

Public Entertainment Buildings

An Investigation of the Spatial Distribution of Theatres, Amphitheatres, and Circuses in the Area of the Western Roman Empire

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Abstract

This thesis has investigated the spatial distribution of entertainment buildings in the area of the Western Roman Empire. This was done by first collecting data on all known entertainment buildings and plotting it in ArcGIS. The spatial distribution was then described and a number of different approaches was used to analyze the data. Factors that were analyzed includes: where the different types of entertainment buildings were popular was established, how the number of entertainment buildings compare to the level of urbanization in different areas, the differences in the size of the buildings in different areas, when the buildings were constructed, and if the construction of entertainment buildings were connected to the change in civic status of towns. I find that there are large inter-regional differences in both the number of buildings for public spectacles and the popularity of different building types.

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Introduction

Public spectacles were an important pastime in Rome, and in the Empire as a whole. Ancient spectacles are often featured in popular culture today, and they are one of the aspects of ancient Roman culture that has fascinated modern people the most. Scholars have also been very interested in these spectacles, but the games themselves have often taken the spotlight and the buildings have had to take a step back. When mentioning Roman spectacles most people immediately think of bloody gladiatorial combat and poorly armored men fighting beasts. While that definitely was one type of Roman game, there were also other types. The chariot races of the circus, where four teams competed for victory, were very popular among the masses, and the dramas performed in the theatre were also part of the full spectrum of spectacles provided for the public in the Roman Empire.

Purpose

The goal of this thesis is to analyze the spatial distribution of public Roman entertainment buildings in the Western Empire. These buildings can be divided into three main categories: theatres, amphitheatres and circuses. There is also a fourth category of entertainment buildings which is spatially limited to the north western provinces of Gaul, Germania, and Britannia. It will here be referred to as Gallo-Roman buildings.¹ While others have discussed all these building types before, most studies have focused on the architectural development. Spatial distribution has to various degrees been discussed but the three different types have never really been discussed in relation to each other, the focus of most studies have been on one of these three types and only sporadically has other types been mentioned in those studies. In this study I want to discuss the spatial relation of the different building types.

My research questions are:

- What does the spatial distribution pattern of theatres, amphitheatres, and circuses look like in the area of the Western Empire?
- Why are they distributed in that way?

¹ See page 15 for an explanation of this category.

Method

I will start with establishing where these buildings actually were located and how they are spatially related to each other, and then I will discuss potential reasons for the spatial distribution. We can for example see that there are many circuses in Spain but relatively few amphitheatres; if the people on the Iberian Peninsula had the resources to build circuses why did they not build amphitheatres as they did in other areas?

I began this study by compiling a catalogue of all the known relevant buildings. For practical reasons and time restrictions I could not myself investigate all these buildings but have had to rely on other catalogues that already were put together. Since new information arises all the time and some of the catalogues have been out a fair few years by now I have tried to complement them where needed. When my catalogues were done I plotted the buildings in ArcMap, a GIS software, so that I could produce the maps and information I needed.

When all that was done I started with the analysis. First I discuss the total number of each type. Then I describe the spatial distribution of the buildings to see what patterns could be established. Possible explanations for said patterns are then discussed. The interregional differences in the total number of entertainment buildings are investigated, and so is the local variation in the number of theatres, amphitheatres, and circuses. Then I add variables to further the depth of the investigation. I investigate how the number of entertainment buildings relate to the level of urbanization in different provinces, and I establish different patterns in the size of the buildings that could shed some light on interregional differences. I also look at how the buildings were spreading throughout the Western Empire over time to investigate what kind of explanations can be given about why the buildings appear where they do. And lastly I investigate if there is a relation between the change in civic status and the different building types.

Historical background

Theatres

The theatre originated from Greece where the first dramas were set up in the late sixth century BC.² Bieber argues that it was in the cult of Dionysus Greek dramatic plays were first developed.³ In Athens the plays were first given in front of wooden bleachers on the *agora*, but soon moved to the slope of the Acropolis.⁴ The theatre came very early to the Greek colonies in Magna Graecia and Sicily. The earliest theatre attested in the west is dated to the fifth century BC and located in Syracuse.⁵ We know that, because of a senatorial ban, temporary theatres were used in Rome from at least the early second century BC.⁶ Sear suggests that there might have been a semi-permanent theatre as early as in 174 BC.⁷ He bases this in a section of Livy that states that the censors handed out a contract for the construction of a stage (*scaenam*).⁸ Sear argues that a permanent *cavea* (seating area) might have already been in place, since the text only mentions the construction of a stage. An attempt at building a permanent theatre was undertaken in 154 BC by the censors, but the senate ordered it to be demolished.⁹ The most probable reason for the senate's action was, according to Sear, that it wanted to prevent a permanent place for the masses to assemble, for the senate feared a situation like the one in Greece where seated assemblies of citizens gathered to manage the state. The first permanent theatre in Rome was dedicated in 55 BC, and the man behind its construction was Pompey. It was a large building; the *cavea* measured approximately 150 m in diameter. A temple to Venus Victrix was built on top of the *cavea* and dedicated in 52 BC. The construction work on the second major theatre in Rome (the Theatre of Marcellus) was started by Caesar in 44 BC, and later finished by Augustus between 13 and 11 BC.¹⁰ Although the new theatre was smaller (the *cavea* measured 130 m in diameter) than the Theatre of Pompey it might still have had a larger seating capacity according to catalogues from the fourth century AD.¹¹ A couple of more permanent theatres were constructed, but they do not compare in size and elaboration to these two.

² Bieber 1961, 54.

³ Bieber 1961, 1.

⁴ Bieber 1961, 54-55.

⁵ Sear 2006, 48.

⁶ Dodge 2014, 285.

⁷ Sear 2006, 54-55.

⁸ Liv. 41.27.5-6.

⁹ Sear 2006, 56.

¹⁰ Sear 2006, 61.

¹¹ Sear 2006, 62.

Amphitheatres

It is not known for certain where the origins of gladiatorial combats can be found. Gladiatorial spectacles most probably came to the Romans through the Etruscans, who in turn got them from the Samnites.¹² The first recorded event featuring gladiators occurred in 264 BC in the Forum Boarium.¹³ The fights were held as part of the funeral games of Brutus Pera and it was provided for by his two sons. Pliny claims that the architecture of the amphitheatre was born fully developed by Curio when he built two wooden theatres back to back and had them turn around (with the spectators still sitting in their seats) on a pivot to face each other and create one amphitheatre.¹⁴ This happened in 52 BC and can of course not be the true origin of the amphitheatre, since monumental stone amphitheatres, like the one in Pompeii, were already constructed at that time. Since the earliest dateable amphitheatre is located in Campania (Pompeii) it has often been said that this region was the origin of the architectural form of the amphitheatre.¹⁵ Welch argues, however, that the stone amphitheatres of Campania were modeled after the temporary structures that were often raised on the Forum Romanum in Rome.¹⁶ One of her main arguments for this is that there is no real evolution of stone amphitheatres; they were born with a fully developed form. The first permanent amphitheatre built in Rome was dedicated in 30 or 29 BC.¹⁷ It was constructed out of stone and wood in the southern Campus Martius by T. Statilius Taurus. This was the only permanent amphitheatre in Rome until the Colosseum was built, but it did not fully replace the temporary amphitheatres of the Forum Romanum, which continued to hold games even after the amphitheatre of Statilius Taurus was erected.¹⁸ It took more than a century before the next permanent amphitheatre was dedicated in Rome, but when the new amphitheatre (today called the Colosseum) was built it was the grandest and most impressive entertainment building of its time, and its architectural design became the canonical form of an amphitheatre.

Circuses

Chariot racing was arguably the most popular pastime in ancient Rome, and it is probably also the oldest of the three major spectator events (theatre, gladiatorial/hunting games and chariot

¹² Bomgardner 2000, 32.

¹³ Valerius Maximus 2.4.7.

¹⁴ Plin. *HN*. 36.24.

¹⁵ Welch 2014, 198.

¹⁶ Welch 2014.

¹⁷ Dodge 2011, 42.

¹⁸ Futrell 2006, 61.

racing). It is attested in the Iliad, at Patroklos funeral games.¹⁹ Four horse chariot (*quadriga*) racing was introduced at Olympia in 680 BC, ridden races were introduced 32 years later and two horse chariot (*biga*) races were introduced in 408 BC.²⁰ The Circus Maximus in Rome dated back to Tarquinius Priscus according to Livy. Tarquinius Priscus first marked out the area and built seats for the most prominent members of society.²¹ He also brought horses and boxers from Etruria for the games, which indicates that the Etruscans were more experienced in these sports. It is likely that the area dedicated to Circus Maximus by Tarquinius Priscus actually was used as racing grounds from the 6th century forward. It is, however, not likely that anything near a monumental circus as we know it was built before the late republic.²² All that was needed for chariot racing was a large fairly flat area and two turning posts to race around. Temporary bleachers or platforms for important spectators could be raised on demand at the finishing line and everybody else could view the race spread out around the course and from the slopes of the Palatine and Aventine hills. As the circus was used throughout the republic more and more work was done to improve the area; at some point a continuous barrier had to be built between the turning posts to prevent cheating. The valley was also flooded several times and work was probably undertaken to steer the water away from the circus.²³ An arch was erected by Lucius Stertinius in the early 2nd century BC in the circus and some 20 years later major construction was undertaken in the circus. Livy mentions that the turning posts were built, the eggs that marked the number of laps were built, the starting gates were built and iron cages were built.²⁴ It is likely that some of these already existed and was being rebuilt or made grander, it seems very unlikely for example that the races up to this point had taken place without turning posts. *Venationes* (hunting games) were also held in the circus during the republic; Pompey for example held games involving twenty elephants in the circus when he in 55 BC dedicated his temple to Venus Victrix.²⁵

The canonical shape of the circus was the result of the undertakings at the Circus Maximus by Julius Caesar.²⁶ He established the monumental shape of the circus, where it had two long parallel sides that met up in a semi-circle at the far side of the starting gates. Augustus did some

¹⁹ Hom. *Il.* 23.

²⁰ Humphrey 1986, 6.

²¹ Liv. 1.35.8.

²² Humphrey 1986, 64-72.

²³ Liv. 7.3.1-2; Liv. 30.38.10-12.

²⁴ Liv. 33.27.3; Liv. 41.27.6.

²⁵ Plin. *HN.* 8.7.

²⁶ Humphrey 1986, 73-76.

finishing touches and rebuilt parts that were destroyed in a fire, but the general appearance of the building remained intact until Trajan did some major rebuilding and finalized the canonical appearance of the Circus Maximus.

Previous research

I have not found research that focuses on the spatial distribution of public entertainment buildings in the Western Roman Empire, nor in the Roman Empire as a whole. Some great works have been written on these buildings, but they have usually been focused on the architectural developments of a single building type. Sear has for example written a comprehensive catalogue of Roman theatres, but nowhere does he discuss the distribution of the buildings.²⁷ He does discuss theatres in the different provinces but only focuses on the local architectural development. The same can be said for Golvin who wrote an impressive volume on Roman amphitheatres and their architectural development, but he also leaves much to be desired in the discussion of spatial distribution.²⁸ He does have a table showing the number of different types of entertainment buildings in each province, but even though he presents the data he still does not produce a proper discussion in connection to it.²⁹ Welch has also done important work on the amphitheatre.³⁰ She has focused her work on the early development of the building type and has found that the early amphitheatre had a close connection to veteran colonies, such as Pompeii for example, but since she only focuses on the republican amphitheatres the geographical scope of her study is very small. I find it very curious that these authors have not properly discussed spatial distribution. Even the otherwise comprehensive work, on the history of theatres, of Margarete Bieber that is called *The History of the Greek and Roman Theatre* fails to bring up the spatial distribution, except for discussing architectural development in different areas.³¹

Humphrey does discuss the distribution of circuses, although very briefly. He finds that chariot racing was very popular in North Africa and Spain, and he suggests that both those regions were important centers for horse breeding.³² There are a lot of evidence for circus games in

²⁷ Sear 2006.

²⁸ Golvin 1988.

²⁹ Golvin 1988, 275-278.

³⁰ Welch 2007.

³¹ Bieber 1961.

³² Humphrey 1986, 296, 337.

Spain, especially inscriptions that mention them but mosaics depicting circus related motifs are also present on several sites.³³ Humphrey believes that the abundance of breeders in Spain made it possible for smaller towns to hold circus games, because the breeders needed to train and try out their horses in smaller venues before they were shipped out to larger cities.³⁴ Humphrey finds that Gaul does not have as many circuses as Spain and North Africa do, and other indirect evidences for chariot racing are also scarcer here.³⁵ The areas in Gaul where most evidence of chariot racing can be found are around Lugdunensis and in the southern Rhône valley. Humphrey believes that, because of the small amount of indirect evidence for chariot racing, there probably were no circuses present in many other locations than the few already known in Gaul.³⁶ He also suggests as a reason for the lack of circuses in Gaul that the level of urbanization was lower here than in Spain and Africa, which is interesting since there are a lot more amphitheatres and theatres present in Gaul than in Spain. Humphrey also finds that the circus often was the last of the three entertainment buildings to be built in a city; Leptis Magna, as an example of a rich African town, had already built most of the important buildings (theatre, amphitheatre, and baths) when the circus was constructed.³⁷

Laurence *et al.* is the work that comes closest to studying what this thesis aim to do.³⁸ Their goal is mainly to understand the urban landscape of the Roman towns in the west, but they do also look somewhat on interregional differences. I will here go through what they have written that concerns this study.

Starting with the theatre they find that it did not become an essential part of the urban landscape in Roman Spain and Britain, but it did in Italy, North Africa, and Gaul.³⁹ They do not find a satisfactory explanation for the discrepancy in the number of theatres in Gaul and Spain.⁴⁰ They do note that even though the frequency of theatres in Gaul more resembles that of Italy than that of Spain the theatres of Gaul are vastly different in appearance. They were heavily adapted to the local culture and were closely related to cult and religion. Laurence *et al.* find that theatres were a late addition to the urban landscape in Africa (they were, according to Laurence *et al.*,

³³ Humphrey 1986, 385.

³⁴ Humphrey 1986, 386.

³⁵ Humphrey 1986, 428.

³⁶ Humphrey 1986, 430.

³⁷ Humphrey 1986, 295.

³⁸ Laurence *et al.* 2011.

³⁹ Laurence *et al.* 2011, 231.

⁴⁰ Laurence *et al.* 2011, 244.

mainly introduced during the Antonines), and that they therefore could not have been regarded as important buildings in that region.⁴¹

Laurence *et al.* have looked at where amphitheatres and theatres were located within the city context, and they have found that in Italy 84 % of the theatres were located within the city walls while only 42 % of the amphitheatres were.⁴² They give as one possible reason for why amphitheatres were located outside the walls that this might have been where the earlier temporary wooden amphitheatres were built.⁴³ This reasoning seems to contradict the Roman tradition of raising temporary amphitheatres on the forum, which is where Vitruvius assumes they were to be constructed,⁴⁴ and Laurence *et al.* agree that there is no evidence for their theory. Three other more likely reasons given by Laurence *et al.* for why amphitheatres were built outside the city walls are: one, that towns did not have space for them inside the walls; two, that gladiatorial games originated as funeral games and the amphitheatres were therefore placed outside the cities close to the cemeteries; and three, that people from neighboring towns attended the games; there is evidence for this in Pompeii, where advertisements tell of the games in Nuceria.⁴⁵ In Hispania Baetica the amphitheatres were also placed outside the cities. They were placed between the cities and the Via Augusta, making them the first things travelers saw when they approached the cities.⁴⁶

Laurence *et al.* also analyze the spatial distribution of amphitheatres somewhat, but they seem to reach some conflicting conclusions. As an example they first find that the spread of amphitheatres in Britain shows that they were not widely adopted in the towns of the province, but a few pages later they write that the amphitheatre became a “must have” in Britain and Gaul.⁴⁷ Only four amphitheatres are dated to before the second century AD, according to Laurence *et al.*, in North Africa. Later during the second century there was a large increase in the amount of buildings being constructed there. Laurence *et al.* have identified that the construction of other buildings (baths, temples, etc.) in this area was also slow during the first century AD.⁴⁸ The four amphitheatres built before the second century were all built in important

⁴¹ Laurence *et al.* 2011, 250.

⁴² Laurence *et al.* 2011, 266.

⁴³ Laurence *et al.* 2011, 267.

⁴⁴ Vitr. *De arch.* 5.1.1.

⁴⁵ Laurence *et al.* 2011, 268.

⁴⁶ Laurence *et al.* 2011, 271.

⁴⁷ Laurence *et al.* 2011, 272, 280.

⁴⁸ Laurence *et al.* 2011, 272.

cities under special circumstances. Those four cities built amphitheatres because they wanted to make a statement about their Romanness and their preeminence in Africa by constructing buildings which hosted “the archetypal Roman pastime of the games.”⁴⁹ Laurence *et al.* suggest a couple of reasons for the building boom of the second century AD in North Africa: they suggest that the area maybe had become more connected to Rome and erected all these new buildings as a manifestation of this. As another reason they point out that the North African exports to Rome increased heavily during the second century, and the region was therefore wealthier.⁵⁰

Laurence *et al.* also discuss the general lack of amphitheatres on the Iberian Peninsula and they do not believe that the various degrees of preservation and of documentation account for the difference in the number of amphitheatres in Gaul and Spain.⁵¹ One explanation for the discrepancy may be the association between the amphitheatre and the military, Gaul and Britain had more veterans. Another reason can be found in the chronology of urban development. Laurence *et al.* believes that cities on the Iberian Peninsula aimed to reproduce a late Republican Rome and an early Imperial model of Rome, which would not include monumental entertainment buildings (especially not the amphitheatre).⁵² In the end Laurence *et al.* concludes that amphitheatres cannot be said to have been an essential part of Roman cities, since a lot of cities throughout the Empire did not possess an amphitheatre.⁵³ The amphitheatre must, however, have been a key feature of Italian cities, except maybe for the south. North Africa followed the Italian example, although at a later time.⁵⁴ The distributional pattern does not seem to follow the journey of any particular emperor, and there is no other link to any emperor promoting amphitheatres across the Empire.

Circuses are also briefly discussed by Laurence *et al.* They mostly state obvious patterns regarding them, but they do find one particular circus fascinating, the circus at Vienna, because according to them it was not an important city and there was a circus close by at Lyon.⁵⁵ Humphrey, however, does not find it weird, since Vienna, according to him, became the second

⁴⁹ Laurence *et al.* 2011, 274.

⁵⁰ Laurence *et al.* 2011, 278.

⁵¹ Laurence *et al.* 2011, 279.

⁵² Laurence *et al.* 2011, 279.

⁵³ Laurence *et al.* 2011, 280.

⁵⁴ Laurence *et al.* 2011, 281.

⁵⁵ Laurence *et al.* 2011, 296.

most important city in Gaul in the late third or early fourth century.⁵⁶ It was indeed the capital of the Viennois diocese from the reign of Diocletian on, and of the Viennois province from the reign of Constantine.⁵⁷ Laurence *et al.* come to the conclusion that provincial circuses were first being built in the second century AD, and that they broke the mould of the stagnating and declining urban construction that was going on at the time.⁵⁸

Material

My material will mainly be catalogued information on all known entertainment buildings. Since I have included 653 buildings in this study I have not been able to investigate each building myself - I have had to rely on others. While archaeological excavations may give us very valuable information about these buildings, such as precise dating, quantitative studies of these buildings are not possible if you exclude all buildings that have not been excavated; there are simply too many unexcavated buildings out there. In my selection process I have decided that a building should be included if: archaeological remains are present, aerial photography clearly reveals a building, if literary evidence clearly states that a certain building was present in a town, or if an inscription clearly speaks of a building. The key word for a building to be included in this study is “clearly”. If for example a theatre has been identified via aerial photography it has to be clear that it is in fact a theatre and not half an amphitheatre, the end of a circus or something completely unrelated. So when Sear writes that in Cataractonium there is a “theatre revealed by aerial photography” it is included here, but when he writes that in Aginnum there “may be a theatre because aerial photographs and street plans revealed oval shape” it is not included here. When a building is known through inscriptions or ancient texts I have tried to verify the text myself and decided if the building should be included or not. But inscriptions also has to clearly state that a building was present, an inscription mentioning *ludi scaenici* is not regarded as proof of a theatre, but an inscription mentioning that someone built a podium in the *theatrum* is included.

⁵⁶ Humphrey 1986, 388.

⁵⁷ PECS (1976), s.v. Vienna (M.Leglay).

⁵⁸ Laurence *et al.* 2011, 295-296.

Limitations

Chronological

This thesis will try to incorporate all known permanent entertainment buildings located in the area of the Western Roman Empire. This includes buildings that were constructed before the expansion of Rome into an empire. The earliest entertainment buildings in the west were theatres that were built in the fifth century BC in the Greek areas of Magna Graecia and Sicily. The last buildings for public spectacles that were constructed in the west were a couple of circuses which were built in the first half of the fourth century AD.

Geographical

This thesis will focus on the area of the Western Roman Empire. This is for a couple of reasons. One is that doing a survey of the entire Roman Empire would be a bit too much to cover here. Another reason is that there is a very noticeable difference in culture around public entertainment in the eastern empire compared to the west, very few amphitheatres were for example built in the east. Pannonia and Dalmatia has been chosen as the easternmost provinces in Europe and Africa Proconsularis has been chosen as the easternmost province in Africa. This means that some areas, like Sicily and southern Italy, is part of the study even though in many ways they perhaps culturally should belong to the east.

Provincial borders

Whenever ancient provinces are mentioned they will, unless otherwise stated, refer to the provincial borders of AD 200 as they are drawn in the digital map of dare.ht.lu.se (see *Fig. 1*), which in turn is based on the Barrington Atlas.⁵⁹ The same boundaries are used in the catalogue for assigning a province to each building.

⁵⁹ dare.ht.lu.se is being developed by Johan Åhlfeldt (Åhlfeldt 2015), and it is a great recourse for everyone interested in the geography of the ancient Roman Empire.



Figure 1. These are the provincial borders that will be used in this thesis.

Definitions of building types

When investigating three different building types we need to establish a definition for each type. All buildings in this thesis are considered permanent, that is to say that they were not put up temporarily for a single event, but rather were used for several events over a period of at least a couple of years. The temporary amphitheatres built on forums are for this reason not included, but structures built primarily in wood can be included if they have a proper foundation that suggest long time use.

Theatres

Out of the three building types this is the most problematic to define. The most basic form of a canonical Roman theatre is a semi-circular *cavea* with a semi-circular *orchestra* and a scene building (*scaena*) that was as wide and as tall as the *cavea*. There are two main problems with this definition: number one is the question of what to do with the structures usually called Gallo-Roman theatres. They are not really one uniform building type; they come in a lot of different shapes. Sear highlights the problem of categorizing these buildings, and he chooses not to divide them into several types but to just call them Gallo-Roman to confirm that they are, although not uniform, different from a “normal” theatre.⁶⁰ To give you an idea of how they differed from other theatres they could have an *orchestra* or an *arena*, they could come with or without a stage and the *cavea* could vastly exceed a semi-circle and the circulation (how and where the spectators entered the building) varied vastly from a “normal” theatre. The functions of these Gallo-Roman buildings are debated and since they could come with an *arena* with or without a stage it probably varied from building to building. I have here chosen not to include the Gallo-Roman type in the list of theatres even though they most often look very much like theatres. They will instead be included in this study as a fourth category and discussed as such.

Problem number two with defining what is and what is not a theatre is that there are two other building types that can be confused with theatres, especially when their remains are poorly preserved or only partly visible, they are *odea* and *bouleuteria*. The latter is excluded from this thesis because of both architecture and function; a *bouleuterium* was a place for council meetings and thus normally only needed a capacity of a hundred people at most, Ephesus being an exception with its 450 council members.⁶¹ There were as always exceptions in the size of the building and some were large enough to be confused with theatres, but they should be so far in between that they do not impact the results of this study if they happen to be taken for theatres. *Odea* on the other hand can be very difficult to differentiate from small theatres; they varied in size and form, some having rectilinear outer walls and some having curved walls just as a theatre.⁶² They were used as concert halls and had stages just as theatres did. Since they could be very similar looking to theatres and were used as public entertainment buildings they are included in this thesis as theatres.

⁶⁰ Sear 2006, 98-100.

⁶¹ Sear 2006, 38.

⁶² Sear 2006, 39.

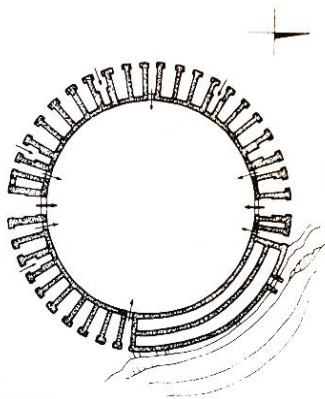


Figure 2. Round amphitheatre at Lucus Feroniae. Source: Golvin 1988, Planche VII.

Amphitheatres and Circuses

Amphitheatres have, in their canonical form, an oval *cavea* that entirely encircles an oval *arena*. Some variations do occur: some, usually small, are completely round (see *Fig. 2*); while a few others are elongated, almost rectangular with rounded edges (see *Fig. 3*).⁶³ Circuses were, in their canonical form, several hundred meters long and around 70-120 meters wide. One of the short sides was straight and the other rounded, and it sometimes, like in the Circus Maximus, included a triumphal arch. The largest circuses had the *cavea* go around the entire *arena* except for the short side that was straight, and smaller ones only had permanent seating at the long straights. In the middle of the *arena* there was a divider called the *spina*. On the *spina* of monumental circuses shrines and other ornamental structures could be built. There is another building type very similar in shape to the circus and that is the stadium. They are, however, fairly easily distinguished from circuses because of their smaller size. There are only three stadia attested in the Western Empire and they are all located in Italy (Rome, Naples, and Puteoli).⁶⁴

⁶³ A great example of an elongated amphitheatre is found in Caesarea. See Golvin 1988, 112.

A great example of a small circular amphitheatre is found in Lucus Feroniae. See Golvin 1988, 168.

⁶⁴ Dodge 2013, 566.

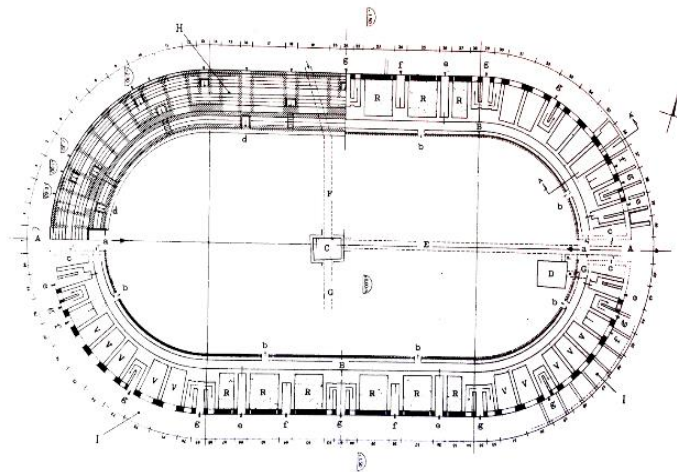


Figure 3. Elongated amphitheatre at Caesarea. Source: Golvin 1988, Planche XXIX.

Representativity

As is the case with all archaeological studies, the representativity of the material needs to be discussed. The major problem with studying archaeological remains is that we can never know what is missing from our material, we will never know exactly how many theatres, amphitheatres, and circuses there were. Furthermore we can never prove a negative; the absence of evidence is not evidence of absence, meaning that we can never be sure that a town did not possess a certain building type. Just because we cannot see it does not mean it is not hidden in the ground somewhere. In some cases all remnants of a building may already have been lost forever due to a range of different circumstances.

For this study to be productive we need to discuss if the buildings we do know of today are representative for all the buildings that once existed. Is it plausible that the representativity is the same throughout the Western Empire when taking into account the vast geographical scope? I would argue no, it is not. The so called “military amphitheatres” of the northern border and in Britain were relatively small and for the major part constructed out of wood, making them a lot harder to find archaeologically than many of their Mediterranean counterparts, so it is reasonable to suggest that there are more unknown buildings still to be discovered in those parts.⁶⁵

⁶⁵ For a summary of amphitheatres found at auxiliary forts see Sommer 2009.

