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**Global patterns of commemoration in Roman
epitaphs: a quantitative spatial analysis of the most
common formulae**

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A thesis submitted for the degree of Doctor of Philosophy

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Abstract

This thesis provides a quantitative analysis of common formulae in thousands of Roman epitaphs and maps their geographical distribution to understand spatial variation in patterns of commemoration. Although differences in epitaphic patterns can be inferred from numerous regional studies, this is the first study to analyse and map the epitaphs of each location or region and to set them within the context of patterns across the Roman world.

The study is designed to answer four research questions. Firstly, it seeks to understand the extent of regional variation in the use of common epitaphic formulae by considering where and how frequently they were used. Secondly, how we might measure a 'funerary epigraphic signature' at a regional and local level and what these tell us about variation in commemorative practices. Thirdly, how we might explain this variation, through a discussion of the factors that account for the divergence and convergence in how these expressions were used. And finally, the thesis examines the extent to which Rome and the centre of the empire influenced patterns of commemoration in the provinces.

The study revealed that patterns of commemoration, in regions on the peripheries of the empire, were significantly different to those in Rome and Italy. The results illustrate a centre where the epitaphic culture was characterised by the expression *Dis Manibus*, a formalised relationship with the deceased, and the size or status of the tomb. This is in direct contrast to the Iberian and African provinces which created epigraphic landscapes distinguished by short abbreviated inscriptions, and expressions focussed on maintaining a connection with the deceased and their remains, rather than the tomb. This thesis presents a Roman world dominated by a conservative core, centred on Rome and Italy, with an innovative periphery in the Iberian and African provinces.

The study demonstrates that Rome's influence was limited, and only extended to neighbouring regions and to its former colonies. The analysis of local epitaphic patterns uncovered evidence for provincial centres of influence, particularly in the Iberian and African provinces, suggesting the existence of a polycentric empire.

Conventions and Style

Formulae

All formulae are presented using lower case initial letters, except *Dis Manibus* and *Dis Manibus Sacrum* which have been capitalised. This is consistent with the style used by Maureen Carroll and the editors of the Oxford Handbook of Roman Epigraphy.¹

When formulae are discussed, I have used the abbreviated form to save space. In these cases, I am referring to the formula itself, and not making a comment on whether or not it was abbreviated. This is a convenient way of discussing several expressions, without having to spell each one out several times. I have made it clear when I am referring to abbreviations or contractions, so this stylistic choice should not create confusion.

Province and city names

All province and place names are taken from Epigraphik-Datenbank Clauss-Slaby (EDCS).² Ancient place names are used throughout the thesis.

Abbreviations

AE *L'Année Épigraphique*

CIL *Corpus Inscriptionum Latinarum*

EDCS Epigraphik-Datenbank Clauss-Slaby

EDH Epigraphische Datenbank Heidelberg

ICUR *Inscriptiones Christianae Urbis Romae*

¹ Maureen Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe* (Oxford: OUP, 2006); Christer Bruun and Jonathan Edmondson, *The Oxford Handbook of Roman Epigraphy* (Oxford: OUP, 2015).

² www.manfredclaus.de/gb/index.html, accessed 2 September 2019.

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Chapter 1 - Introduction

The identification and study of Roman epitaphs has a long-established history.³ Ever since the nineteenth century, historians have been documenting and deciphering inscriptions from burials throughout the Roman world.⁴ Their studies ranged from decoding single inscriptions to publishing studies of the epigraphy of a graveyard, city or entire province. Thousands of epitaphs are held in museum collections and in situ in archaeological sites and are published in printed volumes and, more recently, in online databases.⁵ These epitaphs provide a rich source of primary evidence, which historians have incorporated into their interpretations and reconstructions of Roman culture and society.⁶ One insightful conclusion of these earlier studies has been the recognition that particular forms and styles of inscription are consistently used in some areas of the Roman world but are rare or absent in others.⁷

However, our knowledge of epigraphic practice is based on a series of regional studies. It has resulted in an over-reliance on the epigraphy of one part of the empire, particularly on that of Rome and Italy, which has led to an imbalanced view of global epigraphy.⁸ This can ultimately

³ For the early history of epigraphic research, see: Marco Buonocore, 'Epigraphic Research from Its Inception: The Contribution of Manuscripts,' in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 21–41.

⁴ Throughout this study, I refer to the 'Roman world' or the 'empire'. In terms of time period covered, the study is defined by the use of common formulae. Therefore, the study covers the time from the late-Republican period through to Late Antiquity, when *Dis Manibus* was still in use in Volubilis in 616 CE – see Chapter 4.

⁵ Estimates of the total number of epitaphs vary. According to Saller and Shaw, around three quarters of all inscriptions in the Roman world are epitaphs. They estimated that there were approximately 170,000 – 190,000 epitaphs based on 250,000 inscriptions of all types. Richard P. Saller and Brent D Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves,' *The Journal of Roman Studies* 74, (1984): 124. A recent search of all inscriptions in Epigraphik-Datenbank Clauss-Slaby (EDCS), carried out in March 2019 for this project, indicates that there are 515,972 inscriptions in the database, suggesting that the total number of epitaphs could exceed 386,979.

⁶ A detailed list of references as examples would be impossible at this stage. Chapters in the following provide an excellent introduction to how epigraphic sources have been used in research - Bruun and Edmondson, *The Oxford Handbook of Roman Epigraphy*.

⁷ For example, Jean-Marie Lassère, 'Recherches Sur La Chronologie Des Épitaphes Païennes de l'Africa', *Antiquités Africaines* 7 (1973): 7–152; Valerie M. Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes* (Oxford: Archaeopress, 2001); M Pastor Muñoz, 'Los Dioses Manes En La Epigrafía Funeraria Bética', *Mainake* 26 (2004): 381–94.

⁸ This was also noted by Maureen Carroll when she referred to studies based on quantifiable data as 'severely Rome biased'. See: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 23.

lead to generalisations of the evidence and an assumption that the results of any study apply to all regions.⁹ The study of one city can also create the idea that the epigraphy in that place is unique.¹⁰ A regional, rather than comparative approach, also means that we have no way of identifying significant cross-regional patterns of commemoration that require further investigation. To this end, the approach of this study is to analyse the use of common formulae in epitaphs in a single comprehensive study. By analysing and mapping this feature of an epitaph in all locations and regions, and setting the results within the context of patterns across the Roman world, I aim to establish the existence of ‘epigraphic signatures’ and to identify the factors that account for differences in these traditions.¹¹ I also aim to assess how far the epigraphy of Rome and Italy influenced that of the provinces, and whether the results ‘decentre’ Rome. As a result, this study changes the approach to the analysis of epitaphs from a reliance on local studies, to the broader insights that can be revealed by global approaches to history.¹²

1.1 Common formulae in Roman epitaphs

Funerary inscriptions were part of a visible memorial to individuals who died two thousand years ago. They could be part of large elaborate monuments to the rich and wealthy, or a piece of a more modest brick or tufa *columbaria* containing cremation urns in niches.¹³ They were commissioned by an individual before death, or by family members or colleagues after death, with the intention of creating a permanent memorial to the deceased. Not only did they create a continuing bond with the departed, they could also represent their wealth and dignity and define an individual’s place in

⁹ There is an implicit message in the conclusion of Henrik Mouritsen’s study of Roman freedmen and decurions that the results apply across the empire. Henrik Mouritsen, ‘Freedmen and Decurions: Epitaphs and Social History in Imperial Italy’, *Journal of Roman Studies* 95 (2005): 63.

