildings.

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[96] The *Notitia Dignitatum* mentions that a prefect of the *legio II Italica militum liburnariarum* was stationed at a site listed as *Ioviaco*.

[97] Eckhart (1969) comments on this situation, remarking that while it may be false to assume that there had to have been a wooden bridge over the stream outside of the western wall of the fort, and so leading from the vicus to the western gate, it also is erroneous to assume that the traffic to and from the vicus only took place by boat. It seems likely that there would have been some sort of bridge over the stream to the west of the fort, if only because local and *limes* traffic moving along the frontier would have to cross the river in order to continue the westward journey. Vicus inhabitants then would have been able to make use of that bridge. Eckhart does make this same observation later in his work, when he comments on the courses of the Roman roads that have been found in the area of the fort, in particular one that ran by the south wall of the fort.

Excavators have pointed out that, from the vicus, they have only a single house ground plan. Remains of that structure and other scattered finds have allowed the researchers to assert that the houses of the vicus were constructed in a half-timbered construction, put together with the help of a clay or mud binding, with foundations of packed gravel or loose stone.[98]

The published plans of the site reveal few differences in knowledge of the area over the years. The 1838 plan drawn by Gaisberger shows the vicus remains, and they appear no different in the later 20th century drawings. The maps show four groups of excavated remains from the vicus, stretching to the west of the area of the fort. Closest to the fort are two areas of building remains, drawn as fragmentary outlines of plans and foundations. They reveal no regular or orthogonal planning scheme, but do seem to stretch out east to west, and may have had some type of relationship with a street or road that ran through or near the vicus. The building remains themselves, in these two areas, do not reveal any standard or easily recognizable plan.

In one of the other areas, in the southwestern section of the vicus, there are the remains of a two-apsed building usually identified as a bath complex.[99] A large building, or building complex, about 27 m north of the baths is not as securely identified. The remains show a large rectangular area bordered by a strip of smaller rooms to the south, as well as part of what might be another strip of rooms on the eastern side of that large central area. Based on this layout (and the proximity to the baths), Bender's suggestion

[98] Fischer 2002, 34.
[99] Brandl et al. 1997; Fischer 2002.

that this courtyard-like structure surrounded by rooms may have been a *mansio* seems reasonable.[100]

In the 2003 publication of the finds from Schlögen, H. Bender and G. Moosbauer comment that the make-up of the finds from the vicus differs interestingly from that of the fort. Four times as many objects have been recovered from the vicus as from the fort. With regard to the ceramic finds, five times as many sherds from decorated terra sigillata vessels have been found in the vicus as in the fort. This terra sigillata was produced in central Gaulish workshops, such as those at Rheinzabern, Westerndorf, Heiligenberg and Ittenweiler. Of 213 fragments of Raetian wares, only 13 come from the fort. Of 184 fragments of mortaria, only 36 come from the fort. However, all seven of the amphora wall sherds found at Schlögen were recovered from the fort.[101] As a whole material dating from the third quarter of the 2nd century is reported as being statistically underrepresented in the fort.[102] However, in terms of the finds dated from the late antique period a Schlögen, two times as many objects have been recovered from the fort as from the vicus.

Moosbauer suggests that this difference could be due to the nature of the supplies that came into the fort and vicus and sociological differences.[103] The slight time difference between the establishment of the vicus and the fort should also be taken into

[100] Bender and Moosbauer 2003, 224-5.
[101] These amphorae all were identified as being Dressel 20 type (Bender and Moosbauer 2003, 123).
[102] Bender and Moosbauer 2003, 231.
[103] Bender and Moosbauer 2003, 225; 257.

account, as should the fact that the majority of the objects found at Schlögen and subsequently studied and published were excavated in the vicus.[104]

No serious attempts were made to date the vicus before the recent study of the finds from the excavations of the whole site was completed, and the results published in 2003. Researchers, based on their assessment of these artifacts, have concluded that the vicus grew up on the site before the fort itself was established, making it the oldest part of the settlement. They date the vicus' beginnings to the middle of the 2nd century, which would slightly predate the building of the first stone fort after the Marcomannic Wars. The majority of the small amount of material (under a dozen items) found in the vicus and dating to the late antique period was recovered from a very small area of the settlement, which the excavators believe points to a reduction in the area of the vicus in use at that time.[105] There is very little evidence of activity in the vicus during the 4th century and only piece of pottery dating to the 5th century has been recovered from the vicus.

This certainly is not a great difference in time span for the two parts of the site, and although backed up by an extensive survey of a good group of finds, is based only on that evidence. The somewhat limited exploration of Schlögen has not turned up a vast amount of material for study, and the whole site has not been excavated.

If the vicus does predate the fort by two or more decades (basically, a generation or more), then it would be interesting to speculate on the relationship between this settlement and the fort, and consider them in light of standard reasoning regarding the

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[104] Bender et al. (2003) report that they studied and documented 2238 objects from the vicus and 571 objects from the fort.
[105] Bender and Moosbauer 2003, 234.

start up and development of the military vici. In the light of the commonly held opinion that a (military) vicus would or did develop only in response to the fairly settled stationing of a Roman army unit, then we would have to assume the presence of some soldiers in the vicinity of the Schlögen vicus, to explain its existence. The researchers of the site and its history believe that there may have been some sort of early, small fortification on the site of the later fort, even if it was just an official road station on the *limes* road. This scenario is merely speculation, based on the assumptions of what happened at other vicus sites in the province and elsewhere around the empire. Any more concrete knowledge of the character and development of this vicus will have to be based on more exploration of the site.

Linz / Lentia

Geographical Setting and Standing Remains

The city of Linz and the area around it have been the site of almost constant settlement activity from the Neolithic to the present. A variety of settlements have been discovered, although no large remains from any of them exist above ground today. Linz is bounded on the north by the Danube, open to the south, and bounded to the east and west by a group of hills.

The ancient name of Lentia is easily matched with the modern Linz. Scholars believe that the name Lentia may be derived from the Celtic adjective *lentos*, which means pliable or flexible and corresponds to the Latin *lentus*. The name could have been assigned to this site due to its situation on a marked bend in the course of the Danube.[106]

To the west of the city stretches a chain of hills that begins in the east with the Schloßberg and ends in the west with the 405 m high Freinberg. Archaeological research in Linz has focused mainly on the investigation of the Celtic hillfort on the summit of the Freinberg. Building that has taken place in the Altstadt through the Middle Ages and modern era has limited the amount of archaeological research that could be done there, and investigations have been confined to rescue and salvage operations, especially during the last twenty years.[107]

The oldest finds from the Freinberg date to the late Neolithic period. During the Late Bronze Age fortifications were erected on the site, and they were burned down at least three times. After the last fire destruction during the Bronze Age, there was a break

[106] Ruprechtsberger 1997.
[107] Ruprechtsberger 1997.

in the occupation of the site. Only one single object dating to the early La Tène period has been found there. In the later La Tène period, a Celtic *oppidum* was established on the Freinberg in the 2nd century BCE; its fortifications show evidence of renovation during the 1st century BCE.[108] Evidence for Celtic settlement also has been found below the Freinberg in the Altstadt.

The Auxiliary Fort

Nineteenth century discoveries of Roman objects in the Altstadt and surroundings were the first indication that the heart of the city covered the remains of a Roman period settlement. It wasn't until the 20th century, however, that the idea that the settlement had been a military complex was put forward by the archaeologist Paul Karnitsch. He specifically suggested that Linz had been the site of a middle imperial fort.

World War II bombing of Linz by the Allied forces had opened up large areas of the city for exploration, and gave scholars the opportunity to investigate Karnitsch's idea. Scattered remains of the exterior defenses and walls of the fort as well as some traces of its interior buildings, including the *principia*, were discovered.[109] (Figure 3.5) In addition to these results, a fair number of pre-Flavian finds have been recovered from the city and its environs, which suggest a pre-Flavian fort. If a fort was in existence at Linz at this early date, then it would be one of the oldest defensive site on the Norican Danube *limes*.[110]

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[108] Urban 1997, 174-9.
[109] Ruprechtsberger 1997.
[110] Genser 1986b, 33.

Knowledge about this early fort is limited, but two building phases have been suggested. An wood and earth structure was erected in the 1st century. This fort was trapezoidal with measurements of 78.5 m on the north, 79 m on the south, 87.6 m on the east and 79.9 m on the west. It covered an area of about 0.67 ha.[111] During the 2nd century a stone fort was built, larger and in a different shape than the 1st century fort. This stone structure had a length of 285 to 300 m and a width of about 190 m.[112]

The troop or unit history of the 1st century fort is not very well known. A fragment of an inscription from the end of the 1st century or beginning of the 2nd century mentions the *ala I Thracum*. The presence of the *ala I Pannoniorum Tampiana victrix* also is attested through a dedicatory inscription to the *genius* of the unit erected by one of its prefects, sometime during the course of the 2nd into the 3rd centuries. Also, an inscription fragment walled into the Martinskirche attests to the presence of the *cohors II Batavorum*.

Information about the military activity at the site during the late antique period comes from a variety of sources. For the period after 400, the *Notitia Dignitatum* indicates that a prefect of the *legio II Italica* was stationed at Linz, along with an *equites sagittarii*.

The evidence for the fort in the Altstadt does not extend this late into the Roman era. Other finds from the nearby Martinsfeld (by the Martinskirche) and the Römerberg seem to indicate that the military complex moved to this new location in the late antique period.

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[111] Genser 1986b, 32.
[112] Genser 1986b, 33.

The Vicus

Brief explorations conducted in the Altstadt right after World War II turned up evidence of a civilian settlement. Probes revealed the remains of foundations for rectangular wooden houses, some of which possessed hypocausts and/or walled cellars. One such cellar was discovered beneath a medieval chapel that still preserves the cellar's ground plan in its stone pavement. These vicus remains are relatively sparse and have been dated to the 1st century.

The remains of two row houses of 2nd or 3rd century date were also uncovered in the vicus along the course of a Roman street. They measured about 10 m by 25 m and had stone foundations. Each of the houses had a square cellar beneath it, located toward the end of the house facing the street.[113]

The summit of the Freinberg, which had been the site of the late Celtic hillfort, also was the site of a Roman occupation. During the construction of a lookout tower at the end of the 19th century on the summit of the Freinberg, the stone foundations of a structure were uncovered and identified as Roman. The foundations formed an irregular rectangle with sides measuring 4, 16, 14 and 19 m. The function of this Roman building as a watchtower, villa or some other type of residence has not been determined.[114] Roman artifacts from the 2nd through the 4th centuries also have been recovered from the interior of the hillfort. The present state of knowledge, gained through excavation at the site, does not suggest a continuous settlement on the Freinberg from the Late La Tène period into the Roman era.[115]

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[113] Karnitsch 1962.
[114] Urban 1997, 174-9.
[115] Urban 1997, 174-9.

A La Tène period settlement also existed in the Martinsfeld by the church of the same name. Research has shown that there was a continuous development here from the late Celtic industrial or workshop quarter into a following Roman phase. Excavations in the area around the church uncovered ground plans for a series of wooden huts, dating to as late as the middle of the 1st century CE. These structures range in size and have been identified as a grouping of scattered residences and workshops that provided both accommodation and work space for the population there who smelted bronze and engaged in other handcrafts.[116]

Archaeologists working in the interior of the Martinskirche excavated an oven dating to the 1st century CE that was associated with a series of wooden structures that have been identified as workshops.[117]

This Roman-period residential and commercial district is connected to a wider series of settlement remains in the surrounding area, where the remains of pits, ovens and buildings that were originally constructed in wood and then translated into stone in the course of the 2nd and 3rd centuries have been discovered. The earliest Roman level discovered was in the area of Lessingstraße and dated to the 1st century CE.

An early imperial cemetery has been identified to the south of the fort and vicus and contains cremation graves from the 1st through 3rd centuries. This cemetery actually was the first area of the ancient Roman site systematically explored in the 1920s, when over 140 cremation graves were excavated.

There also was a late antique cemetery belonging to the military settlement on the Römerberg. The graves reveal a variety of goods from the late 4th to the early 5th

[116] Ruprechtsberger 1992, 210.
[117] Ruprechtsberger 1997, 182.

centuries. Ruprechtsberger has identified this cemetery as the one used by or for the officers posted at the late antique fort based on the fact that several of the graves still contained belts with insiginia that indicate the military rank of the deceased.[118]

[118] Ruprechtsberger 1987, 40.

Lorch-Enns / Lauriacum

Geographical Situation and Standing Remains

"Austria's oldest city" lies at the junction of the river Enns with the Danube. The area covered by the municipalities of Lorch and Enns has been the site of a variety of human activity and settlement since prehistoric times. The main area of Roman occupation of the area is located in Lorch-Enns, to the west of the river Enns and below the hill on which the medieval town of Enns developed. The medieval inhabitants of Enns robbed stone and brick from the ruins of Lauriacum to build their own houses and other buildings for the city. The medieval wall circuit of Enns was built in large part from the masonry of the fortification walls of the fortress.[119]

It is possible that there was a pre-Roman settlement on the site before the Roman occupation, although no remains of one have ever been found.[120] During the Iron Age the river Enns was a frequented route for the transport of wood and iron.[121] Investigation into the origins of the place name Lauriacum show that it is a form of the Celtic personal name *Laureos* combined with the suffix *–akom* or *–acum*, which occurs in many place names in Upper Austria. The name Lauriacum was preserved from the Roman period throughout the Middle Ages in various forms, including Loriaca, Lorahha, Lahoria and Lorich, finally resulting in the present name of Lorch.

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[119] Ubl 2002, 260.
[120] Ubl 1997a, 187. Ubl (2002, 257) points out that the suggestion of a Celtic *oppidum* on the Enns Georgenberg has proven to be unfounded. He does note that pre-Roman settlement could be located under the medieval city of Enns, where archaeological research has not been possible.
[121] Ubl 2002, 260.

Several ancient sources and inscriptions mention Lauriacum. The *Itinerarium Antonini* lists it as a station on the road from Pannonia to Germany and as the end point of a road course from Aquileia (in Italy) over the Tauern. The *Tabula Peutingeriana* mistakenly calls the site Blaboriciaco, but locates it in the correct spot on the Danube *limes* road. The *Martyrologium Hieronymianum* and the *Passio Sancti Floriani* list Lauriacum as the site of the martyrdom of Saint Florian on May 4, 304.[122] The *Codex Theodosianus* lists Lauriacum as the site of the imperial visit of Constantius II in 341, and the historian Ammianus Marcellinus lists it as the site of Gratian's visit in 378. The *Notitia Dignitatum* lists Lauriacum as a military station for a legion, having a shield factory and a port or harbor for the Danube fleet. The *Notitia Dignitatum* does not, however, mention the *auxiliaries Lauriacenses* that shows up on a building inscription for the year 370 that was found in Ybbs. The *Vita Sancti Severini* describes Lauriacum as a walled, heavily populated city that had a church, monastery, port and bishop's seat.

Recognition of Lorch-Enns as the site of a Roman, or at least ancient, settlement dates back to the medieval period, and ruins of Lauriacum already were being explored in the 15th century. Scientific excavations began in the 19th century in the area of the legionary fortress, and a museum to hold all of these finds from Enns and the surrounding area was founded in 1892.

No standing walls or building remains from the fortress survive above ground today, but the massive, mounded curve of earth preserving the shape of the northern corner and a large part of the defensive ditch that surrounded it are still evident, cut through by the course of the railroad line. Likewise, no substantial remains from the

[122] Noll (1954) includes both of these accounts in his examination of early Christianity in Noricum.

vicus survive. The only exception is the section of two structures uncovered below the Saint Laurentius Basilica. The floor of the basilica has been removed to reveal the remains of an early Roman temple complex and the remains of the early Christian church that were erected on top of it.

The Legionary Fortress

The fortress has been the site of a series of excavations over the last century. Eighteenth and 19th century isolated discoveries awakened interest in the site and led to more systematic exploration during the first half of the 20th century, from 1904 to 1919, 1923, and 1929 to 1935. During the second half of the 20th century to the present, the investigations have been limited to salvage and rescue operations, overseen by the *Bundesdenkmalamt*.

The fortress was situated on a gravel terrace between the Enns and Danube. The topography of the site determined the layout and outline of the fortress. It was oriented to the river Enns rather than the Danube. The northeast-southwest and northwest-southeast oriented axes of the fortress do not cross at right angles, so that the ground plan of the fortress has the form of an oblique-angled rhombus or parallelogram. The fortress measures 539 m long by 398 m wide with an area of over 21 ha. Excavators have estimated a total of about thirty towers for the fortress, one at each corner and the others flanking the gates and spaced along the courses of the walls. (Figure 3.6)

A good deal also is known about the interior buildings and layout for the fortress. The *principia* and its subterranean shrine have been well explored. In addition,

substantial remains for many barracks blocks, a bath complex, a workshop and a hospital have been uncovered.

This fortress appears to have gone through a number of building phases. The fortress was first erected at the end of the 2nd century. After its destruction during invasions of Noricum by Germanic tribes in 270/1, it was rebuilt during the reigns of Aurelian and Probus. Heavy remodeling of the defenses and interior buildings took place during the reigns of Diocletian and Constantine and his successors through Valentinian. The fortress finally was destroyed for good in the middle of 5th century.

There is the possibility that this fortress was not the first military complex at Lauriacum. No remains from an earlier military structure have been identified at the site, but some artifact finds do indicate a military presence there in the course of the first and second centuries.[123] Thomas Fischer points out that, given the fact that this was such a strategic spot on the mouth of the Enns in the Danube, on a route that was heavily traveled, it seems likely that some type of military installation was put in place here in the 1st century, as the rest of the Norican *limes* was being fortified.[124]

The 2nd century fortress was built by the *legio II Italica pia fidelis* and occupied by them until the abandonment of the Roman frontier defenses in the late antique period. This unit along with its sister legion, the *legio III Italica*, had been called up around 165 in northern Italy under Marcus Aurelius, in response to the Marcommanic Wars against the Germanic tribes on the northern imperial frontier. After a stop in Aquileia, the legion was stationed after 168 in Locica in Dalmatia. After 171 the *legio II Italica* was

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[123] Ubl 1997a; Fischer 2002. Ruprechtberger (1980) has written at length for the opposite view: that there is no evidence for such a complex. Genser (1986a) does believe that there was a 1st century auxiliary fort at the site, probably built of wood and earth.
[124] Fischer 2002, 35-40.

transferred to the Danube, where they constructed the fortress at Albing, 5 km to the east of Lorch-Enns. Two inscriptions associated with the foundation of the fortress of Lauriacum date the erection of the structure and the arrival of the legion to the year 191.

Less is known about the activity of this legion in the 3rd century. It did participate in the Dacian wars of Maximinus Thrax and in Aurelian's campaign against Palmyra. During the army reforms under Diocletian, the *legio II Italica* was reduced in size and the new *legio I Noricorum* was created. During the late antique period, vexillations from the *legio II Italica* were stationed at Schlögen and Linz.

The Vicus

Civilian settlements developed to the north of the fortress and to the south and west along the *limes* road below the Georgenberg and the Enns Stadtberg. During the 18th century a mosaic floor was discovered to the south of the fortress, indicating the presence of a civilian settlement for the site, but archaeological interest still remained concentrated on the fortress for a long time. The first true excavations of the civilian settlements did not occur under after World War II. The Austrian Archaeological Institute and the Upper Austrian regional museum conducted excavations from 1951 to 1959 in the area west of the fortress. The Upper Austrian regional museum conducted excavations to the west underneath the St. Laurentius basilica from 1960 until 1966. Since the 1970s, the *Bundesdenkmalamt* in conjunction with the *Museumsverein Lauriacum* has been conducting rescue and salvage operations as opportunities have arisen, in several areas of the civilian settlement as well as on the Georgenberg.

The oldest civilian settlement for Lauriacum stretched along both sides of Mauthausener Straße, which follows the course of the old *limes* road. Ceramic finds indicate that this small settlement already was in existence in the 1st century CE. There is some difficulty in knowing exactly which term to apply to this early settlement since it predates the legionary fortress and no other military installation has been identified to which it would correspond or belong. Ubl regularly refers to it as the early vicus ("früher vicus").[125] If there were a 1st century auxiliary fort at Lauriacum, then vicus would be the correct term to use for its associated civilian settlement. The civilian settlement that was located to the north of and associated with the 2nd century fortress that was built by and for the *legio II Italica* should be referred to as a canabae.

The oldest inscription from Lauriacum preserves the name of the Barbii family of the trading house in Aquileia. A tombstone was set up to commemorate one of the family members who had died in Lauriacum. The presence of this family at the site seems to indicate that this early vicus played some role in provincial trade and took advantage of its location on these traffic routes. Ubl believes that this also proves that Lauriacum was at least the site of a 1st century road station, if not an auxiliary fort.[126]

During the 2nd century the early vicus expanded to the west along the *limes* road, into the area of present day Stadlgasse. Fragmentary remains of houses and workshops from this stage of the settlement have been observed. The 1972-5 excavations in Stadlgasse uncovered the outlines of three row houses. Each one was about 5 m wide, with one of these narrow ends bordering the Roman road.[127]

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[125] Ubl 1997a; 2002.
[126] Ubl 2002, 264.
[127] Ubl 1973b, 48-64; Ubl 1976a, 11.

Several houses yielded a collection of finds indicating that the inhabitants were wealthy enough to afford high quality wall paintings and enjoyed a fairly comfortable standard of living. One of the most famous finds from one of the houses in this area is the ceiling fresco depicting a scene from the myth of Cupid and Psyche. The fresco was removed in remarkable good condition from the house and is now on display in the Museum Lauriacum in Enns.

The early vicus already had been in existence for over a century when the fortress for the *legio II Italica* was constructed at Lauriacum. Not long after the erection of the fortress, a separate civilian settlement developed to its west. This settlement received city rights during the reign of Caracalla and is usually referred to as the "civilian city" in the literature. The connection between the early vicus and the civilian city is not clear. In fact, discussions or examinations of Lauriacum do not comment on the possible relationship between the two settlements. During the Severan period in particular, civilian settlements near legionary fortresses were often promoted to city status. It seems, however, that the settlements that were so recognized were not the canabae in the immediate vicinity of the fortresses, but other new or existing settlements nearby.[128]

The new city at Lauriacum did not have long to enjoy its status; it was destroyed by fire during the invasions by Germanic tribes in the years between 214 and 234. Under the emperor Diocletian the town was substantially rebuilt. It was arranged along two streets that formed an acute angle as they left the fortress from the *porta decumana*. Several cross streets ran between and connected these two roads. This network of streets appears to have done more than just provide avenues for traffic in the settlement. It also

[128] Salway 2001, 612.

divided it into a series of large zones or plots of land, and reports describing the remains here often refer to these plots as *centuria*. (Figure 3.7)

In the area of the city closest to the fortress (*centuria I*) a large marketplace, called the *forum venale*, was constructed measuring 57 m by 64 m and formed by a courtyard surrounded by long halls. A single-aisled basilica was located on the western side of this forum. There also was a small temple next to the forum and facing the street, but it is not known to which god it was dedicated.

Across the street from this temple (in *centuria II*), a large structure measuring 60 m by 40.3 m was erected during the reign of Constantine and has been identified as an administrative building.[129] Several of the large rooms in the complex preserved remains of hypocausts, and a tribunal was identified in the northern part of the structure. The whole building had been erected on top of the destroyed remnants of earlier workshops and commercial buildings that had been constructed in a half-timbering technique. A public bath complex lay on the southern side of this administrative building.

Further to the west are the remains of many houses, most of which should be considered row houses. There were also the remains of storehouses or magazines, and small commercial establishments, especially ceramic kilns, in which a type of coarse ware pottery was made. A kiln or furnace also has been excavated to the north of the fortress, indicating that this area also may have been the site for commercial activity.

Small to medium-sized pottery workshops operated at the edge of the settlement, producing a variety of vessel forms and types. Traditional, native Celtic forms were made alongside Roman vessel types. The majority of the pots were formed on the wheel.

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[129] Kandler and Vetters 1986, 102.

This “Norican Ware” ranged in color from dark gray to black, tempered with small white pebbles.

By the 3rd century, another civilian settlement had developed to the north of the fortress, in the area of modern day Lorch. It is the site that is referred to as the canabae for the fortress at Lauriacum.[130] This site does not appear to have been investigated in any detail, and there are no publications that describe its remains.

Two recorded events of note occurred in the 4th century at Lauriacum. The future Saint Florian, a Roman public official, was martyred on May 4, 304 in Lauriacum. On June 24, 341 Constantine’s son, Constantius, visited Lauriacum. These events were followed by another fire destruction of the city in the middle of the century, followed by further rebuilding during the reign of Valentinian. Two early Christian churches dating to this period have been excavated; one is located under the present Saint Laurentius Basilica and the other was situated within the area of the fortress. A final destruction of the site came in the 5th century, as Attila came through Noricum in the year 451 with his Huns. Archaeological evidence for the period following this destruction reveals that the only new building on the site was in the form of simple wooden structures that were also destroyed around the year 700 and never rebuilt.