Another regional difference that must be taken into account when working with such a large area is the variation in the level of documentation for the different regions. Archaeologists from all over the world flock to Italy and the level of documentation should therefore be better there than for most other parts of the Western Empire. Because of the increased number of excavations after the Law of Spanish Historical Heritage was introduced in 1985 several new amphitheatres have been found on the Iberian Peninsula, this clearly shows how important local level of documentation is to our understanding of interregional differences.⁶⁶ It is very hard to compare the level of documentation in different countries and regions and it is therefore necessary to keep this in mind when comparing distribution over such a large geographical area as this study does.

It is not only the level of preservation and documentation between regions that must be considered. When comparing different building types we also need to ask if there is a difference in preservation and documentation between the different types. Major work has been done on all three types, but the amount of academic interest in the different types has varied.⁶⁷ Circuses are the least studied of the three, probably because there are a lot fewer of them around, and of those none has ever been fully excavated. Since academic interest in general produces more information of already known buildings than it does find new buildings it does not affect this study too much. A bigger problem could be the level of preservation; it is very hard to estimate how this compares between the building types. Circuses were, on the one hand, huge and should therefore be relatively easy to spot today. On the other hand, they were built on flat terrain outside the towns, which means that it was easy for farmers to reuse the stone for their own buildings and then use the terrain for farming; one and a half thousand years of ploughing could have erased all evidence of some circuses by now. A building like the theatre, which was mostly built inside the towns, would of course also be a victim for material reuse, but some walls and foundation could perhaps be used as they were and in that way leave evidence of their former prime visible. Sometimes the buildings were razed and built over leaving no visible signs above ground. An amphitheatre was for example found as recently as in 2007 when an underground parking garage was being built in Cahors, France.⁶⁸

⁶⁶ For a summary of recent studies on the amphitheatres of the Iberian Peninsula see Durán Cabello *et al.* 2009.

⁶⁷ Major work: for theatres, Sear 2006; for amphitheatres, Golvin 1988 and Welch 2007; for circuses, Humphrey 1986.

⁶⁸ Rigal 2009, 383.

The end result of all this is that we cannot really know how representative the material is, there are cases, like the wooden amphitheatres of Germania and Britannia, where we can be sure that it is not. The sample size in this study will be very large and hopefully that will help to minimize potential deviations.

Dating

To be able to quantify the dates at which the buildings were constructed two different methods will be used. For all maps each dateable building will be given an approximate date of construction. Since most buildings are only dateable to a certain time span they will be given a date of construction in the middle of their time span. If for example a building is dated to the late first or early second century the time span is 75-125 and the approximate date of construction will thus be set to 100. This will cause some issues; let us say that one map shows the first century and another one the second century, whichever of the maps that are assigned the year 100 will include all buildings dated to the late first or early second century.

A second method will be applied to all charts, for these all dateable buildings will be divided between different bins. If we take the second century example once again, we might want to divide it into four bins, each making up a time span of 25 years. A building dated to the second century will be divided into each of the bins, adding a value of 0.25 in every one of the four bins, a building dated to the mid second century will instead be divided between the second (126-150) and third (151-175) bin, adding a value of 0.5 in each of the two. This will help to balance the problems with date of construction that occurs with the maps and give a more even result.

Analysis

Total number of buildings

There are 345 theatres, 226 amphitheatres, 40 circuses, and 42 Gallo-Roman buildings included in this study (see *Fig. 4*). More than half (53%) of the buildings that I have found are theatres, making it the most common entertainment building that could be found in the Western Empire

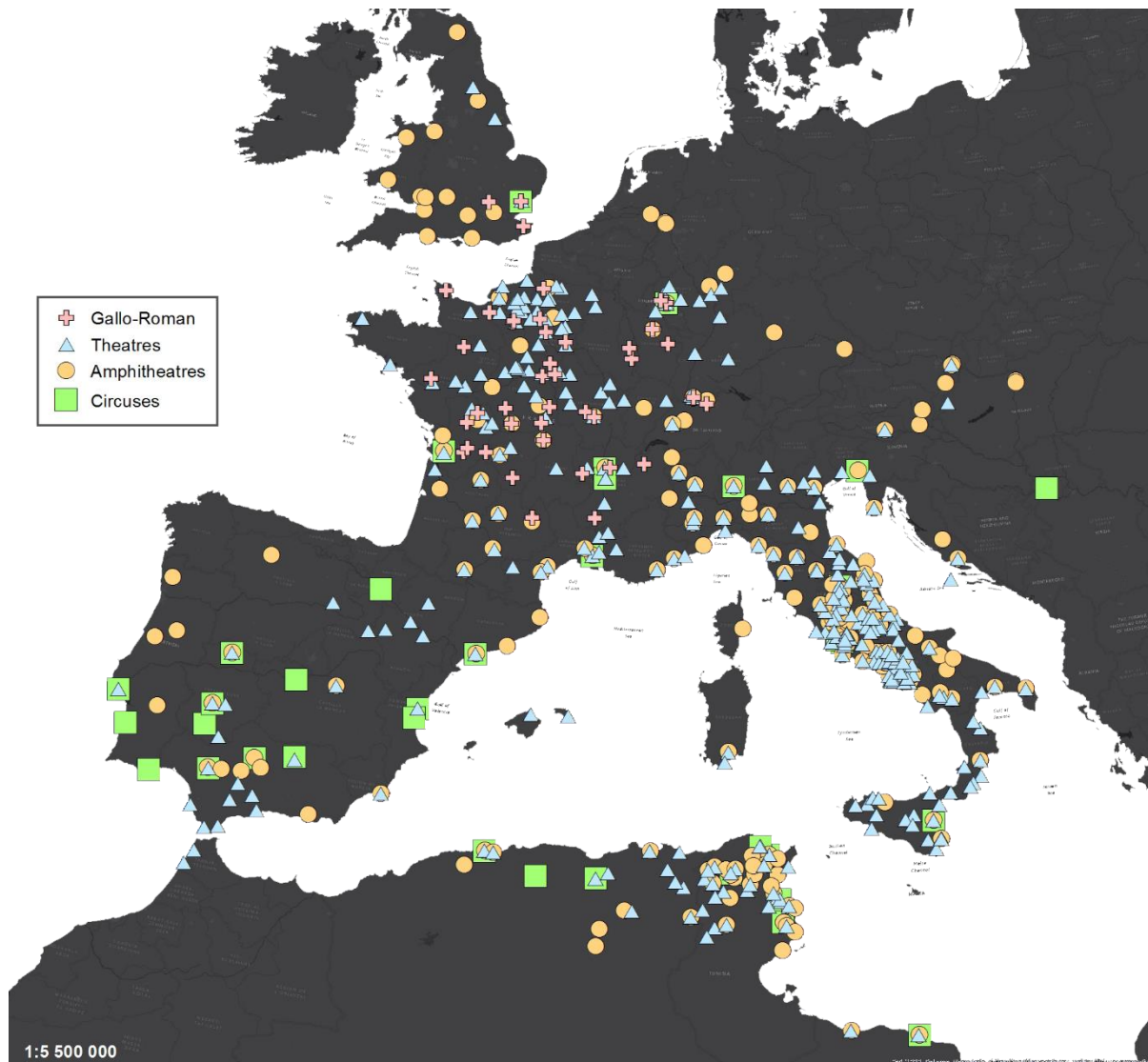


Figure 4. All entertainment buildings of the Western Empire.

by far. Circuses on the other hand are few and only constitute about 6% of the total amount of spectacle buildings available to the public. There could be several reasons for this distribution. The first of which comes down to the cost of erecting the buildings. Although calculating the actual building costs of ancient monuments is very hard, we can assume that the average theatre was cheaper than the average amphitheatre, which in turn was cheaper than the average circus. This assumption is based on the general size of the buildings; for the monuments which we do know the dimensions of the average size of the *cavea* in theatres are ca. 2010 m², amphitheatres average more than double that at ca. 4860 m². Too few circuses are properly excavated or visible today to get an average size, but the relatively small *cavea* of the Circus Maxentius exceeds at least 6800 m². There are of course more considerations than *cavea* area that has to be taken into account when evaluating the cost of erecting a building; the scene building of the theatre and

the *spina* of the circus are, for example, not taken into account here, but the differences in the *cavea* area are large enough for the conclusion that the average circus and amphitheatre were more expensive than the theatre to be plausible. Humphrey suggests that circuses were too expensive for local communities and/or private benefactors to pay for, and that government intervention was needed to secure the funds to build a circus.⁶⁹

The cost of providing spectacles should also be taken into consideration; there is no point in erecting a permanent building for a one time cost if you cannot afford the continuous expense of the games held there. Dio Cassius' Maecenas thought that it was necessary to prevent too many large buildings from being constructed and to limit the large number of games being held, so that public treasury and private wealth were not depleted.⁷⁰ Providing games were part of the responsibility of the aediles, both in Rome and in small communities, and making a career for yourself in the capital demanded huge private expenses to be put out for the games, especially for the *munera* (gladiatorial games) which were not part of the official calendar and many aspiring politicians had to go into heavy debt to be able to provide them.⁷¹ Cicero writes: "And yet I realize that in our country, even in the good old times, it had become a settled custom to expect magnificent entertainments from the very best men in their year of aedileship."⁷² He goes on to list men that provided great games and then to a man that did not; Mamercus was rich but refused to become an aedile because he did not want to waste money on games and Cicero states that he lost the election for consulship because of this.⁷³ There are many examples of men trying to make a name for themselves through spending enormous amounts of money, and almost ruining themselves, on the *munera*; Caesar is one such example.⁷⁴

It was not as bad for local politicians outside of Rome. According to the *Lex Ursonensis*, the charter for Urso in Baetica, local aediles were required to organize either gladiatorial or theatrical games and they were required to pay a minimum of 2 000 sesterces from their own money and supplement that with 1 000 sesterces from the public treasury.⁷⁵ Theatrical games could be a bit more expensive than that. An inscription from Ammaedara (Numidia) mentions

⁶⁹ Humphrey 1986, 333.

⁷⁰ Dio Cass. 52.30.

⁷¹ Futrell 2006, 14.

⁷² Cic. *Off.* 2.57. Translation by Miller 1974.

⁷³ Cic. *Off.* 2.58.

⁷⁴ Futrell 2006, 15-16.

⁷⁵ *Lex Ursonensis* 71.

a donation of 10 000 sesterces for the theatrical games,⁷⁶ and another inscription, from Thuburbo Maius (Africa Proconsularis), also mentions the sum 10 000 sesterces for theatrical games.⁷⁷ Much effort was spent trying to make sure that towns and local elite did not bankrupt themselves by spending too much on the games. We have already seen Dio Cassius' Maecenas argue for moderation in the spending on games. Cicero also thought that it was a waste to squander too much money on such vanities.⁷⁸ Marcus Aurelius tried to stop the financial burden of local magistrates in AD 177 by sponsoring a law that limited the prizes of gladiators and setting price ceilings.⁷⁹

In addition to limiting the number of games all around Dio Cassius' Maecenas argues that only Rome should hold circus games, he states three reasons for this: the vast amount of money they cost, to keep the populace from becoming deplorably crazed over the races, and to give the army a better supply of horses.⁸⁰ Hyland thinks that there were problems with shortages of horses for the army at times, and that the main reason for this was the vast amount of horses needed for the chariot races.⁸¹ Meijer estimates that a total of 600-800 horses were used during a single day of chariot racing in Rome.⁸² The Calendar of Philocalus, which was written in AD 354, registered 176 days of games that year in Rome: 102 for theatrical games, 64 for chariot racing, and only 10 for gladiatorial games.⁸³ It is not unlikely that circuses and circus games were more centrally controlled than theatres and amphitheatres; they were much more expensive to build, and they used up horses that often were in short supply for the army. This may very well be the reason for why there are so few circuses around. Meijer suggests as a reason for why there were only ten gladiatorial games of AD 354 that the logistics of collecting animals for the *venationes* took a long time to organize.⁸⁴ Marcus Aurelius attempt to limit the costs of producing gladiatorial games in combination with Maecenas' speech does seem to indicate that many magistrates were depleting their funds in order to fund games, and that gladiatorial games definitely also were expensive undertakings. Theatrical games do not seem to be as expensive, and theatres might therefore not have been as centrally controlled as the other two.

⁷⁶ *ILTun*, 460.

⁷⁷ *CIL VIII*, 853.

⁷⁸ *Cic. Off.* 55.

⁷⁹ Futrell 2006, 48-49; *CIL II*, 6278.

⁸⁰ Dio Cass. 52.30.7.

⁸¹ Hyland 1990, 207-208.

⁸² Meijer 2010, 60.

⁸³ Meijer 2010, 52.

⁸⁴ Meijer 2010, 52.

Province	Theatres	Amphitheatres	Circuses	Mixed	Total
Africa Proconsularis	34	29	6	0	69
Alpes Cottiennes	0	1	0	0	1
Alpes Maritimes	0	1	0	0	1
Britannia	3	13	1	3	20
Corsica	0	1	0	0	1
Dalmatia	2	2	0	0	4
Gallia Aquitania	14	13	1	12	40
Gallia Belgica	19	4	1	7	31
Gallia Lugdunensis	46	5	1	16	68
Gallia Narbonensis	16	7	2	2	27
Germania Inferior	0	3	0	0	3
Germania Superior	11	10	0	2	23
Hispania Baetica	9	5	3	0	17
Hispania Lusitania	4	5	5	0	14
Hispania Tarraconensis	13	8	6	0	27
Mauretania Caesariensis	3	3	3	0	9
Mauretania Tingitana	2	0	0	0	2
Noricum	2	3	0	0	5
Numidia	3	4	0	0	7
Pannonia Inferior	0	2	1	0	3
Pannonia Superior	1	3	0	0	4
Raetia	0	2	0	0	2
Regio I	49	33	6	0	88
Regio II	4	7	0	0	11
Regio III	13	4	0	0	17
Regio IV	19	8	0	0	27
Regio IX	5	4	0	0	9
Regio V	7	7	0	0	14
Regio VI	14	11	1	0	26
Regio VII	13	12	0	0	25

Regio VIII	3	4	0	0	7
Regio X	11	4	1	0	16
Regio XI	4	3	1	0	8
Sardinia	2	1	0	0	3
Sicilia	19	3	1	0	23
Total	345	225	40	42	652

Table 1. Number of each building type divided by province.

Spatial distribution

A quick glance at the overall spatial distribution tells us straight away that there are large regional differences in the preference for which structures to build (see *Table 1*). I will start by looking at all the different regions of the Western Roman Empire and describing the spatial distribution in a way that provides a good basic understanding of the spatial distribution. I will then discuss the local variation from each building type's perspective.

Southern Italy and Sicily

An interesting anomaly from the rest of Italy is the lack of theatres in almost all of Regio II. There are five in total; three in the south and only one in the north, in Luceria, and that one is only known through a single inscription reading “*theatrum loc(us)*”.⁸⁵ There is one more theatre belonging to Regio II but it is more connected to, and spatially located on the border to, Regio I. There are not many amphitheatres here either (seven in all of Puglia), but they are at least fairly spread out over the region (see *Fig. 5*); two towns could boast of having both a theatre and an amphitheatre. The situation is reversed in nearby Regio III, where only one amphitheatre has been found compared to eight theatres; this is to be expected because of the heavy Greek influence in the region, all but one theatre was built before the first century BC. The southernmost circus on the Apennine peninsula is located in Bovillae, ca. 18 kilometers south of Rome, so nowhere close to these regions. There is, however, one circus on Sicily in Catina, which possessed all three building types. As would be expected theatres dominate the island too. It had fifteen theatres and all but two of them were built before the first century BC. We only know of three amphitheatres on the island.

⁸⁵ *CIL IX*, 802.

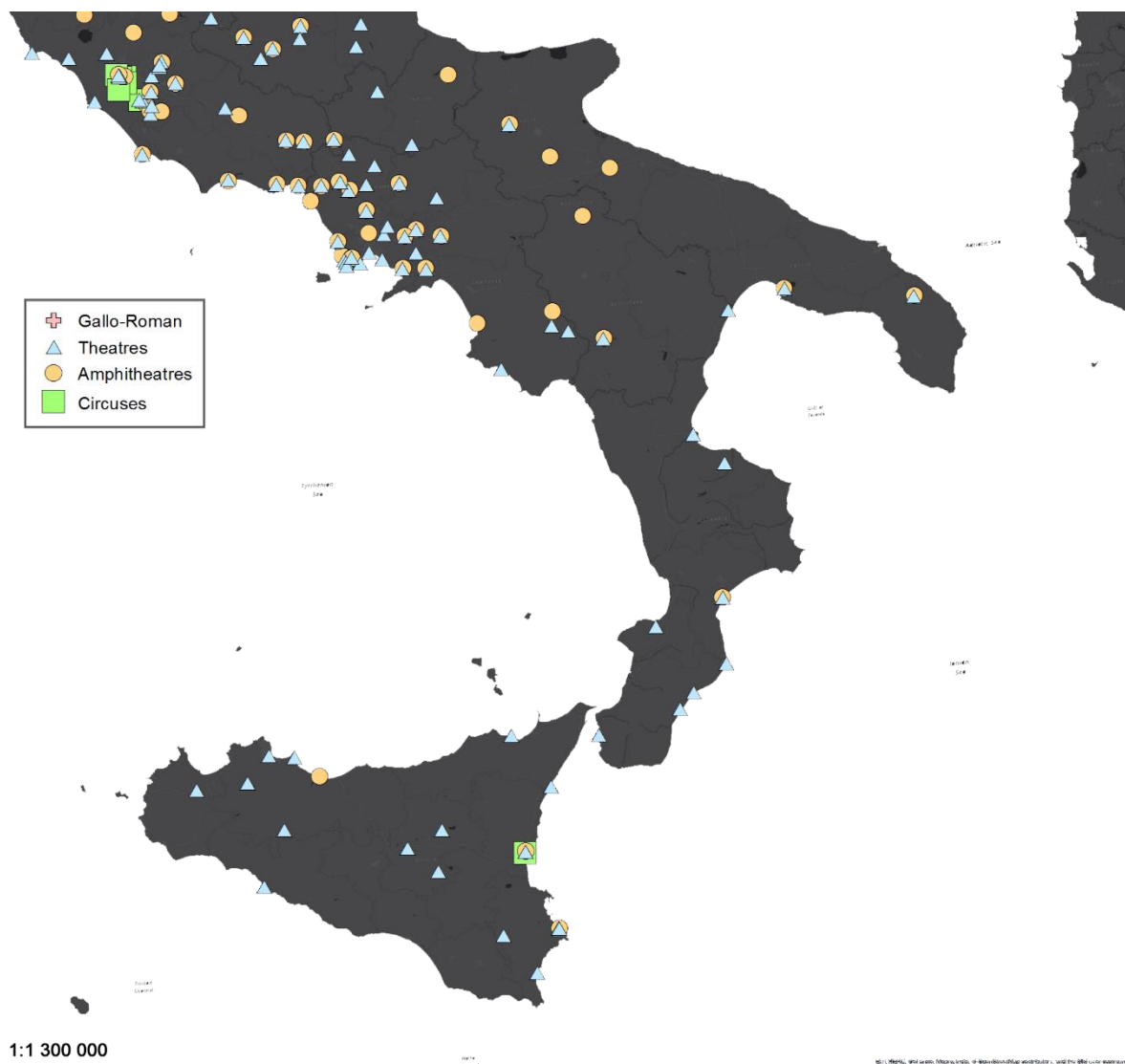


Figure 5. Spatial distribution of southern Italy.

Central Italy

Looking at central Italy we can see that it is heavily populated with theatres and amphitheatres (see *Fig. 6*). Many towns could boast of having both a theatre and an amphitheatre. There are seven circuses attested in central Italy; four inside the city of Rome, two in close proximity to Rome, and only a single one is not located in close vicinity to Rome, it is located in Asisum, which also possessed a theatre and an amphitheatre. As with the theatre of Luceria the circus of Asisium is only known through an inscription.⁸⁶ Several other circuses have been proposed for the area but evidence for a proper circus at those places are lacking.⁸⁷

⁸⁶ *CIL XI*, 5390.

⁸⁷ Humphrey 1986, 566-575.

Northern Italy

The heavy density of buildings in central Italy declines around Lake Trasimeno. That does not, however, mean that there is a lack of buildings in northern Italy, there are still many theatres and amphitheatres, but they are further between than they are to the south. There are two circuses in the north, one in Mediolanum (Milan), which also had a theatre and an amphitheatre, and one in Aquileia, which had an amphitheatre but lacked, as far as we know, a theatre. Only three towns, plus one on Sicily, in Italy had all three building types.

East of Italy

There are not many buildings at all to the east in Pannonia and Dalmatia; only four theatres, nine amphitheatres and one circus. Two border towns in the north, Carnuntum and Aquincum, do stick out with the fact that they both possessed two amphitheatres each.

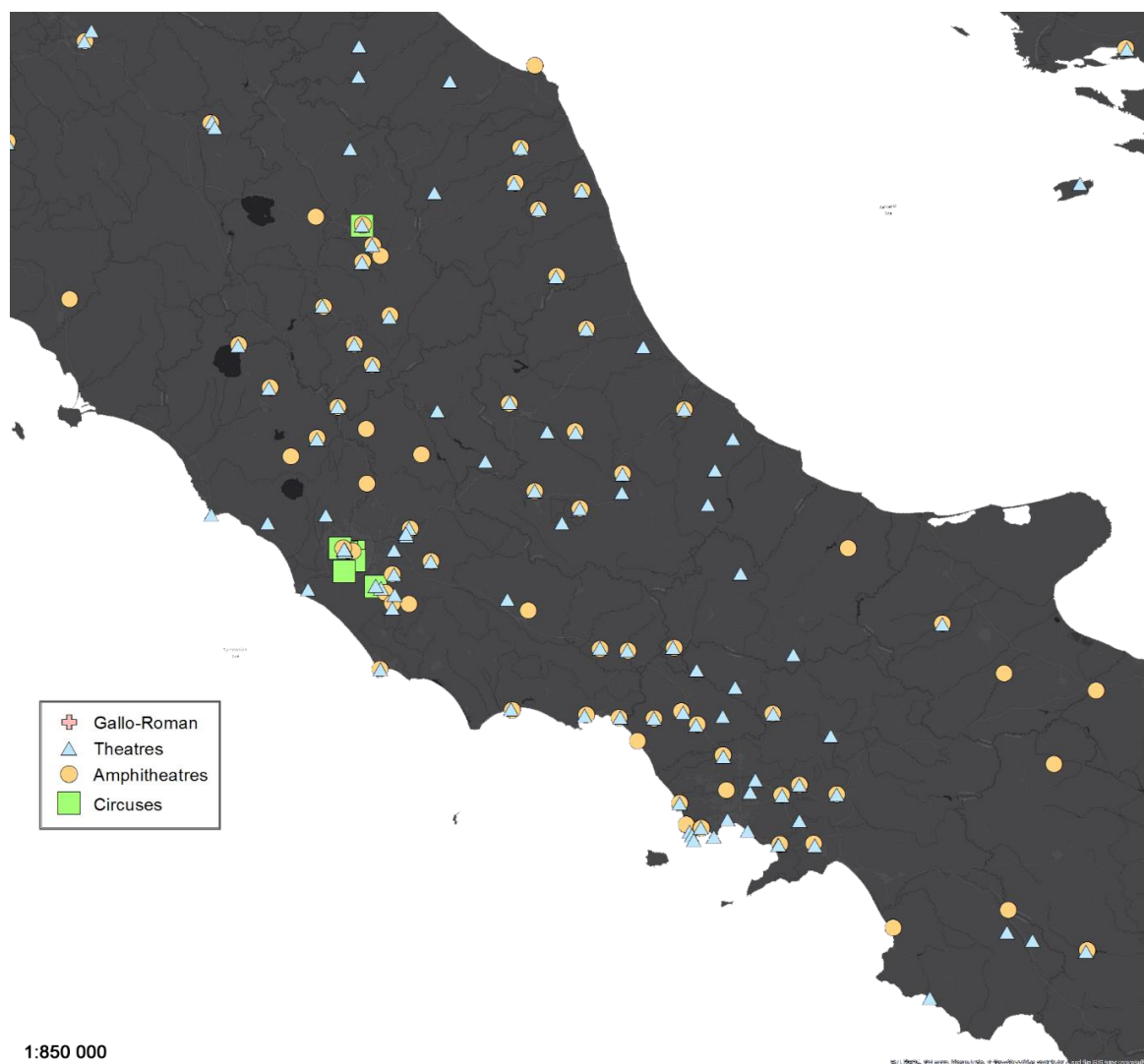


Figure 6. Spatial distribution of central Italy.

Germania and Raetia

The so called military amphitheatre dominates the northern border of Raetia and Germania Inferior. So far not too many have been found but they are usually pretty small and built mostly out of wood, which make them hard to find today. Only three of these were known to Golvin in the 80s. We now know of five more that has been found since then and my guess is that not an insignificant number are still to be found at military sites along the border.⁸⁸ A few theatres are also known from the border area, but they are fairly closely located to each other and not spread out along the border like the amphitheatres. There are also a fairly dense area of theatres and amphitheatres in southern Germania Superior, containing five amphitheatres and six theatres.

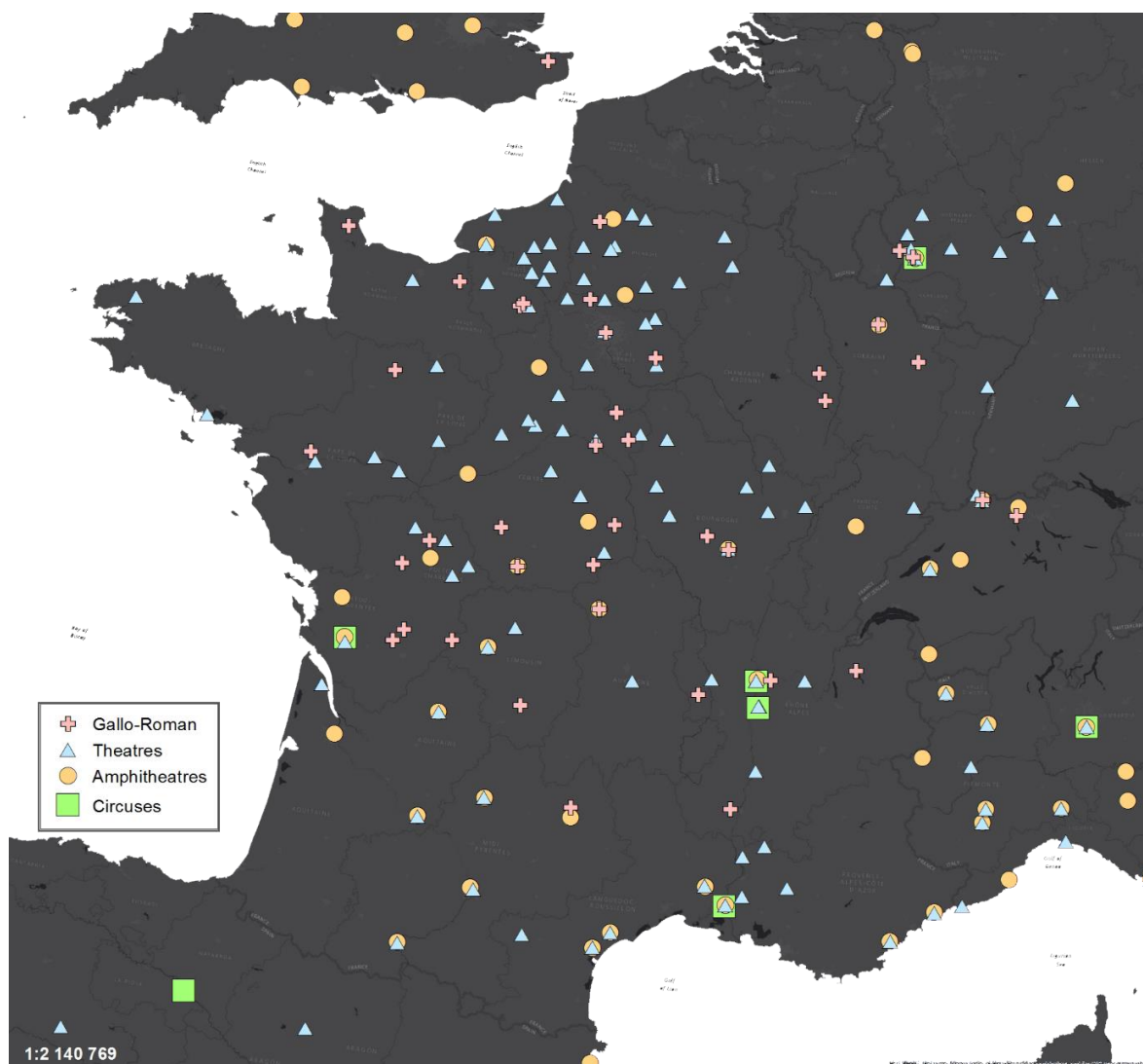


Figure 7. Spatial distribution of Gaul and Germania.