¹⁰ Virginia Campbell suggested that the population of Pompeii established their own pattern of epigraphy, distinct from Rome and Italy, without considering patterns of commemoration in cities close by. Virginia L. Campbell, *The Tombs of Pompeii: Organization, Space, and Society* (New York: Routledge, 2014), 69.

¹¹ See Chapter 5 for an explanation of the term ‘epigraphic signature’.

¹² Martin Pitts and Miguel John Versluys, ‘Globalisation and the Roman World: Perspectives and Opportunities’, in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, ed. Martin Pitts and Miguel John Versluys, (Cambridge: CUP, 2015), 22.

¹³ There have been numerous studies of funerary monuments, including several that discuss regional variation of style and design. A few examples are: J. M. C. Toynbee, *Death and Burial in the Roman World* (Baltimore: JHU Press, 1996); Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*; Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*.

society.¹⁴ Some epitaphs may be a few words long; others can run into many hundreds of words.¹⁵ Although the information they contain varies according to the deceased, the vast majority include standardised wording or formulae to represent a particular sentiment or wish.

There were a number of benefits associated with the use of these standardised expressions both for the reader and the tradesmen who produced them. The variety of messages included, ranged from a simple statement, signifying the location of the remains, to a more complex legal statement, restricting who could use the tomb in the future.¹⁶ Standardisation allowed commemorators to express complex ideas in a simple, clear message. Moreover, representing messages in this way probably made them easier to read and understand, particularly in those communities less familiar with Latin. The repetition of the same wording in hundreds of epitaphs would have contributed to the recognition and eventual understanding of these expressions. The abbreviated form, in particular, might have been easier to recognise and had the added advantage of being cheaper to carve. Finally, standardisation increased the possibility of mass production, leading to greater demand and increased profits for those responsible for their manufacture and distribution. The benefits that standardised wording brought to the production of funerary commemorations was, in part, responsible for the widespread adoption of what Ramsey MacMullen has called ‘the epigraphic habit’.¹⁷

In terms of this thesis, this standardised wording provides an ideal feature of an inscription that can be analysed in order to understand the variation in the style of epitaphs.¹⁸ These formulae

¹⁴ Annika Jonsson and Tony Walter, ‘Continuing Bonds and Place’, *Death Studies* 41, no. 7 (2017): 406–15.

¹⁵ Francisco Beltrán shows the length of some Latin inscriptions from randomly chosen towns and four provinces. He believes that their distribution should be considered as representative of inscriptions across the Roman world. See: Francisco Beltrán, ‘The ‘Epigraphic Habit’ in the Roman World’, in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson, 2015, 136.

¹⁶ For example, the formula *HSE* was used to indicate the location of the deceased’s remains and *LLPQE* restricted use of the tomb to an individual’s household.

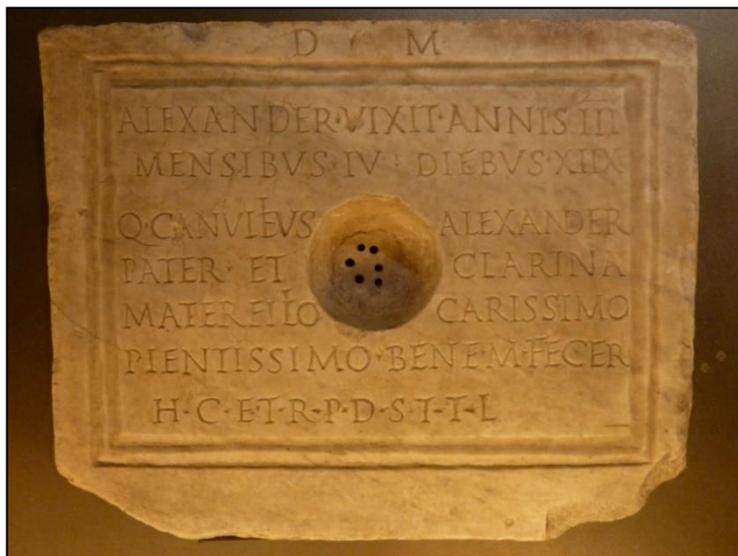
¹⁷ The ‘epigraphic habit’ is a phrase coined by Ramsey MacMullen in 1982. The literature relating to his study will be discussed in Chapter 2. Ramsay MacMullen, ‘The Epigraphic Habit in the Roman Empire’, *American Journal of Philology* 103, no. 3 (1982): 233–46.

¹⁸ Others have used criteria, such as an inscription’s monumental appearance, to assess variation in epigraphic practice. See: Valerie M. Hope, ‘Words and Pictures: The Interpretation of Romano-British Tombstones’, *Britannia* 28, no. 1997 (1997): 245–58; Abigail S Graham, ‘The Word Is Not Enough: A New Approach to Assessing Monumental Inscriptions. A Case Study from Roman Ephesos’, *American Journal of Archaeology* 117, no. 3 (2013): 383–412.

or phrases were so common that they were often abbreviated to their capital letters (see Figure 1.1). A modern example in English is “R.I.P”, which is widely used to represent “Rest in Peace”. Some phrases, such as *Dis Manibus* (to the spirits of the dead) or *Dis Manibus Sacrum* (sacred to the spirits of the dead) are used across the Roman world whereas others, such as *bene merenti* (well-deserving) are only used in certain areas. These expressions are sometimes written in full or abbreviated. Whilst they are often used alone, they are also frequently employed together in the same inscription. This variation provides us with a characteristic of an epitaph, which can be quantified and mapped to illustrate and contextualise the spatial variation of commemorative patterns.

This variation can be illustrated by two examples from different areas of the Roman world. The first example is an inscription set up by the parents of a three-year-old boy in Rome (Figure 1.1). The second is found in Thugga, Africa Proconsularis, to commemorate a 75-year-old woman (Figure 1.2).

Figure 1.1 – Funerary Table of Alexander from the Ostiense Cemetery, Rome (second century CE)¹⁹



¹⁹ Lynne Bennett, *Funerary Table of Alexander*, 2015. Photograph. Capitoline Museum, Rome.

The epitaph in Figure 1.1, now on display in the Capitoline Museum in Rome, includes four common expressions (highlighted in bold below).²⁰ It was positioned above an urn that contained the ashes of the deceased, and included an opening for liquid offerings. The inscription reads:

*D(is) M(anibus) / Alexander vixit annis III / mensibus IV diebus XIX / Q(uintus) Canuleius
Alexander / pater et Clarina mater filio carissimo / pientissimo bene m(erenti) fecer(unt) / h(ic)
c(onditus) e(st) t(e) r(ogo) p(raeteriens) d(icas) s(it) t(ibi) t(erra) l(evis)*