Graves have been uncovered in numerous spots both inside and outside of the settlement areas. Designated cemeteries lay above all outside of the civilian city on the streets leading to the south, southeast and north of the fortress. Small finds from these graves during the 19th century were followed by more systematic investigation in 1951. During this excavation the cemeteries on the Espelmayrfeld, the Ziegelfeld and Steinpaß

[130] Ubl 2002.

were uncovered, and a total of over 20 cremation graves were researched, and a number of inhumations were uncovered in the Espelmayrfeld. In 1978 the *Bundesdenkmalamt* and the *Museumsverein Lauriacum* combined their efforts to investigate an area of burials located on the Georgenberg.

Little is known about the temples and sacred districts of Lauriacum. It seems certain that the Georgenberg was the site of a shrine or cult district, although the deity to whom it was dedicated is not known. The only other concrete remains attesting to the religious life of the inhabitants are a variety of dedicatory inscriptions and sculpture fragments.

The present-day Basilica of St. Laurenz at Lorch-Enns also rests on the remains of the earliest known church in Noricum. It was built at the latest during the second half of the fourth century on the site of an earlier Gallo-Roman temple, and is located at the northern edge of the Roman civilian town by the legionary fortress of Lauriacum.

A cemetery dating to the same period as the church was located south of the legionary fortress. The inclusion of coins in many of the graves have facilitated the dating of the cemetery, which appears to have been in use from the second half of the fourth century until as late as the seventh century, or possibly even the eighth century.[131] The graves, based on the grave goods and the position of the bodies, have been determined to include both pagan and Christian burials during the Roman period. There are also some graves that date to the period after Noricum ceased to be a Roman province. These graves appear to belong to members of the various Germanic tribes that moved into Noricum beginning in the fifth century; and there are also graves dating to the

[131] Ubl 1997a, 147.

later "Bavarian" and Merovingian-early Carolingian period. The cemetery was laid out as it was filled up, from east to west, and so - although there is some mixing of the different periods - the post-Roman period graves tend to lie in the western part of the cemetery.

The majority of the graves identified as Christian burials have been classified as such due to the position of the arms of the skeletons: they are crossed across the chest or abdomen. In 101 graves for which the arm position is known, 22 skeletons have crossed arms. However, several graves that have been identified as "heathen" contain skeletons that also have arms crossed in the manner described above. This would seem to at least cast doubt on the categorization of many of the Christian graves. Most of these graves also have relatively few or no grave goods. In only two graves classified as Christian burials are there items that may definitely indicate a Christian burial. The late fourth century grave of a middle-aged man contained a bronze ring with a Chi-Rho monogram on it. There were also some scraps of sheet bronze of unknown function under the skeleton. Another late fourth century grave of a middle-aged woman is recorded to have contained the remains of a bird under the skull. If the bird was a dove, then it also may be considered a Christian symbol and indicate that the deceased was a member of this faith.[132]

[132] The German word *Taube*, used to describe this bird, can be translated as both pigeon and dove.

Albing[133]

The present day small town of Albing lies some 2 km east of the mouth of the river Enns. The legionary fortress that was located here was one of the largest structures erected on the Norican frontier, but very little is known about this fortification, and no standing remains from the fortress have survived. The history of the fortress is closely tied to the history of the *legio II Italica* and this unit's fortress at Lauriacum. The *legio II Italica* was formed around 165 in conjunction with the Marcomannic Wars. The legion's was later transferred to the Danube *limes*, still. On their arrival in Noricum, the legionary troops built their first fortress at Albing, and occupied it for about thirty years. Two building inscriptions from Lauriacum indicate that the fortress there was erected and occupied, leaving Albing abandoned, around the year 191.

In 1904 excavation work carried out by the *Limeskommission* of the Austrian Academy of Sciences revealed the *porta decumana* of the legionary fortress. The *Limeskommission* continued its efforts to trace the fortress walls and a few remains of the interior buildings in the following years, but once the main outline of the structure had been determined, operations were scaled back to recording the occasional find from the site.

The information gained in the early 20th-century excavations has been aided in recent years by aerial photographs of the site, allowing a general description of the

[133] No ancient sources give any information about the original name for the first fortress of the *legio II Italica* that was located at Albing, nor have any inscriptions that would provide clues to its ancient identity been found.

fortress. It was located east of the mouth of the river Enns, on a lower terrace of the Danube, and situated on the *limes* road.

The entire circuit of the fortress' walls has been traced, revealing that the northern corner of the fort (wall) has been washed away by the Danube. Some of the interior buildings' foundations also were excavated. The fortress itself was oriented northeast-southwest, measuring 568 m by 412 m, with an area of 23.3 ha. (Figure 3.8) These dimensions indicate that the fortress was one of the largest built on the Norican *limes*, and even slightly exceeded the size of the later fortress at Lauriacum. The large size of the Albing fortress may have been due to the fact that both the legion and an auxiliary force were housed there.[134]

The fortress at Albing was a substantial structure, and the units that were stationed there occupied the site for a good length of time. Therefore, it seems reasonable to assume that the fortress would have had an associated canabae. To date, however, no traces of this civilian settlement have been found. Published literature for the site at Albing does not mention a canabae, and there is no indication that excavators have ever made or been presented with the opportunity to look for one.

[134] Fischer 2002.

Wallsee / Ad Iuvense

Geographical Setting and Standing Remains

The fort at Wallsee sat on a terrace projecting north into the Danube, forming a peninsula surrounded on three sides by water. It probably was due to the natural defenses afforded by the geography that the Romans chose this site for their fortifications, between the steep drop to the river on the north side and the slopes of the Stengberg to the south. Ditches and walls secured the exposed southern side. The fort was located on the stretch of the frontier between the forts at Lauriacum (Lorch-Enns) and Arelape (Pöchlarn). The site was almost continually occupied after the Roman period.

The fort remains were almost completely covered over during the later occupations of the site in the Middle Ages, although the layout of the medieval town was in part based on the fort's outlines, and may still be observed in the modern city. The fort's walls are reflected in the arrangement of the streets and the modern city center, and some modern houses and buildings in the city center lie directly on top of the Roman wall foundations. One of the two main streets or axes of the fort shows up today in the long stretch of the market place, at whose center the town hall probably marks the location of the fort's headquarters or *principia*.[135] The former school for the modern city of Wallsee was built on top of the late Roman *Restkastell* that was built into one corner of the middle imperial fort. Roman gravestones found in Wallsee have been built into the walls of the *Schloß* and the town hall and are still visible today.

[135] Ubl 1997d, 199.

The Auxiliary Fort

In 1966, archaeologists were able to reveal enough of the Roman building remains at Wallsee to determine that it had been the site of a military complex. Infrequent digs continued through the following decades, usually as modern construction work took place, allowing researchers to continue to gain information about the nature and layout of the fortifications there.

These remains indicate that the fort went through at least three building periods. The first wood and earth fort was built during the 1st century CE, probably during the Flavian period. A translation of the defenses into stone followed in the second century, resulting in a fort complex that underwent some minor modifications over the succeeding decades. This complex took the shape of a slightly irregular rectangle, measuring around 200 m by 160 m and covering around 3.2 ha in area. (Figure 3.9) During the final phase of the fort, a small *Restkastell* was constructed in the southeast corner of the former fort's defenses in the late Roman period.

Brick stamps from Wallsee indicate that the *cohors I Aelia Brittonum milliaria* was garrisoned in the fort, and that after the Marcommanic Wars and the founding of the fortresses at Albing and Lauriacum, the *legio II Italica* also supplied bricks to the site.[136] It is not clear which unit occupied the fort during the late antique period. The *Notitia Dignitatum* indicates that around the year 400, half of the *liburnarii* from the *legio I Noricorum* were stationed at the site of Ad Iuvense.

[136] A few brick stamps also bear the mark of the *cohors V Breucorum* and a *cohors I AV.B*, which has defied any closer identification than that, unless such an inscription could be matched with the *cohors Augusta Brittonum* (Ubl 1977).

The Vicus

The *vicus* associated with the fort at Wallsee has been identified. It stretched to the south of the fort. Interest in the finds from the vicus and its structures began in the 1970s, when archaeologist Elmar Tscholl began taking advantage of modern construction work to conduct salvage operations, and publishing the finds from the various parts of the settlement. The work that was done in the vicus in the 1970s is the only systematic investigation of the civilian settlement that has taken place.

Tscholl's 1978 publication of the results from research conducted at Wallsee from 1966 to 1976 briefly comments on the discovery of four houses in the vicus. For one of those houses enough remains survived to identify rectangular, stone wall foundations; fragments of bricks, some with wall plaster still attached, were found in all four of the structures. One house still preserved several *tubuli* from a hypocaust.[137]

These remains, although minimal, have led the excavators to conclude that these residences in the vicus were typical row houses, some of which may have had partial cellars beneath them.[138] Tscholl describes the remains of one uncovered wall as a series of stones bound with a light gray mortar. The structure measured around 12 m long and 6 m wide. Finds recovered from this building include ceramics and coins that date to the 1st and 2nd centuries.[139]

The ceramics recovered from this building are identified as terra sigillata fragments of wares produced at the Gaulish workshops of Rheinzabern, and Lezoux.

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[137] Tscholl 1978a, 106-8.
[138] Tscholl 1989; Fischer 2002.
[139] Tscholl 1989, 65.

Other pieces are described merely as products of southern Gaul or northern Italy, as well as material produced locally.[140]

Evidence for a variety of commercial activity also has been uncovered, although published reports do not always clearly distinguish if these finds, and thus the activities that they indicate, were located in the fort or the vicus. In 1972, salvage operations in the general area of the fort revealed a very large number of brick fragments. Relatives of the landowner reported that for as long as they could remember, attempts to work or farm the land had yielded such a quantity of bricks, that eventually the land had been declared unusable. All of this evidence led the excavators to conclude that this had been the site of a brickyard.[141] A kiln has not been identified at the site, but brick stamps indicate that the proprietor of the brickyard was a man named Petronius.

In 1971 a pottery kiln was discovered in the same area as the brickyard, with its firing chamber and a large collection of coarse ware fragments still intact. The 1975 widening of the modern street on which the Roman kiln was located destroyed any further remains of the structure.[142]

In 1967, during the laying of water lines to a private house in the vicinity of the modern town's market place, and so in the area once occupied by the fort, an excavator machine dug through the remains of a blackened pit, filled with a mixture of earth and

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[140] Tscholl 1989, 63-66.
[141] Tscholl (1978a, 101-2) also reports that the quantity and variety of brick fragments point to the fact these were not merely the remains of a single building or even a complex of structures. The bricks also bore no traces of mortar, and there were numerous examples of under fired and misshapen bricks.
[142] Tscholl 1978a, 102-4.

wood and pieces of iron slag. The pit also contained an iron axe, chisel and a mass of nails that had been fused together during a fire.[143]

Roman period graves have been found to the northwest of the fort, but the exact location of a cemetery as a whole has not been determined.

[143] Tscholl 1978a, 105.

Mauer an der Url / Locus Felicis

The fort at Mauer an der Url is the one major defensive complex of Noricum that did not lie immediately on the Danube frontier. This structure lay around 10 km south of the river on the main road connecting the administrative center of Cetium (St. Pölten) and the fortress at Lauriacum (Lorch-Enns). A fort at this location would have been seen as a necessity, to protect the strategic position at the junction of the Ybbs and Url rivers.

The first excavations of the fort were conducted from 1907 to 1910 by the *Limeskommission*, included as part of its work at Lauriacum.[144] Excavators returned during the 1970s, as construction work in the modern city allowed researchers to conduct salvage operations in the area of the fort.[145]

Excavated remains from the fort suggest that the complex went through at least two building phases. The first fort on the site was a wood and earth structure, probably constructed in the 1st century CE. It was replaced at the latest in the 3rd century by a stone fort, whose ground plan did not exactly match that of the earlier building.[146] The river Url has consumed a large part of the northwestern section of this fort, but enough has remained of the southern two-thirds of the complex to reveal that this later stone fort took the shape of an oblique-angled parallelogram, measuring around 200 m by 160 m, with wall towers and rounded corners. (Figure 3.10)

The identity of the army units stationed at the installation is unclear. The *Itinerarium Antonini* mentions a road station in the area of Mauer by the name of Locus

[144] Kandler and Vetters 1986, 117-18.
[145] Stiglitz 1971, 71.
[146] Genser 1986c.

Felicis, and the *Notitia Dignitatum* lists an *equites sagittarii* at a site called Lacufelicis.[147] Coins and brick stamps suggest that the site was occupied into the 3rd century.

The fact that most auxiliary forts did have vici associated with them appears to be the basis for assuming that such a civilian settlement did exist at Mauer. No evidence for or traces of such a settlement exist, but that has not prevented researchers from suggesting that a vicus probably was located to the south of the fort.[148]

The discovery of a cemetery, located south of the fort, provides some support for that assumption, although it is possible that this cemetery could have provided a burial site only for the soldiers stationed at the fort. A few middle imperial period cremation burials have been uncovered, but the majority of the burials consist of late antique inhumations. In addition to the cemetery, a fair number of inhumations (also late antique in date) have been found along the street that led out from the east gate of the fort.

The most spectacular find from the site at Mauer was the 1937 discovery of the famous *Dolichenusfund*.[149] Modern construction work taking place around 40 m south of the middle of the Roman fort's southern wall revealed a pit containing a large collection of (metal) cult objects. Twenty-one of the almost thirty votives had dedicatory inscriptions which allowed an association of the site with the worship of Jupiter Dolichenus. The whole collection has been dated to the first half of the 3rd century.

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[147] The *Tabula Peutingeriana* makes no mention of this site, by either name.
[148] Noll 1980.
[149] Although the cache was found in 1937, the finds from the site were not published until over forty years later (Noll 1980).

Pöchlarn / Arelape

Roman finds from the modern town of Pöchlarn suggest that it was the site of a Roman fort, although only a scattering of Roman period building stones and traces of a defensive ditch that would testify to the existence of such a structure have ever been found. A military installation at Pöchlarn would have been in a strategic spot to protect the mouth of the Erlauf river as it ran into the Danube. In addition, the geography of the site sets up a situation in which an arm of this river creates a small sheltered harbor that could have been used as a Roman port.

Pöchlarn is believed to be the location of the ancient Arelape, a site mentioned in several ancient sources, including the *Tabula Peutingeriana* (as Arelate), the *Itinerarium Antonini* (as Arelape) and the *Notitia Dignitatum* (as the site where the *equites Dalmatae Arelape* and *praefectus classis Arlapensis* were stationed).[150]

The oldest finds from the site suggest that the fort dates to the second half of the first century, in accordance with most of the forts on the Norican Danube *limes*. Since no traces of an early fort have been found, it seems clear that such a structure did not last into the later Roman period. If a different, late antique, fort was erected on the same site or in the surrounding area, it either has not been found or has been destroyed completely.

An inscription provides evidence for a unit stationed in this area, and further supports the idea that there was a fort on the spot. A grave stone was erected for one Pom[p]eius Celer of the *cohors I Flavia Brittonum*, who was stationed at Arelape

[150] Ptolmey also mentions the site, calling it Arelate.

sometime around the year 130.[151] The *Notitia Dignitatum* indicates that a cavalry troop, the *equites Dalmatae*, was stationed at the site in the late antique period, as well as the commander of a naval unit.

No vicus has been identified at Pöchlarn, although its existence is assumed. Roman-period finds from the region around Pöchlarn, specifically in the area of Harlanden-Erlauf around 3 to 4 km southwest of the supposed fort, provide support for this assumption. Nineteenth century reports mention the discovery of part of a baths complex, also to the southwest of Pöchlarn.[152] A large furnace or kiln was found southeast of the modern city, and is thought to have been connected with a brickyard.[153] A cemetery for the supposed site is known in part through a scattering of cremation burials and grave finds discovered over the years.

[151] Kandler and Vetters 1986.
[152] Genser 1986c.
[153] Genser 1986c.

Mautern / Favianis

Geographical Setting and Standing Remains

The city of Mautern lies at the eastern exit from the Wachau on an old overlook of the Danube, on a terrace safe from high tides. There is evidence that this location already was occupied during the prehistoric and pre-Roman periods. Indigenous peoples recognized that this advantageous spot offered a good location at which to cross the Danube when coming down the trade route from the Styrian salt- and iron-producing areas to the north.

There are numerous above ground remains of the Roman auxiliary fort at Mautern. The still-standing remains of the fort include the remains of the lower portions of a large part of the west and north walls, as well as substantial walls of the fort itself that stand to a height of several meters in places; entire horseshoe and fan towers in some cases are preserved even up to the third story. One of the towers on the western side of the fort today serves as the entryway to the courtyard of the Museum, which houses prehistoric, Roman and medieval finds from Mautern and the surrounding area. (Plate 3.10) A little to the south of this horseshoe tower there is a smaller tower built into the city wall. It was constructed on the remains of one of the Roman fan towers. In another part of Mautern, several blocks south of these remains, a heavily built five-sided medieval tower marks the location of fort's southwestern fan tower.

The north wall of the fort was reused and incorporated into medieval city structures, and, although slightly altered in appearance, is also recognizable as a part of the late antique defenses. (Plate 3.11) Such above ground remains would have made it

clear throughout time that there had been earlier habitation at the site, but it may not have been obvious that these remains were Roman or even ancient. These late antique defenses had been incorporated into the medieval *Schloß*, and so had been altered somewhat in the Middle Ages. The standing towers had also been reused through late antiquity and the Middle Ages, and so did not preserve exactly their original appearance. Due to these circumstances, it may not have been readily apparent that there had been Roman occupation at the site.

The site of Favianis is mentioned in the *Notitia Dignitatum* (as Fafianae) in connection with the navy, as a base for one of the units of the fleet. The site also figures prominently in Eugippius' *Vita Sancti Severini* (as Favianis), in which it is called an *oppidum* and described as a fairly important town or city. The name Favianis (or similar) is not listed in two other standard sources, the *Tabula Peutingeriana* or the *Itinerarium Antonini*, both of which name settlements along the main line of the Danube *limes*, but only include forts or their associated settlements if they lay on a main road. Since Favianis did not lie on a main road, according to the *Notitia Dignitatum*, and was only occupied by a half legion (part of the *legio I Noricorum Liburnariorum*) in the 4th century, it may not have merited mention.[154]

[154] Stiglitz and Schneider 1991, 5-6. The name Favianis particularly is associated with the late antique installation at Mautern. It is not known if the Roman fort and its vicus had some other, earlier name. The earliest documents mentioning the name Mautern date to the 9th century.

The Auxiliary Fort

Mautern today is one of the best-researched forts and vici on the Norican Danube *limes*.[155] This is due in large part to the investigations and excavations done in recent decades by the Austrian Archaeological Institute. A history of research can be traced back into the 19th century, beginning with the work of local antiquarians, their chance finds and a smattering of small, irregular excavations. Real interest and investigation began in the 20th century, especially through the dedication and work of local amateurs who were very familiar with the site and its history. It is true, however, that in spite of more than a century of research, a large part of the findings is known up to now only through short reports or summary works.[156]

Work in the first half of the 20th century was overseen and carried out by a combination of amateur archaeologists, and the occasional professional scholar. In any consideration of the early archaeology at Mautern, the contributions of three men stand out. Heinrich Riedl, a secondary school professor of history and Latin in Mautern, and Franz Kainz, a young contemporary of Reidl and the local bank director, led mainly salvage or emergency excavation operations in Mautern and the surrounding area. Their collective research was carried out in the 1930s and 1940s, and resulted in the production of a very detailed map and plan of the find spots for various Roman artifacts found in

[155] All of the work done in the area of the fort has made possible the publication of a general volume on the auxiliary fort of Favianis, as one of the volumes of the series published by the Austrian Academy of Science, *Der römische Limes in Österreich*; see Gassner et al. 2000.
[156] Gassner et al. 2000.

Mautern. This map was the basic plan and only one in existence for the Roman site for many years, and has served as the basis for updated modern maps.[157]

During the 1930s Professor Alexander Gaheis was the first professional archaeologist to carry out systematic excavation work in several spots east of the former Roman fort. Some of Gaheis' own original writings about the excavations still exist in the Mautern archives, although the results of that work were only published summarily in local newspapers.[158] Fortunately, Heinrich Riedl took matters into his own hands, and wrote down what he knew about the event and research before everyone forgot all about it.[159] All of the surviving reports give only summary information, however, about the structures and finds from those excavations, and they seem to lack any substantive discussion of structures in the east vicus that were discovered during this investigation.

Excavations were officially taken over by the Austrian Archaeological Institute after WWII, and post-war rebuilding provided occasional opportunities for salvage archaeology and finds recovery. The situation in Austria after the war was a difficult one, as the country was occupied by foreign troops. The barracks in Mautern were occupied by Russian troops, and any proposed activity had to go through the Krems authority and the Russian military command. In addition to those difficulties, there was a real shortage of all supplies, and it was not always possible to get the proper equipment.

Two of the main archaeologists working through the Austrian Archaeological Institute in the second half of the 20th century were Herma Stiglitz-Thaller and Heinrich

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[157] Ertel and Gassner 1995. These authors have been responsible for a new edition of that early map that has been improved upon and supplemented.
[158] Ertel 1998.
[159] Riedl 1934.

Zabehlicky. We owe a great deal of our knowledge about the auxiliary fort and its development to their efforts and research.[160]

In the 1970s and 1980s work continued intermittently, still concentrated on researching the former fort, and mainly its defenses and walls. Research was concentrated in the areas on the east and south sides of the fort.

Since 1992 the Austrian Academy of Sciences has been working with the city of Mautern on a project involving the scientific investigation and museum presentation of the archaeological material gathered from the site. In the early 1990s, this *Projekt Mautern* was very busy in a number of areas of investigation.[161] It began in the year 1992 with a new systematic survey of the standing monuments of Mautern. In addition to that activity, workers inventoried and reordered the former finds depot as well as the finds from the area around Mautern that had been housed in the *Weinstadtmuseum* of Krems, in anticipation of the building of a new *Römermuseum* in Mautern in 1994; continued the scientific processing of the pottery from Mautern; and planned the restoration of the wall paintings, to be completed in 1994.

The *Limeskommission* of the Austrian Academy of Sciences has overseen a series of investigations, financed by the city of Mautern, mainly around the sides of the former fort. A series of new excavations since 1996 have been conducted by the Austrian *Bundesdenkmalamt* and the Austrian Archaeological Institute. Some of this work took place in the interior of the fort, and had the goal of actually excavating and investigating the inner part of the fort, its interior buildings, and attempting to form a clearer idea of

[160] Gassner 1997a, 208-9.
[161] Ertel 1995.

the fort's chronology, since there had hardly been any work done in the interior of the fort before that point.[162]

The fort at Mautern/Favianis is one of the oldest forts on the Danube limes. It was part of the frontier fortifications situated between the fort at Arelape (Pöchlarn) to the west and Augustiana (Traismauer) to the east, and was in existence from the first through the fifth centuries CE. It was strategically placed here on the Danube and on the *limes*, on the course of an important north-south trade route.

Over a century of research, both through chance finds and planned excavation, has yielded a good deal of information about the nature and history of the auxiliary fort. The years from 1950 to 1994 saw most of the major excavation work done in the area of the fort, which produced a large body of materials and information. Modern investigation has allowed researchers to suggest various relative and absolute chronologies over the years. The most recent systematic excavation provided enough evidence to differentiate six Roman building periods for the fort and one medieval structure.

As is the case with practically all of the forts in the history of the frontier defenses of the empire, the first fort at Mautern was a wood and earth construction (Period 1), and probably was erected during the second half of the 1st century CE.[163] No substantial remains of the fort itself survived into later periods. The only traces from this period of the fort's history seem to be parts of the defensive works and of the interior buildings of the fort, both of which were revealed by the 1996 excavations. Remains of inner

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[162] Groh 1997a.
[163] Groh 1997a; Fischer (2002) even suggests that it was constructed in the 70s or 80s, based on the finds of terra sigillata from the Neronian and early Flavian periods.

buildings also were uncovered, revealing that they were constructed in a combination of timber and clay- or mud-brick.

Although some remains of this first fort have been found, the exact outline of the fort or the lines of the four walls is not known. Likewise, little to nothing is known about the first unit stationed at the site, which would have occupied this fort and may even have built it.

A little more evidence survives to help establish the second phase of the fort's history (Period 2). The fort was enlarged to the south and the original V-shaped ditches of the wood and earth fort were filled in and built over with a set of structures, probably barracks blocks. This enlargement resulted in a square fort with sides measuring 180 m each and a total area of about 3.6 ha.[164] (Figure 3.11)

It seems that the Period 2 fort housed an *ala* in the Flavian period, and it may be true that the changes in the fort's dimensions and layout reflect the stationing of a new and larger unit at Favianis in the 2nd century. A military diploma dating to 127-138 and issued to a soldier of the unit indicates that the *cohors II Batavorum* (a *milliaria*, or one thousand man strong division) was the unit in residence.[165]

Brick stamps indicate the presence of a second occupying auxiliary unit during the 2nd century at Favianis. The *cohors I Aelia Brittonum milliaria* probably came to

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[164] Groh 1997a.