⁸⁸ These were located in: Arnsburg, Zugmantel, Dambach, and Künzig. See catalogue for more information.

Gaul

There are many theatres around Augusta Treverorum just south of the northern border of the Empire. The city itself became capital of Gallia Belgica during the reign of Augustus and it possessed two theatres, one of which probably was a Gallo-Roman theatre, an amphitheatre, and a circus. The rest of the province of Gallia Belgica demonstrates a lack of amphitheatres and circuses (see *Fig. 7*); the latter may be expected but the lack of the former is interesting. Except for the area around Augusta Treverorum there is also one other area in the province with a concentration of theatres, it is in the westernmost part of the province, this concentration continues into Gallia Lugdunensis and southward into central Gaul. The northwestern part of Gaul only has a few theatres and no amphitheatres. Only five circuses are attested throughout Gaul, they are located in: Augusta Treverorum, Lugdunum, Vienna, Arelate and Mediolanum Santonum. Amphitheatres are found mainly in the southern provinces of Aquitania and Narbonensis, where theatres also seem to have an even spread. There are all in all a lot of theatres (94) in the different Gallic provinces. There are also quite a few Gallo-Roman buildings (37) and they are fairly well spread out, except for the south where there only are a couple of them present.

Britannia

The situation here is unique and unlike all other parts of the Western Roman Empire. Amphitheatres completely dominate the province; I have found thirteen amphitheatres and only three theatres and three Gallo-Roman buildings (see *Fig. 8*). Humphrey knew of no circuses in Britannia and it took until 2004 before the first (and only so far) was found in Colchester.⁸⁹

⁸⁹ See Camulodunum in the catalogue.

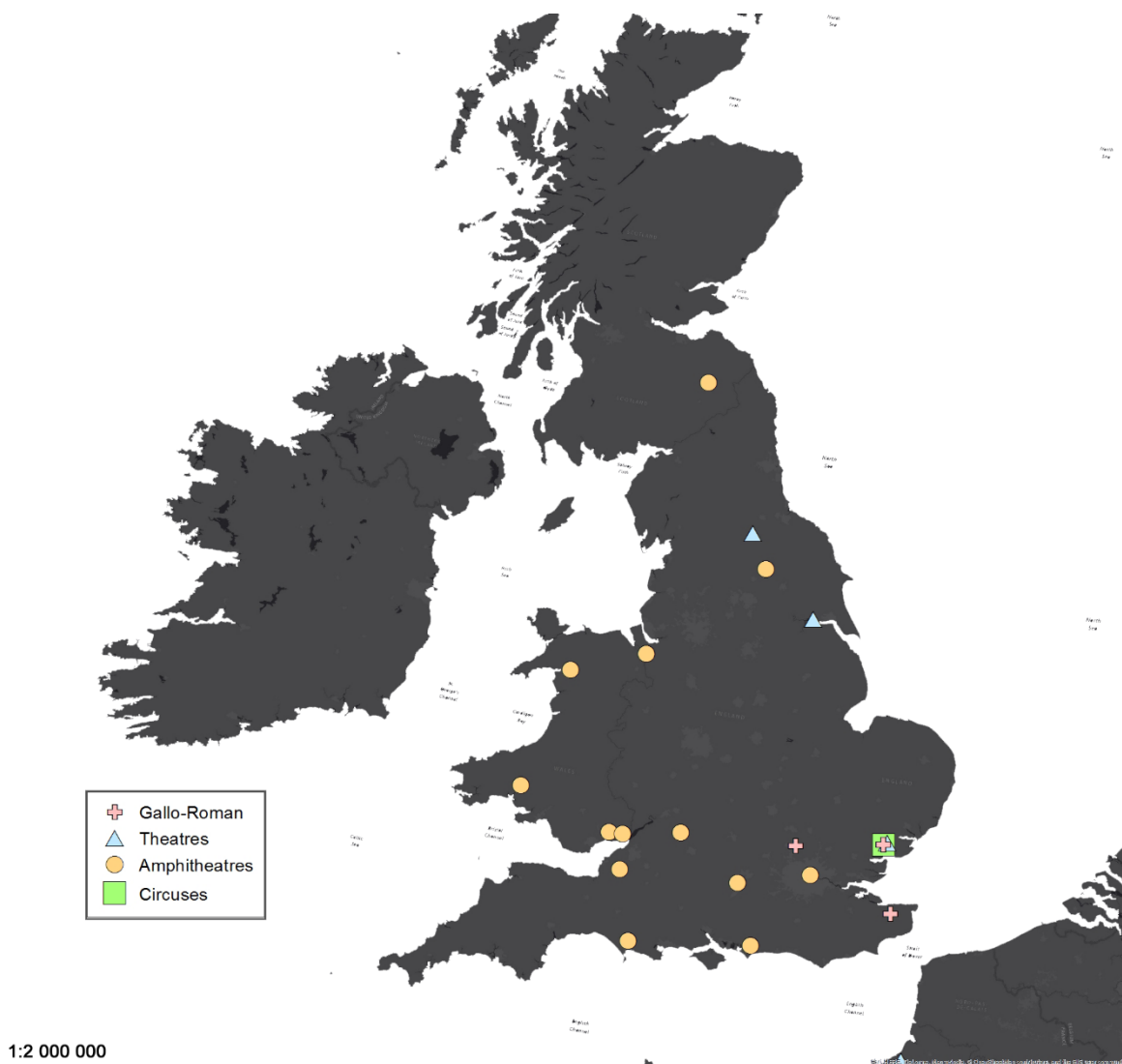


Figure 8. Spatial distribution of Britannia.

Hispania

The situation on the Iberian Peninsula is also quite different from anywhere else in the Empire (see *Fig. 9*). Out of the 40 circuses included in this study fourteen are located here. When we compare that number to the eighteen amphitheatres located on the peninsula we can understand just how extraordinary the number of circuses are. Circuses can be found all over the peninsula except for the north western corner. The eighteen amphitheatres are also spread out over the peninsula, there is, however, one concentration of five amphitheatres located in the Guadalquivir Valley in the south. The theatres of Hispania were not as spread out as much as the other two building types, most of them can be found either in the northeast or to the south of the Guadalquivir Valley.

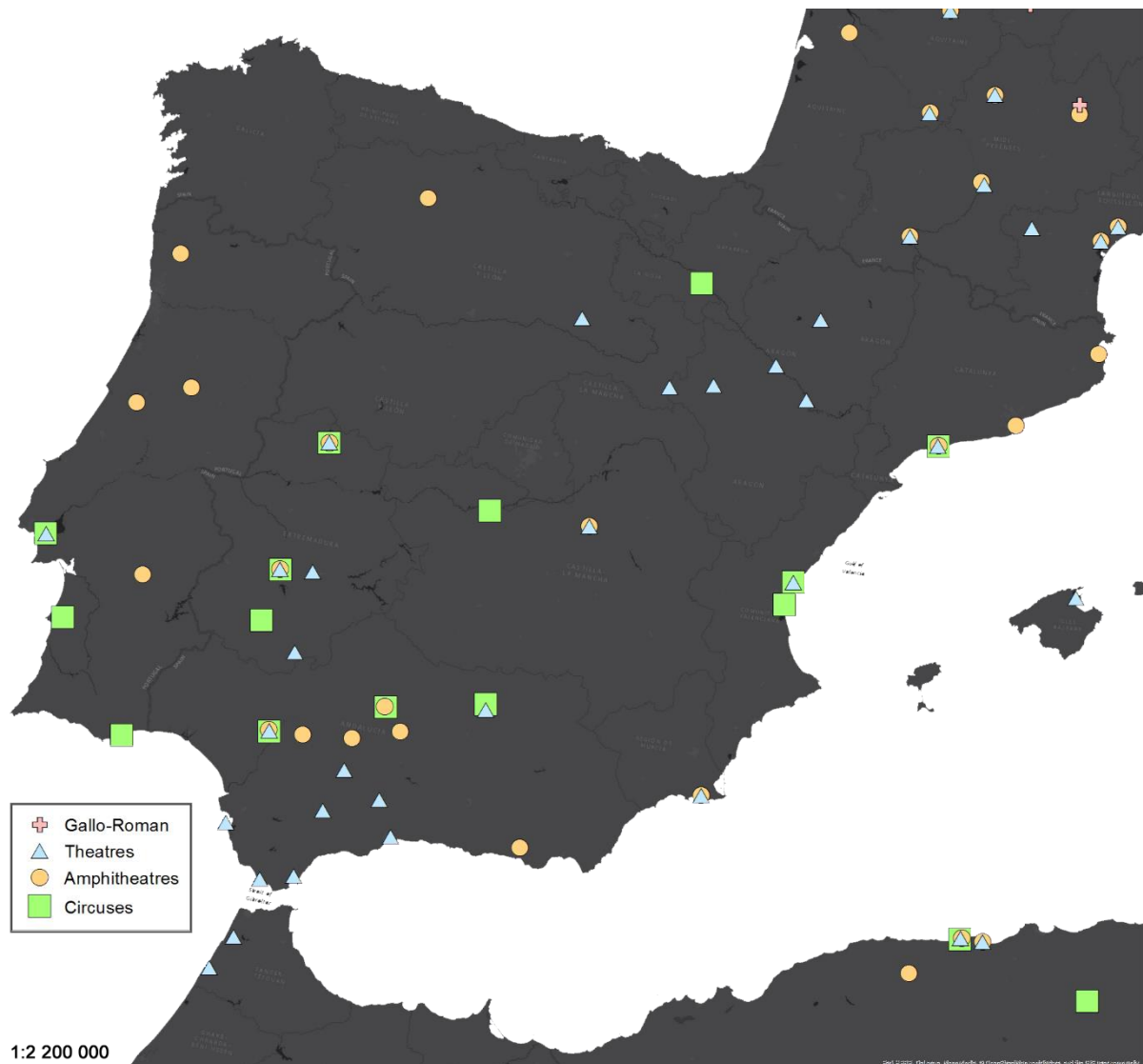


Figure 9. Spatial distribution of the Iberian Peninsula.

North Africa

There are two theatres just south of the Strait of Gibraltar, except for those two theatres the region of modern day Morocco and western Algeria is completely empty of monumental entertainment buildings as far as I know. There is a handful of buildings on the coast of central Algeria around the city of Caesarea, which possessed all three types. All building types are present in eastern Algeria and the density of buildings gets higher the closer to Tunisia you come (see *Fig. 10*). The density of the buildings present in Tunisia is tremendous; it is second only to central Italy. There are a lot of theatres and amphitheatres in Tunisia and five circuses. The situation to the east of Tunisia in Libya is drastically different from what it is in Tunisia, there are only two theatres, two amphitheatres, and one circus here.

Mediterranean islands

It was not only Sicily of the Mediterranean islands that possessed buildings for public spectacles. There are a few theatres and a couple of amphitheatres on the islands of Sardinia, Corsica, Majorca, and Minorca.

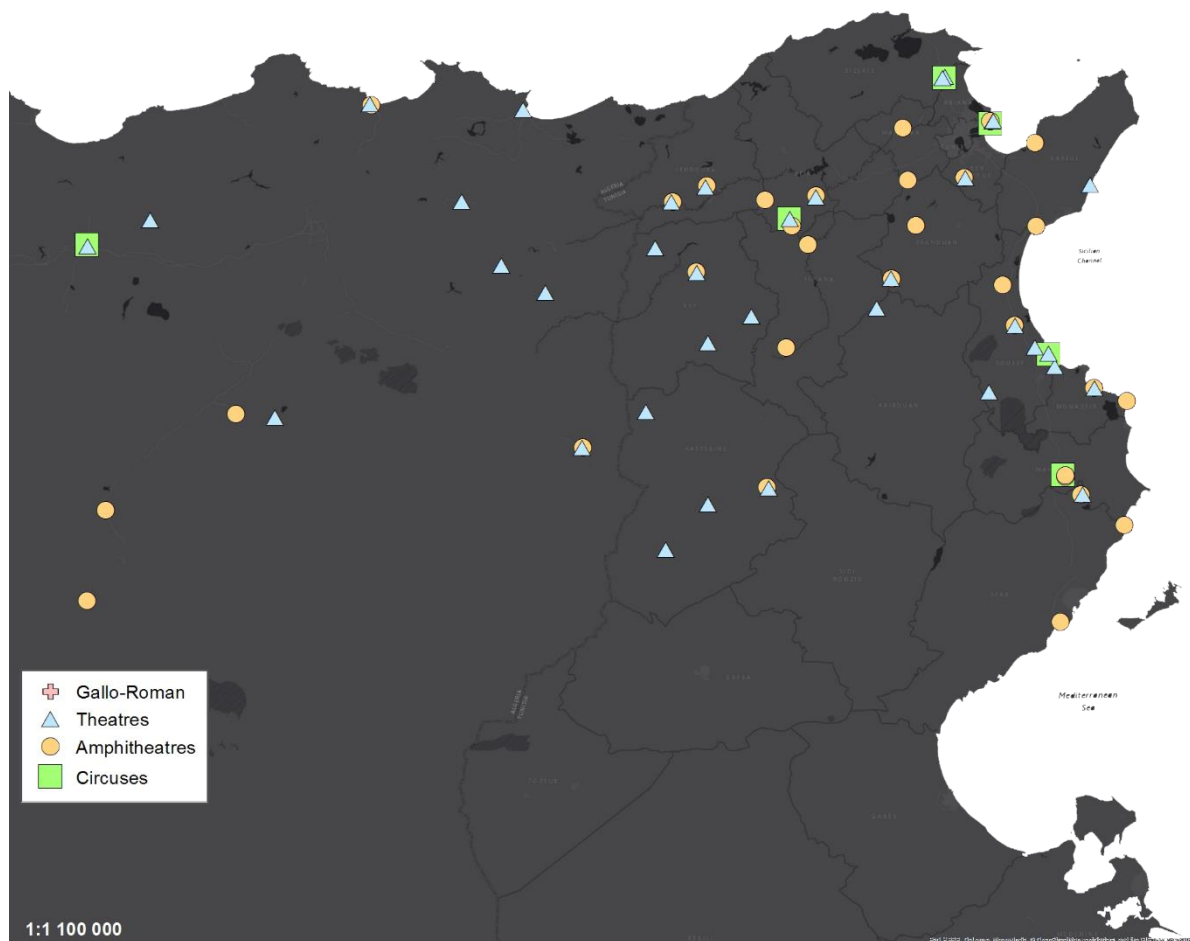


Figure 10. Spatial distribution of North Africa.

Conclusions

There are especially two areas with a high density of buildings overall: central Italy and North Africa, more specifically Tunisia and eastern Alger. In these two regions there is an abundance of theatres and amphitheatres. Circuses, however, are virtually none existing in central and south Italy outside of Rome itself, while in Northern Africa there are several circuses spread

out over the region. There is also a lack of circuses in Gaul and Britannia, where the latter only has a single one that has been found so far and the former has a handful, with three of them located along the river Rhône. There seem to be a general scarcity of buildings on the Iberian Peninsula, but there are definitely more circuses here, both in absolute and relative numbers, than there are in any other part of the Western Empire.

Local variation

Theatres

The theatre had a strong position in relation to the amphitheatre and circus in Gaul. Gallia Lugdunensis had 45 theatres to five amphitheatres and one circus, but that is not the whole story of this region, because there were also 16 Gallo-Roman buildings located in this province (for the ratio of building types in each province see *Fig. 11*). The situation to the north, in Gallia Belgica, was very similar. There were 19 theatres to four amphitheatres, one circus, and seven Gallo-Roman buildings located there. The theatre also had a strong position in Gallia Narbonensis (16 theatres, seven amphitheatres, and two circuses), but there were only two Gallo-Roman buildings located there. With 13 amphitheatres Gallia Aquitania was the Gallic province where amphitheatres had the strongest support. The province had a pretty even division between three building types: 35% theatres, 33% amphitheatres, and 30% Gallo-Roman buildings.⁹⁰ The theatre was obviously the most popular building for public spectacles in Gaul, but the Gallo-Roman buildings of the region were also fairly popular. Many scholars have discussed these special buildings, but the discussions have not really produced any real evidence as to what the Gallo-Roman buildings were actually used for.⁹¹ Whatever the spectacles that were performed there were, the buildings themselves were an important cultural part of the urban landscape in many Gallic towns, but it must be remembered that the regular theatres still were more common in Gaul than the Gallo-Roman buildings. The popularity of the theatre in Gaul has been noted by Laurence *et al.*, but they cannot find an explanation for why it was so popular here when it does not seem very popular in Hispania.⁹²

⁹⁰ There was also one circus in Gallia Aquitania.

⁹¹ For some of the discussions, see: Sear 2006, 98-106; Golvin 1988, 226-236; Drinkwater 1983, 149-150.

⁹² Laurence *et al.* 2011, 244.

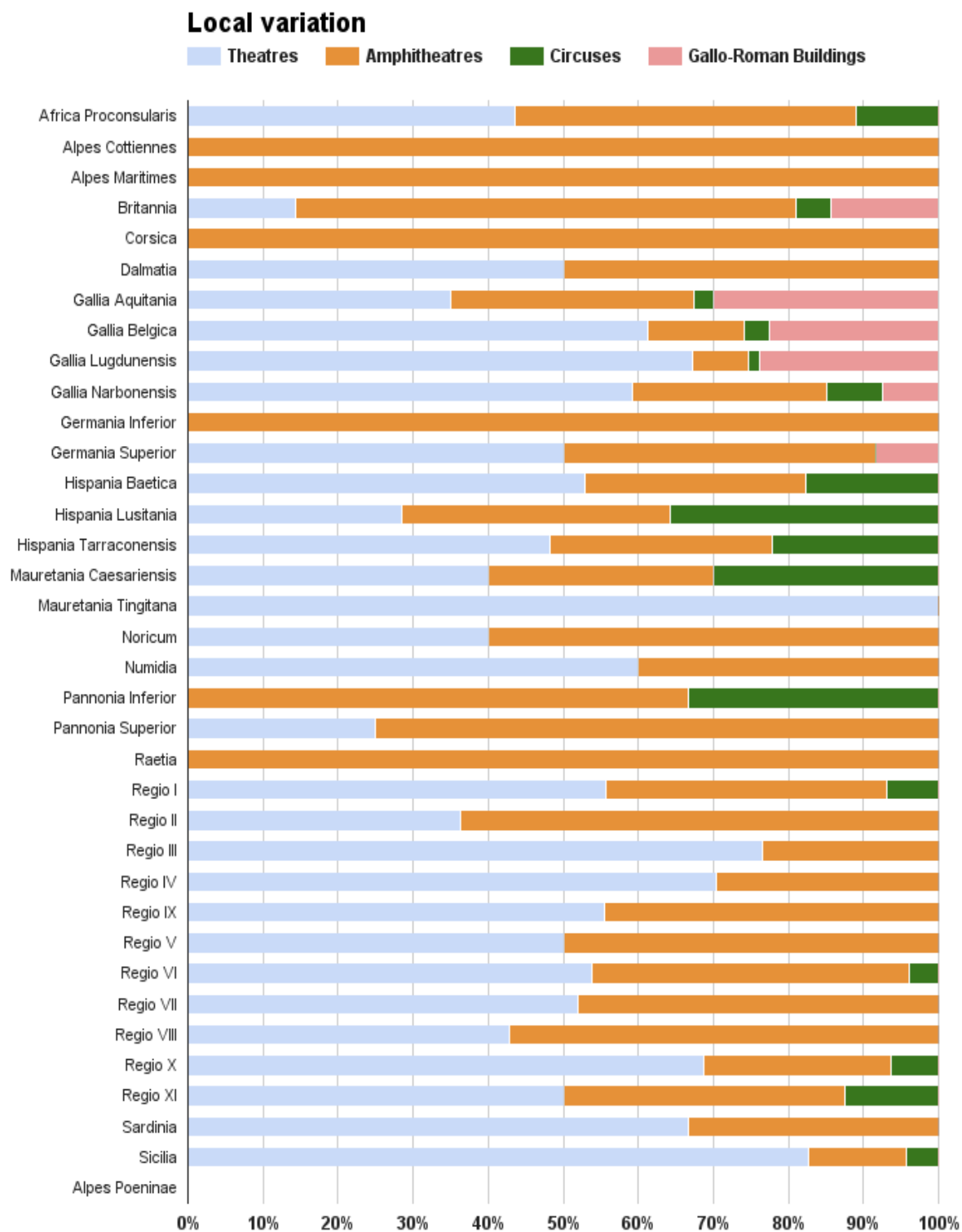


Figure 11. The ratio of different entertainment building types present in each province.

Sicily and Regio III (Calabria and Basilicata) are the two areas in Italy where the theatre really had the most dominating position among the entertainment building types. A total of 83% (19)

of the public entertainment buildings on Sicily were theatres, and 76% (13) of the entertainment buildings in Regio III were theatres. It is interesting to note that the next door neighbor, Regio II (Puglia), had more amphitheatres than theatres (seven amphitheatres to four theatres). The other neighbor of Regio III, Regio I (Latium and Campania), had a lot of buildings for public spectacles (88 in total) and theatres constituted 56% (49) of them. A couple of other regions in Italy also had a strong presence of theatres; Samnium (Regio IV) and Venetia et Histria (Regio X). The amount of theatres in those regions were 70% and 69% respectively.

One explanation for the lack of amphitheatres in Magna Graecia and Sicily may be that it was more popular in those areas to adapt and rebuild old theatres, so that they could hold gladiatorial games and *venationes*.⁹³

One example of such a theatre is the one in Tauromenium, in Sicily, which was extensively remodeled for this purpose.⁹⁴ To be able to produce gladiatorial spectacles the theatre needed an arena. To make room for the arena the lowest rows of seats and the stage was removed, and new entrances were created. It was rebuilt in such a way that it would still be possible to erect a temporary stage for theatrical performances. This practice of rebuilding theatres into mixed buildings was mainly practiced in the Eastern Empire, but it also spread into southern Italy through the heavy Greek influence there. It did also occur sporadically in other places as well; instances of remodeling have been identified in both Caesarea (Mauretania Caesariensis) and in Lixus (Mauretania Tingitana).⁹⁵

Amphitheatres

There are not a lot of areas where there are more amphitheatres than theatres, but there are a few. The province where the amphitheatre as a building type had the strongest presence was Britannia; 67% (14) of the entertainment buildings there were amphitheatres. There are also five provinces where the only entertainment buildings present were amphitheatres, but none of them had more than three entertainment buildings all in all. These were the rather small provinces of Alpes Cottiennes, Alpes Maritimes, Corsica, Germania Inferior, and Raetia. Pannonia also had a situation similar to the previous five provinces. The two provinces of Pannonia (Pannonia Superior and Inferior) had seven entertainment buildings combined; five

⁹³ Sear 2006, 44.

⁹⁴ Sear 2006, 43.

⁹⁵ Sear 2006, 43.

of which were amphitheatres; the other two consisted of one theatre and one circus. Several of these provinces were located along the northern border and had a strong military presence. A connection between soldiers and amphitheatres has been found by others. Welch has, for example, found that the army started to practice gladiatorial combat after 105 BC and that the earliest amphitheatres constructed out of stone were built in towns with veteran colonies.⁹⁶ Laurence *et al.* agree with the Welch's findings but do point out that veterans were not a prerequisite for amphitheatres later on.⁹⁷ The amphitheatres of the border provinces were in many cases built in close proximity to military forts. Sommer has written a great article on amphitheatres that are connected to auxiliary forts.⁹⁸ The study of these buildings is fairly new and undeveloped due to the fact that they were built mostly out of wood, and it is just recently that we have started to look for them.⁹⁹

Circuses

There are mainly two areas where the circus has a strong presence; Spain and North Africa. Humphrey suggests that a reason for the many circuses of Spain and Africa may be that those regions were important centers for horse breeding.¹⁰⁰ Hyland also finds that the African and Spanish horses were the most popular for racing.¹⁰¹ Varro, however, does not mention neither Hispania nor Africa when he writes about famous areas for horse breeding.¹⁰² Toynbee also comes to the conclusion that Spain was one of the most important producers of racing horses.¹⁰³ Since there probably were a lot more breeders in Africa and Spain than elsewhere the supply of horses must have been better there as well. It is not hard to think that for every horse good enough to export to Rome and other large centers there must have been several horses that were not deemed worth the expense and logistics of transporting them a long way. These horses might not have been good enough for the capital but they could still have been good enough to race at smaller and closer venues. Whatever the reason for the popularity of the circus in Spain and Africa it is clear that it was not considered a necessary building for most towns outside these regions, and Dodge suggests that the small number of circuses in the Empire can partly be explained by their close imperial associations.¹⁰⁴ It was also the case that horse races were

⁹⁶ Welch 2007, 100.

⁹⁷ Laurence *et al.* 2011, 262.

⁹⁸ Sommer 2009.

⁹⁹ Sommer 2009, 47.

¹⁰⁰ Humphrey 1986, 296, 337.

¹⁰¹ Hyland 1990, 209-212.

¹⁰² Varro *Rust.* 2.7.1 and 6.

¹⁰³ Toynbee 1973, 180.

¹⁰⁴ Dodge 2014, 288.

fairly easy to set up on level ground outside of cities, so it is likely that many communities held these events without any permanent buildings dedicated to them.

Areas with even distribution

The theatre and amphitheatre were equally popular in several areas. This was the case for most of the northern half of Italy; only Regio X in the north does not follow this pattern. In Regio V (Picenum) there were seven theatres and seven amphitheatres. In Regio VI (Umbria et Ager Gallicus) there were 14 theatres to 11 amphitheatres (and one circus), and In Regio VII (Etruria) there were 13 theatres to 12 amphitheatres. All in all there were 34 theatres and 30 amphitheatres in total in these three regions. The three regions (Regio VIII, IX, and XI) to the north of the previous three had fewer buildings for public spectacles, but the relation between theatre and amphitheatre was similar. The three regions had 24 entertainment buildings in total; 12 of which were theatres, and 11 were amphitheatres (there was also one circus located in Mediolanum, modern day Milan). The similar distribution of both the theatre and amphitheatre continued into Germania Superior to the northwest of the Alps; it had 12 theatres, 10 amphitheatres and two Gallo-Roman buildings.

Africa Proconsularis constitutes, together with eastern Numidia, one of the areas with the densest population of buildings for public spectacles. The six circuses found here have already been discussed, but the relation of theatres to amphitheatres is very interesting. In Africa Proconsularis there were 24 theatres built and 25 amphitheatres. 49 buildings is a pretty large sample and the small discrepancy of only one building clearly showcases the popularity of both building types in this province. The pattern does not really continue in Numidia to the west; there were 12 theatres, and eight amphitheatres present there. A question worth considering is if an even number of theatres and amphitheatres represent an equal interest in the two? The monetary investment of the 25 amphitheatres was considerably more than that of the 24 theatres.

Towns with multiple buildings

116 towns possess both a theatre and an amphitheatre,¹⁰⁵ the spatial distribution of these towns follow the general distribution of both building types; with one major exception: although there are thirteen amphitheatres and six theatres in Britannia, no town is known to have both (see *Fig. 12*). Out of the 116 towns that had both a theatre and an amphitheatre only fourteen also possessed a circus. Including Rome eight of the fourteen towns containing all three building types were capitals at some point, either provincial or, in the case of Mediolanum, capital of the Western Empire. Building just one of these structures would be an expensive undertaking so cities that could produce the funds for all three buildings were few and far between. It is therefore not surprising that provincial capitals were more likely to have been able to build all three buildings than the average town. A few capitals are missing just one structure and that may very well be because of archaeological reasons; they probably had the missing building but it has not been found yet. Corduba is one such example, we know of an amphitheatre and a circus but no theatre. It seems unlikely that Corduba would be lacking a theatre when the other capitals of the Iberian Peninsula did possess all three buildings. Mediolanum Santonum, the capital of Gallia Aquitania, is another similar example where an amphitheatre and a circus are known but no theatre, since 25 theatres are known in the province chances are high that a theatre was indeed present in the city. Why would the capital not build a theatre when most other towns in the area did? It did after all, as the only town in Aquitania, have a circus. Narbo, the capital of Gallia Narbonensis, did have a theatre and an amphitheatre but lacked a circus. Since the building lacking here is a circus and only a handful of circuses are known in all of Gallia it is more questionable if Narbo had all three types present than if Corduba and Mediolanum Santonum did. Arguments for the existence of an unknown circus in Narbo would be that the other capitals of Gaul did have one and that Arelate in the same province also did have a circus. The provincial capital of Sicily (Syracuse) did have three theatres, and one amphitheatre. It is, however, according to Humphrey very likely that the city had a circus that has not been found yet.¹⁰⁶

Asisium is an interesting town; it is the only town, except for Rome, on the Apennine Peninsula to have all three building types. There are three cities in Africa that could boast of having all

¹⁰⁵ Towns are here defined as having a theatre and an amphitheatre if the maximum distance between the two were no more than three kilometers.