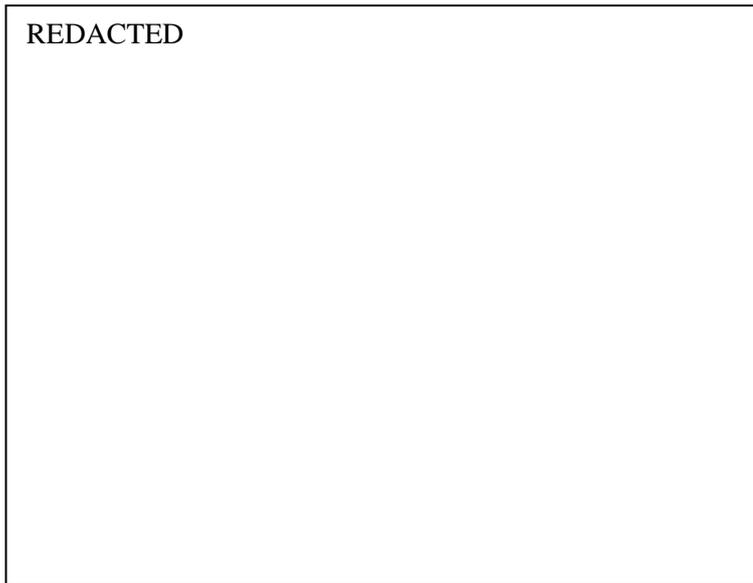
Translation: To the Spirits of the Dead. Alexander lived 3 years 4 months and 18 days. His father Quintus Canuleius Alexander and his mother Clarina set this up to their dear, devoted, and well-deserving son. He is buried here. I beg you, when you pass by, to say, ‘May the earth lie lightly on you’

This epitaph to a three-year old boy contains many of the elements analysed by the current study. It includes abbreviated formulae (*DM* for *Dis Manibus* and *STTL* for *sit tibi terra levis*); contracted formulae (*Bene M.* for *bene merenti*); and one formula spelled out in full (*vixit annis*).

Compare this with the inscription set up in Thugga, in Africa Proconsularis, in Figure 1.2.

²⁰ *AE* 1990, 00087. Although this is dated to the second century CE by the museum, it is dated to 31 to 150 CE in EDCS.

Figure 1.2 – Epitaph to Iulia Privata from Thugga, Africa Proconsularis (171-300 CE)²¹



This inscription was set up to Iulia Privata and includes three of the formulae in this study.

The inscription reads:

D(is) M(anibus) s(acrum) / Iulia / Priva/ta p(ia) v(ixit) a(nnos) / LXXV / h(ic) s(ita) e(st)

Translation: ‘Sacred to the Spirits of the Dead. Here lies Iulia Privata who lived 75 years dutifully’

This inscription includes *Dis Manibus Sacrum*, an alternative form of the expression *Dis Manibus* and ends with the formula, *hic sita est*. Like the inscription from Rome, it includes the expression *vixit annos* to specify the number of years lived but, in this case, the formula is abbreviated.

A comparison of the two inscriptions indicates that they use different formulae with the exception of *vixit annos*. Moreover, the one from Thugga is more heavily abbreviated and shorter than the one from Rome. The differences between these two inscriptions lie at the heart of this thesis.

The examination of these inscriptions raises the question of responsibility for the style of wording. Whilst many commentators imply that the commemorators themselves were responsible

²¹ Image from: Epigraphik-Datenbank Clauss-Slaby www.manfredclauss.de/ (*CIL* 08, 26974, EDCS-16201320), accessed 2 March 2020.

for selecting the wording of an epitaph, there are others who suggest that the stonecutters were in control of the process.²² This is an important point for the current study, since stonecutters might have had an important role in the spread of formulae in a local area. The work that these stonecutters undertook is demonstrated by the survival of shop-signs that advertise the types of inscriptions on offer as well as archaeological remains of the workshops. The following inscription indicates the use of a common formula to emphasize the funerary inscriptions for sale at the workshop.

*D(is) M(anibus) / titulos scri/bendos vel / si quid ope/ris marmor/ari opus fu/erit hic ha/bes*²³

Translation: ‘To the Spirits of the Departed. You can get inscriptions and any other work in marble you need written here’

There is also archaeological evidence of a stonemason’s workshop in Ostia, where fragments of inscriptions have been found as well as a block of stone where the stonecutters practiced their letter carving.²⁴ Pre-carved memorials have also been found, with only the first line of text completed (e.g. *Dis Manibus*) together with a space left for the addition of the name of the deceased.²⁵ This suggests that these workshops sold ready-made memorials, with additional wording added, after discussions with the commemorators. The role that stonecutters played in the spread of formulae and any evidence for this in the current study will be discussed in Chapter 7.

1.2 Context of research

Epitaphs have been continuously collected and studied for centuries. The data for many early studies were collected from printed volumes of inscriptions developed in the mid-nineteenth

²² For a full discussion of workshops and the role of a stone-cutter, see: Giancarlo Susini, *The Roman Stonecutter: An Introduction to Latin Epigraphy* (Oxford: Blackwell, 1973); Lawrence Keppie, *Understanding Roman Inscriptions* (London: Batsford, 1991); Jonathan Edmondson, ‘Inscribing Roman Texts. *Officinae*, Layout, and Carving Techniques’, in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 111–30.

²³ *CIL* 06, 09556 Galleria Lapidaria, Musei Vaticani.

²⁴ Alfredo Buonopane, ‘Un’officina Epigrafica e Una ‘Minuta’ Nel Laboratorio Di Un *Marmorarius* a Ostia’, in *L’officina Epigrafica Romana: In Ricordo Di Giancarlo Susini*, ed. A Donati and G Poma (Faenza: Epigrafia e antichità 30, 2012), 201–6.

²⁵ *CIL* VI 7393a – ash chest from the *columbarium* of the Volusii Saturnini, Via Appia.

century by Theodore Mommsen.²⁶ However, in recent years, the study of Roman epitaphs has been facilitated by the development of online databases, which contain many thousands of inscriptions, such as Epigraphik-Datenbank Clauss-Slaby (EDCS) and Epigraphische-Datenbank Heidelberg (EDH).²⁷ These databases provide new opportunities for studying Roman epitaphs by providing a wealth of epigraphic evidence that can be combined with computerised mapping techniques to provide a powerful tool for investigating the geographic distribution of epigraphic styles throughout the empire. Nevertheless, despite the accessibility of epigraphic data, the literature on epitaphs still contains remarkably little quantitative analysis and an apparent lack of interest in an investigation on cross-regional variation in commemorative practice across a large dataset.²⁸

This lack of large-scale analysis to investigate regional variation is particularly surprising. If we examine a sample of epitaphs from more than one region, it is clear that a Latin epitaph from one part of the empire might have looked different to one set up in another region. For example, an epitaph from Ostia was probably longer than one from Carthage and, in all probability, would use a lower number of formulae.²⁹ Moreover, the formulae may express different messages about death and burial. For example, one from Ostia might have used the opening formula *Dis Manibus* ('to the spirits of the dead') whereas one from Carthage may have used *Dis Manibus Sacrum* ('sacred to the spirits of the dead') and ended with a closing expression such as *hic situs est* ('here lies'). Equally, those set up in the same place might have looked very similar, and by using the same formulae, displayed an almost identical structure with only the names of the deceased changing.³⁰

²⁶ Christer Bruun, 'The Major Corpora and Epigraphic Publications', in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 66–77.

²⁷ Tom Elliott, 'Epigraphy and Digital Resources', in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 78–85.

²⁸ There are two notable exceptions. The first is a study by Louise Revell which analyses a large number of inscriptions sourced from *CIL*, see: Louise Revell, 'The Roman Life Course: A View from the Inscriptions', *European Journal of Archaeology* 8, no. 1 (2005): 43–63. The second is a study based on an analysis of 23,227 inscriptions downloaded from EDCS by Ray Laurence and Francesco Trifilò, see: Ray Laurence and Francesco Trifilò, "'Vixit Plus Minus'" Commemorating the Age of the Dead: Towards a Familial Roman Life Course?, in *Families in the Roman and Late Antique World*, ed. Mary Harlow and Lena Larsson Lovén (London: Continuum Publishers, 2012), 23–40.