[165] Two other diploma fragments for this same unit have been found in Mautern and dated by excavators to the same time period. There is evidence that this unit had until 80 CE been part of the standing army in Pannonia, and then came over to Noricum. Gassner (1997a) agrees that this is the first unit we know by name to have been stationed at this site, and believes that they were at Favianis from 110. Jilek reports that Hannsjörg Ubl has placed them in Klosterneuburg from the beginning of the 2nd century, and that – in her opinion – they probably came to Favianis from that site sometime between 117 and 133 (Gassner et al. 2000).

Noricum in the course of a minor reorganization of the Norican army that took place in the 2nd century. This was also a one-thousand-man-strong unit, and estimates place them at Favianis anywhere from 122 to as late as after 140.[166] With the arrival of this second auxiliary unit at Favianis, excavators quite reasonably assume that whatever wood and earth structures remaining in the fort's defenses were at this time rebuilt in stone.[167]

The next phase of the fort is hardly distinguishable from the previous structure. Period 3 merely seems to mark the rebuilding in stone of the majority of the fort's defenses, if not its interior structures. Nevertheless, even with this transformation into stone, the fort did not undergo any substantial change in extent or orientation. As with the earlier phases of the fort, only a few remains can be identified securely as the interior buildings associated with this phase of the fort.[168] The end of this period of the fort seems to have come in the second half of the 2nd century.[169]

The Period 4 fort, in terms of shape, size and type, probably was identical to that of the previous phase. The main difference in the two periods is reflected in the construction of new barracks blocks in a clay- or mud-brick technique, on top of the remains of the Period 3 structures and so in the same location. Brick stamps associated

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[166] This unit was probably first stationed at the fort at Wallsee in Noricum.

[167] Scant evidence also may indicate that there was a vexillation (perhaps only about half strength, or 500 men) of the *cohors II Tungrorum* stationed at Favianis during the 2nd century. If so, the total troop presence at the fort could have been close to 2500 men, which would have further necessitated the enlarging of the fort, and so supported the rebuilding of the older wood and earth structures in stone.

[168] During the 1996 excavations remains of barracks blocks with stone foundations and mud or clay brick walls were found, that date or belong to the Period 3 fort.

[169] The material uncovered during the 1946, 1955/56 and 1996 excavations led the excavators to suggest that there was a total destruction of the fort and its interior buildings by fire, with this destruction level lying under and covered over by later rebuilding (Ertel 1995; Groh 1997a). More recent evaluations of the site assert that the remains and material found during those and more recent excavations do not support this theory of wide-spread destruction during the Marcomannic Wars (Gassner et al. 2002)

with these levels of the fort attest that the *cohors I Aelia Brittonum milliaria* was still in residence at Favianis during this phase of the fort.[170]

The Period 4 fort seems to have met a violent end due to a large-scale fire, although it may have been the result of an accident and not hostile activity. Evidence dating to the mid 3rd century[171] reveals that the barracks excavated in 1996, in the southern end of the fort, were destroyed by fire and were not thereafter rebuilt on the same scheme. Groh says that a layer of destruction covers the whole area, indicating the end of Period 4. The evidence further shows that the fire must have come on very quickly, because the soldiers did not even have time to bring their possessions out to safety.[172]

Periods 5 and 6 encompass the late antique history of the fort at Mautern, extending into the second half of the 5th century. During this time Favianis increased in importance as a result of changes tied to the reforms under Diocletian when both the provinces and the army were restructured. In terms of the physical nature of the fort, Period 5 is tied to a break with older building traditions. The middle imperial stone fort was adapted using new techniques and to meet new standards for frontier fortifications, although the overall size of the fort did not change. It was during these late antique phases of the fort that the late towers were added, possibly if not probably to strengthen the walls. Ertel comments that the building of the fan towers, the first of these structures to be added, may have occurred at the beginning of the 4th century, and may correspond

[170] Gassner et al. 2000.
[171] A coin found in the burn layers gives a terminus post quem of 251.
[172] Groh 1997a.

to the change in unit at the fort (the arrival of a detachment from *legio I Noricorum*) and the new building phase that "accompanied" that troop change.[173]

Old excavations had not identified any interior buildings for this phase of the fort, but the 1996 work once again revealed that the destroyed material of the 3rd century fort had been leveled and new buildings erected on top of it, which clearly differed from the Period 4 structures. These finds show that at the end of the 3rd century, or the beginning of the 4th, the barracks were rebuilt to a new plan or scheme. The barracks were built in wood, as evidenced by the excavated remains of postholes, indicating vertical wooden posts.[174]

The second phase of the late antique building (Period 6) brought a totally new concept and plan for the fort. The northern defensive wall of the fort was moved almost all the way up to the Danube, and it seems that the eastern and western walls may also have been pushed out slightly, as revealed by the covering over of the Period 3 and 4 eastern defensive ditch. The situation for the southern wall is not entirely clear. Excavators working in that area in the 1990s did not find any evidence of adaptation work or new building, but some finds dating to this late antique period indicate that the fort may also have been further extended to the south as well. This enlargement almost

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[173] Ertel 1995; Gassner (Gassner et al. 2000) reported that they lacked any defined strata or find material for Period 5, making any exact dating of the fort difficult. They had to rely on parallels with other forts in the region, and the dating for the construction of the late antique towers. The building of fan and horseshoe towers, everywhere, is usually dated to the Constantinian period, so an early 4th century date would be reasonable. Gassner points out that the only problem with accepting such a date is that it would mean that fort – after the destruction of the Period 4 fort that occurred in the mid to second half of the 3rd century – remained in that destroyed state, or at least only partly usable, for almost fifty years before it was rebuilt. And Gassner does not believe that this is very likely.

[174] Groh 1997a.

doubled the total area of the fort itself, giving a new measurement of 175 m by 300 m, or 5.25 ha.[175] In addition to the changes to the defensive walls, a new set of towers was added to the fort. Horseshoe towers were added in several places to the perimeter walls, in some cases replacing the earlier fan towers.

The latest use of the fort (Period 7) is described in the *Vita Sancti Severini*, when it was used as a *Restkastell* and settlement site by the civilian population of Mautern during the 4th and 5th centuries. The archaeological results show that the civilian settlement not only encroached upon or drew closer to the fort but actually came into the fort area. At the end of the 5th century the site was abandoned. Early medieval finds indicate renewed activity on the site from the 8th century.

The Vicus

The vicus associated with the fort at Mautern developed over time in the areas to the east, south and west of the fort. (Figure 3.11) It was known due to various archaeological finds since the early 20th century that there was an extensive settlement in the vicinity of the fort at Mautern.[176] Nevertheless, in-depth research of the civilian settlement was slow developing and has only just begun to match that of the fort itself. As with the early investigation of the fort, the work of Alexander Gaheis in the area outside the fort was very important for stimulating interest in the civilian settlement that grew up at Mautern. His activity in the area had a substantial effect in 1932 on the first systematic excavations in Mautern, as he began his explorations of building remains found to the east of the fort at Mautern. Perhaps the most important result, due to the

[175] This new northern front was discovered and excavated during the 1993/94 season of work in Mautern (Ertel 1995).

good number of finds that came out of those areas in these early years, was an increasing interest in this area, the eastern and southeastern part of the vicus.[177]

The 1932 expedition of Alexander Gaheis was stimulated by the discovery, only a few months previously, of the remains of a hypocaust system, indicating the possible presence of a Roman house in the vicinity.[178] The building, whose outline and some structural remains were still preserved, lay 190 m from the eastern edge of the modern town of Mautern. It proved to be a large, multi-roomed complex, measuring over 50 m in length (reaching all the way up to the course of a Roman road) and over 11 m in width. (Figure 3.12) The complex appears to be divided into two parts, identified by Gaheis (and later researchers) as the main part of the building with its six living rooms to the south, with a courtyard surrounded by what were probably workrooms to the north. The building was equipped with both a cellar and hypocaust system. The cellar had a series of niches in its walls, four in each long wall and two each in the short walls, and featured one funnel-shaped window in the south wall as well as the traces of its wooden staircase. Remains of roof tiles indicate that the structure was covered with a tile roof.[179]

Gaheis termed the structure a *villa rustica* (an attribution that still remains to this day), property of a prosperous owner, whose name we may even have preserved. One of the ceramic vessels found in the courtyard of the building was inscribed with the name CUNIGNIUS. Coin and ceramic finds provide dates for the complex. A Trajanic coin

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[176] Groh et al. 2001.
[177] Ertel 1998, 99.
[178] The initial discovery was made by Franz Kainz in the summer of 1931, and was located along the course of the Roman road running in the direction of Palt. The following summer two professional archaeologists (E. Polaschek and L. Pindar) investigated the street course, and then the Museum of the city of Krems organized the excavation of the parcel on which the house itself stood, to the south of the Roman road.
[179] Riedl 1935.

gives a terminus post quem of 98. Many of the finds date to the second third of the 2nd century. Destruction by fire occurred not long after that, possibly associated with the Marcomannic Wars. After that, the house appears to have survived as a ruin for perhaps two or three decades, before the cellar was filled in as trash pit, the heating channels buried, and the upper parts of the house reused for living purposes.

Alexander Gaheis is also credited with the 1935 discovery of the bath complex to the east of the fort. Gaheis described the excavated remains of an enormous concrete basin more than 2 m deep, and an eastern wall with a polygonal apse. Heat canals and walls discovered earlier in neighboring trenches also must have belonged to these baths. Gaheis recorded that it was not clear to him whether or not these were the military or civilian baths, or whether they belonged to the fort or to the vicus. He believed that either one could be the case.[180] Christine Ertel, reassessing the remains more than fifty years later, remarked that this question or issue was still open to debate. She favors the idea that the baths belonged to the fort, and so were military baths. The bath complex lay 130 m from the east front of the fort, but Ertel asserts that the baths for the auxiliary fort at Carnuntum lay over 21 m from the west front of that building, and so by comparison the baths at Mautern could also belong to the fort.[181]

The existence and nature of these baths remain very enigmatic. The 1930s accounts describing Gaheis' findings provide some information about the complex, but

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[180] Ertel 1998, 97-8.

[181] Ertel 1998, 99. This comparison seems to be a bit of a stretch, given the big difference in the distances of the two bath complexes from the their respective forts. It seems to make more sense to assert that the Mautern/Favianis bath complex would have belonged to the military fort and not the civilian vicus, based on the analogy with other known examples from throughout the empire, and the standard practice of equipping forts (and their soldiers) with such amenities, while civilian towns of the nature of a vicus rarely had such luxuries.

work in the same area in the 1990s found only traces of Gaheis' excavations, and none of the structures that he had described.[182]

Alexander Gaheis discovered one of the best-preserved ceramic kilns uncovered in the vicus during his 1930 excavations. Christine Ertel discusses in detail the accounts that later archaeologists have written about Gaheis' discovery and description of the oven, agreeing on its location and the circumstances of its discovery. By all reports it was about 2 m in diameter, built of clay bricks and plastered with clay. The opening, situated to the north, was large enough for a crouching person to crawl into, before entering a rectangular interior chamber. Thousands of potsherds were recovered from the kiln, allowing Riedl to date the oven to the second half of the 2nd century.[183]

In 1938, a new, large-scale military installation (barracks complex) was planned on the eastern outskirts of the modern town of Mautern, in an area that had previously been identified as part of the civilian settlement and also encompassed a large part of the late antique cemetery.[184] The planned military complex was going to require large-scale excavation for the construction of the barracks' basement, and major destruction of numerous graves in the cemetery was expected. Heinrich Riedl was allowed on the site before construction began. He conducted some salvage work and hired an architect to create a good plan of the area before it was lost to the modern building work.

Almost a decade later excavators working in this area of the modern military barracks unearthed the only substantial find for religious activities associated with the fort and vicus. In 1947 Herma Stiglitz-Thaller made the discovery of the so-called shrine

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[182] Ertel 1999.
[183] Riedl 1941.
[184] The cemetery had been identified as early as 1824, when ten graves were uncovered.

to the Underworld gods.[185] Excavators almost immediately identified the structure as a native, Roman-period shrine, but the remains were in poor condition due to the modern building that had taken place on the site. A small lead tablet was found in the remains suggested a dedication to two underworld gods, Dispater and Eracura. The building itself seems to have been in use for about a century before it was destroyed in the Christian era. This cult place existed outside of the settlement area, in the middle of a century-long cemetery, so it might be reasonable to assume that the shrine was associated with a cult of the dead, who were buried there in stone cist or shaft graves.

No physical remains related to the practice of Christianity have been found at Mautern, but it is attested most notably in Eugippius' biography of Saint Severin, who used Favianis as his headquarters and based his ministry from the site. The fact that the *Vita Sancti Severini* records that Severin established a monastery at Favianis has led excavators in the past to try to determine exactly where this structure might have been at the site.[186] In this context, from 1957 until 1959, the excavations that were conducted on the site of the recently erected military barracks at Mautern had as a goal the exploration of an area that was thought to be a likely candidate for Severin's monastery. The subsequent discovery of a fairly large complex resulted in the structure being called the *Severinskloster*. The information about this excavation work is contained in early (contemporary with the original excavations) articles by Stiglitz, as well as in Ertel's 1996 publication, in which she looks back at and somewhat reevaluates the original work.

Even with two sets of published reports on the site, it is not clear that the remains investigated there are a monastery, or even that the building could have been a church, or

[185] Stiglitz and Schneider 1991, 15-16. See also Thaller 1948.
[186] Eugippius 4.6.

in some way associated with the practice of the Christian religion. Trying to connect it, or this particular site, in any way with the monastery or church established by Saint Severin is at best only tenuous, and at worst completely fanciful.

It is clear, however, that the structures in question did sit among both residential and commercial structures of the east vicus. In this area there were both a ceramic kiln and a metal workshop, and all of these buildings were located at the rim of the cemetery. As well, the remains of a hypocaust were uncovered in a southern room of the *Kloster*. Excavators also found a walled area to the north of the *Kloster*, its use or identity uncertain. Ertel suggests that it could have belonged to a courtyard that enclosed a commercial building or business and just happened to be next to a heated structure or residence. This seems reasonable, given the evidence for other commercial structures in the area, and it does seem that most of the commercial buildings found at Mautern have been on the fringes of the vicus.

Excavation in earnest in the vicus began in the 1950s, and in particular in the south vicus, where Herma Stiglitz was in charge of work that took place from 1951 to 1953.[187] These excavations in the middle of the 20th century revealed wall courses that definitely belonged to Roman buildings as well as trash pits containing terra sigillata, other ceramics, small finds and a military diploma attesting the presence of a specific auxiliary unit in residence at Favianis in the 2nd century.

[187] Thaller 1951, 1959. This is the general area to which Groh returned for the 1998 excavations. H. Zabehlicky also conducted some scattered excavation work soundings across a large area in the general vicinity in 1988-1991.

These excavations also brought to light the remains of a Roman house with a walled stone cellar measuring 6 m by 3 m, dated to the 2nd century.[188] This was one of the first such structures uncovered at Mautern, but a type of structure that has become one of the most standard and typical of the Norican vicus. Stiglitz's team also excavated the remains of a well, as well as retrieving from a nearby trash pit a large quantity of wall painting fragments.[189] These early discoveries helped scholars begin to put together some idea of the nature of the civilian settlement and the activities that took place there. Remains such as wall painting fragments and hypocaust systems also attest the fairly comfortable, perhaps even luxurious, lifestyle that some vicus residents enjoyed.

Excavating in this area of the modern military barracks has been a bit tricky and problematic over the years. It seems that the 1957 excavations were the last official excavations allowed on the site for many years. Only recently (1990s) has the Austrian army allowed access to the land of the military base, and sometimes allowed archaeologists to conduct excavations on or near the military's land.

Regular and salvage excavation and research that followed over the next several decades continued to focus on the fort and a reconstruction of the military history of the site, but scattered opportunities to work in the area surrounding the Roman military complex continued to add to the information about the civilian habitation in the area and the substantial storehouse of finds and artifacts for the Roman period site. The majority of the excavation and research work that has been done in the vicus has occurred in the last two decades. In particular, the 1990s saw a remarkable amount of activity in the exploration and systematic investigation of the vicus, in conjunction with the regular

[188] Thaller 1952.
[189] Thaller 1953a.

work of the *Projekt Mautern* endeavors and the activities of the Austrian Institute of Archaeology.

Excavations conducted by Herma Stiglitz in the west vicus in 1971 were only published in 1995 by A. Kaltenberger and V. Gassner. Their study concentrated on the presentation of the ceramic material from the area of the modern *Hauptschule*.[190] Stiglitz uncovered the foundations of a Roman building dating to the 2nd or 3rd century, as well as a refuse pit and a pit house complete with its hearth and postholes. The description of these structural remains matches those from the south and east vicus, where complexes of row houses and pit houses have been and continue to be uncovered.

The next substantial explorations that took place in the vicus were the 1988-89 and 1989-91 excavations by Heinrich Zabehlicky in the south vicus.[191] Stiglitz's work focused on a largely residential area of the vicus, occupied mainly by fairly simple houses and the remains associated with their residents' activities. Zabehlicky explored a much larger area of the former settlement (around 2000 m^2) that included not only residential structures and remains, but also industrial or commercial parts of the vicus.

Zabehlicky and his team uncovered the typical walled cellars that are common in Norican vici, as well as the remains of pit houses. In the one area that they excavated, archaeologists revealed forty-one rectangular discolorations in the ground, each one indicating the presence of a house or commercial building or workshop. The remains of one large pit were identified as belonging to a warehouse, with the entryway still clearly

[190] Gassner and Kaltenberger 1995.
[191] Zabehlicky 1990, 1991a, 1991b, 1992a, 1991b; S. Zabehlicky and H. Zabehlicky 1991; S. Zabehlicky et al. 1988.

identifiable. One of the pit houses still preserved the remains of its central hearth surrounded by postholes for central roof supports.

Zabehlicky also excavated a series of ceramic kilns along the western edge of his excavation area, indicating the presence of a pottery workshop in this part of the vicus.[192] On this edge of the settlement he also identified the remains of other industrial or commercial workshops. The structures were predominantly rectangular in shape and featured cisterns, storage pits and the burned and blackened remains of hearths.

Zabehlicky also uncovered remains of a simple street course. A short stretch of a packed stone about 6.5 m in width was revealed. The street partially overlay the remains of a former pit house, indicating that it was built after this house was abandoned and then filled in and leveled out. The road is assumed to have been constructed during the late antique period, at the earliest.

The next large-scale excavations in the vicus took place almost exactly a decade after Zabehlicky's work, in areas contiguous to his, led by Stefan Groh. The 1997-99 work focused on excavating an area of about 7000 m^2 in the east vicus and a smaller section of the south vicus. These 1997-99 excavations in the east vicus investigated what the excavator described as an "extremely complex multi-phase development" through the excavation of a series of strips and parcels of land.[193]

The 1997 excavations revealed a parceled-off area at a street crossing or intersection, with the remains of row house complexes with earthen cellars. Other remains give an idea about their superstructures and how they were provisioned. Postholes and beam slots attest the wooden nature of the structures, and the remains of

[192] Groh and Sedlmayer 2000, 567.
[193] Groh 1997a, 27.

fireplaces or hearths, latrines and wells attest to the types of activities that took place in these houses or near them.[194]

The work begun in 1998 by Groh and his team was made possible by some building activity to construct a new private residence on the site that required the tearing down of an old house, as well as digging a new and larger foundation pit for the new house.[195] These excavations continued in the area south of the fort and helped determine that the settlement in this area also had been laid out in a planimetric development, with wooden houses and the standard earthen cellars, a type of layout that had already been identified in the east vicus. Finds from these excavations date habitation and activity in the settlement from the 1st century up into the late antique period.

During the late 1990s excavations, Groh made significant finds for commercial and industrial activity in the vicus, including the manufacture of pottery and the working of metal, bone or ivory and textile production. His discovery of a series of four ceramic kilns attested the presence of a pottery workshop, located about 250 m from the fort in the southeastern section of the vicus. Groh and his team also relocated one of the kilns initially uncovered in the 1930s and found several pit houses in the immediate vicinity, behind which were located trash pits and a latrine. Groh identified these structures as work and living quarters for the potters.[196]

These ceramic kilns produced an indigenous-type of pottery, in a variety of shapes that were white-gray in color and tempered with heavy grit. The kilns and their

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[194] Groh 1997a, 27.
[195] Groh et al. 2001.
[196] Groh and Sedlmayer 2000, 568.

pottery have been dated to the first half of the 2nd century and so were contemporary with Period 2 or early Period 3 of the fort.[197]

Groh and his team also excavated more than 30 kg of metal slag, an anvil and several grindstones, providing evidence for a blacksmith's workshop in this area of the vicus.

The Roman cemeteries lay outside of the settlement proper, to the east and south of the vicus and along the roads leading out from the settlement. The majority of the finds date to the late antique period. The cemeteries of the 2nd and 3rd centuries, in contrast to the late antique necropolis, have hardly been investigated at all.[198] We have very little information about the imperial period graves. This is due at least in part to the fact that those early burials were cremations, with few surviving remains or traces. What remains there might have been, could also have been destroyed by all the intervening years of folks working the land, including the later reuse of the cemetery.[199]

Salvage work undertaken in the fall of 1994 on the land of the modern military barracks while construction was done to lay new water lines and storm drains revealed a set of five cremation graves and their associated burial artifacts. The cremated remains had been placed in urns, wooden cists or other containers. A few early grave structures (tombs) and enclosures also were found on the eastern rim of the barracks complex. These burials were dated to the 2nd century, based on the finds assemblages, and so are some of the few remains from the early or imperial period phase of the cemetery.[200]

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[197] Groh and Sedlmayer 2000, 568.
[198] Fischer 2002, 47-8.
[199] Ertel 1997, 253.
[200] Ertel 1995, 569-571.

By the second half of the 4th century the cemetery had become extensive enough to cover a large area to the east and south of the vicus, with a large section of it overlying parts of the earlier vicus. This means, of course, that by this time at least this part of the vicus settlement had to have been abandoned, with the inhabitants having moved in closer (if not yet behind) the fort's walls.[201] On the northeastern edge of the settlement there was a heavy concentration of graves, similar in character to those in the larger cemetery. This situation is typical for a civilian settlement in the late antique period, when the population took over for a burial area the parts of the settlement that were no longer in use.[202]

One of the first explorations of the late antique cemetery came at the beginning of the 20th century, on the land in the east vicus that would later house the modern military barracks, when around 330 burials (inhumations) were found. No real records of this discovery remain or were published, but in the 1950s during some renovation at the modern barracks, excavators were able to do a little more work on researching this area of the cemetery. The remains show that the cemetery during this period was densely packed with inhumations, between which were scattered cremation burials. When the cemetery was in use, there would probably have been grave markers for many of the plots. The vicus residents would have been able to discern where burials were located and not disturb them. Few graves were reused, and a visitor would have been able to observe some orderly arrangement of the site, in rows of groups of graves. Over time the

[201] Gassner 1997a, 213-214.
[202] Ertel 1998, 93.

markers disappeared and it became more common for plots to contain repeated or multiple interments, and any systematic layout of the site was lost.[203]

In accordance with the amount of attention paid to the late antique grave remains at Mautern, Christine Ertel's 1997 publication documents in detail the late antique grave structures that have been found and documented from the site.[204] These late burials are the most well known from the cemeteries for both the fort and vicus. Ertel's publication gives a great amount of detailed information on the character of these late grave structures, many of which were uncovered in the early parts of the 20th century,[205] and shows that many had been misidentified when first discovered.[206] She also documents a small number that were intended for cremation burials and date to the 2nd and 3rd centuries.[207]

The excavation work conducted mainly in the east vicus, led by Stefan Groh (assisted by Helga Sedlmayer) in the late 1990s, has been the most extensive and most valuable in understanding both the character and development of the vicus as a whole. While knowledge about the character, growth and development of the vicus does not yet approach that held for the fort, the fairly long history of scattered finds and exploration of

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[203] Ertel 1998.
[204] Ertel 1997, 253.
[205] Riedl 1941; Ertel 1997, 253.
[206] Kainz (1956) identified one such structure (or its remains) as the "Burgus" mentioned in the *Vita Sancti Severini*, which Saint Severin is supposed to have used as a private cell or hermit's abode.
[207] Ertel (1997, 225) has dated all of these grave structures based on their structure type. She also comments that both the cemetery and the vicus itself were probably more extensive in the imperial period than they were in the late antique period. The loose arrangement and orientation of the foundations of the structures possibly indicates that these monuments were a group in a temple district, like the example from the Pfaffenberg at Carnuntum.

a variety of plots and structures in the vicus, and the more modern systematic study of large areas of the civilian settlement do allow a picture to be put together of this vicus.

Traismauer / Augustiana

Geographical Setting and Standing Remains

The fort at Traismauer stood on the right bank of the Danube, southeast of the mouth of the Traisen river, on a low terrace beneath the steeply sloped Venusberg. Today it is situated at a greater distance from the Danube than most of the other forts of the Norican *limes*. During the Middle Ages, the fort complex was almost completely built over by the medieval market place. The center of old Traismauer still preserves some of the outline of the fort's defenses in the walls of its buildings.