¹⁰⁶ Humphrey 1986, 575-576.

three building types, two of which were capitals (Carthage and Caesarea), the third one was Leptis Magna. Four cities on the Iberian Peninsula are known to have possessed all three types. Two were capitals (Augusta Emerita and Tarraco), and the other two were Italica and Capera. Italica was the hometown of Trajan and Hadrian, it was a prosperous town, especially during the reign of Hadrian when a new monumental forum was built in Italica¹⁰⁷ and he personally bestowed upon the town great gifts according to Dio Cassius.¹⁰⁸ It was also around the reign of either Trajan or Hadrian that the amphitheatre was built. The last two cities where all three types were present were Arelate in Gallia Narbonensis and Catina on Sicily; both were wealthy and important cities.

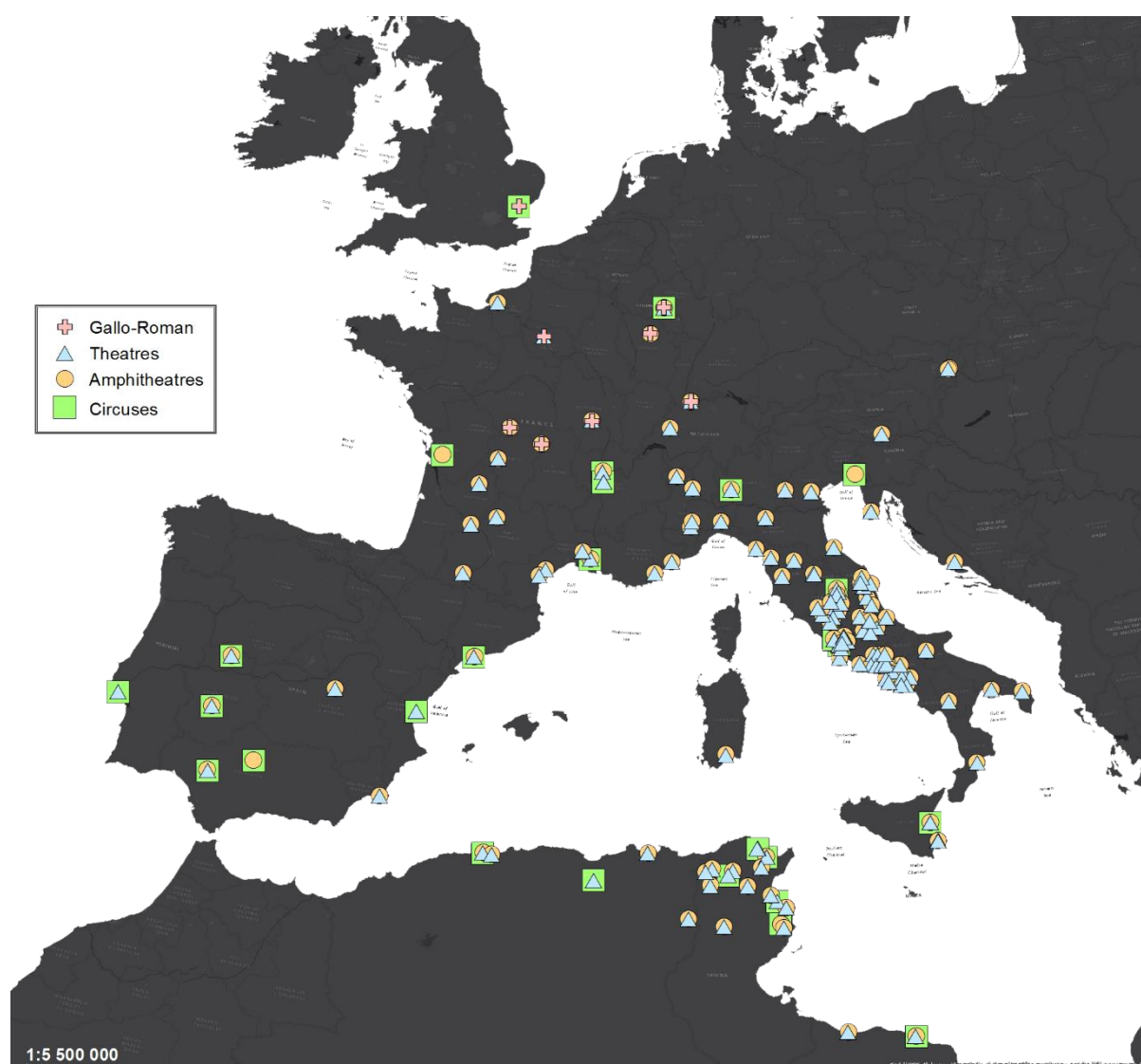


Figure 12. Towns with two different types of entertainment buildings.

¹⁰⁷ Keay 1988, 123.

¹⁰⁸ Dio Cass. 69.10.1.

Urbanization

While it would be interesting to compare the number of entertainment buildings in different provinces to the population density it is really hard to calculate population density. I have instead chosen to compare the number of entertainment buildings to the number of cities in each province.¹⁰⁹ This should give a good idea of how the level of urbanization relates to the number of entertainment buildings.

One might expect that the areas most heavily populated with theatres, amphitheatres, and circuses also would be the areas with the highest level of urbanization. The province of Africa Proconsularis, which as we have already established was densely populated with public entertainment buildings (55 all in all), does indeed follow this logic and is the province with the largest amount of cities (72 cities). The trend also continues into Numidia to the west, where there were 27 cities and 20 entertainment buildings. The story is the same for central Italy where Regio I, Latium and Campania, had 63 cities and could boast of possessing more entertainment buildings (88 buildings) than cities, more than any other *regio* in Italy. On average the ratio between cities and buildings for public spectacles are pretty even in Italy, the lowest ratio can be found in Regio VII, Etruria, where 41 cities are located and 25 buildings.

The density of cities and public buildings for spectacles do not, however, always go hand in hand. The provinces of Gaul and Germania Superior contain very few cities compared to entertainment buildings, the people in the province of Gallia Belgica erected 31 buildings for public spectacles but only two communities are considered to have been cities, giving a ratio of 15.5 entertainment buildings to every city (see *Fig. 13*). The story is very similar in Gallia Lugdunensis, which has 67 entertainment buildings and only 5 cities, giving a ratio of 13.4 buildings to every city. These two provinces are the two that really stand out from all others with their rather extreme ratios, the other two Gallic provinces of Aquitania and Narbonensis also have a high ratio of buildings to cities, but not nearly as extreme as the former two. Gallia Aquitania has a ratio of 3.3 buildings to every city (40 buildings and twelve cities) and Narbonensis comes in a bit lower with 1.9 buildings to every city (27 buildings and fourteen cities). Humphrey uses the low level of urbanization in Gaul as a reason for the lack of circuses,

¹⁰⁹ The number of cities in each province was counted using the digital map accessible on dare.ht.lu.se. In the digital map the three largest categories of towns from the Barrington Atlas are defined as cities.

but that I think that his argument is flawed if you take into account the high number of other permanent buildings for public spectacles located in the Gallic provinces.¹¹⁰

The situation is reversed in a few areas as well. The Iberian Peninsula, for example, is one of areas with the highest level of urbanization in the Western Empire, the three provinces had 143 cities together, but they did only possess 58 entertainment buildings. The southern province of Hispania Baetica is one of the regions that is most densely populated with cities overall with its 65 cities, and since the province only provided 17 entertainment buildings it has one of the lowest ratios (0.26 to 1) of buildings to cities in this study. Hispania Lusitania (modern day

Portugal) has the highest ratio of the provinces in Hispania with its 14 buildings to 19 cities, a ratio of 0.78 to 1, and the third province of the Iberian Peninsula, Hispania Tarraconensis, lies in between the other two with 27 entertainment buildings to 60 cities. The two provinces of Mauretania (Tingitana and Caesariensis) that lies to the south of the Iberian Peninsula, in modern day Morocco and Algeria, are more similar, in their ratios, to the Hispanian provinces than to their eastern neighbor of Numidia. Tingitana was poorly populated with both cities and entertainment buildings; it only had seven cities and three entertainment buildings. Caesariensis had plenty of cities (38), but it could still only boast of a mere 10 buildings for public spectacles, giving it the same low ratio (0.26 to 1) of Hispania Baetica.

Another area with low ratios of entertainment buildings is to the east of Italy, in Pannonia and Dalmatia, the latter has the lowest ratio of all provinces in this study. Dalmatia was a fairly well urbanized province with 29 cities, but a meager four entertainment buildings have been found there; that means a ratio of only 0.14 buildings per city.

Several of the less urbanized provinces like Alpes Cottiennes, Alpes Maritimes, Corsica, Germania Inferior, and Raetia that only has a few cities, mostly one or two, has a ratio that comes pretty close to one to one. Of the above mentioned provinces only the ratio of Germania Inferior is not 1:1, it has three buildings to four cities.

¹¹⁰ Humphrey 1986, 430.

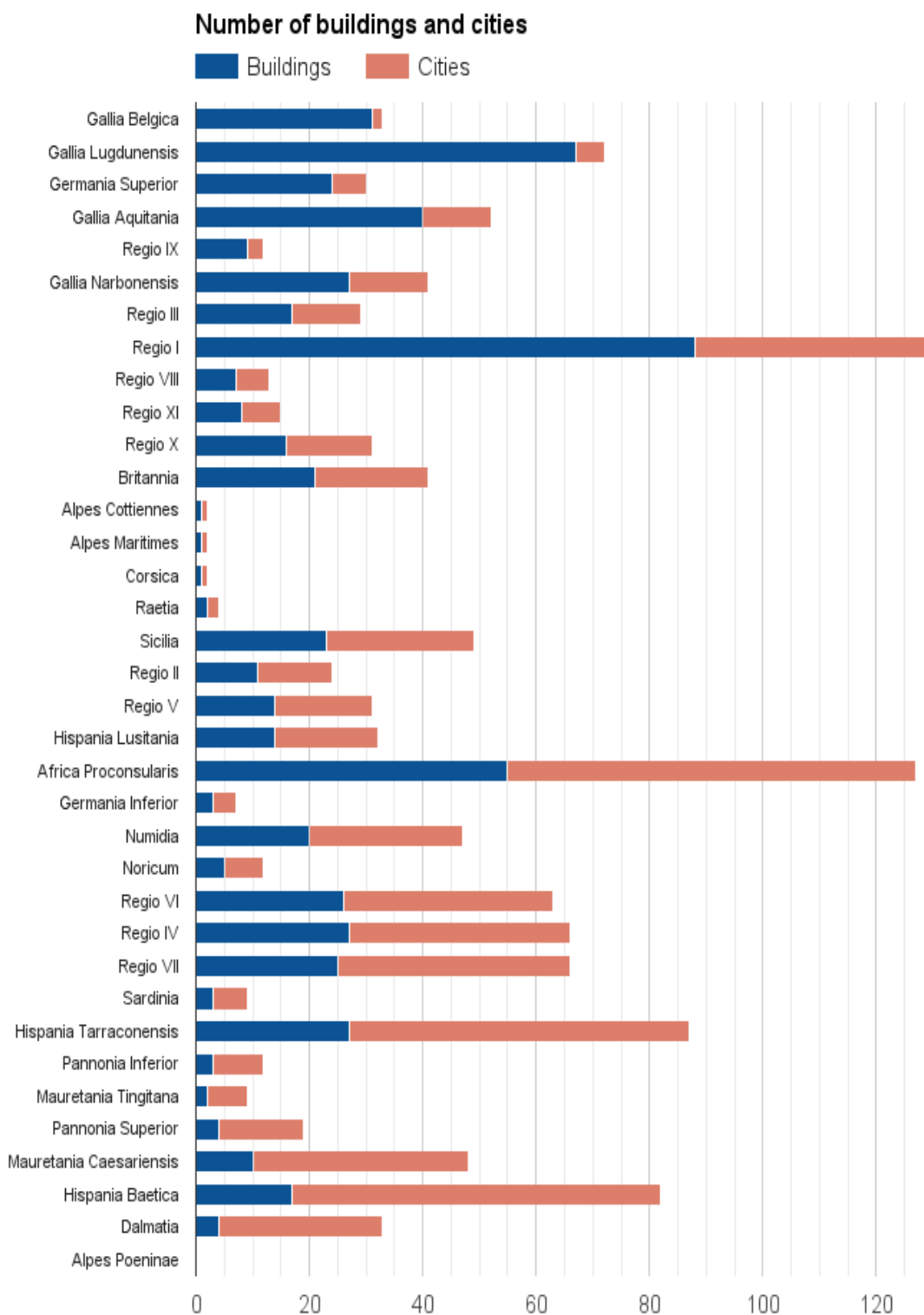


Figure 13. The number of entertainment buildings and cities in each province. The list is sorted by the ratio of entertainment buildings to cities.

Size variation

The *cavea* area will be used to compare the size between different buildings; both between buildings of the same type, and between theatres and amphitheatres. Because of the variation in form, and the limited knowledge of complete circus *caveae*, the size of circuses will not be discussed here. A standard formula has been used for calculating and quantifying *cavea* area, and because of this no individual architectural variation between buildings of the same type has been taken into account. The area presented here should therefore only be considered approximate, and I will only use this data for comparative analysis of interregional differences, and differences in size between theatres and amphitheatres. Amphitheatres tend to have a more standardized form and the mathematical formula used for them is better at taking individual variation into account. Theatres on the other hand are treated here as always having a semi-circular *cavea*, which certainly is not true in some cases; especially not for the theatres of Greek origin in Magna Graecia and Sicily. The size of theatres may therefore have a larger margin of error.

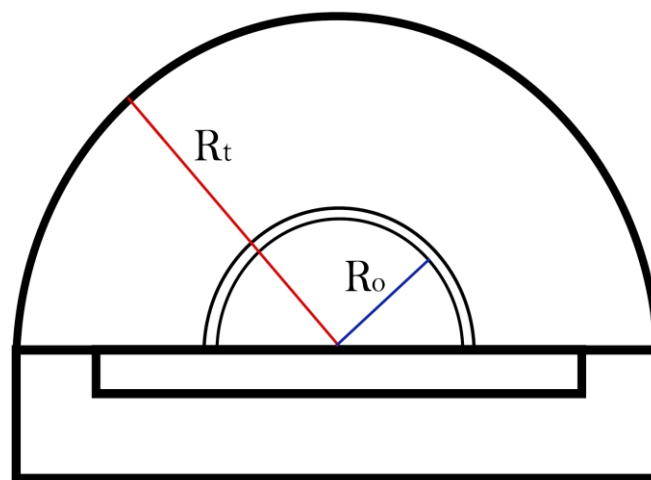


Figure 14. The measurements used for calculating size in a theatre.

The formula used for theatres looks as follows: $A_c = (R_t^2 * \pi)/2 - (R_o^2 * \pi)/2$ where A_c is the area of the *cavea*, R_t is the radius of the theatre from the center of the *orchestra*, and R_o is the radius of the *orchestra* (see Fig. 14). The formula for amphitheatres looks like this: $A_c = (R_b * r_b * \pi) - (R_a * r_a * \pi)$ where R_b is the maximum radius of the building from the center of the

arena, r_b is the minimum radius of the building, R_a is the maximum radius of the arena, and r_a is the minimum radius of the arena (see Fig. 15). As an example the Colosseum measured 188 x 156 m, and had an arena that measured 79 x 47 m. The formula for Colosseum is therefore calculated like this: $(94 * 78 * \pi) - (39.5 * 23.5 * \pi) \approx 20\,118$ m.

Largest amphitheatres

It comes as no surprise that the Colosseum in Rome was the largest amphitheatre of the Roman Empire; with a *cavea* area of over 20 100 m² it was a lot larger than all other amphitheatres. The second largest amphitheatre in this study was built in Italica (Hispania Baetica), and with its 13 752 m² it was about two-thirds the size of the Colosseum.

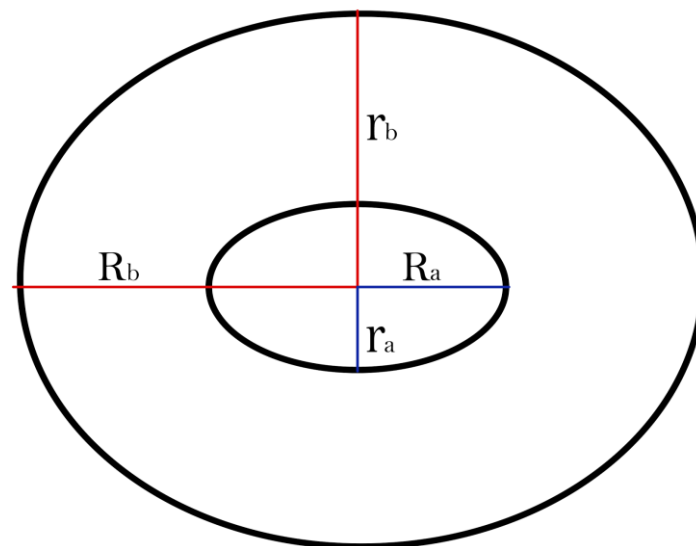


Figure 15. The measurements used for calculating size in an amphitheatre.

The province with the largest average size of amphitheatres was Hispania Baetica. There are, however, only two amphitheatres (out of five in Baetica) here with enough measurements known for the *cavea* area to be calculated, but there is one more (in Corduba) where the outer dimensions of the building are known, and that one is even larger than the first two. The amphitheatres of the other two provinces on the Iberian Peninsula are not nearly as large on average, but they are still larger than the general average of the Western Empire. Gaul also has relatively large amphitheatres; Gallia Belgica is the province with the second largest average *cavea* size. The other three Gallic provinces have a smaller average, but, just as on the Iberian Peninsula, larger than the general average. It is interesting that these two regions both have

relatively large amphitheatres, since they differ so much in the number of entertainment buildings, and they have such a different level of urbanization. There are nine amphitheatres in Hispania that I have found complete measurements for, and they have an average size of 6671 m². The number of amphitheatres with known measurements in Gaul is more than double (20), and they have an average of 7107; a bit larger than that of Hispania.

The amphitheatres of central Italy and North Africa seem to be relatively small on average in comparison to the Iberian Peninsula and Gaul. The amphitheatres of Africa Proconsularis had an average size of only 3423 m², and Numidia had an even smaller average of 2815 m². There are a few large amphitheatres in these regions, but they seem to be exceptions from the standard. It is interesting that the regions well populated with amphitheatres generally had smaller buildings. It might be that the amphitheatres of Gaul and Hispania served several towns and a larger geographical area, while the amphitheatres of central Italy and North Africa were a lot closer located to each other and did not, therefore, need to service as large an area. We do know that people travelled to other communities to attend games; there are, for example, advertisements in Pompeii for games in Nuceria.¹¹¹ Another reason for the amphitheatres of Hispania to be large was their placements; they were often placed outside the cities between the city and the Via Augusta.¹¹² These amphitheatres were the first thing travelers saw and they could therefore have been built large and elaborate for the purpose of impressing passersby.

Largest theatres

The largest theatre in this study was built in Epomanduodurum (Germania Superior); it had a *cavea* area of 7841 m². The difference between the largest and the second largest theatres is not as profound as they were between the amphitheatres. The second largest theatre was 7620 m² and was located in Augustodunum (Gallia Lugdunensis).

The province with the largest average size of theatres was Germania Superior; it had an average of 4114 m². This is a substantially larger average than Gallia Narbonensis, which had the second largest average (3200 m²). The general pattern regarding the size of amphitheatres applies to the theatres as well; Gaul and Hispania had fewer small theatres than central Italy and North Africa did.

¹¹¹ Laurence *et al.* 2011, 268.

¹¹² Laurence *et al.* 2011, 271.

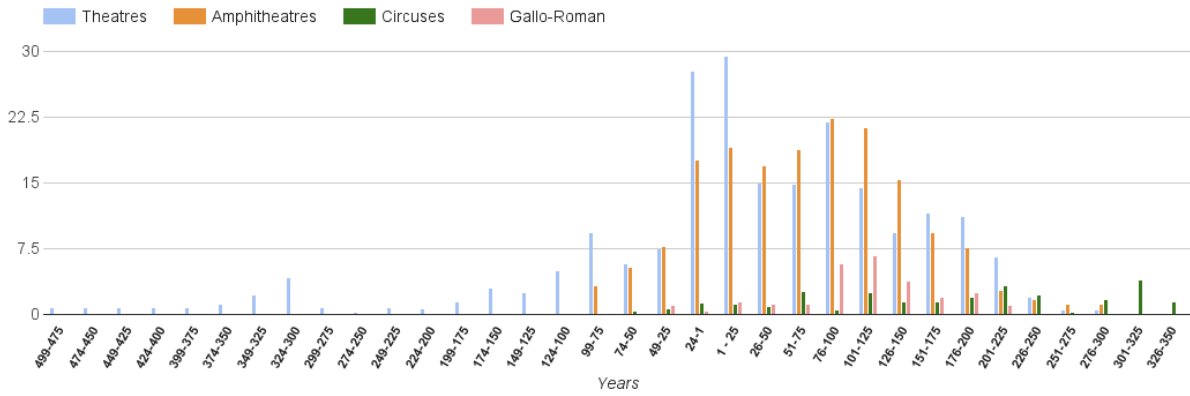


Figure 16. Chart of how many buildings of each type were built in 25 year intervals.

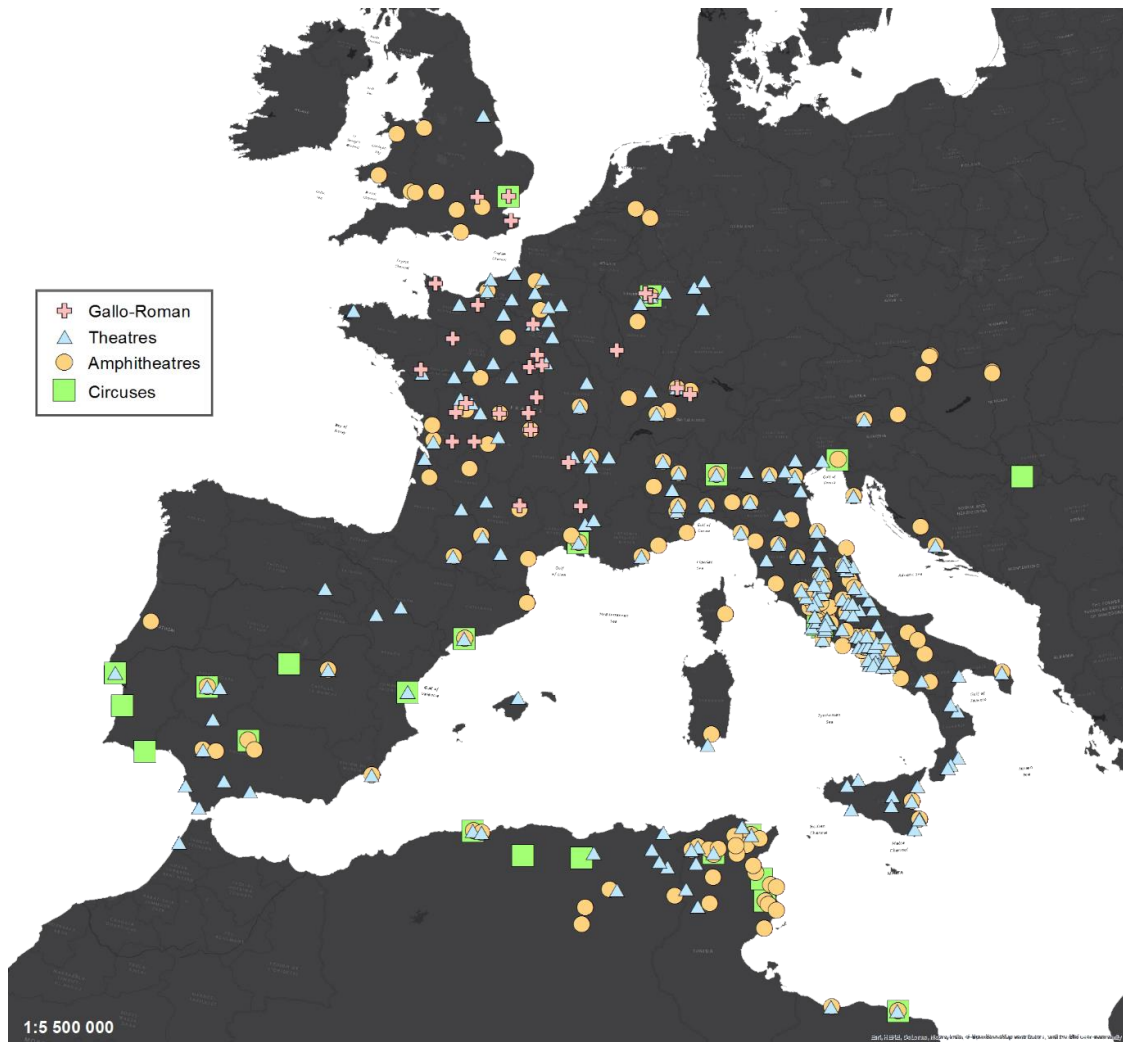


Figure 17. Dateable entertainment buildings.

Spread through time

The percentage of theatres that I have found adequately dated are around 60%, for amphitheatres that number is 75%, and for circuses 70% (see *Fig. 17*). This means that the number of theatres will be misrepresented when looking at the number of buildings that were constructed during different periods of time. The two regions with the most undated theatres are Africa and France, the worst province is Gallia Lugdunensis where as many as 24 theatres (half of the province's total number of theatres) are undated. For an overview of the number of different entertainment buildings constructed over time see *Fig. 16*.