²⁹ See Chapter 5 for a full discussion and analysis of variation in the number of formulae used.

³⁰ This can be illustrated by examining the epitaphs found in the city of Thugga in Numidia. In the current study, 65% of the 1139 epitaphs use exactly the same formulae and differ only in the name of the deceased. See Chapter 5 Section 5.5.5 for a full discussion of the epigraphic signature of Thugga.

Therefore, the epigraphy of one city tells us about the people who lived and died in that city but we have no reliable way of setting this within the context of epitaphic patterns in cities close by or further afield. These differences have been reported in numerous regional studies but they have never been examined or displayed using mapping software in a wide-ranging study. In effect, what is missing from the literature is a study that analyses and maps the epigraphy of each place or region and positions the results within the context of epigraphic patterns across the Roman world.

Analysing the geographical variation of epitaphs extends debates on the ‘epigraphic habit’, as described by MacMullen in 1982, beyond discussions of ‘when’ most people were inscribing, and ‘who’ those people were, to one that looks at ‘where’ they were setting up commemorations, and ‘how’ these patterns of commemoration differed across the empire.³¹ Although he uses the term to describe the ‘cultural disposition to inscribe’, his discussion focusses on the rise and fall in the habit of setting up inscriptions across time as opposed to considering how the epigraphic habit might have differed depending on where an individual lived.³² Where MacMullen references inscriptions from different parts of the empire, he is primarily referring to the distribution of inscriptions rather than making any attempt to draw attention to their variation or similarity.³³ The fact that there is regional variation in the epigraphic habit has never really been in question. It is referred to by MacMullen again in 1988; by Elizabeth Meyer in 1990, when she discusses the habit in terms of the grant of universal citizenship; and by Woolf in 1996, when discussing the spread of epigraphy in the western provinces.³⁴ However, recognition of regional variation either in terms of who made the dedication (Meyer) or regional frequency of epigraphy (Woolf) does not explain the scale of diversity in terms of how the epigraphy of one place could be different or similar to

³¹ MacMullen, ‘The Epigraphic Habit in the Roman Empire’.

³² Greg Woolf, ‘Monumental Writing and the Expansion of Roman Society in the Early Empire’, *The Journal of Roman Studies* 86 (1996): 22–39.

³³ MacMullen, ‘The Epigraphic Habit in the Roman Empire’, 238.

³⁴ Ramsay MacMullen, *Corruption and Decline of Rome* (Yale: Yale University Press, 1988); Elizabeth A. Meyer, ‘Explaining the Epigraphic Habit in the Roman Empire: The Evidence of Epitaphs’, *Journal of Roman Studies* 80 (1990): 74–96; Woolf, ‘Monumental Writing and the Expansion of Roman Society in the Early Empire’.

another. Therefore, the time is now right to extend discussions to one that examines, in a largescale comparative study, exactly how inscriptions differ from each other across the empire.

Moving debates on the ‘epigraphic habit’ to one that looks at regional variation in detail, both provides evidence for a comparison of practices between regions and contributes to discussions on the wider understanding of cultural practices in the ancient world. In doing so, this study shows that analyses of individual regions do not easily enable an evaluation of significant patterns and differences between places. Due to the frequency of singular regional studies, there is a real risk that assumptions can be made that practices relating to one area, could apply to other areas too.³⁵ These studies focus only on a subset of the data that might reveal local patterns, but they also exclude those that transcend political or city boundaries.³⁶ Moreover, a reliance on regional and place studies leads scholars to search for explanations for these commemorative patterns. For example, they look for clarification in the detail of the inscription, particularly in the ‘identity’ or social groupings of those commemorated.³⁷ However, since we cannot possibly know the individual background of every person commemorated, an analysis of a large number of epitaphs, such as that carried out in the current study, encourages us to look for alternative explanations for patterns of commemoration. It also has the potential to reveal previously unknown patterns of commemoration. Therefore, the current study shifts the focus of epitaphic research from a single province or individual place and demonstrates that epitaphic culture can be seen as the local contextualisation of a global form, by focussing on the relationship between the local and the global.³⁸

³⁵ For example, Hanne Sigismund Nielsen, ‘Interpreting Epithets in Roman Epitaphs’, in *The Roman Family in Italy: Status, Sentiment, Space*, ed. Beryl Rawson and Paul Weaver (Oxford: OUP, 1997), 169–204. It would be easy to assume that her conclusions on the use of *bene merenti* in Rome applied to all occurrences of the epithet. However, as far as I am aware, her conclusions relate only to the sample from Rome and have never been checked against those epitaphs from Dalmatia and Dacia that also include *bene merenti*.

³⁶ A good example is Campbell, *The Tombs of Pompeii: Organization, Space, and Society*, 69. Virginia Campbell suggests that patterns of commemoration found in the city are unique to Pompeii and are different to other cities in Campania but no supporting evidence for this is provided.

³⁷ For example, Mouritsen, ‘Freedmen and Decurions: Epitaphs and Social History in Imperial Italy’.

³⁸ Richard Hingley, ‘Post-Colonial and Global Rome: The Genealogy of “Empire”’, in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, ed. Martin Pitts and Miguel John Versluys (Cambridge: CUP, 2015), 32–48. Ray Laurence and Francesco Trifilò, ‘The Global and the Local in the Roman Empire: Connectivity and Mobility from an Urban Perspective’, in *Globalisation and the Roman*

The prevalence of epigraphic regional studies has also encouraged a dependence on evidence from Rome and Italy at large. However, this has had the effect of excluding large numbers from other parts of the empire and means that any conclusion can only be relevant to a subset of the full data. As noted above, the availability of online databases means that epigraphers can now take into account the full corpus of inscriptions. This approach has already been adopted by some historians.³⁹ As early as 2002, David Mattingly indicated how debates on Romanisation focussed on the ‘similarities’ in culture whereas the key concepts for the study of provincial culture ought to be ‘heterogeneity’ and ‘diversity’.⁴⁰ Mattingly also suggested that a more productive way forward was to assess how one place was different from another. In order to do this, a large set of data was needed, one that could be analysed by place and region to establish whether particular epigraphic styles were associated with certain regions and cities, or even whether patterns identified in one place or region could be applied to other regions. Therefore, rather than relying on the epigraphic evidence of one region, this thesis presents an analysis of all available data to produce results aligned with a global approach to history.

Analysing the spatial variation of epitaphs by using formulae will provide a single comprehensive study of epitaphic formulae. Previous research in Roman epigraphy has focussed on their use in particular areas such as Britain, Gaul, Germany or Spain, or among sections of society such as freed slaves.⁴¹ Often these studies made generalisations about the relative importance of particular formulae throughout the empire without detailed supporting evidence. Although Carroll’s study of funerary commemoration in Italy and Western Europe is the first in

World: World History, Connectivity and Material Culture, ed. Martin Pitts and Miguel John Versluys (Cambridge: CUP, 2015), 101.

³⁹ A good example is the study by Laurence and Trifilò, which used a database of 23, 227 inscriptions drawn from Italy (excluding Rome) and other provinces. It analysed 1,790 inscriptions that contained the formula *plus minus* and a legible age at death. See: Laurence and Trifilò, “‘*Vixit Plus Minus*’ Commemorating the Age of the Dead: Towards a Familial Roman Life Course?”