Several of the fort's late Roman towers have survived almost completely intact, although substantially renovated and slightly altered in some cases. A fan tower still stands at the southwestern corner of the fort, as does one of the horseshoe towers that was built into the northern wall of the defenses. (Plate 3.12) In modern times, this horseshoe tower has housed a small museum holding a good collection of finds from the site and surrounding area. The most impressive standing remains at the site today consist of the preserved eastern (*porta principalis dextra*) gate to the fort, the *Wienertor*, with its flanking set of horseshoe towers. Various inscribed stones have been built into the exterior and interior courtyard walls of the town's Schloß, as well as into the exterior wall of the horseshoe tower in which the *Heimatmuseum* was located.

Augustiana is listed as the military command post of the late Roman frontier army of Noricum Ripense in the *Notitia Dignitatum*. The *Tabula Peutingeriana* preserves the

name *Tragisamum* for the site. This name is the one that replaced the earlier name of Augustiana and has since been preserved in the modern Traismauer.[208]

The Auxiliary Fort

The late 19th century construction of the railroad line through Lower Austria led to the first major discoveries in the fort and vicus at Traismauer. During the 1960s, the Austrian Archaeological Institute began to conduct excavations in the area of the vicus, although this research has not been systematic or regularly published. The fort has been the focus of opportunistic investigation for the last forty years, especially in the area of the *Schloß*, which probably is located on the site of the *principia* of the fort, and now serves as a museum and exhibition hall.

An early wood and earth fort was built on the site at the end of the 1st century CE. The ground plan seems to have matched the standard layout for an early imperial auxiliary fort, with a rectangular outline, and long sides oriented to the Danube. The fort itself occupied an area of about 3.75 ha. We have the unique situation at Traismauer of having fairly well preserved remains of barracks for this phase of the fort, lying beneath the later stone structures of the barracks and the *principia*. Given the sometimes constant rebuilding that forts went through over their lifetimes, it is unusual that any substantial traces of early wooden forts still exist, and especially for their interior buildings to have survived.

The fort was rebuilt in stone in the 2nd century. Short parts of the north and south encircling defenses, as well as the foundations of a stone tower, for this stone phase of the

[208] Ubl 1997b, 222.

fort have been uncovered. The stone *principia* and its subterranean shrine have been carefully researched as well. (Figure 3.13)

In the course of the 3rd to 4th centuries, fan towers and horseshoe towers were added to the fort's defenses. In the last phase of the use of the fort, a *Restkastell* was erected in the northwest corner of the fort.

While the unit history for the fort still is not entirely clear, we do have more information for Traismauer than some other sites on the Norican frontier. During the early history of the fort, two different *alae* may have been stationed there: the *ala I Thracum* (*victrix*?), followed by the *ala I Augusta Thracum*, for which the fort was named. The garrison change from the one auxiliary unit to the next could have taken place after 122.[209] The *Notitia Dignitatum* also indicates that Comagena was the site for the stationing of a unit of *equites Dalmatae* in the 4th century.

The Vicus

The *vicus* at Traismauer was located on both sides of the street running from the fort's *porta principalis dextra* to the east. Researchers have observed various buildings from the settlement over the years, some of wood construction, others erected in massive stonework. Also known, but not yet fully researched and/or published, are the remains of two complexes, located just outside of the eastern fort gate. Excavators have tentatively identified these structures as the fort's bath complex and a rest station (*mansio*) with a bath with it, both of which are typical types of buildings, and commonly found at other forts.

[209] Ubl 1997b, 222.

Also not published is the information on row houses excavated during the 1980s in the east vicus.[210]

A cemetery is known to have existed on the street running east from the fort and beyond the edge of the vicus. Another series of graves has been plotted south of the vicus and parallel to the fort wall. This line of burials may indicate that there was a road running east to west south of the fort. A late Roman cemetery has been discovered in the area of nearby Stollhofen.

[210] Groh et al. 2001, 40.

Zwentendorf / Asturis

Geographical Setting and Standing Remains

The Roman fort of Asturis is located about 1 km west of the city center of the modern town of Zwentendorf. The site of the fort is situated between the modern highway that runs from Tulln to Wagram, and the Danube. The fort would have been located immediately on the banks of the river, and because of this slightly over half of the northern section of the fort and its surrounding settlement has been eroded and dragged away by the river's waters over the centuries. The Roman fort near Zwentendorf is one of the few forts on the Norican *limes* which was not built over during medieval or modern times; the only post-Roman structure constructed on the site was a small *Restkastell* which occupied the southeast corner of the former fort, and an early medieval cemetery was located within the remains of the former fort.

There are no standing remains at the site today. The location is marked only by a low embankment that falls slightly toward the river to the north, on top of which is a small grove of trees which has the modern designation of a *Weingartel*.

The site of Asturis is mentioned in two ancient sources. The *Notitia Dignitatum* records that Asturis was the site of a *tribunus cohortis*. In the first chapter of the *Vita Sancti Severini* Saint Severin is said to have come from the east into Noricum and Pannonia and to have stayed in a small *oppidum* called Asturis.

The Auxiliary Fort

The site of the fort itself has been known since the 19th century. Chance finds of small artifacts and wall remains led to the identification of the area as the location of an antique settlement. The systematic excavation of the area, and the recognition that it enclosed a Roman fort, came after the Second World War.

By the 1950s investigations supported and conducted by a number of organizations, including the *Bundesdenkmalamt*, the Austrian Archaeological Institute and the regional museum of Lower Austria, had uncovered large portions of the Roman fort, the small medieval fortification that had been constructed in a corner of its defenses, and the medieval cemetery. Much of the information from this research was eventually published by Stiglitz in volume 26 of *Der römische Limes in Österreich* (1975).[211]

The mid 20th century digging at Zwentendorf has been some of the only physical excavation that has taken place at the site, but the investigation of the remains has continued. A project undertaken at the beginning of this century by the Austrian Archaeological Institute, the Aerial Image archive of the Institute for Pre- and Early History and the Vienna firm Archeo Prospections has concentrated on the geophysical examination of the site, yielding important new information about the settlement as a whole.[212]

The early excavations conducted from 1953 to 1962 revealed several large sections of the fort[213] and provided enough information to allow researchers to conclude

[211] Stiglitz 1975.
[212] Groh 2002.
[213] Groh's (2002) observation that the excavators at that time worked only in a series of narrow trenches, crossing the area at irregular intervals, in a manner that was not

that the fort developed through three main building phases over the course of several centuries.

The first fort at the site was a wood and earth structure, of irregular ground plan and dimensions of about 100 m by almost 155 m, that belonged to a chain of fortifications planned and built on the Norican frontier in the second half of the 1st century, probably under the Flavians.[214]

In the early second century[215] the wood and earth structure was replaced by a stone fort, larger than the previous building with dimensions of 160 m by 131 m and an area of about 2 ha. It possessed a more regular rectangular shape, complete with corner and gate towers, as well as towers along the lengths of the walls. (Figure 3.14) Some changes to the interior buildings of the fort became necessary during the later 2nd century or beginning of the 3rd century after a fire destruction that occurred at that time. Stamps of the *legio II Italica* on tiles from a collapsed roof testify to the work this unit did to repair barracks that had been damaged or destroyed.[216]

Information about the units occupying this fort also has been obtained from brick stamps found at the site. They provide evidence for the middle imperial period for the *cohors V Breucorum civium Romanorum equitata* as well as the *cohors I Asturum*, the unit that gave the site its name.

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conducive to figuring out connections or relationships among the layers and buildings of the fort is an accurate one.

[214] Some remains of this first fort have been found, and the date has been confirmed by ceramic and coin finds (Stiglitz 1975).

[215] Once again, a coin recovered from the *principia* of this first stone fort provides a date, during the reign of Trajan, and connects this building to Trajan's operations on the lower Danube during this time period.

[216] Stiglitz 1975.

The second stone fort at the site dates to the reigns of Constantius and Valentinian, and falls in line with the reworking of many of the Danube forts. This late antique phase of the fort and the post-military history of the complex are tied to the reforms that divided the army into *limitanei* and *comitatenses*.

This change is in evidence at Asturis in the latest phase of the fortifications. Excavations, particularly in the central area of the fort, reveal that the stone interior buildings including the *principia* were replaced by wooden buildings of irregular plan. Postholes for these buildings give a good idea of their dimensions and show that they did not follow the orientation of the earlier stone military buildings on the site. While these buildings were simpler in plan and building materials than the earlier army headquarters, some were equipped with heating systems.

The Vicus

The project in geophysical prospection, begun in 2001, has provided the majority of our information about the vicus at Zwentendorf.[217] The first step in the project was the interpretation of a store of aerial images of the site, some of which had been taken beginning in the 1970s. Study of these resources resulted in a systematic interpretive mapping of the archaeological structures in an area of about 50 ha.[218] Subsequent phases of the project focused on geophysical measurements of the site using a caesium-gradiometer-magnetometer, as well as a ground penetrating radar device in the area of the fort itself. The resulting images were analyzed and interpreted using ArcView GIS.

[217] Groh 2002.
[218] Doneus, et al. 2000.

The results of these investigations reveal that there was an extensive vicus, covering an area of about 30 ha, to the east, south and west of the fort. The images reveal the organization and arrangement of a variety of vicus buildings, as well as the road network and two cemeteries in the immediate area of the fort and vicus.

The vicus was arranged around three streets branching off to the south from a larger road that ran past the southern wall of the fort. The land along the three streets was parceled into strips measuring 10 m by 50 m. Excavators have concluded that this land parceling and development occurred simultaneously with the building of wooden structures within the plots of land. These wooden houses are clearly identifiable in the new images from the series of large dark pits and postholes that they left behind, and were clearly pit houses, round in plan and partly sunken into the ground.

Further information about the character of the civilian houses built at Zwentendorf comes from the late Roman material uncovered in the 1950s and 1960s in the interior of the fort. Those excavations revealed the remains of a series of wooden buildings, some of which were supplied with hypocausts that were built over the debris of the fort's former administrative buildings. The houses that were built there were not pit houses, but instead were more rectangular in plan, although they also were constructed of wood. The few houses in the interior of the fort at Zwentendorf run more or less in an east-west direction and are about 30 m long and 10 m wide. They are divided into two rooms of unequal size. In plan, they reveal a strong similarity to the typical vicus row houses.

The third phase (2003/4) of the geophysical investigation involved the further prospecting of the fort area combined with surveys to collect surface finds, and small-scale excavations. The results of those activities have not yet been published.

The first grave structures were found about 250 m from the fort, along the road leading from the camp's south gate. This is the only evidence that we have for a cemetery for the fort and vicus.

Tulln / Comagena

Geographical Setting and Standing Remains

The fort at Tulln lay on the right bank of the Danube on a flat lower terrace of the Tullnerfeld between the estuaries of the Large and the Small Tulln rivers. As a consequence of its physical situation and the changing course of the Danube, about half of the north side of the fort has been washed away. The ruins of the fort were built over in the early Middle Ages, furthering the destruction of the Roman buildings. The structures or parts of that structures that were not destroyed often fell victim to stone robbing, except for the *Salzturm*, the one late Roman horseshoe tower that stands practically intact today, overlooking the Danube. (Plate 3.13) The ruins of the *porta principalis* have been uncovered and preserved and can be seen today in the garden of the regional hospital at Tulln.

Comagena is listed in the *Tabula Peutingeriana* and the *Itinerarium Antonini* as a road station; in the *Notitia Dignitatum* as the garrison fort of the *equites promoti*; and in the *Vita Sancti Severini* as one of the several sites that Severin visited in his travels.

The Auxiliary Fort

The excavation history of the fort is comprised of a series of 19th and 20th century finds of inscriptions, coins and minor artifacts and the activities of the local *Heimatmuseum*, the Austrian Archaeological Institute and the *Bundesdenkmalamt* to bring to light the fortifications of the Roman military complex. The information from these sources has allowed a picture of the development of the fort at Tulln to emerge.

The Flavian structure, the first fort at the site, had a rectangular ground plan with its short sides oriented to the Danube, covering an area of about 4.2 to 4.5 ha. A second building phase, during which the fort was refurbished and enlarged, took place during the reign of Trajan and used the earlier fort's packed-earth *vallum* for a front wall made from sun-dried clay bricks. This building method originated in the east and was not commonly used for the forts on the western *limes*.[219] It was during the reign of Marcus Aurelius that the transformation of the whole fort into stone was completed. (Figure 3.15) In the third century the fort was affected by at least two fire catastrophes, and coin finds indicate that these two fire events should be dated to the years 258 and 283.[220] Sometime in the course of the 3rd to 4th centuries the fort again was renovated and provided with fan and horseshoe towers (the *Salzturm* dates to this period). During this era Comagena was in use as a military support point for the Danube fleet and cavalry.

A third catastrophic event affected the fort in the second half of the 4th century. During the subsequent extensive rebuilding, the fort was reduced in size and a *Restkastell* was constructed in the northwest quarter of the fort. The rest of the fort was taken over and occupied by civilians, so that by the time of Saint Severin the fort had turned into a defensively walled small town with a civilian population.

The name Comagena comes from the title of the only garrison troops certain to have been in residence at the fort during the middle imperial period. This *ala I Commagenorum* was originally a "royal" cavalry unit from the client kingdom of

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[219] Ubl 1997c, 227. The employment of this building technique provides further evidence that the unit originating in eastern Kommagene was the one responsible for the building of this phase (at least) of the fort (Fischer 2002).
[220] Fischer 2002.

Kommagene in eastern Asia Minor.[221] When that client kingdom was annexed by Rome in 72 CE, the cavalry unit was moved to Egypt, but by the year 106 it already belonged to the army of the province of Noricum. Evidence from stone inscriptions testifies that it was still in this province in the third century.[222] The *Notitia Dignitatum* places an *equites promoti* (a unit originally formed from the legionary cavalry) and a unit of the Danube fleet at Comagena in the 4th century.

The Vicus

The *vicus* appears to have been located to the south and west of the fort. The main part of the settlement stretched along the road leading out from the south gate of the fort.

Some wall courses have been identified between the parish church and its charnel house, and a large building complex with a hypocaust system was found underneath the church. Roman building remains under the *Minoritenkloster* have allowed researchers to say that the vicus also existed or extended in front of the western fort wall.[223]

In the west vicus excavators found part of a row house dating to the 2nd or 3rd century. Stone foundations were covered by several phases of flooring. The house was about 6 m in width and was at least 34 m long. It appears to have been bordered on its north side, one of the short ends, by a street. Under the stone foundations, excavators

[221] Ubl 1997c, 227.
[222] Fischer 2002.
[223] Ubl 1997c.

found the remains of an older wooden building, and the whole complex had later been covered over by the late antique cemetery.[224]

The cemeteries associated with the complex lay along the streets leading out from the fort and vicus. The older (oldest) of the cemeteries was located to the west of the fort, while a later one was situated to the south and southwest. The 1990s work in the area of the late antique cemetery brought to light over three hundred graves, some in earth, stone plate or brick plate or walled chambers.[225]

[224] Wewerka 1999, 430-432.
[225] Bachner 1993a.

Zeiselmauer / Cannabiaca

Geographical Setting and Standing Remains

The fort at Zeiselmauer was the eastern-most complex maintained by the Roman army for the Norican frontier, the sites farther east belonging to the province of Pannonia. The fort itself lay on a slightly northward projecting terrace of the eastern Tullnerfeld, only a few meters above the water level of the Danube.

The fort at Zeiselmauer in its late antique incarnation is among the best preserved forts of ancient Noricum. Upon approaching the small modern town it immediately becomes apparent that the outline of the fort walls has determined the shape and extension of the city center. The parish church and its grounds lie in the heart of the town, while the surrounding town buildings have been shaped into a compact rectangle. As the modern visitor continues east through the town, past the church, a wonderfully preserved square tower rises at the edge of the site. (Plate 3.14) This tower marks the location of the *porta principalis dextra*. Although substantially restored, and in spite of the fact that it abuts a modern home and seems to serve the present landowners as a sort of garage and storehouse, the tower still maintains its late Roman character. Farther along the circuit of the town to the north, the remains of an earlier round tower that stood at the northeast corner of the fort occupy the backyard of a small modern house, apparently serving the present family as a back wall to their patio and barbeque area. At the northwest corner of the fort, substantial remains of the exterior walls and interior courtyard of the late antique *Burgus* still survive unaltered from their ruined state.

The *Notitia Dignitatum* is the only ancient source that records the site of Cannabiaca.

The Auxiliary Fort

The first Roman finds from the site were recorded in the 18th century. Local antiquarians who discovered various objects and occasionally wrote about them in small regional publications made these early discoveries. These types of chance finds continued into the 19th century, and were sometimes quite spectacular in nature, as with the 1854 discovery in a nearby field of a small hoard of gold coins from the reign of Valentinian III.

Nineteenth and early 20th century finds of Roman graves began to lead their discoverers to the idea that Zeiselmauer had been the site of some type of Roman settlement. Researchers in the early 20th century misidentified the nature and date of the standing wall and tower remains; recognition that they were Roman came in the 1960s.[226] Scholars apparently were able by then to conclude that the standing remains were late antique and so surmise that they must have been preceded by earlier Roman fort structures on the site.

Since 1969 the *Bundesdenkmalamt* (under Hannsjörg Ubl) has been monitoring construction work in the town of Zeiselmauer and conducting rescue operations and salvage work when the opportunities have arisen. There were excavations in 1969-70 and 1973-75 in the city center and area of the parish church while new building in that

[226] Genser 1986c; Ubl 1997e.

part of the modern town was taking place. In the 1970s the *Bundesdenkmalamt* also worked to restore the standing late antique remains.[227]

The 1980s excavations in the city center were a result of one of the salvage operations. They revealed parts of the barracks buildings, a workshop building with a warehouse or granary, a part of the fort wall and foundations of the early wood and earth fort. Investigations conducted underneath the parish church uncovered the *principia* and allowed archaeologists to conclude that the military shrine, probably in the late antique period, had been adapted to function as a Christian cult room.

The first fort at the site was a wood and earth construction, with interior buildings of half timbering. This structure dated to the 1st century, probably the Flavian period or last decade of the 1st century, and burned not long after its construction. It was rebuilt in stone in the 2nd century. This first stone fort may have been built during the reign of Marcus Aurelius[228] and was about 150 m by 135 m in size, enclosing an area of about 2.025 ha. (Figure 3.16)

The different stages of the defensive circuit of the fort reveal through brick stamps, starting in the 2nd century, the presence of both the *legio X Gemina* from Vindobona (Vienna) and the *legio II Italica* from Lauriacum (Lorch-Enns). Neither of these units was ever stationed at the fort, but soldiers from those legions were responsible for construction of the stone auxiliary fort.

Over the next three centuries various changes were made to the fort's defenses, although it appears always to have been an auxiliary fort with a square ground plan built

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[227] Ubl 1967.

[228] Excavators recovered a coin dating to the reign of Marcus Aurelius in the wall work of this phase of the fort, as well as brick stamps from the *legio II Italica* (Genser 1986c).

for and housing a *cohors quingenaria*. The transformation of the wall defenses from having in-between and corner towers to horseshoe and fan towers came at the end of the 3rd century.[229] These towers were replaced in turn by the horseshoe and fan towers typical of late antique forts on the frontier. It was probably during the reign of Valentinian that a tower-type square structure with an interior courtyard was erected on the northwest corner of the fort.[230] This *Restkastell* was still being used and adapted (undergoing building changes) in the 5th century. The remains that exist today are parts of the defensive complex of that later adaptation from the late 3rd century into the 5th century.

The observed changes to the *principia* also provide information about the later history of the fort in the 4th and 5th centuries. These changes included the redesigning of the shrine room in the 4th century, and the introduction in the 5th century of a hypocaust system into the older buildings that had not originally been built or meant for habitation. This change in particular matches up with the retreat of the troops to the *Restkastell* and the transformation of the fort into a small civilian town in the last century of the *limes*.[231]

The unit first stationed in the wood and earth fort is not known. Researchers have surmised that a cohort known to have been part of the Norican army at that time, and one that apparently gave its name to a site or fort in this area, could have been in residence in the 1st century. Inscriptions found in Austria testify to the presence of a *cohors I Asturum*, but there is no physical evidence that this cohort was ever stationed at Zeiselmauer. The

[229] Ubl 1997e.
[230] Ubl 1967.
[231] Ubl 1997e.

closest finds have come from near Zwentendorf: three brick stamps with CIAST on them, which could be read as COH I AST and so testify to this unit's presence in this area.[232]

The first unit stationed at the 2nd century stone fort probably was the *cohors V Breucorum*. Brick stamps for this cohort have been found at Zeiselmauer. In Ubl's opinion, the troops from this unit may have been only a small vexillation, sent to the site as a sort of construction crew, and so stationed there for only a short time.[233]

A dedicatory inscription provides evidence for the presence of the *cohors II Thracum equitata pia fidelis*, which came from Britain around the year 122 to join the Norican army. This unit remained at the fort until or into the 3rd century, at which time they returned to Britain. Other troops that were stationed at the site, probably always cohorts, are not known by name. The reference to Cannabiaca in the *Notitia Dignitatum* refers only to a cohort of border troops at the fort during the late antique period.

The Vicus

In the early 20th century, after researchers took advantage of new construction work near the train station, an account reported that some Roman finds had been uncovered in the "civilian settlement of Cetium."[234] This appears to be one of the first references to a vicus at Zeiselmauer. These are the only investigations of the civilian settlement that have taken place, and they were mainly chance discoveries and quick explorations more than systematic excavations.

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[232] Genser 1986c.
[233] Ubl 1997e.
[234] Pittioni 1946. It was at this point, around 1910, that the Niederösterreich Landesmuseum became involved with the investigation of this area of the site.

The groupings for those early finds reveal that the vicus was located to the south and west of the fort. A cemetery containing both cremation and inhumation graves also has been identified to the southwest of the vicus, and today is found on both sides of the railroad line. Publications of finds from the two areas merely outline the types of finds that came from the sites or detail particular objects of interest. Very few structural remains from the vicus have been uncovered, and almost none have been written about or planned.

Chapter 4: The Character and Development of the Norican Vici

The Origins of the Vicus

The origins of a vicus are usually closely tied to the origins and development of the auxiliary fort with which it was associated. Most authors considering the origins and nature of the vicus support, or take for granted, the idea that the original inhabitants of the vicus were the camp followers who made their way through the province or a certain region in the wake of an active auxiliary unit, stopping to set up camp or residence whenever "their" unit did. This group of camp followers was made up of men, women and children who had ties to the auxiliary unit, and who may have been dependent on the soldiers in some way, but who were not directly connected to the Roman army.[235] The only exception may be the veterans who, once they had completed their term of service, sometimes settled in the vicus, next to or near the fort and unit in which they had served.

The members making up this group of general camp followers are most often classified as traders, handworkers, craftsmen, landlords, bakers and cooks, and we may perhaps add in the categories of fortune tellers, priests, actors, musicians, dancers and prostitutes.[236]

The vicus would also have been home to the families of the soldiers themselves. Although there were restrictions against soldiers marrying while they were enlisted men, it is well known that many of them had either formed relationships with women before they joined the army or did so once they were stationed somewhere in the empire,

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[235] The Romans recognized this group of camp followers as well. The Latin word is *lixae*.

[236] Both Gassner (1997b) and Sommer (1997) list all of these categories for the residents of the vicus.

supporting and raising families even while they served their time in the military. Thus the soldiers had both business and personal ties to the vicus inhabitants.

In most descriptions or discussions of vici, a stereotypical scenario is imagined for the origins and development of fort and vicus. Once an auxiliary unit had settled, or appeared to settle, for some length of time in one area or spot, the soldiers would begin to set up a regular camp. This station would be viewed as permanent, even if the defenses of the fort and its interior buildings were constructed of earth and timber and not stone. As the soldiers constructed a military home for themselves, the camp followers would begin to do the same. They would settle in a convenient and advantageous spot, often very close to the walls and gates of the fort, and begin to construct their own "permanent" buildings, also often in timber and other materials less hardy than stone. In time, both fort and vicus would usually "petrify," as earth and timber were replaced by stone.

Sommer notes that the decision to construct a permanent fort (even a fortlet) was not one that was made lightly or quickly, and that the soldiers meant to occupy the new installation would have received some advance notice (of transfer from their previous location).[237] He surmises that the camp followers, especially those with a close relationship to a soldier, may also have received some advance notice of the building of a permanent fortification, and therefore may also have had the opportunity to make plans and arrangements for a change of residence.

The construction of the new fort – the clearing of land, preparations for building, and the building work itself – would not have escaped the notice of the resident native

[237] Sommer 1984, 6-7.

population, either. The building activity would have let them know that a new military installation and a new group of soldiers (and their pay) were moving in.

For four of the fourteen Norican military installations under investigation, no physical remains of a vicus have been found.[238] For half of the remaining ten sites, a vicus has been identified, but has been so poorly studied and/or documented that very little is known about its origins or development. For the remaining five vicus sites, it is possible to examine their origins in relation to those of their associated forts.