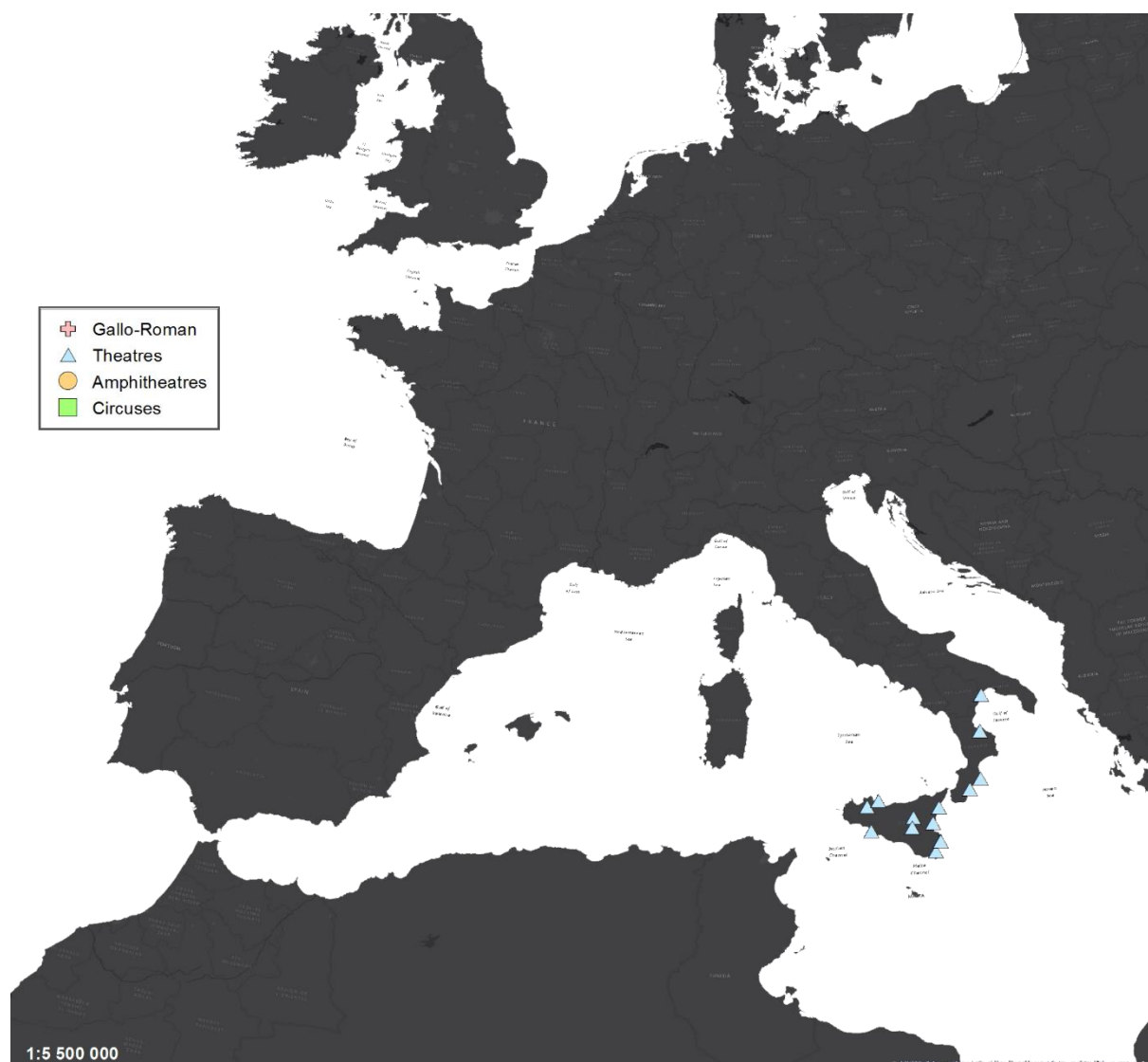


Figure 18. Entertainment buildings in existence 200 BC.

The first buildings to appear in the area of this study are theatres, the earliest of which were erected in the fifth century BC. They were built in Magna Graecia and Sicily by the Greeks

who had settled there. It took until the second century BC before theatres started to appear outside of the Greek areas in southern Italy (see *Fig. 18*). Theatres were now built in Latium and Campania. Laurence *et al.* do not believe that the introduction of theatres in these areas at this time should be linked to their close geographical proximity to Magna Graecia, since theatres appeared there as early as in the fifth century BC, but rather their connection with the sea and Roman expansion in the east.¹¹³ We can also note that the theatre of Utica in North Africa was built during the second century, which is a lot earlier than all other dateable buildings in Africa.

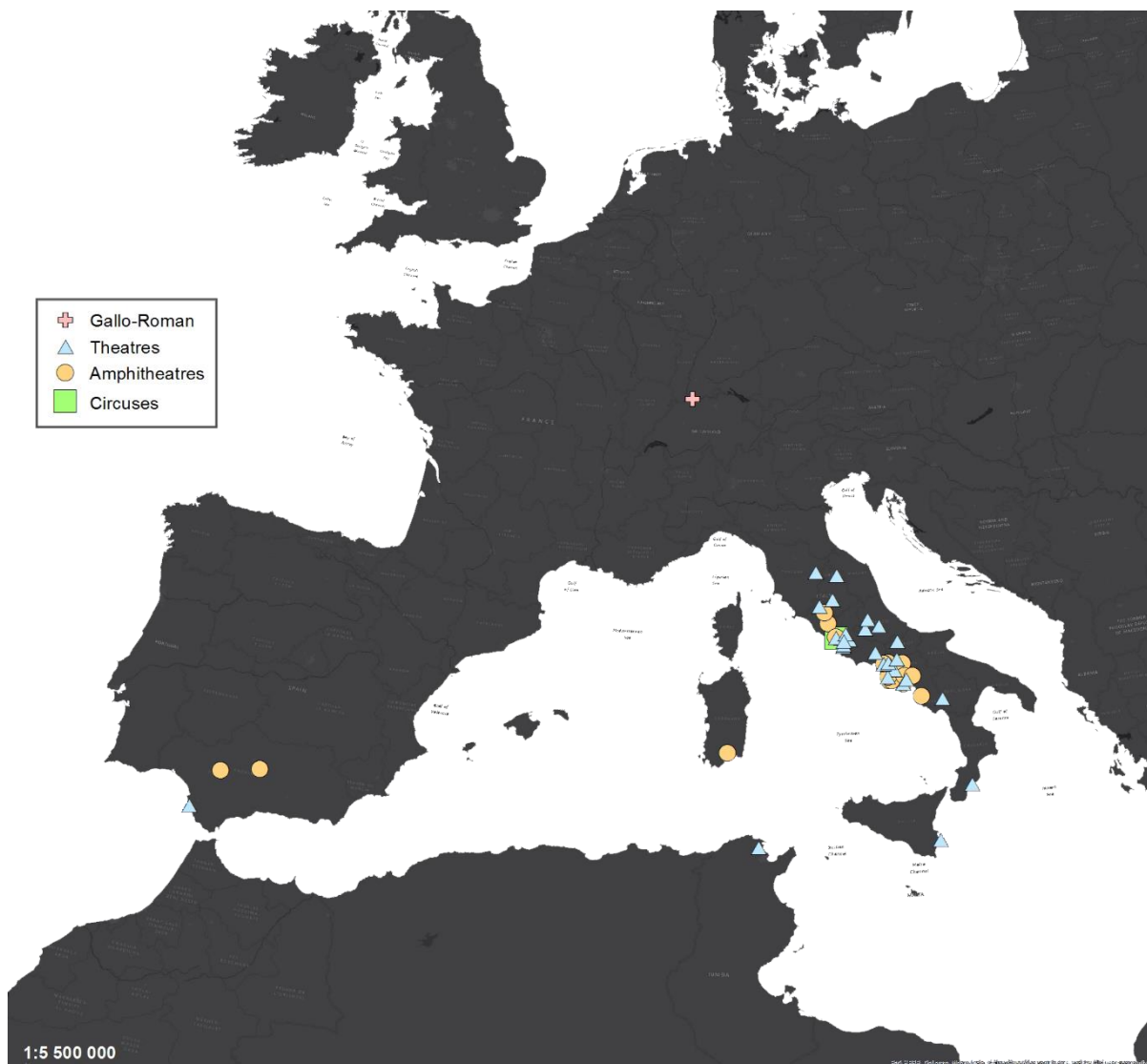


Figure 19. Entertainment buildings constructed during 199-28 BC.

¹¹³ Laurence *et al.* 2011, 236.

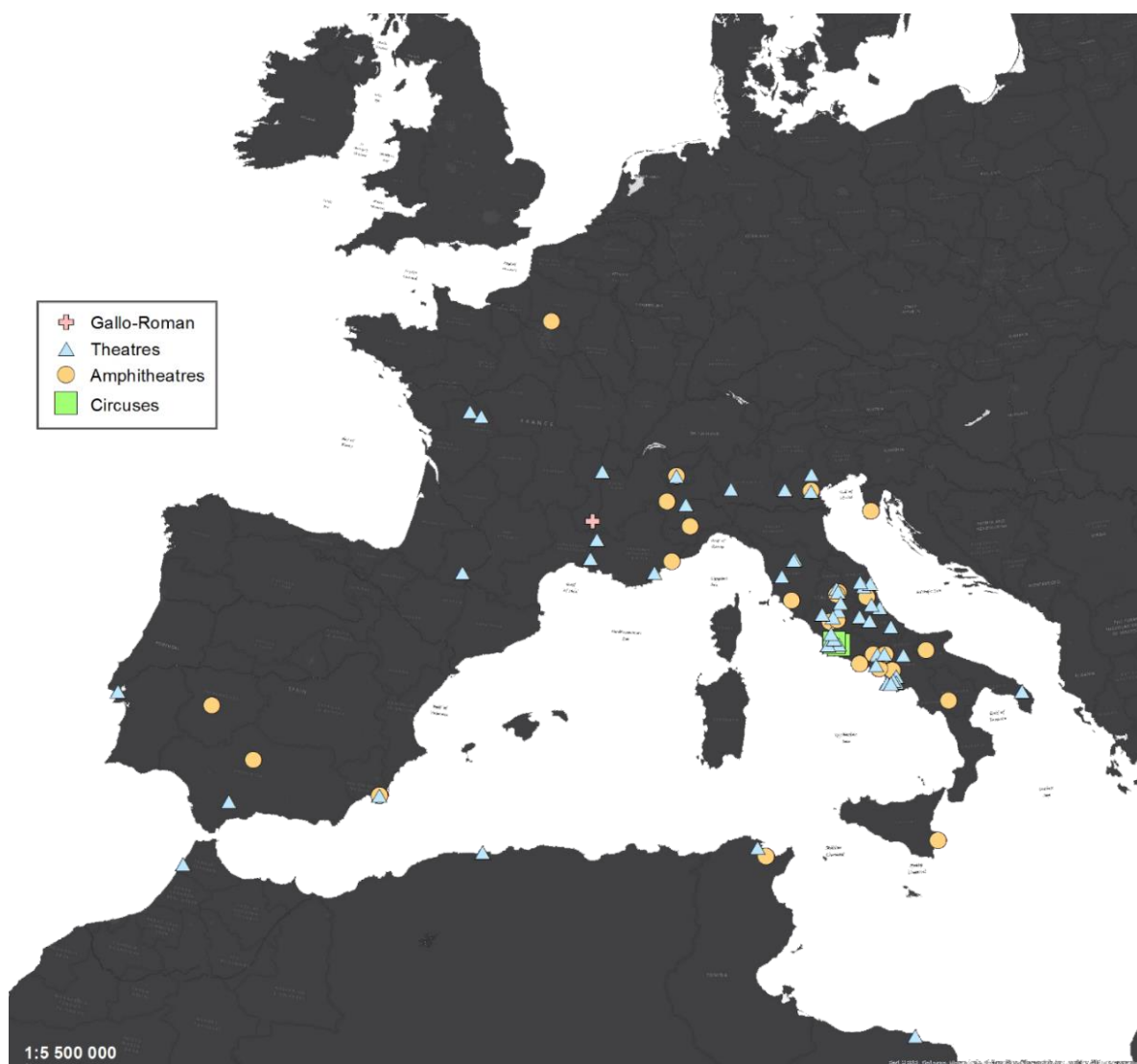


Figure 20. Entertainment buildings constructed during the reign of Augustus.

The first amphitheatres start to appear in the early first century BC, the earliest securely dated amphitheatre is located in Pompeii and dated to the 70s BC, although it is still possible that a few others were a bit earlier.¹¹⁴ Nine amphitheatres were built in Campania during the first half of the first century BC, a couple were also erected in Etruria and two amphitheatres were built outside of the Apennine peninsula: one on Sardinia and one in Spain (see *Fig. 19*). Theatres were also built during the first half of the century, they were mostly confined to central Italy but one was erected in Carmo, Spain. A few more theatres and amphitheatres were built during the last years of the republic; they were built mainly in central Italy, with one amphitheatre being the exception in Spain. The first monumental circus, the Circus Maximus, was built at this time in Rome, the construction was undertaken by Caesar himself. The Circus Maximus

¹¹⁴ Welch 2007, 72.

had been in use for a long time before Caesar, but it was he who first built the monumental and canonical circus that completely surrounded the racing track.

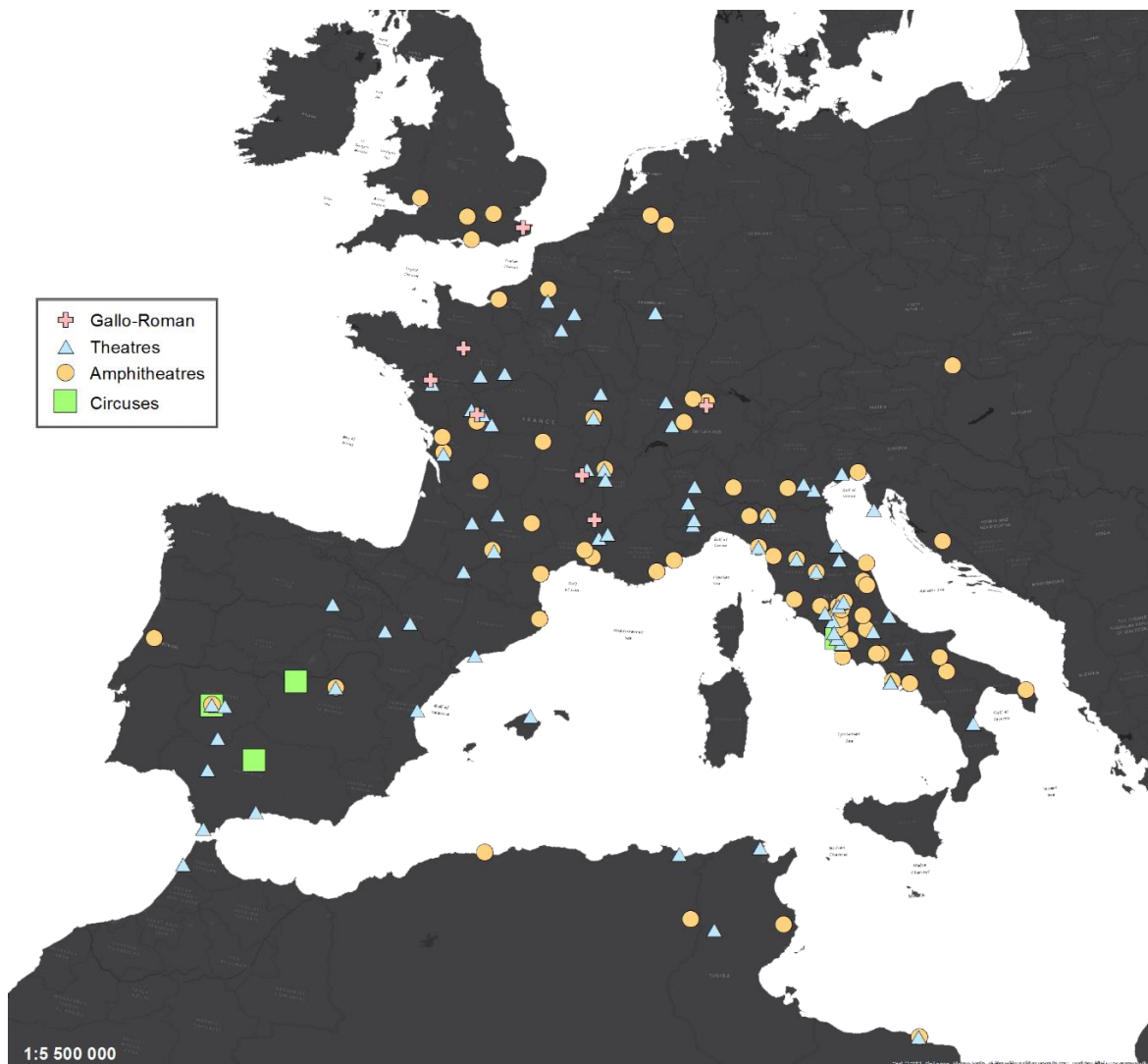


Figure 21. Entertainment buildings constructed during the first century.

The earlier pattern where construction was being concentrated to small areas really start to break up during the reign of Augustus (see *Fig. 20*). A lot of entertainment buildings were still being erected in central Italy but at the end of the first century BC construction of a handful of both theatres and amphitheatre were also happening in northern Italy, and the first theatres and an amphitheatre were built in modern day France. A few buildings were also built in Spain during this time. Augustus oversaw the finishing touches on the Circus Maximus, and during his reign two other circuses were also constructed outside of Rome. One was built in the sacred grove of

the Arval Brethren,¹¹⁵ and the other in Bovillae.¹¹⁶ These two circuses were relatively small in size and closely connected to the imperial cult. Construction increased in France during the early first century AD and it does not seem to be too concentrated to one area but relatively evenly spread out over the provinces, the same can be said for the situation in Spain. The first couple of amphitheatres were also built in Britain between its conquest under Claudius and the end of the first century. An interesting thing is that almost the same number of theatres and amphitheatres were built during the course of the first century AD (see *Fig. 21*). The construction of these was a bit more intense during the first half of the first century.

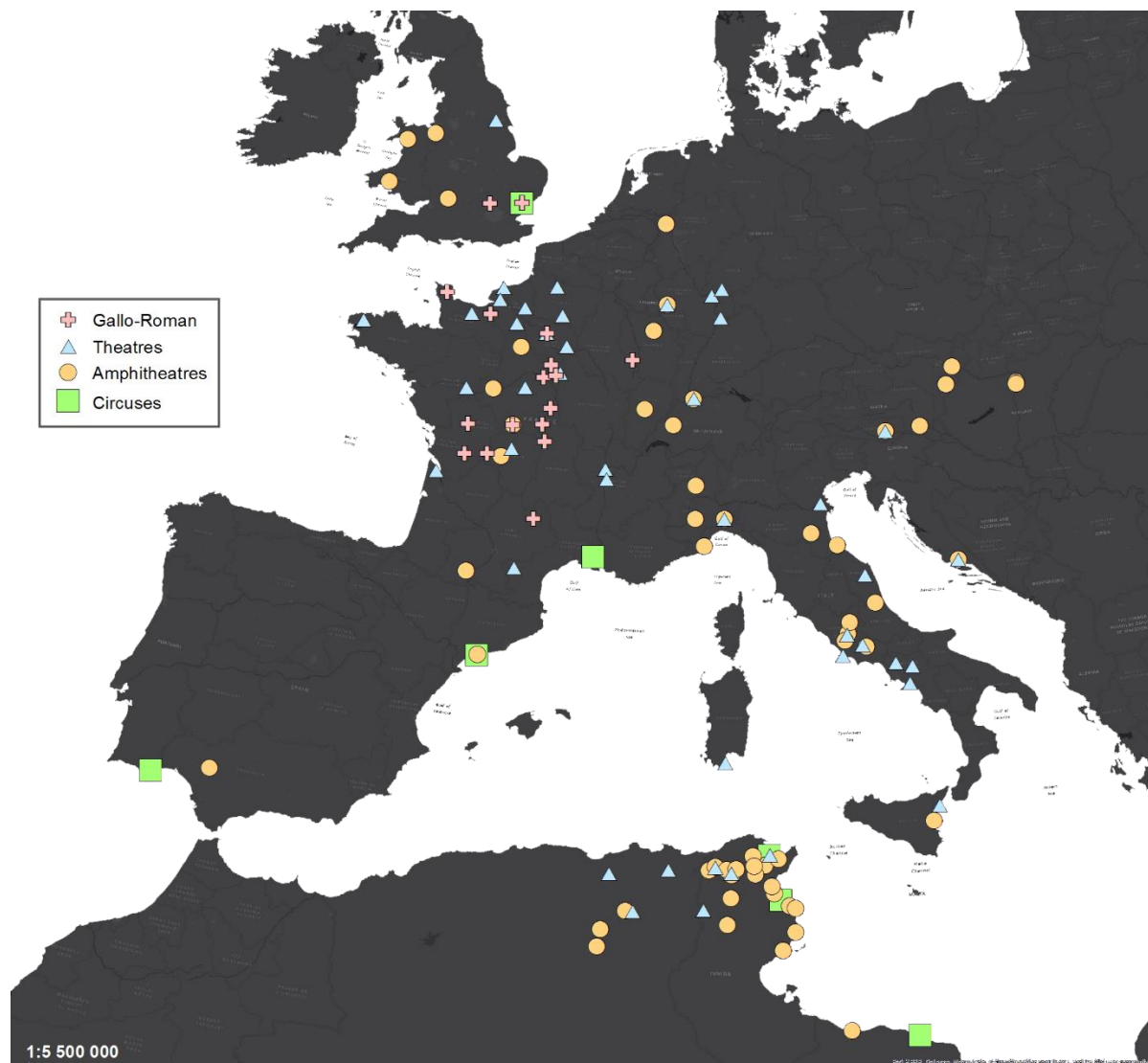


Figure 22. Entertainment buildings constructed during the second century.

¹¹⁵ Humphrey 1986, 567.

¹¹⁶ Humphrey 1986, 561-566.

There was a huge building boom in North Africa in the second century. It is a bit hard to investigate how the buildings spread throughout this region because a lot of the buildings, especially the amphitheatres, are poorly dated and just defined as second century buildings (see *Fig. 22*). Fewer theatres are dated for this region, but the dating is better for the theatres that are dated than for the amphitheatres, and the result is that theatres were mainly constructed during the second half of the second century. Because of the how late the addition of theatres were to the towns of North Africa Laurence *et al.* draws the conclusion that the theatre was not regarded as an important part of the urban landscape in this region.¹¹⁷ This might not necessarily be the case since the amphitheatres of the region also belongs to this century and are too poorly dated for us to establish that they in general were an earlier addition to the urban landscape. It is in any way clear that something was happening in Africa during this century, the increase in construction is not limited to entertainment buildings; Laurence *et al.* have also found that the construction of, for example, baths and temples also follow this pattern of relative inactivity before the second century and then a heavy increase in the amount of buildings being erected.¹¹⁸ Laurence *et al.* suggest a couple of reasons for the building boom of the second century AD in North Africa. They suggest that the area maybe had become more connected to Rome and erected these buildings as a manifestation of this and as another reason they point out that the North African exports to Rome increased heavily during the second century, and the region was therefore wealthier.¹¹⁹ Besides Africa the construction rate of new entertainment buildings was lower in the second century than in the first century and towards the end of the second century it is very low with only a few theatres and a couple of circuses built in the entire Western Empire. The number of theatres and amphitheatres that was constructed in the first century were about equal, but that changed in the early second century when more amphitheatres were constructed than theatres. In the third century new construction is only very sporadic and almost nonexistent compared to earlier. There is, however, one small building boom in the late third and early fourth century when seven circuses are built.

The decline in construction during the second century has been noticed by Laurence *at al.* too, and they point out that the construction of circuses (especially in Gaul) broke the mould of the stagnation in urbanization that was occurring in the second century.¹²⁰ But there is a problem

¹¹⁷ Laurence *et al.* 2011, 250.

¹¹⁸ Laurence *et al.* 2011, 272.

¹¹⁹ Laurence *et al.* 2011, 278.

¹²⁰ Laurence *et al.* 2011, 297.

with how they come to this conclusion. They state that three of the five circuses in Gaul can be dated to the second century, and they use Humphrey as a source for this. The problem is that Humphrey only dates one of the circuses in Gaul to the second century; the one in Arelate (modern day Arles).¹²¹ Laurence *et al.* also dates the circus of Lugdunum (modern day Lyon) to the second century, but there is only proof of restoration work in the second century according to Humphrey.¹²² He does not date the circus, because of the lack of evidence, but does state that he would be surprised if it was built much later than the reign of Hadrian.¹²³ The third circus stated to be second century by Laurence *et al.* was the one in Vienna (modern day Vienne), but Humphrey does not agree. He believes the circus to be later than the previous two; he even suggests that a fourth century dating is most likely.¹²⁴ So the evidence for circuses breaking up the general pattern of stagnation during the second century in Gaul is severely lacking.

One might assume that there would be a boost in construction rates of a certain building type when a new monumental building of the same type was built in Rome. This could be true for the Theatre of Pompey and the Theatre of Marcellus which stood finished in 55 and 13-11 BC respectively, for the construction of theatres skyrocketed during the reign of Augustus, but this could also be because of new imperial politics and not directly linked to the two new monumental theatres of Rome. The Theatre of Marcellus was built during the peak construction time of theatres and its construction should perhaps rather be seen as part of the global trend of theatre construction than as the catalyst. The same pattern occurs after the construction of the Amphitheatre of Taurus in Rome. It was completed in 30 BC and the number of new amphitheatres being constructed increased drastically after that, but once again it is hard to know if this is connected to the new monumental building or to the politics of the new era. There was no large boost in construction rates of amphitheatres after the Colosseum was dedicated; in fact there are 37 amphitheatres with a “date of construction” falling in between 30 and AD 80 (the year the Colosseum was dedicated), and there are also 37 where the “date of construction” is between AD 80 and 130. When reading these numbers it is important to remember that buildings dated roughly to the second century falls outside of this interval even though a few of them probably were constructed in the first 30 years of the century. Nevertheless, a strong connection between the Colosseum and an increased interest in the

¹²¹ Humphrey 1986, 396.

¹²² Humphrey 1986, 398-399.

¹²³ Humphrey 1986, 401.

¹²⁴ Humphrey 1986, 406.

building of amphitheatres cannot be made. Trajan rebuilt the Circus Maximus and there are a few circuses that could perhaps be linked to this, but they are mostly dated roughly to the second century and no real connection can therefore be made.

70 towns had both a theatre and an amphitheatre that is dateable. The theatre was built before the amphitheatre in 64% of these cases, and in 9% of the cases were they built around the same time. These numbers indicate that towns in general saw the theatre as the more important building since they prioritized building it before the amphitheatre.

Change in civic status

I have investigated if the change in civic status of communities could be connected to the construction of buildings for public spectacles. To this I have used the “date of construction” discussed earlier and applied the same method of dating for establishing when the change in civic status for a certain town took place. Three different types of civic statuses have been used for this study: provincial capital, *colonia*, and *municipium*.¹²⁵ Out of the 345 theatres there are 100 cases in which both the theatre and the change in civic status are dateable. Out of the 226 amphitheatres there are 98 cases, and out of 42 circuses there are 17 cases. Because of the relatively poor dating of both entertainment buildings and change in civic status I have chosen to use plus/minus 50 years as an interval when looking for a connection between the two.

In 35 instances do the change in civic status and the building of a theatre come within 50 years of each other in the same town. There are two provinces where this is more common than elsewhere: Regio I and Gallia Narbonensis. There are nine instances in Regio I, and they all occur in connection to the establishment of *coloniae*. It should be noted that there are eleven cases in Regio I where the change in civic status of a town does not occur within 50 years of the construction of a theatre, so it might just be that change in civic status is better documented in Regio I than in other places, and the nine cases of a connection could just be a result of that. The other province where a connection seems to be plausible is Gallia Narbonensis; there are five instances of the establishment of *colonial* status and the construction of a theatre, and there is only one case where the change in civic status does not happen within 50 years of the construction of a theatre.

¹²⁵ Brill's *New Pauly Online* and Stillwell *et al.* 1976 have been used to investigate the civic status of towns.

Out of the 98 cases, in which the dating of amphitheatres and the change in civic status is known, there are 39 instances of the change in civic status occurring within 50 years of the construction of an amphitheatre. The amphitheatres of Gallia Narbonensis do not show the same connection to change in civic status as the theatres of the province do; only two amphitheatres were constructed within 50 years of the change in civic status occurred, while three were constructed long after the change in civic status of their towns. In the two provinces of Pannonia there were five amphitheatres and all were constructed within 50 years of their towns becoming *municipia*. The towns of Aquincum and Carnuntum both had two amphitheatres each, and three of the four amphitheatres were constructed in the middle of the second century; soon after they had become *municipia* in AD 124 when Hadrian had visited the region.¹²⁶ The number of amphitheatres connected to change in civic status are also fewer in Regio I where five amphitheatres were constructed in connection to the change in civic status, and 13 were not.

Five circuses, out of 17, were constructed within 50 years of their towns gaining the status of *coloniae*. Three of the five circuses were located in Africa Proconsularis. Four of them were constructed within 50 years after the new status had been granted; leaving just a single one (located in Thugga) that was constructed before the new status was given. When the buildings were not constructed within 50 years of a change in civic status, they were most often constructed long after the change in civic status occurred. 79% of all theatres that were not built in close connection to a change in civic status were constructed at a later date than when the new status was granted. The same is true for amphitheatres and circuses; a total of 91% of the amphitheatres that were not constructed within the 50 years of a new civic status were built later. Except from the already mentioned circus in Thugga, there was not a single circus built before a change in civic status occurred.

There does not seem to be a close connection between the civic status of a community being improved and the decision of the same community to construct an entertainment building. But it is, however, clear that towns in general got their status improved at an earlier date than they constructed buildings for public entertainment. One explanation for this could be that many changes in civic status belongs to an earlier period of Roman politics than permanent public entertainment buildings did. There are for example many towns in Italy that got a new civic status after the Social War in the early first century BC. If it was considered important for a

¹²⁶ PECS, s.v. Aquincum (SZ. K. Póczy).

town of new civic status to construct a new public entertainment building it could be that they needed a long time to save up to afford it, but it is more likely that there is no connection.