⁴⁰ David Mattingly, ‘Vulgar and Weak ‘Romanization’, or Time for a Paradigm Shift?’, *Journal of Roman Archaeology* 15, no. 2 (2002): 538, 540.

⁴¹ For example, for Britain, see: Mark A Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’, *Early Medieval Europe* 10, no. 2 (2001): 177–99. For Gaul and Germany, see: Marie-Thérèse Raepsaet-Charlier, *Dis Deabusque Sacrum: Formulaire Votif et Datation Dans Les Trois Gaules et Les Deux Germanies* (Paris: De Boccard, 1993). For Spain, see: Leonard A Curchin, ‘Familial Epithets in the Epigraphy of Roman Spain’, *Cahiers Des Études Anciennes*, 1982. For freed-slaves, see: Mouritsen, ‘Freedmen and Decurions: Epitaphs and Social History in Imperial Italy’.

recent years to discuss regionalism, she uses the words ‘frequently’ and ‘rarely’ without evidence of relative quantities.⁴² Even though she recognised that these formulae can vary in spelling and word order and that their use can differ from one province or part of the empire to another, this variation has never been systematically analysed or mapped to investigate patterns of use.

In summary, our knowledge of epigraphic practice in epitaphs across the Roman world is based on a series of regional studies. This reliance means that we have no way of identifying significant patterns that deserve further investigation. For example, we have no way of assessing if patterns of epitaphic practice used in Rome and Campania dominate the peripheries. Although there is general recognition that regional variation in epitaphs exists, the move away from regional studies in the archaeological literature to one that seeks to understand cultural variation in terms of global history has not been adopted by scholars of epigraphy. Epitaphs are ideal evidence for a Mediterranean-wide analysis because commemoration in Latin was a universal practice and epitaphs are found in large numbers in many regions throughout the Roman world. The development of comprehensive online databases means that we can shift from the recognition of correlations and presence of patterns to more detailed analytical work.

1.3 Aims of thesis and research questions

This thesis analyses common formulae in Roman epitaphs, in order to understand differences in epitaphic culture across the Roman world. It will move beyond simply quantifying the frequency of inscriptions to analysing and placing each inscription in the context of all other inscriptions. It quantifies where these expressions were used and establishes the existence of regional traditions for the use of particular types of formulae. In addition, by analysing a series of features associated with the use of these expressions, it establishes ‘epigraphic signatures’ for regions and places. It then uses these results to identify places where there is discrepancy in the established pattern that require further explanation. Finally, the study identifies factors that contribute to variation in

⁴² Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 133ff.

epigraphic patterns across the empire and discusses these in terms of a global approach to history. As a result, this moves the methodology used by others from a blunt analytical tool with crude results to a more sophisticated analytical tool with rich results.

This thesis is designed around four main research questions. These questions all contribute to the overall purpose of the study which is to understand and explain variations in epitaphic culture. Firstly, the study seeks to understand the extent of regional variation in the use of common epitaphic formulae by considering where and how frequently they are used. Secondly, it examines how we might measure a ‘funerary epigraphic signature’ at a regional and local level and considers what these tell us about variation in commemorative practices. Thirdly, it considers how we might explain this variation by discussing the factors that account for the divergence and convergence of how these expressions are used. And finally, it examines the extent to which Rome and the centre of the empire influenced patterns of commemoration in the provinces and considers if there is evidence to suggest that the results ‘decentre’ Rome. This last question is a key consideration for the study and is a common theme running through the whole thesis.

The thesis is organised according to a structure more familiar to researchers in the social sciences and archaeology. Known as the ‘IMRaD’ format, it comprises separate chapters for an introduction, a literature review, the methodology, the results of analysis, a discussion of the results, and conclusions.⁴³ The results are presented in Chapters 4, 5 and 6; however, the bulk of the discussion appears in Chapter 7. The following is a summary of each chapter.

In Chapter 2, the review of previous research recognises the imbalance in past approaches, particularly in relation to sample size and regional analyses. I consider how epitaphs have been studied, with a particular focus on the ‘epigraphic habit’ and also discuss previous research on epigraphic formulae. Lastly, I note the reliance on using the epigraphy of Rome and Italy in many studies, which has led to an imbalanced view of global epigraphy. This chapter establishes the

⁴³ The IMRaD acronym refers to: Introduction; Methods; Results; and Discussion.

need for a more consistent quantitative approach, which analyses all epitaphs to obtain a meaningful result.

Chapter 3 outlines the approach I have taken to investigate and visualise patterns of commemoration. I provide a list of the common formulae used to compile the data files and how the data were sourced. In addition, information on how the epigraphic signatures for regions and places were calculated is specified. I also consider the limitations of the study and how these might influence the results.

Chapter 4 examines the geographic distribution of epitaphic formulae in Latin inscriptions. It also provides a detailed description and analysis of all common formulae included in the study. I identify geographical patterns of where common formulae are used and make observations on their reach and spread. Formulae are categorised according to the type of message they convey. Within each of these groupings, individual formulae are discussed, examining the type of message conveyed; the meaning of the formula; when it was used; and common abbreviations and contractions. The discussion then moves on to the geographic distribution according to regions, provinces, and places, examining where it was used and, just as importantly, where it was not used. Heat maps are used to illustrate geographic variation. This chapter thus identifies patterns; makes comparative observations; and analyses the data for previously unknown patterns of commemoration. It shows that although many common formulae are found across the empire, the overall rate of use varies according to the type of formulae and, also, varies from one region to another. The thesis also illustrates that some regions had a cultural tradition of using a particular type of formulae. The chapter concludes with a discussion of regional variation and highlights those areas where previously unknown patterns have been revealed.

Chapter 5 analyses the data to construct ‘epigraphic signatures’, or profiles, for regions and cities. These will be used to compare epigraphic practice across the dataset to discover shared trends and to explain how these expressions were used to produce a unique or common pattern of commemoration. It combines the results of Chapter 4 with a number of additional epigraphic variables associated with how formulae are used within an inscription. Having stated the popular

formulae established by the results of Chapter 4, it then analyses how many formulae are used in a single inscription and how these expressions are used together. It evaluates how abbreviations or contractions are used and the variation in the median length of an inscription. In those places where the data are available, it also analyses the recorded plot size and shape associated with the expression *in fronte in agro*. The results of this data analysis will be used to construct a profile for each of the chosen regions. These will be used to compare regions with each other and with Rome in preparation for a discussion in Chapter 7 of how far Rome influences and dominates the epigraphy of the provinces. Finally, I provide epigraphic signatures for six cities that have a profile that deviates from the regional trend. These cities are Cirta (Numidia); Ostia (Campania); Misenum (Campania); Carnuntum (Pannonia); Thugga (Africa Proconsularis) and Narbo (Gallia Narbonensis). The conclusion demonstrates how epigraphic signatures of cities can comprise local and global elements. By defining epigraphic signatures, the study provides new perspectives on major themes in ancient history such as migration and mobility. These themes will be discussed in Chapter 7.

Chapter 6 presents the results of supplementary analysis to support the discussion in Chapter 7. It presents additional data on a number of themes that emerged as possible explanations for the variation in patterns uncovered during the analyses presented in Chapters 4 and 5. It presents an exploration of terms associated with migrants, such as *domo*, *natione*, and *civis*, in order to assess the impact of mobility on where and how regional formulae were used. It considers those epigraphic signatures that display a high level of consistency to support the discussion of the impact of stonemasonry on patterns of commemoration. It also presents data on the measurements of tomb plots associated with the formula *in fronte in agro* to support the discussion of their variation and the cultural preference for certain measurements.