The vicus at Passau has been dated to the 2nd and 3rd centuries. This post-dates the earliest known fort at the site by almost a century. If the vicus there was not founded until several decades after the erection of the fort, then this situation would vary from the standard expectations for the foundation of a civilian settlement once a military installation was established. In the case of Passau, this apparent deviation from the "normal" situation has led scholars to suggest that there must have been an earlier vicus (or earlier section of the vicus that has been excavated) at the site, dating to the 1st century and so contemporary with the fort. In this case, vicus "theory" has worked to set up an understanding of the development of the site that has not yet been matched by archaeological evidence. It is true, nonetheless, that the area immediately to the west of the Boiodurum fort never has been systematically investigated, and so it is possible that the early core of a civilian settlement does exist at the site.

At Schlögen, the opposite situation from the one evident at Passau exists. The fort at the site dates to the second half of the 2nd century; the vicus has been dated to the middle of the 2nd century. No traces of an earlier military complex have been identified

[238] A vicus has not been identified at Oberanna, Albing, Mauer an der Url or Pöchlarn.

at the site, but that has not stopped excavators from using the vicus' existence to suggest that Schlögen could have been the location for an early 2nd century road station or some similar type of minor post.

For Mautern, the best excavated of the Norican vici, knowledge of the origins and development of the vicus is clearer. Excavations on one strip of land in the east vicus differentiated five vicus periods in the building history of the site. It is true that the resulting chronology put together from this limited area can in reality only be understood to apply to this particular section of the site. In the excavator's opinion, however, this timeline could also be representative of the history of the rest of the vicus.[239]

Vicus Periods 1 and 2 cover the time period from c. 90 CE to 170/80 CE, and correspond to Periods 1 and 2 of the auxiliary fort. Period 2 in the vicus dates to c. 170/80 and matches Period 3 for the fort. Vicus Period 3 stretches from c. 170/80 to 260, corresponding to Period 4 for the fort. Vicus Period 4 is dated roughly to the 4th and 5th centuries, which cover Periods 5 and 6 in the fort. Period 5 for the vicus is defined as the modern habitation on the site, stretching up to the present day.[240]

The foundation of the earliest fort built in wood and earth has not been exactly dated, but the sparse finds recovered during recent excavations of the interior of the fort have provided a general date for the foundation of this structure in the last third of the first century CE. One of the most important things gained from Groh's 1997 excavations was the great number of dated finds assemblages. The materials from the houses of the first building phase in the east vicus reveal that they, as the excavation information stands now, are uniform or all contemporary and date to the beginning of the 2nd century,

[239] Groh et al, 2001, 17-25.
[240] Groh et al, 2001, 17.

contemporary with the earliest wood and earth fort on the site and with the first enlargement of the fort (Period 2). Finds from the 1998 excavations appear to support this dating. As with the fort, this is hardly an exact date for the start of the vicus. Based on all of the assembled information, as well as the "standard theories" about camp followers setting up in tandem with a fort's soldiers, nothing contradicts the idea that the vicus at Mautern had its origins in conjunction with and in the same time frame as the first wood and earth fort that was built on the site.[241]

The results of Stiglitz's 1971 excavation in the area west of Mautern, with the ceramic finds published by Gassner and Kaltenberger, gave a time horizon from the last fourth of the 1st century through the first half of the 3rd century for this area of the vicus. This ceramic spectrum beginning in the last quarter of the 1st century could at least suggest a beginning point for the west vicus.[242]

Finds from the west vicus also suggest continued settlement there through the 3rd century. It is not clear what form this settlement took, how it may have differed over time from its original layout, whether the settlement area had been reduced in size, or whether the wooden buildings were, at least in part, being converted into stone buildings. The excavations from 1997 to 1999 in the east vicus uncovered numerous pits, very fragmentally preserved stone foundations and large wells with walled shafts that dated to the 3rd century. These correspond to stone foundations found in the west vicus and the building-over of the stone structures from the south vicus. The finds spectrum of the

[241] Groh's work in the vicus in 1997 does suggest that this settlement in the eastern rim area of Mautern was left or abandoned not long after it was first built, but then probably in the second half of the 2nd century built anew, based on the evidence of the numerous pits and structures that date to this period (Groh 1997).
[242] Groh et al. 2001, 84.

Terra sigillata from the west vicus (from the *Hauptschule* excavations of 1971) suggests an end or an interruption of settlement activity in the first half or middle of the 3rd century.[243] Groh suggests a similar cessation of activity in the east vicus around the middle of the 3rd century.[244]

For the later history of the vicus, the question of the continued existence of a village-type settlement in the environs of the late antique fort from the middle of the 3rd century to the beginning of the 4th century is problematic.[245] No substantial building structures or house complexes, comparable to those that existed and have been documented for the earlier periods of the vicus' history, and that could be dated to the same period, or give some idea about the use of the area during this stage of the site's history, have been found yet.[246] During the 1998 excavations archaeologists found materials that dated to the second half of the 3rd century and from the late 4th and early 5th centuries. The coin spectrum for the vicus reaches into the 4th century, and then ends altogether for Noricum.[247] The 1996 excavations in the east vicus uncovered pits, postholes, a wooden well and a well with a walled shaft.[248] The ceramic finds from this work showed that this area was used in the late antique period. This is confirmed by the finds from the 1997-1999 excavations.[249]

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[243] Gassner and Kaltenberger 1995.
[244] Groh et al. 2001, 26.
[245] Groh et al, 2001, 26-27.
[246] But Groh (Groh et al. 2001, 27) points out that Zabehlicky's group in 1991 found the remains of a hypocaust system of a type typical for late antique houses. See Zabehlicky 1991b.
[247] The coin spectrum, with over 600 coins in it, was published in the work on the 1996-7 excavations of the fort, Groh et al, 2001.
[248] Groh et al. 2001. See also Kreitner 1997.
[249] Groh et al. 2001.

Each of the situations at Linz and Lorch-Enns is unique in the context of the Norican sites as a group. At Linz a variety of ancient settlements grew up at the site, some of which seem to have predated the fort and may not have owed their existence to the presence of the Roman army. The industrial or commercial sector that has been identified on the Martinsfeld appears to have developed continuously from the La Tène period into the era of Roman occupation. In the area of the former Celtic hillfort or *oppidum* on the Freinberg a Roman settlement developed from the 2nd century through the 4th century. The civilian settlement in the immediate vicinity of the fort is contemporary with that military complex; both were erected in the 1st century. In the case of the Martinsfeld and Freinberg sites, those settlements technically would not be considered vici, and do not seem to have formed a part of the vicus proper at Linz. However, it seems clear that the residents of the Martinsfeld and Freinberg settlements also could have maintained some interaction with both the vicus inhabitants and the soldiers garrisoned at Lentia.

At Lorch-Enns the situation is different because the military complex was a fortress and so the associated civilian settlement would be a canabae, and because there were a variety of settlements of different status in the area of the military installation. The earliest civilian settlement at the site, the "early vicus," dates to the 1st and 2nd centuries. In an effort similar to that for Schlögen, scholars occasionally have used the existence of this 1st century settlement to suggest the presence of a 1st century auxiliary fort for Lorch-Enns, although none has been identified. Once the legionary fortress of the *legio II Italica* was erected in the 2nd century, a canabae did develop to the north of the fortress.

The situation at Lorch-Enns is further differentiated from those of the other Norican sites because it was the site of a civilian settlement that was granted city rights under Caracalla at the beginning of the 3rd century. The inhabitants of this civilian city may have enjoyed a substantial interaction with the soldiers in many of the same ways that the vici did.

In light of the fragmentary nature of the exploration of many of the Norican vici and of the special situations of a handful of the sites, it is difficult to provide concrete evidence for the contemporary erection and development of vici with forts. Noricum, given the present state of knowledge, may not be held up as a textbook case for this hypothetical picture of provincial vici origins. As Table 4.1 indicates, of the four sites for which we have enough information to discuss the origins of the forts and vici, two appear to be contemporary with their forts and two do not. On the other hand the information that we do have about several of the vici does not suggest a substantially different situation.

Table 4.1 The Origins of the Vici

Vicus Site	**Century of Origin**		**Contemporary with Fort?**
	1st century	**2nd century**	**Yes/No**
Passau		X	No
Schlögen		X	No
Mautern	X		Yes
Linz	X		Yes
Lorch-Enns	X		Not known

The Position and Layout of the Vici

The vici usually grew up close to the actual defenses and walls of the auxiliary fort. In many cases, the settlement developed along one of the main roads leading out from the gates of the fort. This situation probably was related to convenience and to allow the inhabitants of the vicus to attract or take advantage of any traffic traveling to and from the fort. The road would then be the "backbone" of the settlement as it grew out from that original string of buildings.[250]

The geography of the Norican *limes* determined at least one aspect of the location of all the known vici on this frontier with the exception only of Lorch-Enns. The forts were built close enough to the banks of the Danube to prohibit the construction of any further settlement along the shores of the river. In all cases, this means that none of the civilian settlements were located to the north of the forts (Table 4.2) At Lorch-Enns, the fortress was not positioned directly on the banks of the river and the canabae did develop on the north side of the fortress.

At Passau the vicus was located to the south and southeast of the fort. Estimates of its area range from 50 to 200 ha.[251] It developed along the road running from the fort gate to the east in the direction of Linz. Remains of that street have been identified in the vicus, and the row houses in the settlement were set up with their narrow ends bordering the street.

The vicus at Schlögen was located to the west of the fort and was separated from it by a north-south running stream. Although few building remains from the vicus have

[250] Sommer 1997:155.
[251] Niemeier and Wolff 1999, 30.

been uncovered, it does seem generally to have stretched in an east to west direction on this side of the fort.

For Linz, the remains of the non-vicus civilian settlements have been investigated more carefully than those of the vicus proper. So few structures have been identified for the vicus that it not possible to determine if the vicus' settlement area was concentrated in one particular area in relation to the fort.

The early vicus at Lorch-Enns developed along both sides of the *limes* road that ran east to west through the site, and north of which the 2nd century fortress would be built. As the vicus grew it spread farther to the west beyond its original core, but still hugged the road. Since no 1st century auxiliary fort has been found at Lorch-Enns, it is impossible to say whether or not the vicus' position was determined by such a fort's location. We may hypothesize, however, that if the 2nd century fortress was built in the general vicinity or even on the exact site of an earlier structure, then the vicus would have been located to the south (and so beyond the *porta principalis dextra*) of this complex.

The canabae of the fortress was situated to the north of the military complex. So little has been written about the canabae that it is not possible to comment more on its layout or development. The situation at Wallsee is similar. Based on the concentration of artifacts from the site excavators have stated that the vicus must have been located to the south of the fort, but no more is known about the settlement than that.

The early excavations in the Mautern vicus helped excavators form their initial ideas about the nature of the civilian settlement, but research over the last ten years has provided evidence for a good if incomplete picture of the vicus' character and development. The deciding factor for the layout or arrangement of the fort was above all

the topography of the terrace overlooking the Danube, and this appears to have also been true for the vicus.

Excavations in the vicus have established the size and extent of the settlement, which is estimated at over 20 ha.[252] It seems that the largest part of the vicus and the area in which it spread was to the east of the fort. This is indicated by settlement finds and also by the existence and location of the cemeteries. Ancient building structures and remains stretch both east and southeast of the fort to a distance of 400 meters. There is also a late antique cemetery located at a distance of 400 to 700 meters from the fort. In the area of this cemetery and some 1000 meters east of the fort, on the road to Traismauer (Augustiana), they have found cremations and other imperial-period grave structures, which provide evidence for an early necropolis, while the dating of the late antique cemetery falls in the second quarter of the 4th century and ends at the beginning of the 5th century.[253] To the east of the fort, no vicus buildings have been found closer than about 100 m from the eastern fort wall.[254]

In the south vicus, finds stretched up to about 200 meters from the fort, and a late antique cemetery stretches away to the south of the fort even farther than that.[255] No vicus structures have been identified in a c. 80 to 100 m wide strip beyond the southern wall of the fort, but this area of the vicus has been heavily built and rebuilt over the centuries, making it difficult to assess securely the presence or absence of vicus buildings in this area.[256]

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[252] Groh and Sedlmayer 2000, 567.
[253] Groh et al 2001.
[254] Groh et al 2001, 10.
[255] Groh et al 2001.
[256] Groh et al 2001, 9-10.

A relatively small number of finds indicate that the vicus stretched about 200 to 300 meters to the west of the fort. There are quite a few grave finds that have come from that area, but they have not been closely identified in terms of provenience or date.

The total area covered by the vicus can only be estimated. East of the fort we have a built-up area of about 10 ha; to the south and west of the fort the built-up area stretches to about 12 ha in size, giving a total area for the imperial-period vicus of about 22 ha. But the current state of archaeological information or knowledge cannot yet indicate the extent of the vicus during any one single phase.[257]

At Traismauer the vicus formed to the east of the fort on both sides of a street running from the fort's *porta principalis dextra*. For Zwentendorf, the fact that the site has never been built on has allowed aerial photography to provide good information about the location and layout of the vicus. The civilian settlement was located to the east, south and west of the fort and covered an area of about 30 ha. The vicus was arranged around three streets that broke off to the south from a road that ran past the south wall of the fort. At Tulln, the area of the vicus that has been identified was located to the south and west of the fort, with the main part of the settlement seemingly ranged along both sides of a road that led out from the fort's south gate.

Table 4.2 reveals that there does not appear to have been one particular area of preference for the location of the vici in relation to their forts. The majority of the sites had civilian occupation to the south of the forts, but at three of these sites, the vici also developed or spread to the east of the fort as well. Likewise, at three of the sites where

[257] Groh et al. 2001.

the vici occupied land to the south of the forts, they also inhabited an area to the west of the forts.

Table 4.2 The Position of the Vici

Vicus Site	Position with Relation to Fort			
	North	**East**	**South**	**West**
Passau		X	X	
Schlögen				X
Lorch-Enns			X	
Mautern		X	X	X
Traismauer		X		
Zwentendorf		X	X	X
Tulln			X	X

C. S. Sommer's research of a variety of vici, in Britain but especially in Germany, has led him to develop a typology for military vici based on their location in relation to their forts and on their basic layouts. The "through-road-type" developed along at least one of the major roads that led out of the fort. The "tangent-type" vicus was situated along a minor road in the area that was close by but does not connect directly with the fort. The "ring-type" vicus describes a settlement in which buildings were grouped along the far side of a road that ran around the fort.[258]

[258] Sommer 1999,175.

Of the Norican vici for which there is enough information to determine their type based on Sommer's classification, the majority were "through-road-type" vici (Table 4.3). The vici at Passau, Traismauer and Tulln clearly fall within this category. The situations at Schlögen, Linz and Lorch-Enns are harder to assess. The remains of the vicus at Schlögen are arranged in an east to west direction to the west of the fort, but no remains of a road through the settlement have been found. If such a road did exist, it may have led out from the western gate of the fort. If it did, it would have had to cross the stream that ran between fort and vicus. The existence of such a bridge has been considered by the excavators of the site and admitted as a possibility, but no traces of such a structure have ever been found. The vicus at Zwentendorf probably should be classified as the "tangent-type."

The situation at Mautern is slightly more complicated. Groh has pointed out that, based on our current knowledge of the site, it is reasonable to assume that the excavated areas of the vicus correspond to a hypothetical street network, with the structures ranging along one of the main roads connecting with the fort. But, at Mautern, the true connecting roads between Traismauer (to the east of Mautern) and the nearby watchtowers in the Danube valley (to the west of Mautern) cross the vicus at a distance of about 100 m to the south side of the fort. From these streets, another road branches off to the north, leading to or in the direction of the *porta principalis dextra* of the fort. The 1997-99 excavations in the east vicus revealed a connecting road between those two main roads that lay parallel to the eastern side of the fort at a distance of about 200 m.[259] Based on this evidence, in Groh's opinion the vicus at Mautern is a mixed type, or a

[259] Groh et al. 2001, 28-36.

combination of the "tangent-type" and the "ring-type." He comes to this conclusion in spite of the fact that it is not known whether or how wide of an unbuilt area there was around the fort. The only certainty is that in the south vicus, the closest structure identified near the fort was located at a distance of about 80 to 100 m from its south wall. To the east of the fort, no building structures have been found in the area about 100 m from the eastern wall of the fort.[260]

Table 4.3 Layout of the Vici

Vicus Site	**Type**				
	Through-Road	**Ring**	**Tangent**	**Combination**	**Unknown**
Passau	X				
Schlögen					X
Linz					X
Lorch-Enns					X
Mautern				X	
Traismauer	X				
Zwentendorf			X		
Tulln	X				

[260] Groh et al. 2001, 28-36.

Authority and government of the vicus

The consideration of the chronological and physical relationship of the vici to the forts brings up the related issue of their administrative connection to the military complexes. Because records, texts and inscriptions are almost entirely lacking for the vici it becomes very difficult to reconstruct an accurate picture of the official character of the vici and how they were founded, managed or governed. Therefore, information and opinion on this subject vary. For example, Verena Gassner, considering the vici of Noricum, presents a picture of a territory (the vicus land around the fort or fortress) under military order, and belonging to the administration of the prefect of the auxiliary fort or the legionary commander, in the case of a canabae. This land around the fort is also where various military activities took place, because lack of room, or safety or noise pollution, kept them from conducting these activities inside the walls. This area also could include the craft activity of metalworking; or often was the location for ceramic and brick ovens. Also, it could be used for the cavalry and some other troops, who had horses, and pack animals who needed pastures and room for food production and grazing areas. The army also needed a place for the daily exercises, both the practice of soldiers and animals.[261]

[261] Although few sources mention the status or government of the vicus directly, there are some that deal with military matters that refer to the land around a fortress as the *prata legionis* ('meadow' of the legion), or simply as the *territorium legionis*. From literary and epigraphic sources (especially from the shrine on the Pfaffenberg by Carnuntum) we know, that there were procedures for the expansion of this territory. Inscriptions also call this area reserved for the military *intra leugam*. And a *leuga* was originally a Gallic measure for length and was about 2.2 km long. This length was measured out from the mid-point of the fortress (the crossing of the *via praetoria* and the *via principalis*). The supposition is that the land was then designated for military use (Gassner 1997b, 60-61)

Gassner's scenario presents a case in which the vicus inhabitants lived on the military territory more or less at the whim of the military administration of the fort. They would have lived with the fact that the military held the right to land they inhabited; they also had no right to the acquisition of their own land or to buy the land for themselves.[262]

Gassner does believe that although the vicus inhabitants living in the military territory around the fortress were subject to the military in a sense, they also had the possibility of forming their own city administration or government as the *municipia* (autonomous cities) did, although this situation also was dependent on the military. But over time, many of these settlements established for themselves a "quasi-municipal" administration, at the top of which were two officials, the *magistri*. Residents who weren't willing to accept this situation, or give up the right to own their own land, settled outside the military territory, in their own village or vicus. But since they probably still also wanted to participate in the trade and economy that the military site generated, they usually settled down close to the edge of the *leuga* border and so wouldn't have long or far to travel or transport goods.[263]

C.S. Sommer's research on the vici of both Britain and Germany has allowed him to provide a variety of information on this issue. Such knowledge has only been gained as the vicus settlements themselves have been thoroughly excavated and investigated, and where and when enough evidence of the early history and development of the vici is known to comment on the nature of the relationship and cooperation between fort and vicus. In his 1984 examination of the British vici, Sommer adheres to the idea that while the fort's inhabitants and leaders gave tacit approval to the vicus, their involvement in the

[262] Gassner 1997b, 61-63.
[263] Gassner 1997b, 61-63.

vicus' settlement and status did not extend much beyond that.[264] However, later comments regarding the vici in Germany lean in a slightly different direction.[265] Those German sites, in his opinion, have provided evidence that building space in the vicus was laid out and allocated by the military. His conclusion is that the army laid out clearly delimited plots of land, set rules for how those plots could be used, and kept an official registry of this practice.

Sommer's conclusions on this subject come in his comments on research at the site of Ladenburg in Germany, where excavators observed the "rapid sequence of changes in the buildings," indicating that the houses went through up to three different stages in only thirty years. Although the houses changed, he says that the plot-boundaries did not change, nor did the "ways in which neighbors to the right and left treated these boundaries." This evidence led him to conclude that there was a land register with clearly defined lots and building laws that set the boundaries for the house plots with regard to their access and use, and laws that regulated the "private use of public land in front of the houses by porticoes and shops."[266]

Assessing the Norican vici on this point is difficult given the fragmentary nature of the evidence for the sites. The best possibility for analysis comes with the scattered evidence for the existence of regular planning in the vici and/or the parceling of house plots. For only two of the Norican sites (Mautern and Zwentendorf) has a large enough area of the vicus been excavated or researched to provide information about the existence of some type of parceling system.

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[264] Sommer 1984, 13-17.
[265] Sommer 1999.
[266] Sommer 1999,176.

At Zwentendorf aerial photography has revealed that the land was divided into 10 m by 50 m strips. These plots were their arranged with their shorter sides bordering three mains streets that ran through the settlement.

The excavations led by Groh in mainly the east vicus at Mautern during the 1990s have provided the best body of evidence for the system of parceling in a Norican vicus. Of the total area occupied by the vicus, a good part of the area that lay closest to the fort was divided up into regular parcels of land before being built up with residential structures. Groh's estimation of the layout and development of this area of the south vicus (and, by analogy, perhaps the vicus as a whole) is that it consisted of a planimetric parceling of the land with a built up area with house structures.[267]

During the early phase of the vicus, the land had been divided into a series of strips or parcels, each one measuring approximately 10 m by 40 m. Groh's team found that both the standard row houses, with their associated cellars as well as the less common pit houses had been built in the vicus. Their finds indicated that it was possible for more than one house to occupy a single parcel of land – on one parcel, they identified at least six separate pit houses.[268] His work revealed that the vicus row houses ran in an east-west direction along the street that led from Traismauer to the east into the fort and the south vicus.

[267] Groh et al. 2001, 28-34.
[268] Groh 1997, 44-7.

The Residential Buildings in the Vicus

There is evidence for a small variety of residential structures in the Norican vici. The most characteristic buildings of the vicus are the row houses. These are the distinctive residences in the shape of long rectangles with the narrow ends oriented to a street if possible.

For all of the Norican *limes* sites at which vici have been identified and explored, even minimally, traces of row houses have been found. (Figures 4.1, 4.2 and 4.3) A stereotypical description found in any discussion of the vicus row house describes a long, rectangular building with a front *porticus* that bordered the street. The row house often had one or two small rooms toward the front of the structure behind which there was often a larger room, next to or grouped around which were smaller cubicles. The *porticus* may have served as a sort of open entrance hall, often covered by some type of canopy, or the roof, or if necessary an upper floor jutted out over the street and covered it.[269] The row houses could vary in size, ranging from six to ten meters in width and twenty to forty meters in length.

The Norican row houses match this description fairly well with the possible exception of the porticus. The remains of the row houses excavated in Noricum to date do not preserve any evidence of such a division of space, but that does not necessarily mean that such rooms or areas did not exist. The Norican buildings do fit into the general range of sizes for standard row houses. Excavated structures have ranged from 5 m to 10 m in width, and over 35 m in length.

[269] Gassner 1997b, 58; Sommer 1997, 155.

In Noricum, the ground plans are less well known than the materials of which the row houses were made. The row houses usually seem to have been constructed in a type of wood or half-timbering on packed gravel or loose stone foundations with interior walls covered in a kind of clay daub. Remains of row houses dated to the early phases of vici (1st and 2nd centuries) indicate that this was the most common building technique. Houses that date to later phases (2nd or 3rd centuries and later) may have been on solid stone foundations. It is difficult to say whether or not any of the later row houses could have been built entirely of stone. Too few remains survive to tell.

A majority of the row houses also have preserved traces of hypocausts and wall paintings, giving some idea of the high standard of living enjoyed by the houses' occupants. Heated rooms may have been seen as more of a necessity than a luxury in Noricum, at the northern edge of the empire.

Standard opinion holds that the row houses were shaped and positioned the way that they were to take the greatest advantage possible of space and make the best possible use of the plots on which they were located. The fact that so many of the row houses took advantage of having a good street frontage is usually attributed to the idea that most or many of the row houses served both as residences and shops, and that front rooms were often put into service as shops or taverns.

The row houses are the most common type of residential structures in the Norican vici, but at Mautern a variation on that house type has been observed. Groh has identified the structures as *Komplexbauten*, after the typology put together by Kaiser and Sommer.[270]

[270] Kaiser and Sommer 1994.

Row houses often completely filled the parcels of land on which they were built, extending out to boundaries of the parcel and sometimes even sharing one or more walls with the neighboring row houses. The *Komplexbauten* differ slightly from the typical vicus row houses in their use of the land on which they were built. They rarely shared walls with adjoining structures and developed in a more closed or self-contained manner, resulting in a more unified roofline.[271]

Both row houses and *Komplexbauten* typically also had rectangular cellars, reached by stairs, located under the main part of the structure.[272] Cellars have been identified at Passau, Linz, Lorch-Enns, Wallsee, Mautern and Zwentendorf. In fact, the best-known elements of the residential structures from the Mautern vicus are the sunken cellars that accompanied almost all of the house structures. Part of this fact stems from practical considerations; as below ground structures, these cellars have a better survival rate than their aboveground counterparts. They also seem to have been filled in occasionally, and then built over in later stages of the vicus' development, further ensuring their preservation. They have in some ways become the most typical type of remain for the Mautern vicus, and the one about which we know the most.