Peer-polity interaction

When an expensive new building was considered there was one important aspect in the decision making process that I have not touched upon yet, and that is if neighboring towns already had constructed such a building, or was in the process of doing so. Inter-city rivalries were commonplace in the ancient world and the phenomenon is often referred to as peer-polity interaction in anthropology.¹²⁷ One example of how entertainment buildings were an important part of such rivalries is when the amphitheatre of Placentia was burnt down during an assault on the city by Caecina.¹²⁸ Tacitus reports that it was not known whether the amphitheatre was burnt down by the attacking forces or by accident by the defenders. The people of Placentia, however, believed the amphitheatre to have been burnt down out of jealousy, because of its splendor, by people from nearby towns. The evidence for the importance of peer-polity showcased in this study is strongest in central Italy. This area was densely populated with cities and a great sense of competition between cities would therefore not be unsurprising. And since there are many buildings for public spectacles present in central Italy an argument could be made for that peer-polity interaction probably had an important role in decisions on funding new expensive buildings were made. Inter-city rivalries do not seem to be equally as important in all areas of the Western Empire that are densely populated with cities. Cities in Hispania Baetica do not seem to have been competing against each other in the same way when it came to constructing entertainment buildings; only few of the cities in the province did in fact construct buildings for public spectacles.

Size would also be a thing that was influenced by peer-polity interaction. If you compete with other neighboring cities you probably would want to construct larger and more impressive buildings than your competitors. The entertainment buildings of central Italy were in general smaller than those of Hispania and Gaul and this questions the validity of the earlier conclusion that peer-polity interaction in central Italy was an important factor for the spatial distribution of entertainment buildings. There instances of towns competing with each other in building larger

¹²⁷ Laurence *et al.* 2011, 123.

¹²⁸ Tac. *Hist.* 2.21.

buildings. There were two amphitheatres constructed in the town of Thisdra in Africa Proconsularis. The first was built in the first century AD, and the second in the third century.¹²⁹ The later one was considerably larger than the first one, and it might be that the people of Thisdra decided to construct a new larger amphitheatre so that they could compete against neighboring towns, because the first amphitheatre in Thisdra was among the first ever built in Africa and was probably considered small and outdated when the new one was built. The reason for why the average *cavea* size of entertainment buildings in Hispania were large could maybe be found in the small number of such buildings located there. If only larger communities took upon themselves to construct permanent buildings for entertainment, and only a few small towns did, then that could explain the large size of the buildings. It is harder to explain the large average size of the buildings in Gaul. Peer-polity interaction could perhaps be even stronger here than anywhere else. Even though Gaul had a low level of urbanization and was not as densely populated with entertainment buildings as central Italy and Africa Proconsularis it still had a lot of buildings for public spectacles. And since the size of those buildings were relatively large on average it could be that inter-city rivalry and competition were common things in the area.

Conclusions

There were two research questions for this thesis. The first one asked what the spatial distribution of theatres, amphitheatres, and circuses looked like, and this thesis has managed to establish the distribution and it has also identified patterns in the distribution. The second question looked for answers to why the spatial distribution looks the way it does. Some answers has been found, but this question can definitely be investigated further. A next step would be to limit the material to smaller regions and add more data on each building. I have summarized some of the most interesting observations and explanations from the analysis in the following section of the conclusion.

Observations

- The number and composition of entertainment buildings differed throughout the Western Empire. The theatre dominated in Gaul and southern Italy, the circus on the

¹²⁹ Golvin 1988, 84, 209.

Iberian Peninsula, and the amphitheatre in the northern provinces. Some other regions, like central (and northern) Italy and Africa Proconsularis, had an almost equal amount of theatres and amphitheatres, and these were also the two regions that were the most densely populated with entertainment buildings..

- The construction rate of theatres, amphitheatres and circuses were different from each other and peaked at different times. I have also found that the construction rate of buildings were not significantly affected by the construction of new monumental buildings for public spectacles in Rome.
- Provincial capitals were the most likely cities to possess all three major building types.
- The level of urbanization in a province did not necessarily affect the number of entertainment buildings that were constructed. The Iberian Peninsula had many cities but relatively few buildings for public spectacles. The situation is reversed in Gaul where there are very few cities compared to the number of entertainment buildings. Some other areas, like central Italy and Africa Proconsularis, had both many cities and buildings for public spectacles.
- The largest buildings were not in the two areas with highest concentration of entertainment buildings.
- Change in civic status does not seem to have a connection to the construction of entertainment buildings.

Explanations

Some basic explanations for the areas where the circus and amphitheatre were relatively popular have been found. The two areas where circuses were the most popular were North Africa and Hispania. Both were important centers for horse breeding and it is very likely that the supply of horses were a lot better in these two areas than elsewhere. It should be remembered that

circuses were very expensive and that horse racing were fairly easy to set up on level ground outside of cities, so it is likely that many communities held these events without any permanent buildings dedicated to them. The amphitheatre was popular in the northern provinces where the military had a strong presence and since the amphitheatre had a stronger connection to the military than the other entertainment buildings it is very likely that these buildings can be explained by this. When we conclude the popularity of the amphitheatre in these provinces it must be remembered that it is not because there were a lot more of them constructed there than elsewhere, but rather because of the lack of other entertainment buildings in these areas.

It has been a lot harder to explain the popularity of the theatre in Gaul, and a more thorough analysis is needed for us to be able to understand the culture around public spectacles that the people of Gaul had. The theatre was also popular in southern Italy and that can be explained by the early Greek influence in the area, and by the practice of adapting theatres, so that they were able to hold gladiatorial games, instead of building amphitheatres. In the rest of Italy, and in Africa Proconsularis, were the number of theatres and amphitheatres mostly equal. It is unsure whether this means that the two types of entertainment buildings were seen as equally important; the amphitheatre was after all a more expensive building. An equal amount of theatres and amphitheatres do not, therefore, represent the same level of investment, and arguments could be made that the amphitheatre was seen as more important in these areas since the same number of the two were built even though one was more expensive. In general though there are arguments to be made that the theatre was seen as the most important entertainment building. The peak of the construction rate of theatres was earlier than that of amphitheatres, which would indicate that towns thought it more important to have a theatre. And the strongest argument for the popularity of theatres is the fact that they constitute more than half of all entertainment buildings constructed in the Western Empire.

The amount of buildings for public spectacles differed throughout the Western Empire and satisfactory explanations for the general spatial distribution are lacking. There is no proper answer for why the Iberian Peninsula has so few entertainment buildings when nearby Gaul has plenty. Difference in peer-polity interaction could perhaps be a part of it, but it does certainly not fully account for the discrepancy. Peer-polity could also have been important in central Italy where a lot of entertainment buildings were constructed. There were also a lot of entertainment buildings constructed in North Africa, but the competition between cities does not seem to have been as fierce there if you take into account the number of cities in the area.

Catalogue

Latin names for towns have been used if they are known and modern names if they are not. The catalogue is divided by building type and sorted by province. Abbreviations for century (c.), half (h), middle of the (mid), and quarter (q) have been used to save space.

Theatres

Africa Proconsularis

Town	Date	Cavea Ø (m)	Orchestra Ø (m)	Cavea area (m ²)
Althiburos ¹³⁰	Before Commodus	58		
Assuras ¹³¹				
Bararus ¹³²			19	
Carthago ¹³³	Hadrianic or Antonine	104	37	3710
Carthago ¹³⁴	1h. 3 c. AD	96	22	3429
Cillium ¹³⁵	Flavian	53	16	1003
Civitas Pophensis ¹³⁶				
Curubis ¹³⁷				
Gurza ¹³⁸				
Hadrumentum ¹³⁹		75		
Leptis Magna ¹⁴⁰	AD 1-2	88	25	2796
Leptis Minor ¹⁴¹		35	12	425
Limisa ¹⁴²			17	
Sabratha ¹⁴³	Severan	93	25	3151
Seressi ¹⁴⁴		22		
Sufetula ¹⁴⁵	Antonine or earlier	59	23	1159

¹³⁰ Sear 2006, 275.

¹³¹ Sear 2006, 276.

¹³² Sear 2006, 276.

¹³³ Sear 2006, 277.

¹³⁴ Sear 2006, 278.

¹³⁵ Sear 2006, 279.

¹³⁶ Sear 2006, 279.

¹³⁷ Sear 2006, 279.

¹³⁸ Sear 2006, 279.

¹³⁹ Sear 2006, 280.

¹⁴⁰ Sear 2006, 281.

¹⁴¹ Sear 2006, 281.

¹⁴² Sear 2006, 282.

¹⁴³ Sear 2006, 283.

¹⁴⁴ Sear 2006, 284.

¹⁴⁵ Sear 2006, 285.

Thelepte ¹⁴⁶		60		
Thignica ¹⁴⁷		42	14	616
Thugga ¹⁴⁸	AD 168-169	64	21	1435
Ulissipira ¹⁴⁹			19	
Uthina ¹⁵⁰		60	18	1286
Utica ¹⁵¹	2 c. BC	110		
Utica ¹⁵²	Early imperial	95		
Vicus Augusti ¹⁵³		58	22	1131

Britannia

Camulodunum ¹⁵⁴	Before AD 61	71		
Cataractonium ¹⁵⁵				
Petuaria Parisorum ¹⁵⁶	AD 140-144			

Dalmatia

Issa ¹⁵⁷	Roman period	55	22	998
Salona ¹⁵⁸	2 c. AD	65	22	1469

Gallia Aquitania

Aginum ¹⁵⁹	Flavian	86	47	2037
Argentomagus ¹⁶⁰	2q. 1 c. AD	61	20	1304
Augustoritum Lemovicum ¹⁶¹				
Civaux ¹⁶²	before mid 2 c. AD	70		
Divona Cadurcorum ¹⁶³	Flavian	93	32	2994
Lugdunum Convenarum ¹⁶⁴	Early 1 c. AD	70		
Mont de Jouer ¹⁶⁵	Late 1 c. or early 2 c. AD	28	8	283

¹⁴⁶ Sear 2006, 286.

¹⁴⁷ Sear 2006, 286.

¹⁴⁸ Sear 2006, 288.

¹⁴⁹ Sear 2006, 288.

¹⁵⁰ Sear 2006, 289.

¹⁵¹ Sear 2006, 289.

¹⁵² Sear 2006, 289.

¹⁵³ Sear 2006, 289.

¹⁵⁴ Sear 2006, 196.

¹⁵⁵ Sear 2006, 196.

¹⁵⁶ Sear 2006, 197.

¹⁵⁷ Sear 2006, 255.

¹⁵⁸ Sear 2006, 256.

¹⁵⁹ Sear 2006, 198.

¹⁶⁰ Sear 2006, 199.

¹⁶¹ Sear 2006, 200.

¹⁶² Sear 2006, 200.

¹⁶³ Sear 2006, 201.

¹⁶⁴ Sear 2006, 202.

¹⁶⁵ Sear 2006, 203.

Neuvy-sur-Barangeon ¹⁶⁶				
Noviomagus Biturigum ¹⁶⁷	2 c. AD	58		
Saint-Jean-de-Sauves ¹⁶⁸	Early 1 c. AD	97		
Thaumiers ¹⁶⁹		60		
Thénac ¹⁷⁰	Neronian	81	46	1746
Vesunna Petrucoriorum ¹⁷¹				
Vetus Pictavis ¹⁷²	Late Augustan	114	36	4595

Gallia Belgica

Augusta Suessionum ¹⁷³	Late 1 c. AD	144		
Augusta Treverorum ¹⁷⁴	Ca. AD 100	55	23	980
Beda ¹⁷⁵	Before AD 198			
Belginum ¹⁷⁶	Late 2 c. or early 3 c. AD	40		
Cappy ¹⁷⁷				
Champlieu ¹⁷⁸	Early 2 c. AD	71	32	1577
Eu ¹⁷⁹	Late 2 c. or early 3 c. AD	100		
Jouy-sous-Thelle ¹⁸⁰		80	40	1885
Lizy-sur-Ourq ¹⁸¹				
Möhn ¹⁸²		45		
Pagus Vennectis ¹⁸³				
Ribemont-sur-Ancre ¹⁸⁴	Early 2 c. AD	68	22	1626
Ricciacus ¹⁸⁵	Vespasianic	62	16	1409
Rouvroy-Les-Merles ¹⁸⁶		75		
Saint-Maur-en-Chausée ¹⁸⁷		53		

¹⁶⁶ Sear 2006, 204.

¹⁶⁷ Sear 2006, 204.

¹⁶⁸ Sear 2006, 204.

¹⁶⁹ Sear 2006, 205.

¹⁷⁰ Sear 2006, 205.

¹⁷¹ Sear 2006, 206.

¹⁷² Sear 2006, 206.

¹⁷³ Sear 2006, 207.

¹⁷⁴ Sear 2006, 208.

¹⁷⁵ Sear 2006, 208.

¹⁷⁶ Sear 2006, 208.

¹⁷⁷ Sear 2006, 208.

¹⁷⁸ Sear 2006, 208.

¹⁷⁹ Sear 2006, 210.

¹⁸⁰ Sear 2006, 211.

¹⁸¹ Sear 2006, 211.

¹⁸² Sear 2006, 211.

¹⁸³ Sear 2006, 211.

¹⁸⁴ Sear 2006, 212.

¹⁸⁵ Sear 2006, 212.

¹⁸⁶ Sear 2006, 213.

¹⁸⁷ Sear 2006, 213.

Vendeuil-Caply ¹⁸⁸	End of 1 c. AD		26	
Vendeuil-Caply ¹⁸⁹	4q. 1 c. AD	73	21	1920
Verbinum ¹⁹⁰		60		
Wallenborn ¹⁹¹		30		

Gallia Lugdunensis

Alesia ¹⁹²	End of 1 c. AD	82	25	2395
Andeleius ¹⁹³		118		
Antigny ¹⁹⁴	Mid 1 c. AD	76		
Aregenua ¹⁹⁵	Mid 2 c. AD	80	35	2032
Aregenua ¹⁹⁶		67		
Areines ¹⁹⁷	1 c. AD	70	26	1659
Aubigné-Racan ¹⁹⁸	Late 1 c. AD	63	30	1205
Augustodunum ¹⁹⁹	2h. 1 c. AD	148	50	7620
Beaumont-sur-Oise ²⁰⁰		60		
Bouzy-la-Forêt ²⁰¹		40	20	471
Briord ²⁰²	Late 2 or early 3 c. AD			
Canetonum ²⁰³		80	29	2183
Canouville ²⁰⁴	mid 2 c. AD	75	26	1943
Cenabum ²⁰⁵	Coins of Trajan	105	38	3762
Champallement ²⁰⁶		72	20	1879
Châteaubleau ²⁰⁷	Early 2 c. AD	90		
Corent ²⁰⁸	between mid 1 to late 2 c. AD			
Essarois ²⁰⁹				

¹⁸⁸ Sear 2006, 213.

¹⁸⁹ Sear 2006, 213.

¹⁹⁰ Sear 2006, 213.

¹⁹¹ Sear 2006, 213.

¹⁹² Sear 2006, 220.

¹⁹³ Sear 2006, 221.

¹⁹⁴ Sear 2006, 221.

¹⁹⁵ Sear 2006, 223.

¹⁹⁶ Sear 2006, 223.

¹⁹⁷ Sear 2006, 223.

¹⁹⁸ Sear 2006, 225.

¹⁹⁹ Sear 2006, 226.

²⁰⁰ Sear 2006, 226.

²⁰¹ Sear 2006, 227.

²⁰² Sear 2006, 227.

²⁰³ Sear 2006, 227.

²⁰⁴ Sear 2006, 228.

²⁰⁵ Sear 2006, 228.

²⁰⁶ Sear 2006, 229.

²⁰⁷ Sear 2006, 229.

²⁰⁸ Poux 2011.

²⁰⁹ Sear 2006, 230.

Forum Segusiavorum ²¹⁰	Claudian			
Gennes ²¹¹	2 c. AD	94	43	2744
Gisacum ²¹²	2 c. AD	103	44	3406
Iatinum ²¹³	1h. 1 c. AD			
Intaranum ²¹⁴		135		
Iuliobona ²¹⁵	2 c. AD	109	48	3761
Locmariaquer ²¹⁶		80	50	1532
Lugdunum ²¹⁷	Early 1 c. AD	89	29	2780
Lugdunum ²¹⁸	Mid 2 c. AD	73	21	1920
Lutetia Parisiorum ²¹⁹	Late 1 c. or early 2 c. AD; coins of Nero and Vespasian	72		
Lyons-la-Forêt ²²⁰	Antonine	82	24	2414
Marray-sur-Guilleville ²²¹		40	10	589
Mauves ²²²	1 c. AD	54		
Neung-sur-Beuvron ²²³	Late 1 c. or early 2 c. AD	100	33	3499
Oisseau-le-Petit ²²⁴				
Ouzouer-le-Marché ²²⁵		40		
Petromantalum ²²⁶		115		
Pistis ²²⁷		89		
Plouneventer ²²⁸	1h. 2 c. AD	60		
Roncherolles-en-Bray ²²⁹		44		
Rotomagus ²³⁰		75		
Saint-André-sur-Cailly ²³¹		79		
Saintre-Gemmes-sur-Loire ²³²		87		

²¹⁰ Sear 2006, 230.

²¹¹ Sear 2006, 230.

²¹² Sear 2006, 231.

²¹³ Sear 2006, 232.

²¹⁴ Sear 2006, 232.

²¹⁵ Sear 2006, 233.

²¹⁶ Sear 2006, 234.

²¹⁷ Sear 2006, 235.

²¹⁸ Sear 2006, 236.

²¹⁹ Sear 2006, 237.

²²⁰ Sear 2006, 238.

²²¹ Sear 2006, 238.

²²² Sear 2006, 239.

²²³ Sear 2006, 239.

²²⁴ Sear 2006, 241.

²²⁵ Sear 2006, 241.

²²⁶ Sear 2006, 241.

²²⁷ Sear 2006, 241.

²²⁸ Sear 2006, 241.

²²⁹ Sear 2006, 242.

²³⁰ Sear 2006, 242.

²³¹ Sear 2006, 242.

²³² Sear 2006, 243.

Senan ²³³		60	24	1188
Souzy-la-Briche ²³⁴				
Verdes ²³⁵				
Villanodunum ²³⁶	2 c. AD	72		

Gallia Narbonensis

Antipolis ²³⁷		72	21	1863
Apta Iulia ²³⁸	Probably Augustan	90	26	2915
Arausio ²³⁹	Late Augustan	104	30	3894
Arelate ²⁴⁰	Augustan	102	31	3708
Baeterrae ²⁴¹				
Eburomagus ²⁴²	Late 2 c. AD			
Forum Iulii ²⁴³	End of 1 c. BC	84	22	2581
Glanum ²⁴⁴	Not earlier than 1 c. BC	52		
Narbo ²⁴⁵				
Nemausus ²⁴⁶		85	24	2611
Tolosa ²⁴⁷	1 c. AD	94	28	3162
Valentia ²⁴⁸		85		
Vasio Vocontiorum ²⁴⁹	Claudian	96	30	3266
Vienna ²⁵⁰	Julio-Claudian			
Vienna ²⁵¹	2 c. AD	72	22	1846
Vienna ²⁵²	Augustan or Hadrianic-Antonine	130	35	6156

²³³ Sear 2006, 243.

²³⁴ Sear 2006, 243.

²³⁵ Sear 2006, 243.

²³⁶ Sear 2006, 243.

²³⁷ Sear 2006, 244.

²³⁸ Sear 2006, 245.

²³⁹ Sear 2006, 245.

²⁴⁰ Sear 2006, 247.

²⁴¹ Sear 2006, 248.

²⁴² Sear 2006, 248.

²⁴³ Sear 2006, 249.

²⁴⁴ Sear 2006, 249.

²⁴⁵ Sear 2006, 249.

²⁴⁶ Sear 2006, 249.

²⁴⁷ Sear 2006, 250.

²⁴⁸ Sear 2006, 250.

²⁴⁹ Sear 2006, 251.

²⁵⁰ Sear 2006, 253.

²⁵¹ Sear 2006, 253.

²⁵² Sear 2006, 253.

Germania Superior

Argentorate ²⁵³		60		
Augusta Raurica ²⁵⁴	AD 140-150	99	25	3603
Aventicum ²⁵⁵	End of 1 c. AD	106	20	4255
Epomanduodurum ²⁵⁶	Flavian	142	14	7841
Kreuznach ²⁵⁷				
Lopodunum ²⁵⁸	2 c. AD	90	30	2827
Mediolanum ²⁵⁹				
Mirebeau ²⁶⁰				
Moguntiacum ²⁶¹	End of 2 c. AD	116	41	4624
Nida ²⁶²	Late 1 c. or early 2 c. AD	80	50	1532
Riehen ²⁶³		32		
Sumelocenna ²⁶⁴		95		

Hispania Baetica

Acinipo ²⁶⁵	Late rep. or Augustan	62	21	1336
Baelo ²⁶⁶	Claudian	70	20	1767
Carteia ²⁶⁷				
Gades ²⁶⁸	Late rep.	85		
Italica ²⁶⁹	Early 1 c. AD or Tiberian	76	25	2023
Malaca ²⁷⁰	mid 1 c. AD	65	23	1451
Regina ²⁷¹	Flavian	64	20	1451
Singilia Barba ²⁷²		52	15	974
Urso ²⁷³		33		

²⁵³ Sear 2006, 215.

²⁵⁴ Sear 2006, 215.

²⁵⁵ Sear 2006, 216.

²⁵⁶ Sear 2006, 217.

²⁵⁷ Sear 2006, 217.

²⁵⁸ Sear 2006, 218.

²⁵⁹ Sear 2006, 218.

²⁶⁰ Sear 2006, 239.

²⁶¹ Sear 2006, 218.

²⁶² Sear 2006, 219.

²⁶³ Sear 2006, 219.

²⁶⁴ Sear 2006, 220.

²⁶⁵ Sear 2006, 260.

²⁶⁶ Sear 2006, 260.

²⁶⁷ Sear 2006, 261.

²⁶⁸ Sear 2006, 261.

²⁶⁹ Sear 2006, 261.

²⁷⁰ Sear 2006, 262.

²⁷¹ Sear 2006, 263.

²⁷² Sear 2006, 263.

²⁷³ Sear 2006, 263.

Hispania Lusitania

Augusta Emerita ²⁷⁴	Agrippa started building 16-15 BC, upper parts finished in the time of Claudius at earliest	87	26	2707
Capera ²⁷⁵				
Metellinum ²⁷⁶	4q. 1 c. BC	63		
Olisipo ²⁷⁷	Augustan	80	18	2386

Hispania Tarraconensis

Arcobriga ²⁷⁸				
Bilbilis ²⁷⁹	Late Augustan or Tiberian	78	20	2232
Caesaraugusta ²⁸⁰	Late Tiberian	106	32	4010
Carthago Nova ²⁸¹	End of 1 c. BC	87	26	2707
Castulo ²⁸²				
Celsa ²⁸³				
Clunia ²⁸⁴	Tiberian	96	25	3374
Mago ²⁸⁵				
Oscia ²⁸⁶				
Pollentia ²⁸⁷	Julio-Claudian	31	16	277
Saguntum ²⁸⁸	AD 14-68	85	22	2647
Segobriga ²⁸⁹	40-60	65	24	1433
Tarraco ²⁹⁰	Flavian	71	21	1806

Mauretania Caesariensis

Caesarea ²⁹¹	ca. 25-10 BC	90	22	2991
Cuicul ²⁹²	Antonine	62	24	1283
Sitifis ²⁹³				
Tipasa ²⁹⁴	Late 2 or early 3 c. AD	73	17	1979

²⁷⁴ Sear 2006, 264.

²⁷⁵ Sear 2006, 265.

²⁷⁶ Sear 2006, 265.

²⁷⁷ Sear 2006, 265.

²⁷⁸ Sear 2006, 265.

²⁷⁹ Sear 2006, 266.

²⁸⁰ Sear 2006, 266.

²⁸¹ Sear 2006, 267.

²⁸² Sear 2006, 267.

²⁸³ Sear 2006, 267.

²⁸⁴ Sear 2006, 267.

²⁸⁵ Sear 2006, 268.

²⁸⁶ Sear 2006, 268.

²⁸⁷ Sear 2006, 268.

²⁸⁸ Sear 2006, 269.

²⁸⁹ Sear 2006, 270.

²⁹⁰ Sear 2006, 270.

²⁹¹ Sear 2006, 271.

²⁹² Sear 2006, 273.

²⁹³ Sear 2006, 272.

²⁹⁴ Sear 2006, 272.

Mauretania Tingitana

Ad Gharbia ²⁹⁵		70	15	1836
Lixus ²⁹⁶	Early 1 c. AD	55		

Noricum

Carnuntum ²⁹⁷		40		
Virunum ²⁹⁸	Early 2 c. AD	68	17	1702

Numidia

Ammaedara ²⁹⁹	2 c. AD	65	18	1532
Bulla Regia ³⁰⁰	2h. 2 c. AD	60	24	1188
Calama ³⁰¹	2h. 2 c. AD	59		
Henchir Qaoussat ³⁰²				
Hippo Regius ³⁰³	1 c. AD	55	24	962
Madaurus ³⁰⁴	Severan	33	18	300
Rusicada ³⁰⁵	Hadrianic or later	82		
Sicca Veneria ³⁰⁶	3 c. AD			
Simitthus ³⁰⁷	3 c. AD	68		
Thamugadi ³⁰⁸	Antonine	64	21	1435
Thevestis ³⁰⁹		50		
Thubursicum Numidarum ³¹⁰	Late 2 or early 3 c. AD	57	25	1030

Pannonia Superior

Savaria ³¹¹				
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Regio I

Abella ³¹²				
Abellinum ³¹³				

²⁹⁵ Sear 2006, 271.

²⁹⁶ Sear 2006, 271.

²⁹⁷ Sear 2006, 258.

²⁹⁸ Sear 2006, 258.

²⁹⁹ Sear 2006, 275.

³⁰⁰ Sear 2006, 276.

³⁰¹ Sear 2006, 277.

³⁰² Sear 2006, 280.

³⁰³ Sear 2006, 280.

³⁰⁴ Sear 2006, 282.

³⁰⁵ Sear 2006, 273.

³⁰⁶ Sear 2006, 284.

³⁰⁷ Sear 2006, 285.

³⁰⁸ Sear 2006, 274.

³⁰⁹ Sear 2006, 286.

³¹⁰ Sear 2006, 286.

³¹¹ Sear 2006, 258.

³¹² Sear 2006, 119.

³¹³ Sear 2006, 119.

Acerrae ³¹⁴	Late Rep. or early Augustan	70		
Albanum ³¹⁵	Domitian	50	12	925
Antium ³¹⁶	2h. 2 c. AD	44	10	721
Aquinum ³¹⁷	40-30 BC	64		
Aricia ³¹⁸	Late Rep.	28	12	251
Baiae ³¹⁹	Claudian	44	30	407
Bauli ³²⁰	Augustan or Claudian at Latest	32	9	370
Bovillae ³²¹	AD 14	41	19	518
Cales ³²²	2 c. BC	75	27	1923
Capua ³²³	94 BC	89		
Casinum ³²⁴	Early Augustan	54	17	1032
Ferentinum ³²⁵	Trajanic or Hadrianic	54		
Formiae ³²⁶		60		
Gabii ³²⁷	160 BC	60		
Herculaneum ³²⁸	Augustan	54	19	1003
Lanuvium ³²⁹	2 c. BC	54		
Liternum ³³⁰	Late Rep.			
Minturnae ³³¹	Late Rep. or early Imp.	78	24	2163
Misenum ³³²		70		
Neapolis ³³³	Augustan			
Neapolis ³³⁴	Augustan	102	18	3958
Nola ³³⁵		39		
Nuceria ³³⁶	2h. 2 c. BC	76	22	2078

³¹⁴ Sear 2006, 119.

³¹⁵ Sear 2006, 119.

³¹⁶ Sear 2006, 120.

³¹⁷ Sear 2006, 120.

³¹⁸ Sear 2006, 128.

³¹⁹ Sear 2006, 120.

³²⁰ Sear 2006, 120.

³²¹ Sear 2006, 121.

³²² Sear 2006, 121.

³²³ Sear 2006, 122.

³²⁴ Sear 2006, 122.

³²⁵ Sear 2006, 123.

³²⁶ Sear 2006, 123.