Chapter 7 discusses the results presented in the previous three chapters. Its purpose is to examine the reasons that account for the divergence and convergence in patterns of commemoration across the empire and to consider if the results decentre Rome. It argues that the epigraphic culture of the Roman world was characterised by local epigraphic patterns and that the

‘power and influence’ of the imperial centre was not all-encompassing. Rome only had a local influence on surrounding areas and on cities that were its former colonies. It is for this reason that some regions, especially those on the peripheries, such as the Iberian and African provinces, were able to develop their own epigraphic habits independent of Rome. In order to demonstrate the local nature of epigraphy, this chapter first discusses the content of epitaphs across the empire. Analysis of the results from Chapters 4, 5, and 6 indicate that only two formulae, *Dis Manibus (DM)* and *Vixit Annos (VA)*, are truly ‘global’. Other messages have a more localised use. In particular, the examples of the Iberian and African provinces exemplify distinct epigraphic habits that are in contrast to the centre of the empire. This is explored further when we examine how formulae were combined, and how these abbreviations varied across the Roman world. This examination of epigraphic content and characteristics is followed by a discussion of how ‘Globalising Forces’ such as migration, stonemasonry, and the collective identity of those in the military enabled the creation of distinct signatures within a region. In particular, I explore the idiosyncratic patterns of commemoration in port cities, military cities, and satellite cities in the provinces. The final section discusses whether the epigraphic evidence provided in this thesis ‘decentres’ Rome and northern Italy from the rest of the Roman world and, in fact, points to the existence of a polycentric empire.⁴⁴

Chapter 8 summarises the main outcomes of the thesis. It reminds the reader of what was known about epitaphic formulae prior to this study and measures the contribution this thesis brings. It also considers further research opportunities arising from the thesis and discusses some practical applications for the results.

Chapters 4, 5, 6 and 7 provide analysis and discussion of the data. A number of tables underpinned this analysis. Although subsets of the data are presented throughout the thesis to illustrate findings, full results can be found in the Appendix. These are presented as a series of tables.

⁴⁴ A polycentric empire, is an empire with more than one centre of influence. In the case of the Roman empire, it is one where cities other than Rome have the power to influence other cities.

Chapter 2 – Previous approaches to the study of Roman epitaphs

Introduction

Although differences in patterns of commemoration have been illustrated in numerous regional studies, there has never been a comprehensive study that analyses and maps the epitaphs of each city and region. This lack of a large-scale analysis to investigate regional variation is surprising since even a cursory glance at a random group of epitaphs taken from more than one region, indicates that an epitaph inscribed in Latin in one part of the Roman world, might have looked different to one erected in another region. Thus, the epigraphy of one city tells us about the people who lived and died in that city but we have no reliable way of setting this in the context of epitaphic patterns in other cities. Moreover, the majority of previous studies have one thing in common – namely, they focus on small subsets of a large body of data. Consequently, the results, while important for the area in question, cannot answer questions relating to the whole of the empire. This reliance on regional studies means that we have no way of identifying significant patterns that deserve further investigation. For example, we cannot assess if patterns of epitaphic practice used in Rome and Campania dominate the peripheries of the empire. This lack of a large-scale analysis is particularly surprising given the accessibility of thousands of inscriptions in online databases and the advent of ‘digital epigraphy’.⁴⁵

In this chapter, I consider how epitaphs have been studied in the past with a particular focus on their use as evidence and the ‘epigraphic habit’ and how previous studies have been based on subsets of data which can lead to generalisations. I also explain how studies with a regional focus have sometimes relied on the epigraphy of Rome and Italy which has led to an imbalanced view of global epigraphy. Next, I consider how common epitaphic formulae have been considered in the literature to date. Although there has been a growth in the literature on ‘digital epigraphy’ in

⁴⁵ For a full discussion of online epigraphic databases see: Elliott, ‘Epigraphy and Digital Resources’. For other studies which use a quantitative analysis see: Revell, ‘The Roman Life Course: A View from the Inscriptions’. For a study of cultural biases in the Roman life course based on a large database of inscriptions sourced from *CIL*, see: Laurence and Trifilò, “‘*Vixit Plus Minus*’ Commemorating the Age of the Dead: Towards a Familial Roman Life Course?’ (based on an analysis of 23,227 inscriptions downloaded from EDCS).

recent years, I point out how this has focussed on standards for recording and managing inscriptions, rather than how we might use them in future research. This chapter establishes the need for a more consistent quantitative approach to the study of epigraphy which analyses all epitaphs to provide a meaningful result.

2.1 Epitaphs in research

There is a vast amount of literature on the study of Roman epitaphs.⁴⁶ Ever since the nineteenth century, classical historians have been documenting, deciphering and analysing the use of funerary inscriptions throughout the Roman world.⁴⁷ These range from deciphering single inscriptions to studies of the epigraphy of a graveyard, city or entire province. This has resulted in a literature that is wide ranging in its thematic nature.

Scholars have used this epigraphic evidence in their interpretations and reconstructions of Roman culture and society in a diverse number of areas. For example, social historians have analysed epitaphs to understand the demography of the family.⁴⁸ In some cases, the evidence has extended to associating common formulae with a particular social group, such as commemorators using *bene merenti* without a familial relationship to the deceased.⁴⁹ Epitaphs have also been used as evidence of literacy.⁵⁰ Of relevance to the current study are those studies that have suggested

⁴⁶ For example, Richmond Lattimore, *Themes in Greek and Latin Epitaphs* (Illinois: University of Illinois Press, 1942); Graham John Oliver, *The Epigraphy of Death: Society of Greece & Rome* (Liverpool University Press, 2000); John Bodel, *Epigraphic Evidence: Ancient History from Inscriptions* (Routledge, 2001); Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*; Alfredo Buonopane, *Manuale Di Epigrafia Latina* (Rome: Carocci Editore, 2009).

⁴⁷ The first volume of the *Corpus Inscriptionum Latinarum* was published in 1853 in Berlin by a committee led by Theodor Mommsen. It currently consists of 17 printed volumes although it is now available online at: <https://cil.bbaw.de/dateien/datenbank.php>. There is a vast amount of literature on Latin epigraphy but a good recent starting point is Bruun and Edmondson, *The Oxford Handbook of Roman Epigraphy*. For the early history of epigraphic research, see: Buonocore, 'Epigraphic Research from Its Inception: The Contribution of Manuscripts'.

⁴⁸ For example, Keith Hopkins, 'On the Probable Age Structure of the Roman Population', *Population Studies* 20, no. 2 (1966): 245–64; Brent D Shaw, 'Seasons of Death: Aspects of Mortality in Imperial Rome', *The Journal of Roman Studies* 86 (1996): 100–138; and Walter Scheidel, 'Epigraphy and Demography: Birth, Marriage, Family, and Death', *Proceedings of the British Academy* 177 (2012): 101–29.

⁴⁹ Nielsen, 'Interpreting Epithets in Roman Epitaphs'.