In total, three earthen and four stone cellars are known from the vicus at Mautern. (Figures 4.4 and 4.5) They were excavated over a period of more than seventy years. The cellars are all square or rectangular in shape, and vary in their measurements. Of the two cellars found in the 1932 excavations, one measured 2.54 by 2.3 m and was 2.65 m deep, with a steep staircase of stone steps. Another one found in 1932, in the so-called *villa rustica*, was a 2.7 m by 5.8 m walled room that had over ten niches in it and a

[271] Groh et al. 2001.
[272] Gassner 1997b, 58; Sommer 1997, 155.

staircase. In 1953 excavators found another cellar measuring 2.1 by 3.7 m, also with niches, located in the east vicus. In 1952 and 1988 another cellar was excavated in the south vicus; it was a walled cellar measuring 6 m by 3 m, and appeared to originally have had an entrance over a stone stairway.[273] During the 1998 season, Groh and his team uncovered one earthen cellar, 1.5 m deep, that had corner posts for wooden boarding or casing.[274]

Groh has classified the cellars according to their entranceways, or entrance types. His study of the structures has indicated that the walled cellars that are rectangular in ground plan in general have side or lateral entrances. The square and rectangular earthen cellars were accessible by wooden stairways and did not have side entrances. Walled cellars often were supplied with windows.[275]

These cellars in all cases are believed to have been used for storage. They would have provided a good amount of space for storing a variety of materials and would also have stayed relatively cool in short periods of hot weather.[276]

Along with the standard row houses, excavators of the Norican vici over the decades have repeatedly turned up the remains of a different type of residential structure: the pit houses (*Grubenhäuser* or *Grubenhütte*). These structures consisted of a shallow, sunken hollow, above which the house would be constructed in wood, with a roof supported by a series of posts sunk into the ground.[277]

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[273] Groh et al. 2001, 28.
[274] Groh et al. 2001, 28.
[275] Groh et al. 2001, 28-9.
[276] Kaiser and Sommer 1984; see also Groh et al. 2001.
[277] Groh estimates their average area at about 12 m^2 (Groh et al. 2001, 40-1).

In Noricum pit houses have been identified at Mautern and Zwentendorf. These pit houses have been another of the more common structures investigated at Mautern. During the 1999 excavation season alone, in the south and east vicus, around fifty pit houses were discovered, while only six cellars were uncovered.[278]

The Mautern excavations also indicated that it was possible for more than one pit house to occupy a single parcel of land. On one parcel, excavators identified at least six separate pit houses.[279]

Public Buildings in the Vicus

The only types of public buildings that have been identified in the Norican vici are baths and *mansiones*. Such structures, while located within the area of the civilian settlements, were military buildings. Their size and function prevented their being located within the walls of the military complex.[280]

Remains of the bath complex at Passau-Innstadt have been identified across from the south gate of the fort in the area of the vicus. The remains of buildings identified as a bath complex and a *mansio* have been found at Schlögen. They were located to the west of the fort, at the western edge of the vicus. At Mautern, the fort's baths were discovered in the 1930s at a distance of 130 m from the eastern wall of the fort. The baths and *mansio* at Traismauer were situated just beyond the eastern gate of the fort.

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[278] Groh et al. 2001, 42.
[279] Groh 1997.
[280] Almost all scholars agree that these buildings were built and maintained by the military, and existed mainly to serve them. It is not clear, however, whether or not the vicus residents (or the local civilian population in general) would have been allowed to use the buildings as well.

Industry and Commerce in the Vicus

Some of the row houses provide evidence both in their structure and arrangement and in material remains or artifacts that they served both as residences and as workshops or shops. But there were other buildings in the vicus that were dedicated specifically to industry and commerce.

Vicus inhabitants produced goods and services for themselves and their fellow residents, but they also took advantage of the fort's population and needs, providing goods and services to the soldiers. Many of the goods for sale from the vicus were produced by hand on site. The production areas usually are identified by the remains of the goods that were left behind and have been excavated, and which provide information about the type of industry in that building or at that location. Distinctive tools or equipment that remain in situ, such as pottery kilns or iron-working materials, also provide hints to the activity at the site.

The Norican vici provide evidence for a good range of types of trade, particularly in handwork production, which Fischer regards as a special function of the vici.[281] Ceramic remains provide evidence for a supraregional market engaging in the trade of terra sigillata, down to the production of Norican wares with only a regional distribution. Ironworking is known mainly through the slag. There also is evidence for glass and textile production in the vici.

[281] Fischer 2002, 95.

For many of the forts and vici, the recording and description of individual finds or even particular classes of objects is not as detailed as we would like. In many instances, artifacts only are mentioned in the context of their usefulness for determining dates for particular buildings or parts of sites. Often, there is no careful differentiation made between items found in the forts and in the vici. This lack of information makes it difficult to assess any possible differences in either the types of goods brought into and used by the inhabitants of the fort versus the vicus residents, or in which area – fort or vicus – certain types of goods were produced or distributed.

At Passau, the vicus of Boiodurum has provided evidence for the production and perhaps sale of glass. Remains of a pottery workshop and iron slag indicate that those industries also were pursued at the site. The residents made use of imported items as well. Terra sigillata was imported from Gaul, North Africa and the Argonne. Amphorae fragments attest the trade in wine and olive oil.

A recent study of the remains from Schlögen is one of the only publications to provide information and a short discussion of the differences between the goods found in the fort and the vicus. Part of the disparity in finds between the two parts of the site is found simply in the numbers of artifacts from the two areas. More than four times as many objects have been recovered from the vicus as from the fort, in terms of artifacts dating through the 3rd century. There is a significant difference in the number of Gaulish terra sigillata imports to the site – four times more in the vicus than the fort – and in the number of imported Raetian wares (mainly mortaria) – sixteen times as many fragments from the vicus as from the fort.

For the late antique period, however, more items have been found in the fort than in the vicus. But this difference seems to be due to the fact that the core of the settlement of Ioviacum moved out of the vicus area and closer to if not into the fort area itself, perhaps as early as the 4th century.

At Linz, there already was a tradition of pottery production and iron working at the site before the Roman occupation. A native Celtic workshop district existed below the Freinberg and appears to have lasted at least until the 3rd century, with no apparent break in continuity after the Romans moved into the area. For the site as a whole, the residents also made use of imported pottery from major production centers in Gaul.

In the case of Lorch-Enns, the focus of research and investigation has been on the civilian city, located to the east of the legionary fortress of Lauriacum. This town did engage in many of the same enterprises as the vici – both in terms of the production or working of the same types of materials (ceramics, metals, and textiles) and in the import of the same types of pottery (from Gaul). One indication that we do have for commercial activities in the early vicus at Lauriacum comes from the tombstone of an Italian trader whose family business was in the north Italian town of Aquileia.

At Wallsee and Mautern remains from the sites provide evidence of these typical types of commercial activities. For Wallsee excavation reports do not always clearly distinguish between the findspots of artifacts as either within the fort or vicus, or the location of areas where evidence of ceramic kilns or furnaces used in the production of bricks and tiles. At Mautern the vicus has been more thoroughly investigated (especially in recent years) than the fort. Due to this fact it has been difficult to make any real comparisons between the types of goods found in the different areas of the site.

In all of these cases for which the reporting of the finds allows an assessment to be made, the vici appear to have engaged in a good range of activities involving both the production of a variety of materials and the import of other goods. In the case of imports, and terra sigillata in particular, the workshops of southern and central Gaul appear to have provided the majority of the pottery to the sites (both forts and vici) until the late antique period. These wares are the most abundant and well known for the Norican frontier.

The issue of how the fort and vicus inhabitants obtained the other goods they needed, specifically their food and the raw materials such as leather and flax or wool that they used in their workshops, is another difficult matter to consider. Publications for all of the Norican frontier sites rarely mention this subject or report on the remains of agricultural tools or crops. The vici historically have been denied a central role in the production of food, especially food that would have gone to supply the soldiers of the adjacent forts.[282] This responsibility often has been assigned to the large provincial, rural villas. However, it seems reasonable that the vici, and their residents, did engage in some agricultural activity, even if that only involved growing items for their own consumption.

For Noricum, it seems that archaeology has not often provided or been used to provide information on this topic. Therefore, we may turn to one literary source for the province that can help to fill the gap somewhat. The *Vita Sancti Severini*, written in the early 6th century, describes the travels of Saint Severin in Noricum during the second half of the 5th century.[283] As Severin moved along the Norican frontier, he regularly

[282] Sommer 1984; 1988; Gassner 1997b.
[283] Eugippius' *Vita Sancti Severini*, in the standard edition by R. Noll (1963).

interacted with the population there, and the author of his biography, Eugippius, often mentions in passing some activities of the *limes* dwellers.

Eugippius makes several references to the cultivation of land in the vicinity of the settlements on the frontier. Severin is reported to have visited a fort on the frontier called Cucullis, outside of which the crops were being destroyed by swarms of locusts.[284] The fields of the inhabitants of Lauriacum also suffered, but their crops were plagued by a disease.[285] Eugippius writes that both men and women worked in the fields,[286] and that the land may have been divided into lots owned or worked by private individuals.[287]

The *Vita Sancti Severini* also contains references to the keeping of cattle, which resided outside the settlement walls except in times of emergency, such as when attacks or raids by members of local Germanic tribes occurred.[288] Frequent references to the use of candles may possibly indicate the process of bee keeping.[289] There also are several passages that record the growing of fruit. Severin himself is even reported to have set up a private cell at a place near Mautern called "At the Vineyards."[290]

It is difficult to assess the veracity of Eugippius' information in the absence of a quantity of archaeological information with which to compare it. Eugippius also was describing a span of several decades' time during the 5th century, and with the main purpose of recording Severin's life as a model of Christian piety. Nevertheless, the

[284] Eugippius 12.1.
[285] Eugippius 18.1.
[286] Eugippius 14.3, 22.4.
[287] Eugippius 12.4.
[288] Eugippius 4.1, 30.4.
[289] Eugippius 11.2-5, 13.2.
[290] Eugippius 4.6, 10.1.

biography possible does provide some limited proof that the frontier inhabitants did make a practice of engaging in some agricultural activity and animal husbandry.

The Function of the Vici

Gassner argues that the main function of the vicus was to provide the soldiers with some of the necessities of life and the possibility to take care of personal maintenance and entertainment in free time. She maintains that there is no evidence for the vicus taking an active role in agriculture; they did not play an active role in providing the fort with their foodstuff.[291] The vicus also developed as a central market, where the inhabitants of the surrounding area and countryside could get the materials that they could not produce for themselves.

The vicus also served as a recruiting area for future soldiers. The soldiers' families who lived in the vicus would have been an obvious group from which to draw future recruits. The proximity to the fort and constant exposure to the military way of life and its possible advantages could also have been responsible for attracting some young men of the vicus into a contract with the army.[292]

Sommer views the vici as constantly convenient in terms of land and water traffic and trade, living off of this commerce, but also gaining meaning from their roles as cultural centers. Proximity to roads and trade routes also allowed some vici to serve as

[291] Gassner (1997b, 57-8) points out that this was true at least until the late antique period. She adds that the soldiers did get food and other provisions (especially grain) from outside sources, which was one role of the *villa rusticae*.
[292] Sommer 1997, 157.

road stations, providing lodging for travelers, as well as serving as repair workstations for wagons and carts.[293] All of these characterizations provide pictures of a type of settlement serving as a central place for the surrounding area.[294]

This "trading" or commercial relationship that the original camp followers had with the Roman soldiers is one stressed by Sommer in his examination of the military vici of Roman Britain.[295] He argues that it was one of, if not the main, attraction for the camp followers who traveled with and then settled beside the auxiliary units. He argues that the family members of the soldiers, as well as the people who originated in the same place where the unit was recruited and formed, and then decided to link their fortune with that of the army, realized early on that the relationship could be a sustaining and maybe profitable one. Then, as the native inhabitants of the region took notice of the commercial opportunities afforded by the vicus, many of them chose to move in and take up residence there, increasing and changing the population from what it originally was. This action would result in a changing and growing vicus population, and in some cases a situation was created in which the vicus would become a sort of center of habitation and commerce for an area, and even outlive the fort itself – still thriving once the auxiliary unit had already moved on and the fort had been abandoned.[296]

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[293] Sommer 1997.
[294] Fischer 2002, 95.
[295] Sommer 1984.
[296] See also the work of von Petrikovits (1974) and Breeze (1979) for more on the function of the vicus, and also the view that the vicani were involved with the production and commercial activities of the vicus.

Chapter 5: The Later History of the Vici

If the provincial beginnings of Noricum were peaceful, the end was not. The 4th and 5th centuries saw the slow disintegration of Rome, a decline that had begun as early as the 2nd century as Germanic tribes began their incursions across the river frontier. The process of decay had continued through the 3rd and 4th centuries. As long as the Danube *limes* had held, protected and defended by the Roman army, the vici had continued their relationships with the auxiliary forts and enjoyed a fair amount of stability and prosperity.

But at the start of the 5th century, conditions changed significantly as Roman rule in this border province collapsed. The former military and civilian officials were no longer in control; the last administrative duties were increasingly taken over by the Christian church.[297] From around the year 400 the garrisons in Noricum ceased to receive regular pay and gradually discontinued their former course of service, joining the civilian population who began to look out for their own defense. During the 5th century, various barbarian tribes came through Noricum on a regular basis. In 405 Radagaisus led a group of Vandals through western Pannonia and southeastern Noricum on the way into Italy. In 407 Alaric and the Visigoths occupied large parts of Noricum for a time before moving into Italy. In 451 Attila led his Huns through Noricum on the way to Gaul.

After the death of Attila in 453, various Germanic tribes harassed the inhabitants of Noricum; the Rugii in particular settled just beyond the northeastern boundary of the province and demanded tribute from several Norican cities. During the 5th century, some civilian and former military sites were attacked, destroyed or abandoned. In Noricum

[297] Genser 1990, 24.

Mediterraneum, some of the population began to move south and occupy sites on higher ground, establishing settlements called *Fliehburgen* that were sometimes fortified against invaders.

At this point in the historical narrative of the Norican frontier, most scholars turn to the text of the *Vita Sancti Severini*. Written in 511 by the monk Eugippius, who was a disciple of Severin, this lengthy account of the future saint's career also describes the last decades of Noricum Ripense as a Roman province. It is considered to be one of the most important literary sources for the later history of Noricum.

Severin's origins are unknown. Eugippius describes him as a monk called by God to go to Noricum and help the people there. He arrived in Noricum around the middle of the 5th century, coming from somewhere in the East, usually thought to indicate the province of Pannonia. No details are given about where he was born or what his life was like. Eugippius judged him to be a true Roman on the basis of how well he spoke Latin.

For the over twenty years that Severin was in Noricum, he traveled basically east to west along the Danube frontier, going south into the interior of the province and even leaving Noricum and going into the neighboring province of Raetia. The *Vita Sancti Severini* records that the only troops remaining in Noricum at that time were in Passau and Mautern, and maybe also in Tulln. The Germanic tribes also were there. As the threat from the hostile tribes grew, Severin repeatedly ordered the evacuation of towns, and the Roman population moved east.[298]

The remains of the vici provide evidence of their physical changes in the late antique period, especially in terms of location. The fact that many of the vici cease to

[298] Genser 1990, 24.

exist as settlements separate from their forts gives us some of idea of the changing situation on the frontier in the 4th and 5th centuries. We also can construct some idea of how harsh conditions would have been at the northern border of the empire based purely on the facts of the physical remains. We may assume that the vicus residents chose to move behind the fort's walls to seek what protection they could find there, with the army no longer able or willing to provide it. Incorporating the information provided by Eugippius allows us to do two further things. We may gain a fuller picture, if a subjective one, of the conditions on the *limes* at the end of the 5th century. We may also evaluate Eugippius as a source, comparing his information with the archaeological evidence gained in the vici themselves.

Of the fourteen Norican vici under examination many survived into Severin's time. Remains found at Passau, Schlögen, Lorch-Enns, Mautern, Zwentendorf, Traismauer, Tulln and Zeiselmauer indicate that these sites were still in use in the 5th century.

The fort at Boiodurum had been destroyed in the course of the 3rd century, and the fortlet at Boiotro was built to replace it. The vicus associated with the fort at Boiodurum also appears to have suffered destruction by fire. It is not clear what became of the vicus residents after this catastrophe. No remains of a vicus near the fortlet of Boiotro have been found.

At Boiotro at the end of the 4th century or beginning of the 5th century a stone building with 1 m thick walls was erected in the southeast corner of the fortlet between the pillars of the interior courtyard. Excavations reveal that this structure functioned for a time as a storehouse for grain. There are traces of a heavy burned layer with the remains

of a tile roof in this structure and in the southern and southwestern areas of the former fortlet as a whole. No traces of this fire were found in the other areas of the fortlet. The excavators believe that this fire and the dating of burned objects from it indicate that at least this building was still in use at the end of the 5th century.[299]

The *Vita Sancti Severini* mentions several Germanic tribes by name that were marauding in the area of Passau in the 5th century. Their activities are usually deemed responsible for the destruction of the Boiotro fortlet.

Eugippius also mentions two churches in the area of Passau: one in the province of Raetia and one at the site of Boiotro.[300] A church has been identified under the medieval Severinskirche[301] to the west of the fort, measuring about 15.5 m long by 8.2 m wide, but it has not been securely dated.[302] It was destroyed by fire sometime during the Middle Ages and built over by an Ottonian structure.[303] Remains of a late antique cemetery have also been found in this vicinity.

This church has been suggested as the one mentioned by Eugippius. Likewise, the heavy stone building in the southeast corner of the Boiotro fort has been suggested as a monastery or cloister as described in the *Vita Sancti Severini*.[304]

These three sets of remains – the building on the southeast corner of the Boiotro fort, the church and the late antique cemetery – appear to indicate the presence of a

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[299] Fischer 1994, 93-5.
[300] Eugippius 22.1. Severin is said to have been relic hunting in place called Boiotro, across the river Inn, where he had built a small abode for a few monks.
[301] This church is sometimes referred to as the Johanniskirche, which was apparently its original name before it was dedicated to Saint Severin in the 12th century.
[302] Sage 1976.
[303] Niemeier and Wolff 1999, 57.
[304] Fischer (1987b, 2002) believes that this is the case, but Wolff (1999) describes it as a *Binnenkastell* – a small defensive structure built into the walls of the former larger fortlet.

Roman population still existing in the area of Passau in the 5th century. All three could be associated exclusively with a military population, but it seems reasonable to assume that they also served civilians, even if only a small group. Although no traces of a late vicus have been found at the site, it seems reasonable to assume that some civilian settlement did exist in the vicinity into the 5th century, closely tied to the inhabitants of the Boiotro fortlet.

At the site of Schlögen, there is evidence that the fort continued into the 5th century, although no finds that late have been uncovered in the vicus. Excavators suggest that the fort became the nucleus for the late antique settlement, but they do not clarify what they mean by this. Archaeology does not provide many clues to events during the last decades at the site.

The *Vita Sancti Severini* mentions the site of Schlögen.[305] Eugippius calls it both a *locus* and an *oppidum*.[306] When the term *oppidum* is applied in the *Vita Sancti Severini* to late antique sites on the Danube, it seems to indicate that a civilian population was in residence at the site and often had moved within the walls of the former fort in an attempt to protect themselves, in the army's absence, from raids and attack. If the application of this term to Ioviacum does carry that meaning and is not just a random designation, then it could provide evidence of the continued existence of the vicus population into the 5th century.

The story that Eugippius relates about Ioviacum does mention a civilian population. Severin, displaying his powers of prophecy, sends a "chanter" of the church

[305] Eugippius (24.1-3) calls the site Ioviaco.
[306] In these cases it is not clear if the terminology employed to describe these sites is based on Severin's knowledge or understanding of the status or nature of the site, or if the choice of terms is Eugippius' own decision.

named Moderatus to the people of Ioviacum to warn them that they should leave the place before disaster strikes and they all are killed. When they are skeptical, he sends a Raetian priest to warn them again, and in the hopes of persuading the priest at Ioviacum, Maximianus, to leave the site. The residents still do not obey. During the night the Heruli attack and destroy the town, hanging Maximianus on a cross. Eugippius reports that Severin is then very upset that the people did not heed his warnings.

Eugippius' account of these events indicates the presence of a group of civilians in residence at the site, and it seems likely that they could have been living within the walls of the former fort. His account also indicates that there were enough Christians there to warrant the existence of a church or at least a priest.

Both the fortress and civilian city of Lauriacum survived into the 5th century. The archaeological remains dating to this period are sparse, but do indicate the building of Christian churches at this time before a final destruction of the fortress and civilian city, usually associated with Attila's raids in Noricum in the 450s. One of the early Christian churches was located within the walls of the fortress, in the southeast corner of the former military hospital. The second was the early church uncovered beneath the medieval St. Laurentius basilica. These two structures may provide some evidence of continuity from the 5th century into the early medieval period.

The *Vita Sancti Severini*, however, discusses a combined civilian and military population at Lauriacum after the 450s. Eugippius first mentions the inhabitants of Lauriacum in the context of their ignoring Severin's advice.[307] In spite of the saint's prompting, they had delayed their offerings or tithes of grain to the poor. Their

[307] Eugippius 18.1.

punishment came quickly. When the new crop was ripening, a disease appeared on it, threatening the whole town with famine. When the residents went to Severin in tears, repenting of their failure to minister to the poor, he admonished them but also said that their repentance would be rewarded. A rain came that cleaned the crop of the pestilence and the people of Lauriacum made a point thereafter of paying their tithes on time.

Lauriacum also reportedly served as one of the last holdouts of the weary Roman population of Noricum during that last century of invasion and destruction. Eugippius reports that as Severin traveled along the Danube frontier, especially along the west Noricum section, he continually ordered the evacuation of sites that seemed in imminent danger of destruction. Often many of the inhabitants heeded his advice; those who did not quickly perished in the ensuing invasions and attacks on their homes. The refugees in all cases were advised to flee to Lauriacum and seek shelter there behind the walls of the fortress.[308]

The townspeople of Lauriacum then were charged with the job of defending themselves and the new immigrants. Eugippius actually writes that the people of the town (*oppidum*) of Lauriacum and of the upper forts (*superiorem transfugae castellorum*) sent out scouts to areas thought to be in danger and worked to protect people from the enemy.[309] Severin took on the role of administrator, instructing people to bring all of their belongings within the walls of the fortress. By these means, the inhabitants were able more than once to turn back attacks by the Germanic tribes.

There are two observations that may be made about this account. The first is Eugippius' mention of forts still in existence on the Danube frontier in the second half of

[308] Eugippius 27.2, 28.1.
[309] Eugippius 30.1.

the 5th century. While it seems unlikely, in the absence of regular or any pay and of a chain of command, that there were still regular troops garrisoned in those forts, the physical structures seem still to have been standing, and could have been used by the civilian population as places of safety.

The second observation is that Eugippius notes that the people of Lauriacum drew up behind their walls. We assume that this means the population had by this time moved into the defenses of the former fortress. It is unlikely that the civilian city itself had been fortified, and certainly no traces of any such walls exist today.

In the case of Wallsee, the only evidence for the late history of the site comes from archaeology. Ad Iuvense is not mentioned in the *Vita Sancti Severini*. In the final phase of the fort, a small *Restkastell* was built in the southeast corner of the former defenses. It has been dated to the late 4th century. Excavators have commented that in spite of the hard condition and lack of money on the frontier for any building projects during the late antique period, this fortlet was a well-constructed and imposing structure.[310]

Substantial changes also came to Mautern in the late antique period. In the 5th century the inhabitants of Mautern suddenly found themselves directly across the Danube from the main settlement of the Germanic Rugii, and having to pay them tribute. The *Vita Sancti Severini* gives us the most information on this period of Mautern's history, explaining that it was this situation that caused or necessitated Saint Severin's move from Pannonia to the stretch of *limes* including Mautern.

[310] Tscholl 1990.

The late antique fort at the site shows evidence of having served as more than just a military installation in its last decades. At some point in time, when one of the (old) fort walls had worn down and fallen away, it was not repaired or cleared up, but instead remained to partially enclose an area as a sort of *Fleihburg* for the residents of the surrounding area and their livestock.[311]

Favianis is the Norican *limes* site that appears most frequently in the *Vita Sancti Severini*. Eugippius describes the hardships that the residents of the site were enduring. They had been suffering a famine due to the difficulties of the supply ships making their way along the Danube to supply the forts and towns of the province.[312] They had also been suffering frequent raids by the local Germanic tribes, who often came into the areas outside the fort's walls and carried off whatever people and cattle they found there.[313]

The people came to Severin for help. Severin enlisted the help of Mamertinus, a resident who was at that time a tribune and who had also been consecrated bishop. Mamertinus was able to offer the services of a few soldiers whom he still had in his command. Under Severin's direction, the small band of soldiers is able to capture the bandits, seize their weapons and bring them back to Favianis as prisoners.[314] This is the one of the few instances recorded in the *Vita Sancti Severini* of soldiers still in operation at one of the frontier forts.