³²⁷ Sear 2006, 123.

³²⁸ Sear 2006, 124.

³²⁹ Sear 2006, 125.

³³⁰ Sear 2006, 125.

³³¹ Sear 2006, 125.

³³² Sear 2006, 125.

³³³ Sear 2006, 126.

³³⁴ Sear 2006, 126.

³³⁵ Sear 2006, 128.

³³⁶ Sear 2006, 128.

Ostia ³³⁷	18-12 BC	65	24	1433
Pausilypum ³³⁸	Augustan	47	11	820
Pausilypum ³³⁹	Augustan	26	8	240
Pompeii ³⁴⁰	2 c. BC	49		
Pompeii ³⁴¹	ca. 75 BC		15	
Praeneste ³⁴²	Mid 2 c. BC - ca. 100 BC	59		
Puteoli ³⁴³				
Roma ³⁴⁴	19-13 BC	95		
Roma ³⁴⁵	Ca. AD 90-100	100		
Roma ³⁴⁶	13-11 BC	130	37	6099
Roma ³⁴⁷	Neronian			
Roma ³⁴⁸	55 BC	150		
Sarno ³⁴⁹	End of 2 c. BC		10	
Suessa ³⁵⁰	ca. 30 BC	80		
Suessula ³⁵¹				
Tarracina ³⁵²		60		
Teanum ³⁵³	2 c. BC	78		
Tibur ³⁵⁴	87-60 BC	70		
Tibur, Tivoli ³⁵⁵	Hadrian	36	22	319
Tibur, Tivoli ³⁵⁶	Hadrian	61	22	1271
Tibur, Tivoli ³⁵⁷	Hadrian	55	16	1087
Trebula Balliensis ³⁵⁸	2 c. AD			
Tusculum ³⁵⁹	1 c. BC	45	18	668
Venafrum ³⁶⁰	End of 1 c. BC	95	25	3299

³³⁷ Sear 2006, 129.

³³⁸ Sear 2006, 129.

³³⁹ Sear 2006, 130.

³⁴⁰ Sear 2006, 130.

³⁴¹ Sear 2006, 132.

³⁴² Sear 2006, 133.

³⁴³ Sear 2006, 133.

³⁴⁴ Sear 2006, 136.

³⁴⁵ Sear 2006, 137.

³⁴⁶ Sear 2006, 135.

³⁴⁷ Sear 2006, 137.

³⁴⁸ Sear 2006, 133.

³⁴⁹ Sear 2006, 138.

³⁵⁰ Sear 2006, 138.

³⁵¹ Sear 2006, 138.

³⁵² Sear 2006, 138.

³⁵³ Sear 2006, 139.

³⁵⁴ Sear 2006, 139.

³⁵⁵ Sear 2006, 140.

³⁵⁶ Sear 2006, 140.

³⁵⁷ Sear 2006, 140.

³⁵⁸ Sear 2006, 141.

³⁵⁹ Sear 2006, 141.

³⁶⁰ Sear 2006, 142.

Regio II

Beneventum ³⁶¹	Late 1 or early 2 c. AD	93	26	3131
Luceria ³⁶²				
Lupiae ³⁶³	Augustan	75	20	2052
Tarentum ³⁶⁴				

Regio III

Castiglione di Paludi ³⁶⁵	4 c. BC	100	20	3770
Caulonia ³⁶⁶	5 c. BC			
Consilinum ³⁶⁷	Late Rep.			
Copia ³⁶⁸	Mid-late 1 c. AD	68	21	1643
Elea ³⁶⁹	2 or 3 c. AD	48	15	816
Gioiosa Ionica ³⁷⁰	2 c. BC	47	14	791
Grumentum ³⁷¹	1 c. BC or 1 c. AD	48	17	791
Locri Epizephyrii ³⁷²	4 c. BC	65	24	1433
Metapontum ³⁷³	2h. 4 c. BC	77	17	2215
Regium ³⁷⁴	3 c. BC at the latest		20	
Scolacium ³⁷⁵	Republican	49	20	786
Tegianum Dianum ³⁷⁶				
Vibo Valentia ³⁷⁷	Republican			

Regio IV

Aequiculi ³⁷⁸				
Alba Fucens ³⁷⁹	Early 1 c. BC	63	20	1402
Allifae ³⁸⁰	Sullan			

³⁶¹ Sear 2006, 143.

³⁶² *CIL IX*, 802.

³⁶³ Sear 2006, 144.

³⁶⁴ Sear 2006, 144.

³⁶⁵ Sear 2006, 145.

³⁶⁶ Sear 2006, 145.

³⁶⁷ Sear 2006, 145.

³⁶⁸ Sear 2006, 145.

³⁶⁹ Sear 2006, 145.

³⁷⁰ Sear 2006, 146.

³⁷¹ Sear 2006, 146.

³⁷² Sear 2006, 147.

³⁷³ Sear 2006, 148.

³⁷⁴ Sear 2006, 148.

³⁷⁵ Sear 2006, 148.

³⁷⁶ Sear 2006 149.

³⁷⁷ Sear 2006 149.

³⁷⁸ Sear 2006 149.

³⁷⁹ Sear 2006, 150.

³⁸⁰ Sear 2006, 150.

Amiternum ³⁸¹	Late Rep. or Augustan	80	21	2340
Anxanum ³⁸²				
Aquae Cutiliae ³⁸³				
Aveia ³⁸⁴	Ca. 100-80 BC	65		
Cluviae ³⁸⁵	End of 1 c. BC	40		
Corfinium ³⁸⁶	Shortly after 89 BC	75		
Iuvanum ³⁸⁷	Before 91 BC	37	17	424
Lavernae ³⁸⁸				
Marruvium ³⁸⁹	Ca. AD 50			
Pelutium ³⁹⁰	Augustan	58		
Pietrabbondante ³⁹¹	Late 2 c. BC	54	21	972
Roccavecchia di Pratella ³⁹²		48	15	816
Saepinum ³⁹³	Late Augustan/beginning of 1 c. AD	62	23	1302
Supinum ³⁹⁴	Mid 1 c. BC at latest			
Teate Marruciorum ³⁹⁵	Neronian	84		
Telesia ³⁹⁶	Pre-Sullan	49		

Regio V

Asculum ³⁹⁷	before 91 BC	100	27	3641
Falerio ³⁹⁸	Augustan	49	19	801
Firmum ³⁹⁹	Augustan	75		
Hatria ⁴⁰⁰	Augustan	70		
Helvia Ricina ⁴⁰¹	Late 1 or Early 2 c. AD	72	17	1922
Interamnia Praetuttiorum ⁴⁰²	Ca. 30-20 BC	78	24	2163
Urbs Salvia ⁴⁰³	Augustan	90	24	2955

³⁸¹ Sear 2006, 150.

³⁸² Sear 2006, 151.

³⁸³ Sear 2006, 151.

³⁸⁴ Sear 2006, 151.

³⁸⁵ Sear 2006, 151.

³⁸⁶ Sear 2006, 152.

³⁸⁷ Sear 2006, 152.

³⁸⁸ Sear 2006, 152.

³⁸⁹ Sear 2006, 152.

³⁹⁰ Sear 2006, 152.

³⁹¹ Sear 2006, 153.

³⁹² Sear 2006, 153.

³⁹³ Sear 2006, 154.

³⁹⁴ Sear 2006, 154.

³⁹⁵ Sear 2006, 154.

³⁹⁶ Sear 2006, 155.

³⁹⁷ Sear 2006, 155.

³⁹⁸ Sear 2006, 156.

³⁹⁹ Sear 2006, 156.

⁴⁰⁰ Sear 2006, 157.

⁴⁰¹ Sear 2006, 157.

⁴⁰² Sear 2006, 158.

⁴⁰³ Sear 2006, 158.

Regio VI

Asisium ⁴⁰⁴	Augustan			
Carsulae ⁴⁰⁵	Augustan or Julio-Claudian	63	21	1385
HisPELLUM ⁴⁰⁶	Augustan or early 1 c. AD	100		
Iguvium ⁴⁰⁷	Late Republican	70	18	1797
Interamna Nahars ⁴⁰⁸	Late Republican or early Augustan			
Mevania ⁴⁰⁹	1 or 2 c. AD	90		
Mons Fereter ⁴¹⁰				
Oriculum ⁴¹¹	Augustan	79		
Ostra ⁴¹²		45		
Pitinum Mergens ⁴¹³		74		
Prolaqueum ⁴¹⁴			20	
Spoletium ⁴¹⁵	50 BC - AD 50	72	22	1846
Tuder ⁴¹⁶	3q. 1 c. BC	62		
Urvinum Mataurense ⁴¹⁷	1h. 1 c. AD	65		

Regio VII

Arretium ⁴¹⁸	Augustan or Julio-Claudian	95		
Caere ⁴¹⁹	Before 25 BC	50		
Castelsecco ⁴²⁰	Mid 2 c. BC	45	13	729
Castrum Novum ⁴²¹				
Faesulae ⁴²²	Augustan	67	22	1573
Falerii Novi ⁴²³	1h. 1c. AD	86		
Ferentium ⁴²⁴	Late Augustan	62	23	1302
Florentina ⁴²⁵	Early 1 c. AD	100	35	3446

⁴⁰⁴ Sear 2006, 159.

⁴⁰⁵ Sear 2006, 159.

⁴⁰⁶ Sear 2006, 160.

⁴⁰⁷ Sear 2006, 160.

⁴⁰⁸ Sear 2006, 161.

⁴⁰⁹ Sear 2006, 161.

⁴¹⁰ Sear 2006, 161.

⁴¹¹ Sear 2006, 161.

⁴¹² Sear 2006, 162.

⁴¹³ Sear 2006, 162.

⁴¹⁴ Sear 2006, 162.

⁴¹⁵ Sear 2006, 163.

⁴¹⁶ Sear 2006, 163.

⁴¹⁷ Sear 2006, 164.

⁴¹⁸ Sear 2006, 164.

⁴¹⁹ Sear 2006, 164.

⁴²⁰ Sear 2006, 165.

⁴²¹ Sear 2006, 165.

⁴²² Sear 2006, 165.

⁴²³ Sear 2006, 166.

⁴²⁴ Sear 2006, 166.

⁴²⁵ Sear 2006, 167.

Luca ⁴²⁶	Flavian or later	89		
Luna ⁴²⁷	Claudian or Neronian	45	20	638
Veii ⁴²⁸	Augustan or Tiberian			
Volaterrae ⁴²⁹	2-1 BC	63	20	1402
Volsinii ⁴³⁰	1 c. BC			

Regio VIII

Ariminum ⁴³¹	1 c. AD	70	24	1698
Bononia ⁴³²	End of 2 c. BC or early 1 c. BC	75	19	2067
Parma ⁴³³	Late Augustan or Julio-Claudian	90		

Regio IX

Albintimilium ⁴³⁴	2 or 3 c. AD	52	21	889
Augusta Bagiennorum ⁴³⁵	2h. 1 c. AD	58	22	1131
Genua ⁴³⁶				
Libarna ⁴³⁷	End of 1 c. AD or early 2 c. AD	58		
Pollentia ⁴³⁸	Julio-Claudian	74	37	1613

Regio X

Acelum ⁴³⁹	Augustan		16	
Atria ⁴⁴⁰	2 c. AD	42		
Brixia ⁴⁴¹	Severan	90		
Civitas Camunorum ⁴⁴²		56		
Julia Concordia Sagittaria ⁴⁴³	1 c. AD, maybe Julio-Claudian	90		
Patavium ⁴⁴⁴	Late 1 c. BC or early 1 c. AD	94	33	3042
Pola ⁴⁴⁵	Mid 1 .c AD	100	26	3662

⁴²⁶ Sear 2006, 168.

⁴²⁷ Sear 2006, 169.

⁴²⁸ Sear 2006, 169.

⁴²⁹ Sear 2006, 170.

⁴³⁰ Sear 2006, 171.

⁴³¹ Sear 2006, 172.

⁴³² Sear 2006, 172.

⁴³³ Sear 2006, 173.

⁴³⁴ Sear 2006, 173.

⁴³⁵ Sear 2006, 173.

⁴³⁶ Sear 2006, 174.

⁴³⁷ Sear 2006, 174.

⁴³⁸ Sear 2006, 174.

⁴³⁹ Sear 2006, 175.

⁴⁴⁰ Sear 2006, 175.

⁴⁴¹ Sear 2006, 176.

⁴⁴² Sear 2006, 177.

⁴⁴³ Sear 2006, 177.

⁴⁴⁴ Sear 2006, 178.

⁴⁴⁵ Sear 2006, 178.

Pola ⁴⁴⁶	End of 1 c. AD	88	28	2733
Tergeste ⁴⁴⁷	Augustan or AD 97-102	64	20	1451
Verona ⁴⁴⁸	4q. 1 c. BC	105	31	3952
Vicetia ⁴⁴⁹	1h. 1 c. AD	82	25	2395

Regio XI

Augusta Praetoria ⁴⁵⁰	Augustan	63	19	1417
Augusta Taurinorum ⁴⁵¹	Early 1 c. AD	61	30	1108
Eporedia ⁴⁵²	1 c. AD	76	32	1866
Mediolanum ⁴⁵³	Mid 1 c. BC or Augustan	95		

Sardinia

Carales ⁴⁵⁴	300-50 BC	41		
Nora ⁴⁵⁵	Trajanic/Hadrianic	39	14	520

Sicilia

Acrae ⁴⁵⁶	Maybe late 3 c. BC	38	19	425
Agyrium ⁴⁵⁷	2h. 4 c. BC			
Catina ⁴⁵⁸	5 c. BC	102	29	3755
Catina ⁴⁵⁹	2h. 2 c. AD or 1h. 3 c. AD	42	10	653
Helorus ⁴⁶⁰	4 c. BC			
Henna ⁴⁶¹	Before 214 BC			
Heraclea Minoa ⁴⁶²	Ca. 320 BC	51	17	908
Hippana ⁴⁶³				
Iaitas ⁴⁶⁴	End of 4 c. BC	68	22	1626
Morgantina ⁴⁶⁵	4q. 4 c. BC or 1q. 3 c. BC	58	14	1244

⁴⁴⁶ Sear 2006, 179.

⁴⁴⁷ Sear 2006, 180.

⁴⁴⁸ Sear 2006, 180.

⁴⁴⁹ Sear 2006, 181.

⁴⁵⁰ Sear 2006, 182.

⁴⁵¹ Sear 2006, 183.

⁴⁵² Sear 2006, 183.

⁴⁵³ Sear 2006, 184.

⁴⁵⁴ Sear 2006, 195.

⁴⁵⁵ Sear 2006, 195.

⁴⁵⁶ Sear 2006, 185.

⁴⁵⁷ Sear 2006, 186.

⁴⁵⁸ Sear 2006, 187.

⁴⁵⁹ Sear 2006, 187.

⁴⁶⁰ Sear 2006, 187.

⁴⁶¹ Sear 2006, 187.

⁴⁶² Sear 2006, 188.

⁴⁶³ Sear 2006, 188.

⁴⁶⁴ Sear 2006, 188.

⁴⁶⁵ Sear 2006, 189.

Panormus ⁴⁶⁶				
Segesta ⁴⁶⁷		63	15	1470
Siracusa ⁴⁶⁸	5 c. BC			
Siracusa ⁴⁶⁹	238-215 BC	139	16	7487
Siracusa ⁴⁷⁰	Late 2 c. BC	54	13	1079
Soluntum ⁴⁷¹	Mid 4 c. BC	35	14	404
Tauromenium ⁴⁷²	3 c. BC	109	28	4358
Tauromenium ⁴⁷³	Hadrianic	26	13	199
Tyndaris ⁴⁷⁴	Before 100 BC	76	25	2023

Amphitheatres

Africa Proconsularis

Town	Date	Building max Ø (m)	Building min Ø (m)	Arena max Ø (m)	Arena min Ø (m)	Cavea area (m ²)
Acholla ⁴⁷⁵	2 c. AD	90	86	58	54	3619
Agbia ⁴⁷⁶	2 c. AD	57	42	43	28	935
Bararus ⁴⁷⁷	2h. 3 c. AD	98	74	64	38	3786
Carpis ⁴⁷⁸	2 c. AD					
Carthago ⁴⁷⁹	Augustan	120	93	65	37	6876
Djebel Moraba ⁴⁸⁰	2 c. AD	55				
Leptis Magna ⁴⁸¹	AD 56	109	99	57	47	6371
Leptis Minor ⁴⁸²	2 c. AD	85	63	57	35	2639
Mactaris ⁴⁸³	2 c. AD	63	50	38	25	1728
Pupput ⁴⁸⁴				45	36	

⁴⁶⁶ Sear 2006, 189.

⁴⁶⁷ Sear 2006, 189.

⁴⁶⁸ Sear 2006, 191.

⁴⁶⁹ Sear 2006, 191.

⁴⁷⁰ Sear 2006, 192.

⁴⁷¹ Sear 2006, 190.

⁴⁷² Sear 2006, 192.

⁴⁷³ Sear 2006, 194.

⁴⁷⁴ Sear 2006, 194.

⁴⁷⁵ Golvin 1988, 133.

⁴⁷⁶ Golvin 1988, 94; Bomgardner 1993.

⁴⁷⁷ Golvin 1988, 212.

⁴⁷⁸ Golvin 1988, 95.

⁴⁷⁹ Golvin 1988, 122.

⁴⁸⁰ Golvin 1988, 94.

⁴⁸¹ Golvin 1988, 83.

⁴⁸² Golvin 1988, 132; Bomgardner 1993.

⁴⁸³ Golvin 1988, 134; Bomgardner 1993.

⁴⁸⁴ Golvin 1988, 254.

Sabratha ⁴⁸⁵	2 c. AD	115	99	64	49	6479
Seressi ⁴⁸⁶		76	65	52	41	2205
Sufetula ⁴⁸⁷	2 c. AD	71	59	41	29	2356
Thapsus ⁴⁸⁸	2 c. AD	80		67	43	
Thena ⁴⁸⁹	2 c. AD	66	54	42	30	1810
Thibaris ⁴⁹⁰	2 c. AD	61	52	31	21	1980
Thignica ⁴⁹¹	2 c. AD	65	52	40	27	1806
Thimisua ⁴⁹²		55	40	38	23	1041
Thisdra ⁴⁹³	2q. 3 c. AD	148	122	65	39	12190
Thisdra ⁴⁹⁴	1 c. AD	64	55	49	40	1225
Thurburbo Maius ⁴⁹⁵	2 c. AD	74	61	46	33	2353
Thurburbo Minus ⁴⁹⁶	2 c. AD			48	36	
Ulissipira ⁴⁹⁷	2 c. AD	60	50	45	35	1119
Upenna ⁴⁹⁸	2 c. AD					
Uthina ⁴⁹⁹	2 c. AD	96	81	53	38	4525

Alpes Cottiennes

Segusium ⁵⁰⁰	Augustan	60	52	44	36	1206
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Alpes Maritimes

Cemenelum ⁵⁰¹	Ca. AD 14	55	44	46	35	636
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Britannia

Calleva Atrebatum ⁵⁰²	55-75	55	54	43	42	914
Charterhouse-upon-Mendip ⁵⁰³	1 or 2 c. AD	70	61	32	24	2750
Corinium Dobunorum ⁵⁰⁴	Trajanic	89	81	49	41	4084

⁴⁸⁵ Golvin 1988, 134.

⁴⁸⁶ Golvin 1988, 95; Bomgardner 1993.

⁴⁸⁷ Golvin 1988, 132.

⁴⁸⁸ Golvin 1988, 209.

⁴⁸⁹ Golvin 1988, 95.

⁴⁹⁰ Golvin 1988, 94.

⁴⁹¹ Golvin 1988, 133; Bomgardner 1993.

⁴⁹² Bomgardner 1993.

⁴⁹³ Golvin 1988, 209.

⁴⁹⁴ Golvin 1988, 84.

⁴⁹⁵ Golvin 1988, 135; Bomgardner 1993.

⁴⁹⁶ Golvin 1988, 95.

⁴⁹⁷ Golvin 1988, 95.

⁴⁹⁸ Golvin 1988, 95.

⁴⁹⁹ Golvin 1988, 132; Bomgardner 1993.

⁵⁰⁰ Golvin 1988, 78.

⁵⁰¹ Golvin 1988, 78.

⁵⁰² Golvin 1988, 88; Bomgardner 1993.

⁵⁰³ Golvin 1988, 86; Bomgardner 1993.

⁵⁰⁴ Golvin 1988, 86.

Deva ⁵⁰⁵	4q. 1 c. AD					
Deva ⁵⁰⁶	Beginning of the 2 c. AD	98	87	57	48	4547
Durnovaria ⁵⁰⁷	Not before AD 70	80	77	58	47	2697
Isca Silurum ⁵⁰⁸	4q. 1 c. AD	80	67	55	41	2439
Isorbrigantium ⁵⁰⁹						
Londinium ⁵¹⁰	AD 70					
Moridunum Demetarum ⁵¹¹	Beginning of the 2 c. AD					
Noviomagus Regensium ⁵¹²	AD 70-90	80	77	58	47	2697
Tomen-y-Mur ⁵¹³	AD 75-85 or AD 120-140	52	46	35	28	1109
Trimontium ⁵¹⁴		70	60	37	23	2630
Venta Silurum ⁵¹⁵	3 c. AD	63	53	44	35	1413

Corsica

Aleria ⁵¹⁶	3 c. AD	40	34	30	24	503
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Dalmatia

Burnum ⁵¹⁷	Flavian					
Salona ⁵¹⁸	ca. AD 170	125	101	64	40	7905

Gallia Aquitania

Aginum ⁵¹⁹		120	95			
Aquae Neri ⁵²⁰	1h. 1 c. AD	71	50	50	30	1610
Argentomagus ⁵²¹	End of 1 c. or early 2 c. AD					
Augustoritum Lemovicum ⁵²²	Late 1 c. AD or early 2 c. AD	137	116	68	48	9918
Avaricum ⁵²³	2h. 1 c. or 2 c. AD					

⁵⁰⁵ Golvin 1988, 88.

⁵⁰⁶ Golvin 1988, 128.

⁵⁰⁷ Golvin 1988, 87.

⁵⁰⁸ Golvin 1988, 128.

⁵⁰⁹ Golvin 1988, 91.

⁵¹⁰ Bateman 1997.

⁵¹¹ Golvin 1988, 87.

⁵¹² Golvin 1988, 87.

⁵¹³ Golvin 1988, 86.

⁵¹⁴ Sommer 2009, 53; Clarke & Wise 1999.

⁵¹⁵ Golvin 1988, 139.

⁵¹⁶ Golvin 1988, 140.

⁵¹⁷ Glavičić & Miletić 2007.

⁵¹⁸ Golvin 1988, 206.

⁵¹⁹ Golvin 1988, 192.

⁵²⁰ Golvin 1988, 80.

⁵²¹ Golvin 1988, 255.

⁵²² Golvin 1988, 190.

⁵²³ Golvin 1988, 192.

Burdigala ⁵²⁴	Beginning of 3 c. AD	132	111	70	47	8924
Divona Cadurcorum ⁵²⁵		120	90			
Limonum Pictonum ⁵²⁶	Julio-Claudian	138	115			
Lugdunum Convenarum ⁵²⁷	End of 1 or early 2 c. AD	83	55	54	26	2483
Mediolanum Santonum ⁵²⁸	Claudian	126	102	65	39	8103
Segodunum ⁵²⁹	Julio-Claudian	110	97	42	30	7391
Surgères ⁵³⁰	1 c. AD	75	55			
Vesunna Petrucoriorum ⁵³¹	Finished 2h. 1 c. AD	129	105	65	41	8545

Gallia Belgica

Augusta Treverorum ⁵³²	Trajan	143	122	71	49	10970
Augustomagus Sylvanectum ⁵³³	Augustan	90	83	42	34	4745
Divodurum ⁵³⁴	Late 1 or early 2 c. AD	148	124	65	41	12321
Samarobriva Ambianorum ⁵³⁵	Julio-Claudian	113	99	57	44	6816

Gallia Lugdunensis

Augustodunum ⁵³⁶	Flavian	154	130	74	49	12876
Autricum ⁵³⁷	2 c. AD	100				
Caesarodunum Turonum ⁵³⁸	1h. 2 c. AD	145	127	68	50	11793
Iuliobona ⁵³⁹	1 c. AD	78	75	48	45	2898
Lugdunum ⁵⁴⁰	AD 19	93	67	68	42	2651

Gallia Narbonensis

Antipolis ⁵⁴¹		70	50			
Arelate ⁵⁴²	Flavian	136	108	69	40	9368

⁵²⁴ Golvin 1988, 213.

⁵²⁵ Rigal 2009, 383.

⁵²⁶ Golvin 1988, 162.

⁵²⁷ Golvin 1988, 90.

⁵²⁸ Golvin 1988, 124.

⁵²⁹ Golvin 1988, 124.

⁵³⁰ Golvin 1988, 126.

⁵³¹ Golvin 1988, 161.

⁵³² Golvin 1988, 89; Bomgardner 1993.

⁵³³ Golvin 1988, 81.

⁵³⁴ Golvin 1988, 196.

⁵³⁵ Golvin 1988, 126.

⁵³⁶ Golvin 1988, 190.

⁵³⁷ Golvin 1988, 129.

⁵³⁸ Golvin 1988, 92.

⁵³⁹ Golvin 1988, 80.

⁵⁴⁰ Golvin 1988, 117.

⁵⁴¹ Golvin 1988, 254.

⁵⁴² Golvin 1988, 184.

Baeterrae ⁵⁴³	2h. 1 c. or 2 c. AD	104	74	74	44	3487
Forum Iulii ⁵⁴⁴	Julio-Claudian	114	86			
Narbo ⁵⁴⁵	Flavian	122	93	75	47	6143
Nemausus ⁵⁴⁶	Flavian	133	101	69	38	8491
Tolosa ⁵⁴⁷	Julio-Claudian	84	74	59	49	2611

Germania Inferior

Colonia Ulpia Traiana ⁵⁴⁸	Trajanic	91	82	59	49	3590
Noviomagus Batavorum ⁵⁴⁹	AD 71-104					
Vetera ⁵⁵⁰	Claudian or Neronian	66	53	48	35	1428

Germania Superior

Arnsburg ⁵⁵¹		32	31			
Augusta Raurica ⁵⁵²	ca. AD 150	102	87	48	33	5726
Augusta Raurica ⁵⁵³	AD 73-74	81	68			
Aventicum ⁵⁵⁴	End of 1 or beginning of 2 c. AD	99	87	51	39	5202
Bremodorum ⁵⁵⁵	2h. 1 c. or early 2 c. AD	43	39	28	24	789
Octodurus ⁵⁵⁶	From Claudius to the end of 2 c. AD	118	106	74	62	6220
Vesontio ⁵⁵⁷	Late 1 or early 2 c. AD	100	85	62	37	4874
Vindonissa ⁵⁵⁸	AD 14-30	112	98	64	51	6057
Zugmantel ⁵⁵⁹				26	26	
Zugmantel ⁵⁶⁰				22	22	

⁵⁴³ Golvin 1988, 191.

⁵⁴⁴ Golvin 1988, 162.

⁵⁴⁵ Golvin 1988, 192.

⁵⁴⁶ Golvin 1988, 184.

⁵⁴⁷ Golvin 1988, 123.

⁵⁴⁸ Golvin 1988, 195.

⁵⁴⁹ Golvin 1988, 88.

⁵⁵⁰ Golvin 1988, 80; Bomgardner 1993.

⁵⁵¹ Sommer 2009, 47.

⁵⁵² Golvin 1988, 96.

⁵⁵³ Golvin 1988, 85; Bomgardner 1993.

⁵⁵⁴ Golvin 1988, 127.

⁵⁵⁵ Golvin 1988, 90.

⁵⁵⁶ Golvin 1988, 85.

⁵⁵⁷ Golvin 1988, 191.

⁵⁵⁸ Golvin 1988, 79.

⁵⁵⁹ Sommer 2009, 53.

⁵⁶⁰ Sommer 2009, 53.