⁵⁰ For example, William V. Harris, *Ancient Literacy* (Harvard: Harvard University Press, 1989); Leonard A Curchin, 'Literacy in the Roman Provinces: Qualitative and Quantitative Data from Central Spain', *The American Journal of Philology* 116, no. 3 (1995): 461–76; Marilynne E Raybould, *A study of inscribed material from Roman Britain An inquiry into some aspects of literacy in Romano British society*, (Oxford:

that formulae and abbreviations were evidence of literacy amongst stonecutters.⁵¹ Woolf, in particular, has suggested that abbreviated formulae can be read quasi-pictographically.⁵² He proposed that the message of a common formula might have been understandable to those with little knowledge of Latin. In addition, epitaphs have been used as evidence of migration and mobility, particularly when an inscription included details of the place of birth.⁵³ Carroll has even suggested that region-specific formulae such as *sit tibi terra levis* can denote origin. However, this is problematic in the absence of place of birth or origin.⁵⁴ Occasionally, studies might include a discussion of the use of epitaphic formulae. For example, work on ancient identity sometimes includes the use of common formulae to explain how identity was communicated.⁵⁵ Finally, epitaphs have been used to understand the global/local relationship in the empire.⁵⁶ While this scholarship is wide-ranging, and provides some information about the structure of an epitaph and the purpose of a formula, it does not provide adequate data for a comparative study nor does it help to understand commemorative practice over a wide area.

There is a clear pattern to much of the vast literature on epitaphs. Most studies indicate that epitaphs are often used as evidence to explain a particular facet of ancient society. This

BAR Publishing, 1999); Alison E Cooley, 'Becoming Roman, Writing Latin? : Literacy and Epigraphy in the Roman West', in *Journal of Roman Archaeology. Supplementary Series* ; No. 48, ed. Alison E Cooley (Portsmouth, R.I.: Journal of Roman Archaeology, 2002); Jonathan Edmondson, 'Funerary Inscriptions and the Development of Local Epigraphic Cultures in Roman Lusitania', *Acta XII Congressus Internationalis Epigraphae Graecae et Latinae*, 2007, 461–68; John Pearce, 'Archaeology, Writing Tablets and Literacy in Roman Britain', *Gallia* 61, no. 1 (2004): 43–51; Maureen Carroll, "'Vox Tua Nempe Est' Dialogues with the Dead in Roman Funerary Commemoration', *Accordia Research Papers* 11 (2007): 37–80; John Bodel, 'Inscriptions and Literacy', in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson, 2015, 745–63.

⁵¹ Curchin, 'Literacy in the Roman Provinces: Qualitative and Quantitative Data from Central Spain'.

⁵² Woolf, 'Monumental Writing and the Expansion of Roman Society in the Early Empire', 28.

⁵³ For example, Farland H Stanley, 'Geographical Mobility in Roman Lusitania: An Epigraphical Perspective', *Zeitschrift Für Papyrologie Und Epigraphik* 82 (1990): 249–69; David Noy, *Foreigners at Rome: Citizens and Strangers* (London: Duckworth, 2000); David Noy, 'Epigraphic Evidence for Immigrants at Rome and in Roman Britain', in *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, ed. Hella Eckardt, 13–26. (Portsmouth: Journal of Roman Archaeology, 2010); Mark A Handley, *Dying on Foreign Shores : Travel and Mobility in the Late-Antique West* (Portsmouth, R.I.: Journal of Roman Archaeology, 2011).

⁵⁴ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

⁵⁵ For example, Valerie M. Hope, 'Reflections of Status : A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes. Vol 1' (PhD Thesis, University of Reading, 1994); Noy, *Foreigners at Rome: Citizens and Strangers*.

⁵⁶ Laurence and Trifilò, 'The Global and the Local in the Roman Empire: Connectivity and Mobility from an Urban Perspective'.

approach means that they are rarely analysed en masse with the intention of discovering what these inscriptions might tell us about the ancient world. This focus on using epitaphs as evidence for a specific theme presents us with a number of problems. Firstly, it can lead to researchers selecting inscriptions that support their argument and may lead to generalisations about social structures across the empire. For example, Henrik Mouritsen has used epitaphs in his study of the social composition of the population of Roman Italy.⁵⁷ Although he clearly states that his evidence comes from Ostia and Pompeii, the implicit message in his conclusion is that the results have a relevance for Roman society across the empire.⁵⁸ Secondly, it can lead to a reliance on inscriptions found in Rome and Italy. Not only do inscriptions from these areas form a significant proportion of all epitaphs but they are also well recorded and easier to access. Even in the new world of online databases, the collections of inscriptions from Rome and Italy will always be more complete than those from other parts of the empire. Therefore, when epitaphs are used as evidence in a top-down approach, there is a risk of generalisation and a reliance on evidence from one part of the empire.

A result of this approach is that the content of an epitaph is rarely studied as material culture, with a view to discovering what it reveals about the whole of ancient society. This is echoed by Gabriel Bodard, when he refers to inscriptions being in an ‘academic limbo’, that is, they are neither literary text nor archaeological object and thus they rarely receive adequate attention.⁵⁹ Louise Revell made a similar point when she pointed out that inscriptions, in general, are used as evidence for ‘political and social narratives’ rather than as material culture in their own right.⁶⁰ Although she was referring to the need to study building inscriptions in the context of the whole monument, her point is still relevant. The results of this thesis demonstrate that a large-scale analysis of the content and structure of an epitaph is long overdue and can reveal previously unknown patterns of commemoration pointing us towards patterns that require further explanation.

⁵⁷ Mouritsen, ‘Freedmen and Decurions: Epitaphs and Social History in Imperial Italy’.

⁵⁸ In his conclusion, Mouritsen refers to ‘the overall record produced by individual acts of commemoration’ as providing ‘important insights into the mentality of specific sections of the population’. At no point does he restate that his study was based on Italy, therefore leaving the reader with the impression that the results of his study on the social history of Italy apply across the Roman world. Mouritsen, 63.

⁵⁹ Gabriel Bodard, ‘The Inscriptions of Aphrodisias as Electronic Publication: A User’s Perspective and a Proposed Paradigm’, *Digital Medievalist* 4 (2008): 2-3.

⁶⁰ Louise Revell, *Roman Imperialism and Local Identities* (Cambridge: CUP, 2009), 21.

This bottom-up approach is a novel method, which means analysing the evidence first and then asking the question, ‘what can this tell us?’ rather than looking for evidence to support a particular theme of interest.

2.2 A quantitative approach

The development of digital humanities has led to scholars using quantitative and spatial techniques to drive their research in new directions.⁶¹ Other disciplines related to the study of inscriptions have incorporated quantitative analyses into their methodologies. For example, it is common to find the use of large-scale analyses in the study of ancient linguistics and numismatics.⁶² However, most epigraphers have been slow to accept this as a viable approach to the study of inscriptions.

The advent of online epigraphic databases in the 1990s meant that the data required for a large-scale analysis were readily available.⁶³ However, there are some studies of large numbers of inscriptions that took place before this time, where the inscriptions were sourced from printed volumes.⁶⁴ Two studies from the 1980s stand out, one by Ramsey Macmullen in 1982 and one by Saller and Shaw in 1984. Both have influenced epigraphic literature for the past 40 years despite the fact that there are questions concerning how they implemented this methodology.

⁶¹ Digital Humanities as a separate discipline has developed since the early 2000s as a result of contact between scholars in the humanities with those from the social sciences and sciences. For use of mapping techniques in history, see: Don DeBats and Ian N. Gregory, ‘Historical GIS and the Study of Urban History’, *Social Science History* 4, no. Winter 2011 (2011). For background on digital classics, see: Alison Babeu, ‘*Rome Wasn’t Digitized in a Day*’: *Building a Cyberinfrastructure for Digital Classics* (Washington D.C.: Council on Library and Information Resources, 2011).