After this event, Severin withdrew to a remote place just outside of Favianis called "At the Vineyards," where he had a small cell. He had not been there long when divine revelation ordered him back into the town, and he built a monastery and began to

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[311] Stiglitz and Schneider 1991, 11-12.
[312] Eugippius 3. 1-3.
[313] Eugippius 4.1.
[314] Eugippius 4.2-4.

train monks. He still occasionally withdrew to his private cell, which people called a *Burgus*.[315]

This description of Severin's cell and monastery has inspired a wealth of discussion and excavation, in the attempt to discover the exact nature and location of both monuments. To date, neither has been found, and it is likely that they never will be securely identified.

Zwentendorf is not discussed in the *Vita Sancti Severini*, but excavations carried out in the interior of the fort reveal that it also was taken over for civilian occupation during the 5th century. The remains of structures that strongly resemble row houses, complete with hypocausts, were built in the central area of the former fort.

At Traismauer, Tulln and Zeiselmauer, the last phases of the forts consisted of the building of small *Restkastelle* into the corners of the former defenses. At Traismauer and Zeiselmauer these small fortifications were built into the northwest corners of the forts. Also at Traismauer, there is some evidence for the late antique reuse or reworking of the military cult room beneath the *principia*, which in turn was later built over by the parish church.[316] Not much more is known about these sites in the 5th century, and neither is mentioned by Eugippius.[317]

Comagena was one of the first sites that Severin visited after his appearance in Noricum. When he arrived at the site, the town (*oppidum*) was being held by a band of

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[315] Eugippius 4.6-7.
[316] Ubl 1975, 32-34.
[317] In the past there was speculation about the ancient name of Zeiselmauer and whether or not it should be identified as Asturis or Cannabiaca. The site of Asturis is mentioned in the *Vita Sancti Severini*. It is the first site in Noricum that Severin visited on his arrival in the province. It was destroyed shortly after he left it (Eugippius 1.1, 1.5). Asturis today is identified with the modern town of Zeiselmauer.

barbarians who had made a treaty with the Romans. Severin immediately went to the church, and encouraged the townspeople to have faith and they would be saved from their present situation. They were skeptical until a man arrived who was able to testify that a nearby town had recently been destroyed, just as Severin had said it would be. Within three days of this announcement, an earthquake struck, scaring the barbarians who were occupying Comagena so badly that they ran off in the night, stabbing each other in confusion as they went.[318]

The archaeology from these frontier sites does seem to support the idea that the forts ceased to serve in their former capacity as military installations and instead became perhaps a place of refuge for the local population. It still is not possible to say with real certainty whether some or all of the vicus population moved inside the walls of the former forts. Nor do we have enough evidence to ascertain what the nature of the inhabitants of the forts was at that point in time, or whether there was a sudden or complete turnover from all military to all civilian (former vicani) residents in the forts. By the late 5th century, without a regular standing army in existence, it may be that the distinction between soldier and civilian is no longer relevant.

Perhaps the only certain thing we can say about the last stage or end of the military vici in Noricum is that – by definition – they cease to exist in the 5th century. Once the forts are no longer in existence or operation, the civilian settlements are no longer military vici, since the supposed reason for their existence is no longer exists. These civilian settlements ceased to be dependent entities and became the only settlements on the frontier.

[318] Eugippius 1.3 – 2.2.

Eugippius recounts that Severin spent the last part of his life in Mautern, with the monks and at the monastery that he had established there. He died on 8 January 482, after giving instructions concerning the future treatment of his body and making the prediction that the end of Noricum was imminent. Just as the Hebrew people had been rescued from the land of Egypt, so the Norican people would be freed from the rule of the barbarians. They would take all of their property and leave their towns for Rome.[319] Severin asked that his body be taken with them when they went.

When Severin arrived in Noricum the province had officially belonged to the western empire. After the fall of Rome in 476 Noricum had become part of the kingdom of the Gothic king Odoacer, who then ruled the western part of the former Roman empire from Italy. This change of status had not had much of an effect on the everyday lives of the Norican people, and it was not until after Severin's death that Odoacer had to intervene in Norican affairs.[320]

In 487 the Germanic Rugii attempted to invade Italy, but Odoacer defeated them in Noricum. In the following year Odoacer's brother, Onoulfus, led a further expedition against the Rugii, destroying their power in the area.[321] In spite of this victory, Eugippius writes, Odoacer decided that he could no longer protect the Roman population of Noricum and in 488 he ordered the abandonment of the province, instructing the inhabitants to make their way to Italy.

Eugippius and his fellow monks dutifully left Favianis, taking Severin's body back to Italy with them. The fate of the rest of the Norican population, all of the residents

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[319] Eugippius 40. 4-5.
[320] Alföldy 1974, 224.
[321] Alföldy 1974, 224.

of the former forts and vici on the frontier, is much less certain. It does not seem at all probable that these people as a whole, or even in smaller groups, completely abandoned their former homes and made their way to Italy, a land of which they had no knowledge. Even soldiers who had stopped receiving pay apparently had remained in the places where they had spent their lives, married and raised families.

Few material remains for the former vicus sites exist or have been found dating to the 6th century. The absence of such remains makes it difficult to assess either the possibility of settlement continuity from the end of the Roman era into the early Middle Ages or the character of the population who may have remained on the frontier. Archaeological excavations of the Norican frontier sites rarely focus on this period in Austria's history. Therefore, when some accounts report that a site must have been abandoned at the end of the 5th century because no remains have been found to indicate further habitation, it is difficult to tell if that means that there actually are no remains for that period of time, or that excavations have not revealed them.

In two cases the survival of a place name from the Roman period into the Middle Ages may indicate that there was some settlement continuity. The Roman name of Lentia survives in the medieval name of Linz. The same is true for the present town of Lorch on the site of Lauriacum. In other cases, the outlines of the medieval towns appear to reflect the circuits of the former Roman forts at the sites. Walls, streets and lines of buildings at Mautern, Traismauer and Zeiselmauer trace the outlines of the Roman period fortifications. Even if the former inhabitants did not remain to pass on the knowledge of their forts and vici to the Middle Ages, sometimes the structures of these settlements did survive long enough to serve as the foundations for the medieval towns of Austria.

Conclusion

This work has discussed the character and development of the Norican vici, a closely related group of civilian settlements on the Danube frontier that are identified and identifiable due to their location, layout, physical structures and growth.

The majority of the Norican *limes* forts did possess vici. The exceptions to this situation are the sites at which insufficient research and excavation have taken place to determine definitely whether or not a vicus is present. All of the vici that have been identified have been recognized through archaeological investigation. In some rare cases, the mention of a particular place in a historical or literary source, such as the *Vita Sancti Severini*, has led to the start of a search for that site, but archaeology has provided the surest evidence of the existence and nature of the vici.

The analysis of the vici in this study reveals that they closely correspond to other provincial vici in terms of their physical layout, residential structures and commercial buildings and activities. The majority of the Norican vici developed along roads connected to one of the main gates of their fort and within 100 to 200 m of the fort walls. This placement probably was the result of practical considerations, including the desire to be as close as possible to the fort's inhabitants, who may have been family members. This placement also provided ready access to both a main route of transportation in the immediate area and for travel at a greater distance, as well as to all of the people, military and civilian alike, who would have been traveling on those roads. Most provincial vici also developed in close proximity to their forts and took advantage of roads leading to and from the military installations.

This placement also helped shaped the physical development of the vici. As they grew, they expanded in a linear fashion along both sides of the road. This development resulted in the typical long, stretched-out shape of the provincial vici. New buildings seem first to have been placed along the roadsides at increasing distances from the forts. Once it became impractical or undesirable to continue to build in this fashion, the areas behind and beyond the first line of structures would be used for further development.

The remains of three Norican sites (Mautern, Traismauer and Zwentendorf) also provide evidence that the land within the vici was parceled into rectangular strips for building and development. Sommer has observed this practice for both the British and German vici. This system of division provided regular plots on which the row houses of the vici were built. These row houses are the most characteristic feature of the provincial vici. Their construction also is typical. The majority were timber buildings, often built on top of stone foundations. There is no real evidence from any provincial site of row houses built in a markedly different manner.

Many of the row houses were equipped with hypocausts, especially for these northern climates along the frontier. Their prevalence in the Norican row houses indicates that they were more the rule than the exception. While few houses featured hypocausts large enough or placed so that they would have warmed the entire house, usually at least one or two rooms or areas of the structures were heated.

The workshops and other commercial buildings of the Norican vici are identified mainly through the material remains that have been found inside of them. These artifacts indicate that the vici functioned regularly as the production sites for a variety of goods,

including ceramics and metal and textile goods. The workshops always were located at the outer edges of the vici.

One of the main differences between the vici of Noricum and those in other provinces is the presence of the cellars in the Norican row houses. These structures have only been found thus far in Austria and Germany. The British vici do not possess this feature.

The present state of knowledge for the Norican vici also seems to indicate that they were not as a rule founded at the same time as their forts. Our information on the beginnings of these vici often is fragmentary, so future excavation and research may prove this observation false. But, at present, several of the vici seem to have begun slightly earlier or later than the nearby military complexes.

This observation highlights the incomplete nature of our understanding of the Norican vici. This work has been only a preliminary study, focusing on a select few attributes of the vici. In Noricum, it still is not possible satisfactorily to answer the question of whether or not some of the military complexes on the frontier had vici. Although it seems unlikely, we also should consider the possibility that vici existed outside of the smaller, less substantial military installations, such as the *Burgi* or watchtowers.

More questions remain about the buildings, life and activities within the vici. Further research and excavation could provide more information about the internal layout of the vici, the building techniques for the various structures, and the manner in which the vici changed and developed over time.

We know very little about the size and nature of the population of the vici. The examination of tombstones and other inscriptions could provide information about origins and lives of some vicus inhabitants. The artifacts from the vici also could provide information about their backgrounds and preferences.

More could be done to compare the vici with their forts. It would be interesting to investigate the types of goods available to and used by the soldiers as compared to the goods present in the vici. This question applies to both the objects that were made on site and the material that was imported. Were the forts and vici being supplied from the same sources?

We also know little about the later history of the vici. The existence of the *Vita Sancti Severini* for Noricum has led to a reliance on its descriptions of the events of the 5th century in constructing the last years of the frontier settlements. But archaeological information also could provide information about the final phases of the vici, and perhaps answer questions relating to the possibility of their continuity into the post-Roman period and their transformation from Norican military vici into medieval Austrian towns.

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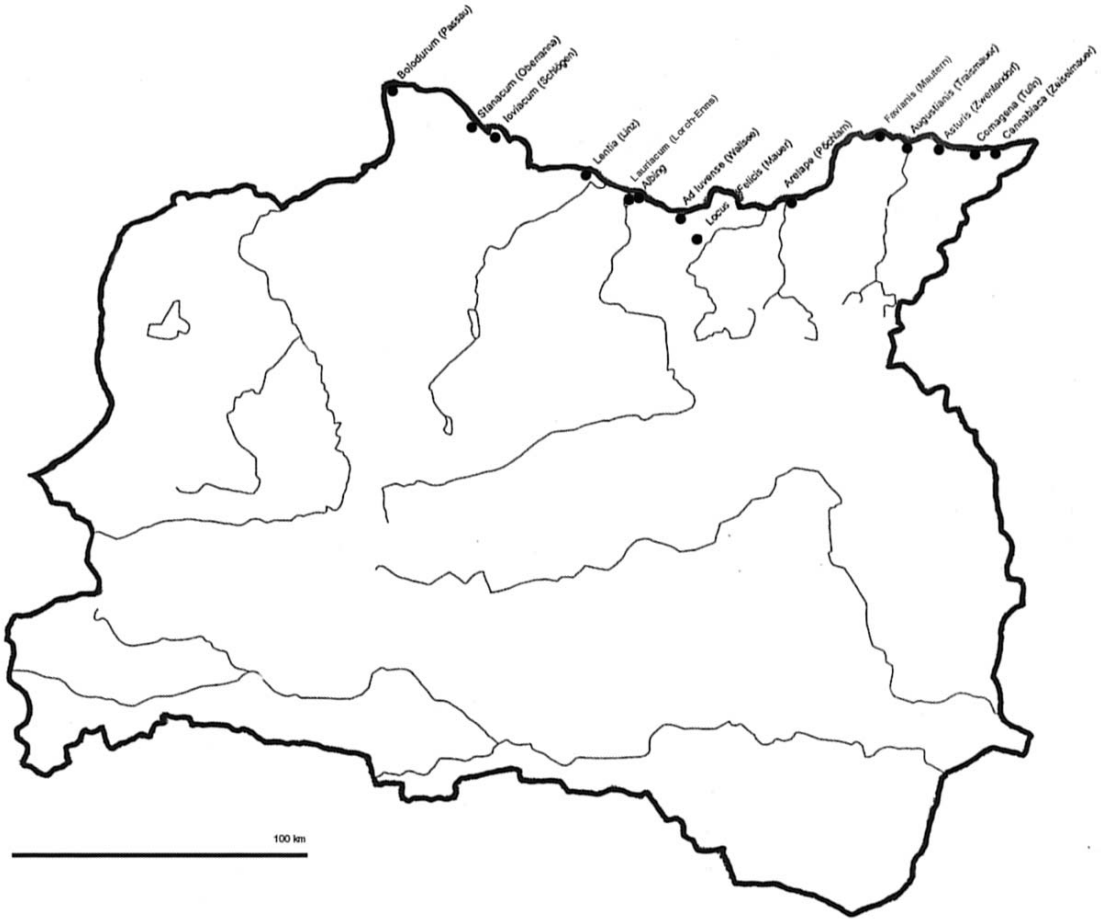

Map 2.1: The Province of Noricum
(After Groh 1998, Abb. 1)

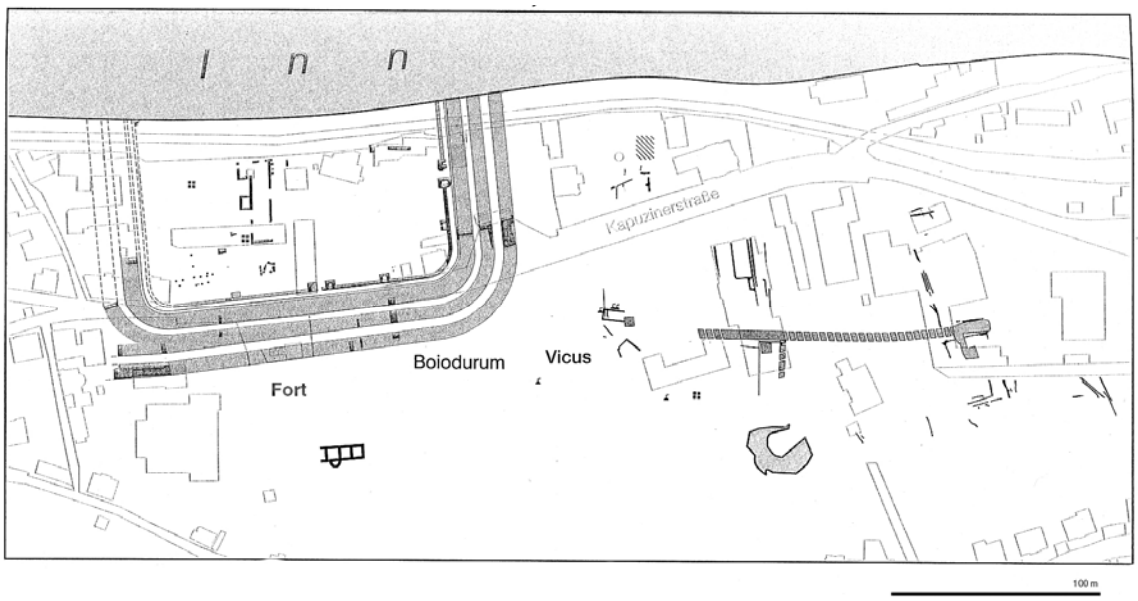

Figure 3.1: The Auxiliary Fort and Vicus of Boiodurum
(After Boshof et al. 1999, Abb. 17)

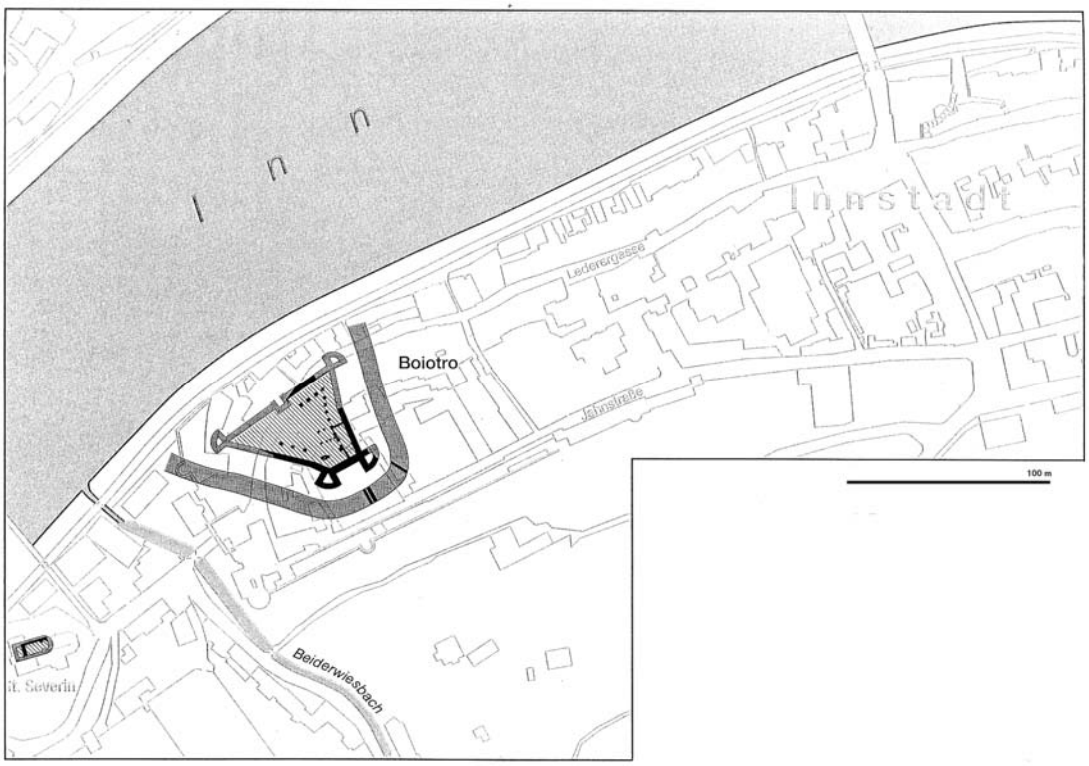

Figure 3.2: The Fortlet of Boiotro
(After Boshof et al. 1999, Abb. 32)

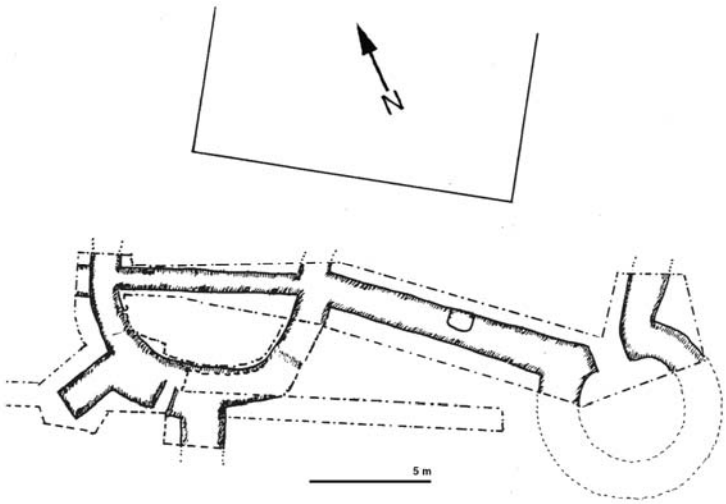

Figure 3.3: The Auxiliary Fort (?) of Stanacum
(After Fischer 2002, Abb. 29)

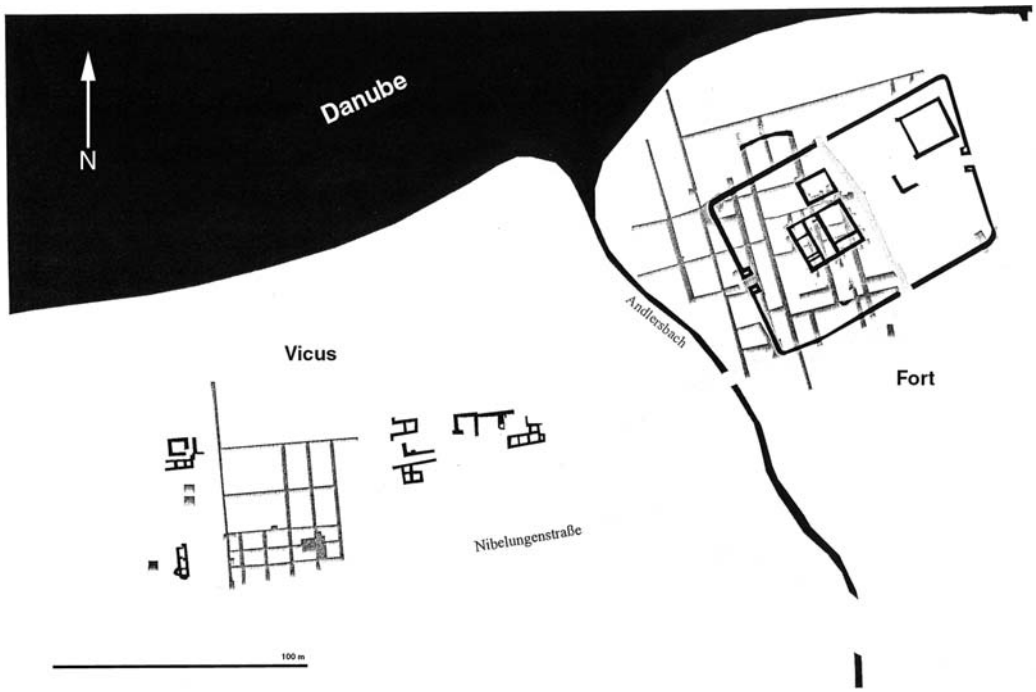

Figure 3.4: The Auxiliary Fort and Vicus of Ioviacum
(After Bender and Moosbauer 2003, Abb. 5)

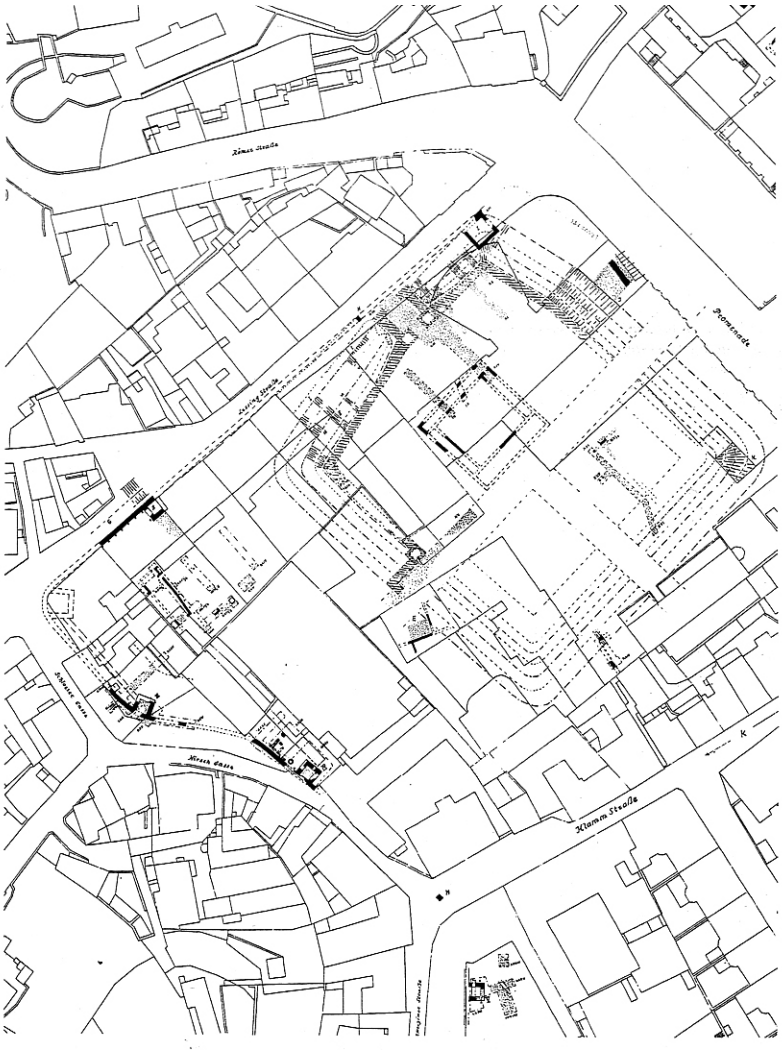

Figure 3.5: The Auxiliary Fort of Lentia in the Altstadt of Linz
(After Schwanzar 1986a, Abb. 1)