Hispania Baetica

Astigi ⁵⁶¹						
Carmo ⁵⁶²	Late republican	131	111	58	39	9644
Corduba ⁵⁶³	Late 1 c. BC	178	147			
Italica ⁵⁶⁴	Trajanic or Hadrianic	157	134	72	49	13752
Ucubi ⁵⁶⁵	Republican		35			

Hispania Lusitania

Augusta Emerita ⁵⁶⁶	8 BC	126	103	65	41	8100
Bobadela ⁵⁶⁷						
Capera ⁵⁶⁸						
Conimbriga ⁵⁶⁹	1h. 1 c. AD	94	80	54	40	4210
Ebora ⁵⁷⁰						

Hispania Tarraconensis

Barcino ⁵⁷¹		117	93	65	35	6759
Berja ⁵⁷²						
Bracara Augusta ⁵⁷³		132	83			
Carthago Nova ⁵⁷⁴	Augustan					
Emporiae ⁵⁷⁵	1h. 1 c. AD	88	56	75	43	1338
Legio ⁵⁷⁶		90	70	60	40	3063
Segobriga ⁵⁷⁷	AD 30-60	75	69	41	34	2970
Tarraco ⁵⁷⁸	1h. 2 c. AD	148	119	84	55	10204

⁵⁶¹ Durán Cabello *et al.* 2009, 15.

⁵⁶² Welch 2007, 252; Golvin 1988, 41.

⁵⁶³ Durán Cabello *et al.* 2009, 22.

⁵⁶⁴ Golvin 1988, 200.

⁵⁶⁵ Golvin 1988, 42.

⁵⁶⁶ Neppi Modena 1961, 296; Golvin 1988, 109.

⁵⁶⁷ Durán Cabello *et al.* 2009, 16.

⁵⁶⁸ Durán Cabello *et al.* 2009, 16.

⁵⁶⁹ Golvin 1988, 126.

⁵⁷⁰ Durán Cabello *et al.* 2009, 16.

⁵⁷¹ Sales Carbonell 2011.

⁵⁷² Durán Cabello *et al.* 2009, 16.

⁵⁷³ Martins 2004, 162; Durán Cabello *et al.* 2009, 20.

⁵⁷⁴ Ceballos Hornero, A. & Ceballos Hornero, D. 2003, 59.

⁵⁷⁵ Golvin 1988, 121.

⁵⁷⁶ Durán Cabello *et al.* 2009, 22.

⁵⁷⁷ Golvin 1988, 119.

⁵⁷⁸ Buill *et al.* 2015; Golvin 1988, 164.

Mauretania Caesariensis

Caesarea ⁵⁷⁹	1 h. 1 c. AD	124	67	101	44	3035
Tigava Castra ⁵⁸⁰		56	37	44	26	729
Tipasa ⁵⁸¹	3 c. AD	77	55	57	35	1759

Noricum

Flavia Solva ⁵⁸²	Hadrianic	97	45	85	35	1092
Gleisdorf ⁵⁸³				65	45	
Virunum ⁵⁸⁴	2 c. AD	96	42			

Numidia

Bulla Regia ⁵⁸⁵	2 c. AD	74	66	37	30	2964
Gemellae ⁵⁸⁶	2q. 2 c. AD	72	52	52	32	1634
Lambaesis ⁵⁸⁷	2q. 2 c. AD	88	75	68	55	2246
Mesarfelta ⁵⁸⁸	2 c. AD					
Rusicada ⁵⁸⁹		78	59	55	36	2059
Sicca Veneria ⁵⁹⁰		100	80	70	50	3534
Simitthus ⁵⁹¹	2 c. AD					
Thevestis ⁵⁹²	4q. 1 c. AD	95	82	53	40	4453

Pannonia Inferior

Aquincum ⁵⁹³	AD 145-161	131	107	88	66	6447
Aquincum ⁵⁹⁴	Mid 2 c. AD	87	76	51	42	3511

Pannonia Superior

Carnuntum ⁵⁹⁵	2h. 1 c. AD					
Carnuntum ⁵⁹⁶	124-161 AD	122	106	68	52	7380
Scarbantia ⁵⁹⁷	1h. 2 c. AD					

⁵⁷⁹ Golvin 1988, 112.

⁵⁸⁰ Golvin 1988, 90.

⁵⁸¹ Golvin 1988, 139.

⁵⁸² Golvin 1988, 91.

⁵⁸³ Groh 2005.

⁵⁸⁴ Golvin 1988, 91.

⁵⁸⁵ Golvin 1988, 133; Bomgardner 1993.

⁵⁸⁶ Bomgardner 2000, 179.

⁵⁸⁷ Golvin 1988, 93.

⁵⁸⁸ Golvin 1988, 90.

⁵⁸⁹ Golvin 1988, 96.

⁵⁹⁰ Golvin 1988, 208.

⁵⁹¹ Golvin 1988, 95.

⁵⁹² Golvin 1988, 85; Bomgardner 1993.

⁵⁹³ Golvin 1988, 137.

⁵⁹⁴ Golvin 1988, 137.

⁵⁹⁵ Golvin 1988, 85.

⁵⁹⁶ Golvin 1988, 136.

⁵⁹⁷ Golvin 1988, 91.

Raetia

Dambach ⁵⁹⁸				35	28	
Künzing ⁵⁹⁹		46	40	35	30	

Regio I

Abella ⁶⁰⁰	Late republican	79	53			
Abellinum ⁶⁰¹	Late republican					
Aquinum ⁶⁰²	Beginning of 1 c. AD	115	96	60	33	7116
Atella ⁶⁰³						
Cales ⁶⁰⁴	Republican			70		
Capua ⁶⁰⁵	Republican					
Capua ⁶⁰⁶	Augustan					
Casinum ⁶⁰⁷	2h. 1 c. AD	85	69	52	36	3136
Castra Albana ⁶⁰⁸	Flavian	117	94	68	45	6234
Circei ⁶⁰⁹	1 c. AD	90	68			
Cumae ⁶¹⁰	Early 1c. BC	90				
Formiae ⁶¹¹						
Frusino ⁶¹²	End of 1 or beginning of 2 c. AD	78	57			
Genzano ⁶¹³						
Liternum ⁶¹⁴	Republican					
Minturnae ⁶¹⁵						
Nola ⁶¹⁶	Mid 1 c. BC	138	108	68	55	8768
Nuceria ⁶¹⁷	AD 60-65	88	64	58	34	2875
Pompeii ⁶¹⁸	75-70 BC	135	103	67	35	9079
Praeneste ⁶¹⁹	2q. 1 c. AD					

⁵⁹⁸ Sommer 2009, 48.

⁵⁹⁹ Sommer 2009, 50.

⁶⁰⁰ Welch 2007, 208.

⁶⁰¹ Welch 2007, 236.

⁶⁰² Golvin 1988, 168.

⁶⁰³ Suet. *Tib.* 75.3.

⁶⁰⁴ Welch 2007, 213.

⁶⁰⁵ Welch 2007, 198.

⁶⁰⁶ Welch 2007, 202.

⁶⁰⁷ Golvin 1988, 114.

⁶⁰⁸ Golvin 1988, 215.

⁶⁰⁹ Golvin 1988, 252.

⁶¹⁰ Welch 2007, 204.

⁶¹¹ Golvin 1988, 252.

⁶¹² Golvin 1988, 128.

⁶¹³ Deborah & Renner 2015.

⁶¹⁴ Welch 2007, 202.

⁶¹⁵ Golvin 1988, 251.

⁶¹⁶ Welch 2007, 240.

⁶¹⁷ Golvin 1988, 116.

⁶¹⁸ Welch 2007, 192.

⁶¹⁹ *CIL* XIV, 3010.

Puteoli ⁶²⁰	Flavian	149	116	75	42	11101
Puteoli ⁶²¹	Republican	130	95	69	35	7803
Roma ⁶²²	AD 80	188	156	79	47	20118
Roma ⁶²³	Beginning of 3 c. AD	88	76			
Roma ⁶²⁴	30 BC					
Sinuessa ⁶²⁵	Augustan	80	45			
Suessa ⁶²⁶	Late republican					
Tarracina ⁶²⁷	Early imperial	90	68			
Teanum ⁶²⁸	Republican	79	53			
Tibur ⁶²⁹	1h. 2 c. AD	85	65	61	41	2375
Tusculum ⁶³⁰	Mid 2 c. AD	73	54	49	30	1942
Velitrae ⁶³¹						
Venafrum ⁶³²	Augustan					

Regio II

Canusium ⁶³³		138	108			
Herdoniae ⁶³⁴	Mid 1 c. AD	75	59	45	28	2486
Larinum ⁶³⁵	1 or 2 c. AD					
Luceria ⁶³⁶	Shortly before 2 BC	127	95	75	43	6943
Lupiae ⁶³⁷	Augustan or Julio-Claudian	102	83	53	34	5234
Tarentum ⁶³⁸						
Venusia ⁶³⁹	Julio-Claudian	98	77	58	37	4241

Regio III

Atina ⁶⁴⁰						
Grumentum ⁶⁴¹	Augustan	90	70	60	40	3063

⁶²⁰ Golvin 1988, 180.

⁶²¹ Welch 2007, 221.

⁶²² Welch 2007, 128; Golvin 1988, 176.

⁶²³ Golvin 1988, 214.

⁶²⁴ Welch 2007, 108.

⁶²⁵ Golvin 1988, 251.

⁶²⁶ Welch 2007, 236.

⁶²⁷ Golvin 1988, 169.

⁶²⁸ Welch 2007, 216.

⁶²⁹ Golvin 1988, 198.

⁶³⁰ Golvin 1988, 209.

⁶³¹ Golvin 1988, 251.

⁶³² Golvin 1988, 119.

⁶³³ Golvin 1988, 254.

⁶³⁴ Golvin 1988, 84.

⁶³⁵ Golvin 1988, 254.

⁶³⁶ Golvin 1988, 76.

⁶³⁷ Golvin 1988, 158.

⁶³⁸ Golvin 1988, 254.

⁶³⁹ Golvin 1988, 120.

⁶⁴⁰ Golvin 1988, 253.

⁶⁴¹ Golvin 1988, 121.

Paestum ⁶⁴²	Republican	77	55	57	34	1804
Scolacium ⁶⁴³						

Regio IV

Alba Fucens ⁶⁴⁴	Finished under Claudius	103	76	64	37	4288
Amiternum ⁶⁴⁵	End of 1 c. AD	90	68	64	42	2695
Corfinium ⁶⁴⁶		85	60			
Marruvium ⁶⁴⁷		95	75			
Peltuinum ⁶⁴⁸		78	60			
Teate Marrucinatorum ⁶⁴⁹						
Telesia ⁶⁵⁰	2q. 1 c. BC	99	77	68	46	3530
Trebula Mutuesca ⁶⁵¹	2 c. AD					

Regio V

Ancona ⁶⁵²	1h. 1 c. AD	111	97	67	53	5667
Asculum ⁶⁵³	Augustan	148	125			
Falerio ⁶⁵⁴	Julio-Claudian	89	80			
Firmum ⁶⁵⁵						
Helvia Ricina ⁶⁵⁶						
Interamnia Praetuttiorum ⁶⁵⁷	1h. 2 c. AD	74	56			
Urbs Salvia ⁶⁵⁸	AD 75-76	97	75	61	39	3845

Regio VI

Asisium ⁶⁵⁹		69	35			
Carsulae ⁶⁶⁰	1 c. AD	87	62	62	38	2386
Forum Novum ⁶⁶¹	Early 1 c. AD			45	25	

⁶⁴² Welch 2007, 230.

⁶⁴³ Golvin 1988, 253.

⁶⁴⁴ Golvin 1988, 82.

⁶⁴⁵ Golvin 1988, 194.

⁶⁴⁶ Golvin 1988, 253.

⁶⁴⁷ Golvin 1988, 253.

⁶⁴⁸ Golvin 1988, 253.

⁶⁴⁹ Golvin 1988, 261.

⁶⁵⁰ Welch 2007, 226.

⁶⁵¹ Golvin 1988, 93.

⁶⁵² Golvin 1988, 110.

⁶⁵³ Golvin 1988, 121.

⁶⁵⁴ Golvin 1988, 124.

⁶⁵⁵ Golvin 1988, 253.

⁶⁵⁶ Golvin 1988, 254.

⁶⁵⁷ Golvin 1988, 93.

⁶⁵⁸ Golvin 1988, 194.

⁶⁵⁹ Golvin 1988, 252.

⁶⁶⁰ Golvin 1988, 112.

⁶⁶¹ The British School at Rome 2006.

Fulginium ⁶⁶²						
Hispellum ⁶⁶³	1 c. BC, not included in Welch	59	35			
Interamna Nahars ⁶⁶⁴	AD 32	97	73	52	29	4377
Mevania ⁶⁶⁵	1 c. BC, not included in Welch	80	53			
Ocriculum ⁶⁶⁶	Julio-Claudian	120	98	64	42	7125
Perusia ⁶⁶⁷						
Spoletium ⁶⁶⁸	Julio-Claudian					
Tuder ⁶⁶⁹		90	60			

Regio VII

Arretium ⁶⁷⁰	Late Julio-Claudian or early Flavian	109	80			
Falerii Novi ⁶⁷¹	Augustan	88	66	54	33	3162
Ferentium ⁶⁷²	Republican	68	40			
Florentina ⁶⁷³	Julio-Claudian	113	89	64	40	5888
Luca ⁶⁷⁴	Augustan or Julio-Claudian	124	96	80	53	6019
Lucus Feroniae ⁶⁷⁵	Julio-Claudian	46	44	34	32	735
Luna ⁶⁷⁶	Julio-Claudian	73	55	58	50	876
Placentia ⁶⁷⁷						
Rusellae ⁶⁷⁸	Beginning of 1 c. AD	38	27	30	20	335
Sutrium ⁶⁷⁹	Republican	85	75	50	40	3436
Volaterrae ⁶⁸⁰		80	58			
Volsinii ⁶⁸¹	Flavian	101	84	59	42	4717

⁶⁶² Golvin 1988, 121.

⁶⁶³ Golvin 1988, 252.

⁶⁶⁴ Golvin 1988, 167.

⁶⁶⁵ Golvin 1988, 252.

⁶⁶⁶ Golvin 1988, 166.

⁶⁶⁷ Golvin 1988, 253.

⁶⁶⁸ Golvin 1988, 119.

⁶⁶⁹ Golvin 1988, 253.

⁶⁷⁰ Golvin 1988, 169.

⁶⁷¹ Golvin 1988, 168.

⁶⁷² Welch 2007, 249.

⁶⁷³ Golvin 1988, 165.

⁶⁷⁴ Golvin 1988, 160.

⁶⁷⁵ Golvin 1988, 168.

⁶⁷⁶ Golvin 1988, 166.

⁶⁷⁷ Tac. *Hist.* 2.21.

⁶⁷⁸ Golvin 1988, 77.

⁶⁷⁹ Welch 2007, 246.

⁶⁸⁰ Lorenzi 2015.

⁶⁸¹ Golvin 1988, 193.

Regio VIII

Ariminum ⁶⁸²	Hadrianic	117	88	74	44	5529
Forum Cornelii ⁶⁸³	Beginning of 2 c. AD	108	81	67	40	4766
Parma ⁶⁸⁴	Augustan or Julio-Claudian	135	108	72	43	9020
Veleia ⁶⁸⁵	Julio-Claudian	55	44	37	26	1145

Regio IX

Albingaunum ⁶⁸⁶	2 c. AD	70	50	50	30	1571
Augusta Bagiennorum ⁶⁸⁷	Augustan	104	78			
Libarna ⁶⁸⁸	End of 1 or beginning of 2 c. AD	88	59	66	37	2160
Pollentia ⁶⁸⁹	1h. 2 c. AD	123				

Regio X

Aquileia ⁶⁹⁰	Julio-Claudian	142	118	72	48	10446
Patavium ⁶⁹¹	Augustan	103	65	76	39	2930
Pola ⁶⁹²	Augustan	123	97	68	42	7127
Verona ⁶⁹³	Julio-Claudian	152	123	76	44	12057

Regio XI

Augusta Praetoria ⁶⁹⁴	Augustan	86	73	42	31	3908
Eporedia ⁶⁹⁵	2 c. AD	96	72	67	42	3219
Mediolanum ⁶⁹⁶	Augustan or Julio-Claudian	155	125	74	44	12660

Sardinia

Carales ⁶⁹⁷	Republican	93	79	47	33	4552
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⁶⁸² Golvin 1988, 197.

⁶⁸³ Golvin 1988, 92.

⁶⁸⁴ Golvin 1988, 123.

⁶⁸⁵ Golvin 1988, 77.

⁶⁸⁶ Golvin 1988, 96.

⁶⁸⁷ Golvin 1988, 111.

⁶⁸⁸ Golvin 1988, 128.

⁶⁸⁹ Golvin 1988, 93.

⁶⁹⁰ Golvin 1988, 166.

⁶⁹¹ Golvin 1988, 120.

⁶⁹² Golvin 1988, 159.

⁶⁹³ Golvin 1988, 169.

⁶⁹⁴ Golvin 1988, 157.

⁶⁹⁵ Golvin 1988, 92.

⁶⁹⁶ Golvin 1988, 123.

⁶⁹⁷ Golvin 1988, 208.

Sicilia

Catina ⁶⁹⁸	2h. 2 c. AD	144	121	81	58	9995
Siracusa ⁶⁹⁹	Augustan	147	119	70	39	11595
Thermae Himerae ⁷⁰⁰	2h. 1 c. or 2 c. AD	87	66	51	30	3308

Circuses

Africa Proconsularis

Town	Date	Building max (m)	Building min (m)	Arena max (m)	Arena min (m)
Carthago ⁷⁰¹	Early 2 c. AD			>496	
Hadrumetum ⁷⁰²	2 c. AD	>400	120		
Leptis Magna ⁷⁰³	2q. or 3q. 2 c. AD		95	450	70
Thisdra ⁷⁰⁴	2q. 3 c. AD	516		470	
Thugga ⁷⁰⁵	223-224	300			
Utica ⁷⁰⁶					

Britannia

Camulodunum ⁷⁰⁷	2 c. AD	448	74		
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Gallia Aquitania

Mediolanum Santonum ⁷⁰⁸					
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Gallia Belgica

Augusta Treverorum ⁷⁰⁹	1h. 4 c. AD				
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Gallia Lugdunensis

Lugdunum ⁷¹⁰					
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⁶⁹⁸ Golvin 1988, 206.

⁶⁹⁹ Golvin 1988, 115.

⁷⁰⁰ Golvin 1988, 194.

⁷⁰¹ Humphrey 1986, 296.

⁷⁰² Humphrey 1986, 317.

⁷⁰³ Humphrey 1986, 296.

⁷⁰⁴ Humphrey 1986, 315.

⁷⁰⁵ Humphrey 1986, 321.

⁷⁰⁶ Humphrey 1986, 306.

⁷⁰⁷ Essex County Council, SMR 46327.

⁷⁰⁸ Humphrey 1986, 407.

⁷⁰⁹ Humphrey 1986, 408.

⁷¹⁰ Humphrey 1986, 398.

Gallia Narbonensis

Arelate ⁷¹¹	2 c. AD	450	101		84
Vienna ⁷¹²		455	118	441	101

Hispania Baetica

Corduba ⁷¹³	Neronian				
Italica ⁷¹⁴					
Zafra ⁷¹⁵					

Hispania Lusitania

Augusta Emerita ⁷¹⁶	20-60			404	96
Balsa ⁷¹⁷	2 c. AD				
Capera ⁷¹⁸					
Mirobriga ⁷¹⁹	3 c. AD	359	79		
Olisipo ⁷²⁰	Late 3 or early 4 c. AD				

Hispania Tarraconensis

Calagurris ⁷²¹		400	75		
Castulo ⁷²²					
Saguntum ⁷²³	Late 2 or early 3 c. AD	354	73	342	64
Tarraco ⁷²⁴	Late 1 or early 2 c. AD	340	116	300	80
Toletum ⁷²⁵	3q. 1 c. AD	423	100	408	86
Valentia ⁷²⁶		350	70		

Mauretania Caesariensis

Auzia ⁷²⁷	2q. 3 c. AD			300	80
Caesarea ⁷²⁸	Late 2 or early 3 c. AD	480			80
Sitifis ⁷²⁹	1h. 4 c. AD	500	77	>450	67

⁷¹¹ Humphrey 1986, 390.

⁷¹² Humphrey 1986, 401.

⁷¹³ Murillo et al. 2001, 57.

⁷¹⁴ Humphrey 1986, 380.

⁷¹⁵ Humphrey 1986, 381.

⁷¹⁶ Humphrey 1986, 362; Sánchez-Palencia *et al.* 2001.

⁷¹⁷ Humphrey 1986, 380.

⁷¹⁸ Humphrey 1986, 376.

⁷¹⁹ Humphrey 1986, 376.

⁷²⁰ Sepúlveda *et al.* 2002.

⁷²¹ Humphrey 1986, 361.

⁷²² Humphrey 1986, 360.

⁷²³ Humphrey 1986, 344.

⁷²⁴ Humphrey 1986, 339.

⁷²⁵ Humphrey 1986, 350; Sánchez-Palencia & Sáinz Pascual 2001.

⁷²⁶ Lacombe 2001, 175.

⁷²⁷ Humphrey 1986, 329.

⁷²⁸ Humphrey 1986, 308.

⁷²⁹ Humphrey 1986, 310.

Pannonia Inferior

Sirmium ⁷³⁰	1h. 4 c. AD			>430	
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Regio I

Bovillae ⁷³¹	Augustan			329	60
Roma ⁷³²	Augustan				
Roma ⁷³³	Late republican	620	140	580	
Roma ⁷³⁴	306-312	520	92	503	79
Roma ⁷³⁵	1q. 3 c. AD			565	115
Roma ⁷³⁶	Julio-Claudian			560	85

Regio VI

Asisium ⁷³⁷					
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Regio X

Aquileia ⁷³⁸	Late 3 or early 4 c. AD		85	450	
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Regio XI

Mediolanum ⁷³⁹	ca. 300			460	68
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Sicilia

Catina ⁷⁴⁰		524	107		
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Gallo-Roman buildings

Britannia

Town	Date	Cavea Ø (m)	Orchestra Ø (m)
Camulodunum ⁷⁴¹	Hadrianic or Antonine	85	31
Durovernum Cantiacorum ⁷⁴²	AD 80-90	81	36
Verulamium ⁷⁴³	ca. AD 140-150	50	24

⁷³⁰ Humphrey 1986, 606.

⁷³¹ Humphrey 1986, 561.

⁷³² Humphrey 1986, 566.

⁷³³ Humphrey 1986, 56.

⁷³⁴ Humphrey 1986, 582.

⁷³⁵ Humphrey 1986, 552.

⁷³⁶ Humphrey 1986, 545.

⁷³⁷ Humphrey 1986, 574.

⁷³⁸ Humphrey 1986, 621.

⁷³⁹ Humphrey 1986, 613.

⁷⁴⁰ Humphrey 1986, 575.

⁷⁴¹ Sear 2006, 196.

⁷⁴² Sear 2006, 197.

⁷⁴³ Sear 2006, 197.

Gallia Aquitania

Alléans ⁷⁴⁴	early 2 c. AD	68	40
Aquae Neri ⁷⁴⁵	Late 1 c. or early 2 c. AD	96	68
Argentomagus ⁷⁴⁶	2q. 1 c. AD	61	20
Cassinomagus ⁷⁴⁷	2 c. AD	70	60
Catiriacum ⁷⁴⁸	2 c. AD	40	24
Claudiomagus ⁷⁴⁹		85	
Derventum ⁷⁵⁰	End of 1 c. or early 2 c. AD	85	27
Germanicomagus ⁷⁵¹	End of 1 c. or early 2 c. AD	106	48
Luxé ⁷⁵²		67	
Naves ⁷⁵³		85	
Sanxay ⁷⁵⁴	Late 1 c. or early 2 c. AD	90	38
Vendeuvre-du-Poitou ⁷⁵⁵	1h. 1 c. AD	120	48

Gallia Belgica

Augusta Treverorum ⁷⁵⁶	Late 2 c. or early 3 c. AD	110	
Decempagi ⁷⁵⁷		120	
Divodurum ⁷⁵⁸		75	45
Echternach ⁷⁵⁹	late 2 c. or early 3 c. AD		
Fluy ⁷⁶⁰			
Grand ⁷⁶¹	Early 2 c. AD	150	51
Nasium ⁷⁶²			

⁷⁴⁴ Sear 2006, 198.

⁷⁴⁵ Sear 2006, 199.

⁷⁴⁶ Sear 2006, 199.

⁷⁴⁷ Sear 2006, 200.

⁷⁴⁸ Sear 2006, 200.

⁷⁴⁹ Sear 2006, 200.

⁷⁵⁰ Sear 2006, 201.

⁷⁵¹ Sear 2006, 202.

⁷⁵² Sear 2006, 203.

⁷⁵³ Sear 2006, 203.

⁷⁵⁴ Sear 2006, 204.

⁷⁵⁵ Sear 2006, 205.

⁷⁵⁶ Sear 2006, 208.

⁷⁵⁷ Sear 2006, 209; Golvin 1988, 228.

⁷⁵⁸ Sear 2006, 209; Golvin 1988, 228.

⁷⁵⁹ Sear 2006, 210.

⁷⁶⁰ Sear 2006, 210.

⁷⁶¹ Sear 2006, 210; Golvin 1988, 227.

⁷⁶² Sear 2006, 211.

Gallia Lugdunensis

Alauna ⁷⁶³	2 c. AD	68	25
Aquae Segetae Segusiavorum ⁷⁶⁴	2h. 1 c. AD	80	
Aquae Segetae Senonum ⁷⁶⁵	2 c. AD	104	
Arleuf ⁷⁶⁶	maybe end of 2 c. AD	45	20
Arnières ⁷⁶⁷		90	
Augustodunum ⁷⁶⁸		134	30
Bonnée ⁷⁶⁹	2 c. AD	75	
Chennevières ⁷⁷⁰	Late 1 c. or early 2 c. AD	98	48
Epiais-Rhus ⁷⁷¹		63	
Lutetia Parisiorum ⁷⁷²	Late 1 c. or early 2 c. AD	131	52
Mediolanum Aulercorum ⁷⁷³		75	24
Meyzieu ⁷⁷⁴			
Noviodunum Diablintum ⁷⁷⁵	1 c. AD	79	29
Noviomagus Lexoviorum ⁷⁷⁶	2 c. AD	90	
Pécycy ⁷⁷⁷		70	
Silva Martis ⁷⁷⁸	1 c. AD	74	

Gallia Narbonensis

Alba Augusta Helviorum ⁷⁷⁹	Augustan or Tiberian	50	23
Boutae ⁷⁸⁰		45	

Germania Superior

Augusta Raurica ⁷⁸¹	3q. 1 c. BC	98	33
Lenzburg ⁷⁸²	Flavian	74	9

⁷⁶³ Sear 2006, 220.

⁷⁶⁴ Sear 2006, 222.

⁷⁶⁵ Sear 2006, 222.

⁷⁶⁶ Sear 2006, 224.

⁷⁶⁷ Sear 2006, 224.

⁷⁶⁸ Sear 2006, 226.

⁷⁶⁹ Sear 2006, 227.

⁷⁷⁰ Sear 2006, 230.

⁷⁷¹ Sear 2006, 230.

⁷⁷² Sear 2006, 237.

⁷⁷³ Sear 2006, 239.

⁷⁷⁴ Sear 2006, 239.

⁷⁷⁵ Sear 2006, 240.

⁷⁷⁶ Sear 2006, 240.

⁷⁷⁷ Sear 2006, 241.

⁷⁷⁸ Sear 2006, 243.

⁷⁷⁹ Sear 2006, 244.

⁷⁸⁰ Sear 2006, 248.

⁷⁸¹ Sear 2006, 215.

⁷⁸² Sear 2006, 218.

List of Abbreviations

<i>Cic. Off.</i>	Cicero, <i>De officiis</i>
<i>CIL</i>	<i>Corpus Inscriptionum Latinarum.</i>
Dio Cass.	Dio Cassius, <i>Historia Romana.</i>
Hom. <i>Il.</i>	Homer, <i>Iliad.</i>
<i>ILTun</i>	Inscriptios latines de la Tunisie.
Liv.	Livy, <i>Ab urbe condita.</i>
Plin. <i>HN.</i>	Pliny the Elder, <i>Naturalis historia.</i>
Suet. <i>Tib.</i>	Suetonius, <i>Tiberius.</i>
Tac. <i>Hist.</i>	Tacitus, <i>Historiae.</i>
Varro, <i>Rust.</i>	Varro, <i>De re rustica.</i>
Vitr. <i>De arch.</i>	Vitruvius, <i>De architectura.</i>

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