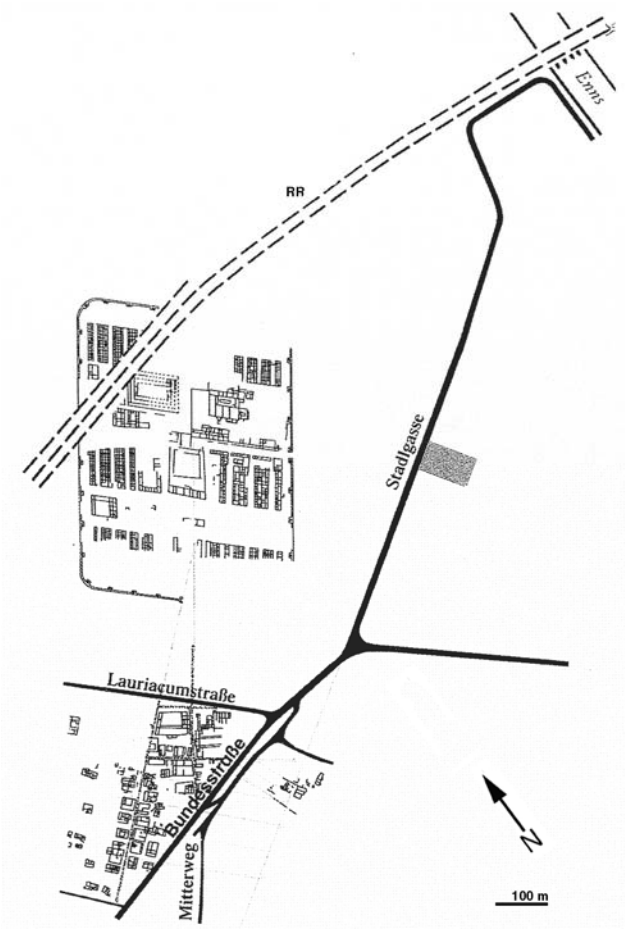

Figure 3.6: The Legionary Fortress and Civilian City of Lauriacum
(After Ruprechtsberger 1986a, p.68)

Figure 3.7: The Civilian City of Lauriacum
(After Ubl 2002, Plan 5)

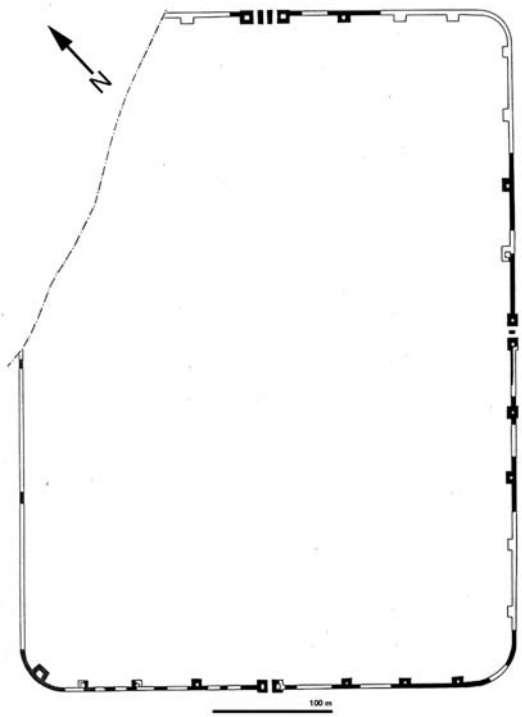

Figure 3.8: The Auxiliary Fort at Albing
(After Kandler and Vetters 1986, p.107)

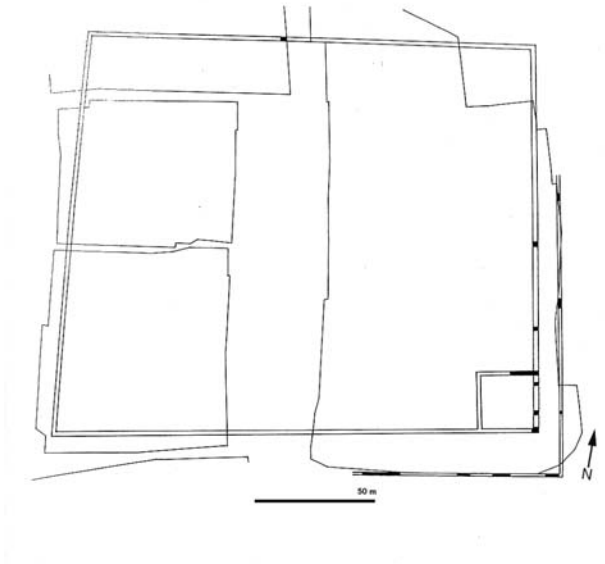

Figure 3.9: The Auxiliary Fort of Ad Iuvense
(After After Kandler and Vetters 1986, p.115)

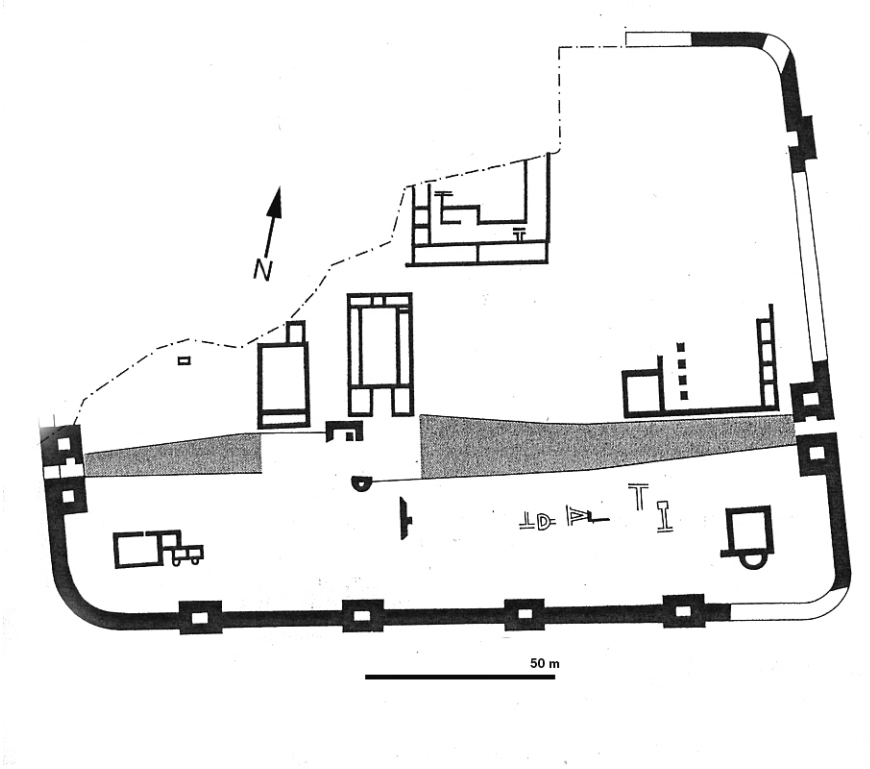

Figure 3.10: The Auxiliary Fort of Loco Felicis
(After Kandler and Vetters 1986, p.119)

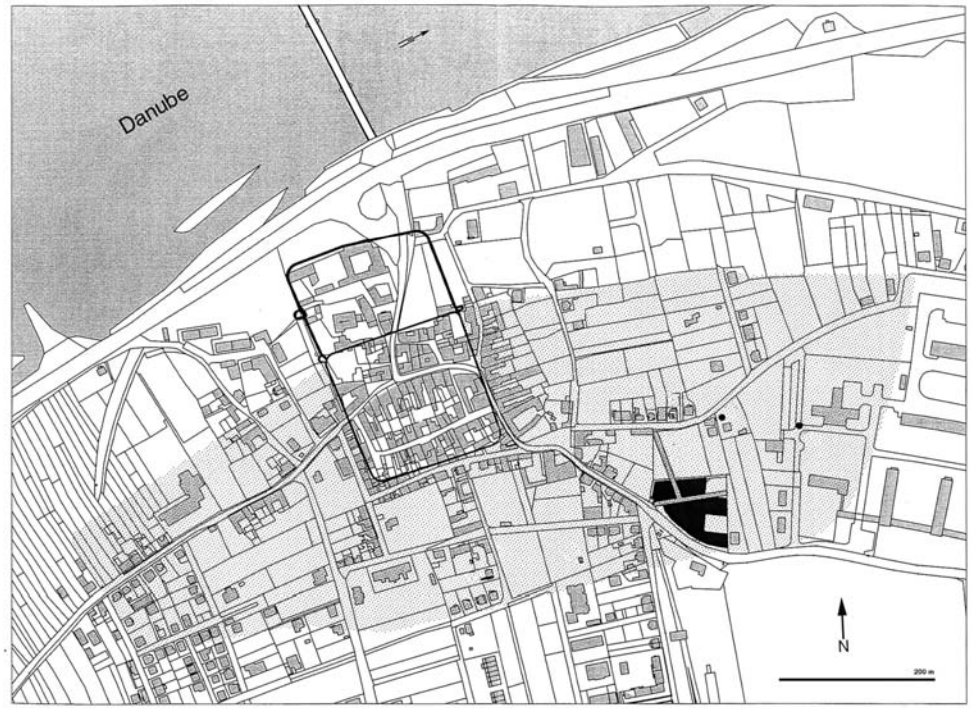

Figure 3.11: The Auxiliary Fort and Vicus of Favianis – the area of the vicus is indicated by the shaded area
(After Groh 1998, Abb. 6)

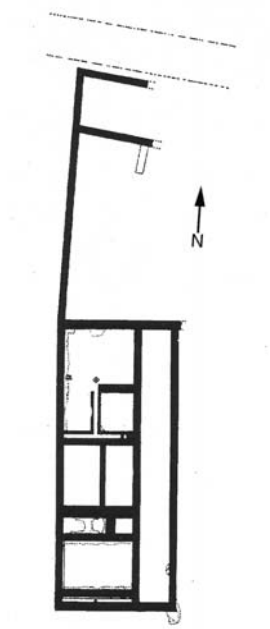

Figure 3.12: The *Villa Rustica* Excavated at Mautern
(After Riedl 1935)

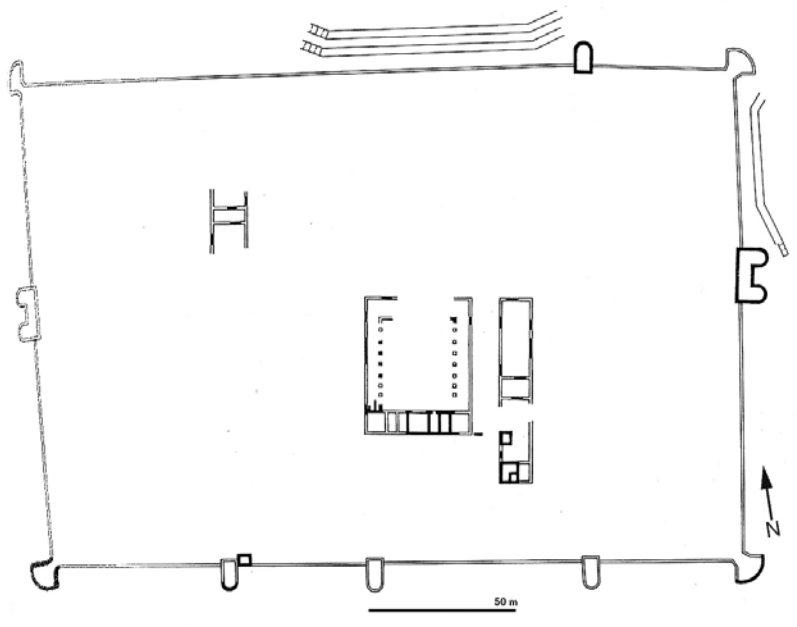

Figure 3.13: The Auxiliary Fort of Augustiana
(After Kandler and Vetters 1986, p.143)

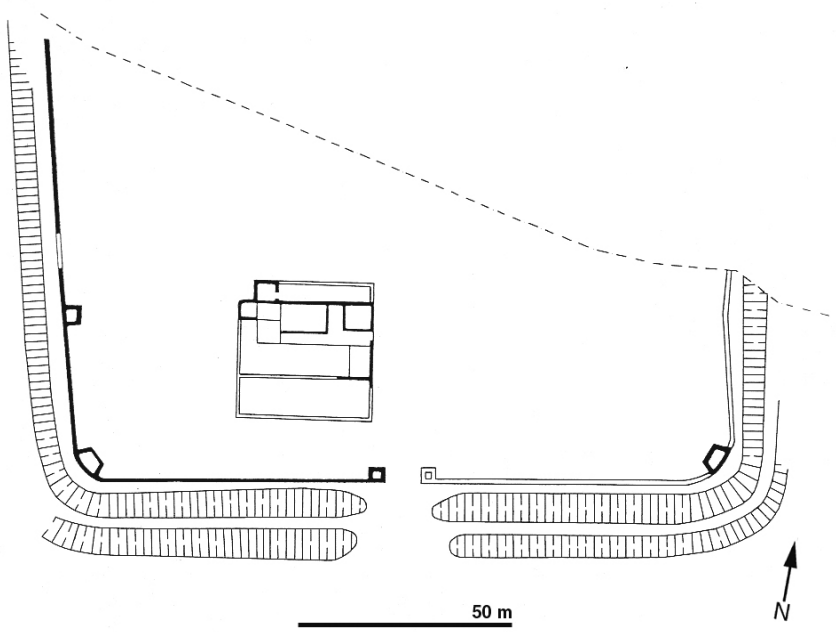

Figure 3.14: The Auxiliary Fort of Asturis
(After Kandler and Vetters 1986, p.150)

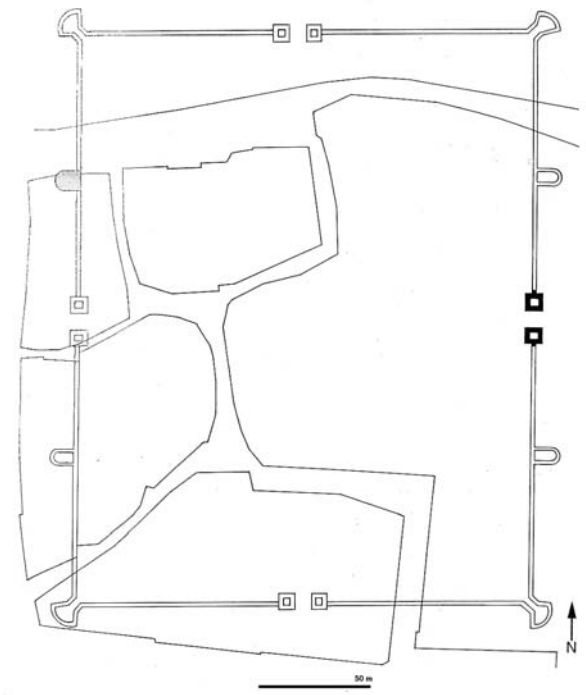

Figure 3.15: The Auxiliary Fort of Comagena
(After Kandler and Vetters 1986, p.155)

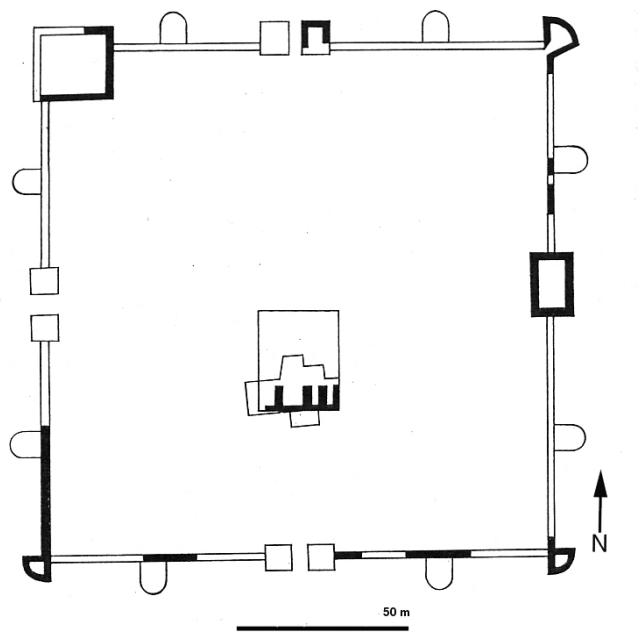

Figure 3.16: The Auxiliary Fort of Cannabiaca
(After Kandler and Vetters 1986, p.162)

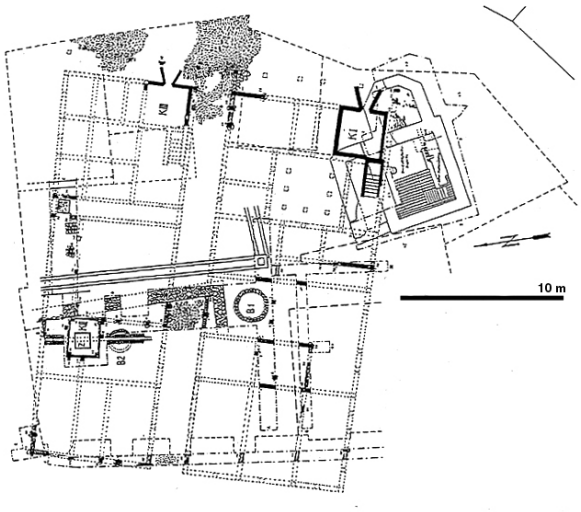

Figure 4.1: Row Houses in the Vicus of Lentia
(After Groh 1998, Abb. 34)

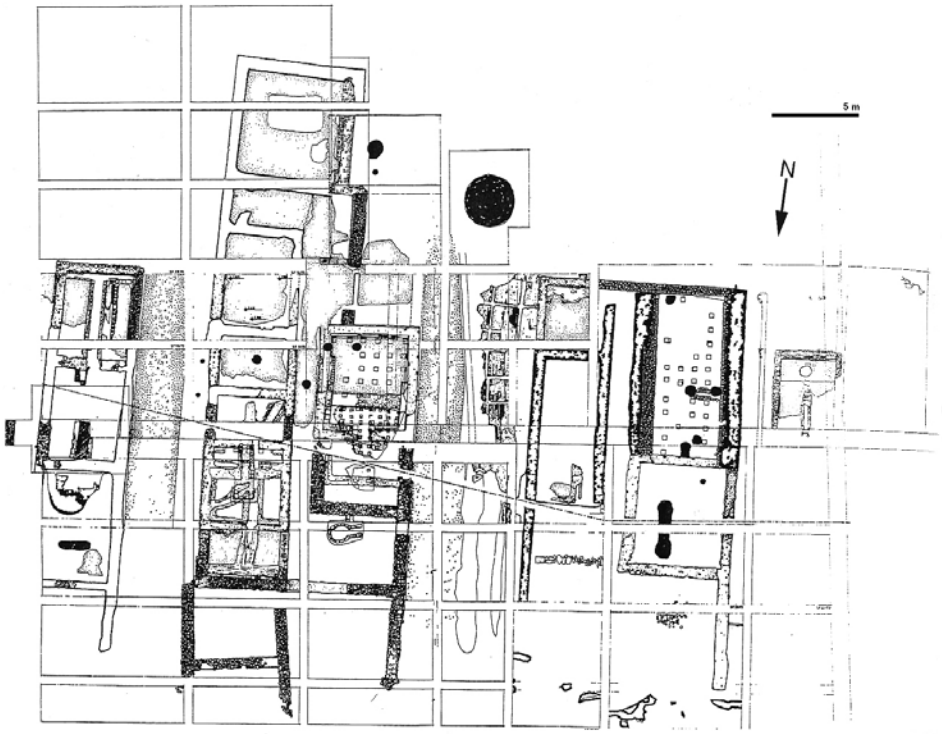

Figure 4.2: Row Houses in the Early Vicus of Lauriacum
(After Ubl 2002, Plan 7)

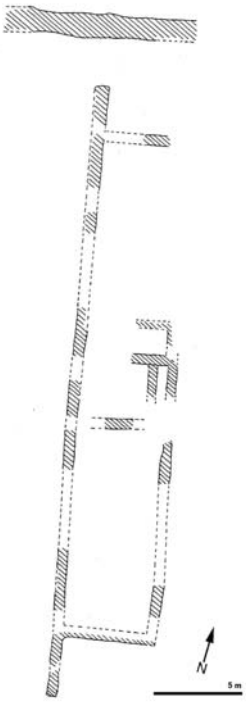

Figure 4.3: Row House in the Vicus of Comagena
(After Groh 1998, Abb. 33)

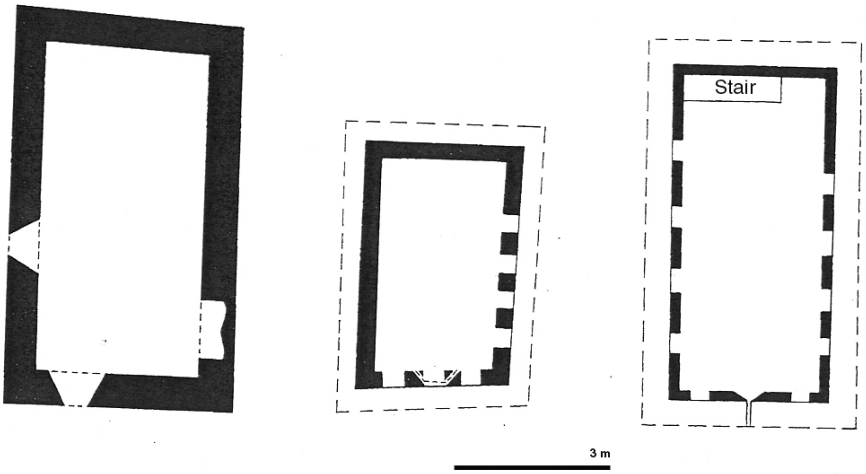

Figure 4.4: Three Cellars Excavated at Mautern
(After Groh 1998, Abb. 28)

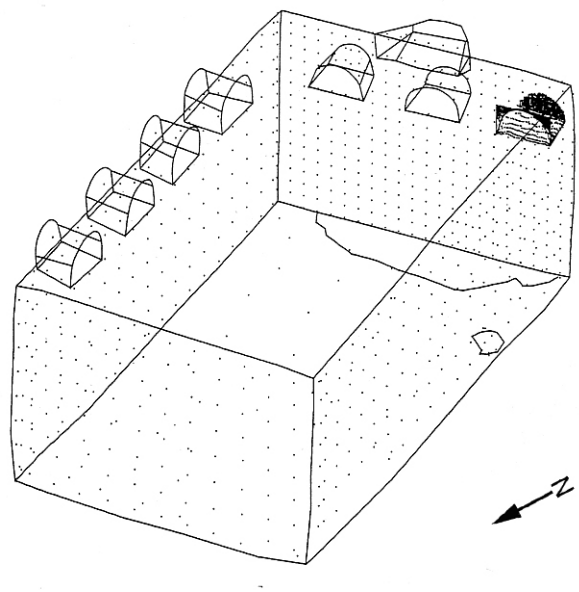

Figure 4.5: Reconstruction of a Cellar Excavated At Mautern
(After Groh 1998, Abb. 64)

Plate 3.1: Remains of the Eastern Gate of the Fort of Boiodurum

Plate 3.2: Remains of the Interior Courtyard from Boiotro

Plate 3.3: Remains of a Fan Tower from Boiotro

Plate 3.4: Site of the Vicus of Boiodurum

Plate 3.5: The Line of the Defenses of the Fortlet of Boiotro

Plate 3.6: Model of the Fortlet of Boiotro

Plate 3.7: Site of the Fort at Oberanna

Plate 3.8: Remains of the Fort at Oberanna

Plate 3.9: Remains of the Fort of Ioviacum

Plate 3.10: Remains of One of the Western Towers of Favianis

Plate 3.11: Remains of a Wall of the Fort of Favianis

Plate 3.12: Remains of a Horseshoe Tower at Traismauer

Plate 3.13: The *Salzturm* at Tulln

Plate 3.14: The Eastern Tower at Zeiselmauer

VITA

Shannon Rogers Flynt was born March 26, 1969 in Birmingham, Alabama. In 1991 she earned a B.S. degree with Honors from Samford University (majors in Math and History). She earned an M.A. degree in Anthropology from the University of Alabama in 1994, and in the same year entered the Classical Archaeology doctoral program of the University of Missouri-Columbia as a Huggins Fellow. Flynt received a grant from the International Fulbright Foundation in 1999 and spent the 1999-2000 academic year in Austria researching the ancient Roman province of Noricum. In 2000, Flynt joined the faculty of Samford University, where she currently teaches courses in the departments of Classics and Art. She also teaches in Samford's academic core curriculum, serves as co-coordinator of the university's Cultural Perspectives curriculum and is Samford's Fulbright Program Advisor. She earned a Ph.D. degree from the University of Missouri in 2005. Her archaeological fieldwork experience includes excavations in Austria, Italy, Wales, Ireland, Missouri and Alabama.