⁶² For ancient linguistics see: James N Adams, *The Regional Diversification of Latin 200 BC–AD 600* (Cambridge: CUP, 2007); Irene De Felice, Margherita Donati and Giovanna Marotta, ‘CLaSSES : A New Digital Resource for Latin Epigraphy’, *Italian Journal of Computational Linguistics* (2015): 132–37; Katherine McDonald, ‘Language Contact in South Oscan Epigraphy’ (PhD Thesis, University of Cambridge, 2014); Katherine McDonald, ‘Fragmentary Ancient Languages as ‘Bad Data’: Towards a Methodology for Investigating Multilingualism in Epigraphic Sources’, *Sociolinguistica* 31 (2017): 31–48. For numismatics see: Carlos F Noreña, ‘The Communication of the Emperor’s Virtues’, *Journal of Roman Studies* 91, (2001): 146–68.

⁶³ The main online databases for Latin inscriptions are: Epigraphik-Datenbank Clauss-Slaby (EDCS) <http://www.manfredclaus.de/>; Epigraphic Database Heidelberg (EDH) <https://edh-www.adw.uni-heidelberg.de/home> and the EAGLE Collections <https://www.eagle-network.eu/>.

⁶⁴ The main source would have been the *Corpus Inscriptionum Latinarum* (CIL).

The Epigraphic Habit – Ramsey MacMullen

One of the most influential publications in the study of Roman epitaphs, is that by Ramsey Macmullen in 1982.⁶⁵ MacMullen suggested that the production of inscriptions increased during the first and second centuries CE, peaked during the reign of Septimius Severus, and rapidly declined in the third century CE. Having described the rise and fall of the epigraphic habit, he then avoids providing an explanation for the pattern, beyond saying that it was due to the ways in which the inscriptions were utilised by society, a phenomenon that he referred to as a ‘sense of audience’.⁶⁶ Although his findings have been developed or challenged, it is hard to find any work on epigraphy in the past 40 years that does not cite the original article or refer to the term, ‘the epigraphic habit.’⁶⁷ A recent search on Scopus, the abstract and citation database, indicates that his article has been cited 190 times since publication, although this is often due to a general interest in his use of the term the ‘epigraphic habit’.⁶⁸ Despite this persistence in citing MacMullen’s article, there are a number of issues associated with his methodology that are relevant to the current study.

Macmullen’s study generated a number of responses following its initial publication including several which have critiqued his methodology and highlighted its flaws.⁶⁹ Firstly, he did not collect the data himself; rather, he used data collected by Mrozek and Lassère.⁷⁰ The data for Mrozek’s study was based on a particular preference for evidence from Italy and Africa, whereas Lassère’s study was based solely on inscriptions from the African provinces. MacMullen’s article is therefore predicated on Italian and North African samples even though he himself says that the

⁶⁵ MacMullen, ‘The Epigraphic Habit in the Roman Empire’.

⁶⁶ *Ibid*, 246.

⁶⁷ In 2016, Peter Kruschwitz cited MacMullen in his article about inscriptions on materials other than stone. His use of the term ‘epigraphic habit’ seems to be used as a convenient way of referring to the habit of inscribing on stone rather than an acceptance of MacMullen’s findings. See: Peter Kruschwitz, ‘Inhabiting a Lettered World: Exploring the Fringes of Roman Writing Habits’, *Bulletin of the Institute of Classical Studies* 59, no. 1 (2016): 26–41.

⁶⁸ Scopus is the largest abstract and citation database of peer-reviewed literature. ‘Scopus’, accessed 3 September, 2019, <https://www2.scopus.com/>.

⁶⁹ Examples are: Meyer, ‘Explaining the Epigraphic Habit in the Roman Empire: The Evidence of Epitaphs’; David Cherry, ‘Re-Figuring the Roman Epigraphic Habit’, *The Ancient History Bulletin* 9 (1995): 143–56; Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*; Beltrán, ‘The ‘Epigraphic Habit’ in the Roman World’.

⁷⁰ Stanislaw Mrozek, ‘A Propos de La Repartition Chronologique Des Inscriptions Latines Dans Le Haut-Empire’, *Epigraphica* 35 (1973): 113–18. Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’.

data comes from all over the Roman-speaking world. Secondly, his results are difficult to replicate, Valerie Hope has pointed out that she has been unable to confirm his pattern of distribution in her study of the military inscriptions of Aquileia Mainz and Nimes.⁷¹ More recently, Beltrán went so far as to say that there are few scholars today who would agree with all his original conclusions.⁷²

Two studies from the 1990s added to the debate. Firstly, Elizabeth Meyer attempted to explain the spread of the epigraphic habit by tying it to the spread of citizenship.⁷³ She proposed that the number of epitaphs increased with the number of citizens, and then declined once Caracalla gave citizenship to all free men in the empire in 212 CE. However, like MacMullen, she based her evidence on an analysis of inscriptions from North Africa, dated mostly by Lassère. She increased the sample by adding dates to those epitaphs that Lassère was unable to closely date, by dividing and averaging them to 25-year periods, following the methodology adopted by MacMullen.⁷⁴ However, David Cherry pointed out that the curves Meyer illustrates, tell us more about modern methods of dating epitaphs than they do about the rise and fall of epigraphic practice.⁷⁵ While he did not deny that there was a link between citizenship and epigraphic practice in North Africa, Cherry was clear that this cannot be demonstrated by epigraphic evidence. He pointed out that her patterns are based on conjectural dates assigned to an epitaph. His rebuttal of Meyer's results indicated his distrust of a reliance on data collected and dated 30 years earlier. To conclude, although we might applaud MacMullen and Meyer for a quantitative approach, both studies are prime examples of research based on samples of data where the results are then generalised to apply to the entire empire. Furthermore, both are based on data collected for another study and therefore neither would be easy to replicate. This is in stark contrast to this thesis, which is based on a large number of inscriptions from all parts of the Roman world, which are readily available in online databases.

⁷¹ Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*.

⁷² Beltrán, 'The 'Epigraphic Habit' in the Roman World', 131. Unfortunately, this statement is not referenced so it is unclear to me who 'most scholars' might be.

⁷³ Meyer, 'Explaining the Epigraphic Habit in the Roman Empire: The Evidence of Epitaphs'.

⁷⁴ Lassère, 'Recherches Sur La Chronologie Des Épitaphes Païennes de l'Africa'.

⁷⁵ Cherry, 'Re-Figuring the Roman Epigraphic Habit'.

Tombstones and Roman Family Relations – Saller and Shaw

For more than thirty years, discussions of the Roman family have been dominated by the innovative analysis of epitaphs conducted by Richard Saller and Brent Shaw.⁷⁶ This study used inscriptions to measure variations in familial and non-familial relationships, and has been a cornerstone of research into the family for over thirty years.

Despite its significance in the literature, the method used by Saller and Shaw to construct their database undermines the value of their study. Although the authors state that the study was based on 25,000 epitaphs, these only constitute a sample of the inscriptions available, and they are biased heavily in favour of inscriptions from Rome and Italy.⁷⁷ Furthermore, the sample of inscriptions from the African provinces was sourced from a limited number of locations, including Carthage and Lambaesis, which, as the current study shows, account for only a fraction of the epitaphs available in these provinces. In effect, it would have been a more robust study had they based their analysis on a much broader sample of all epitaphs in a similar fashion to the current study.

It is surprising that such an influential article did not create an epigraphic statistical renaissance. Instead, scholars prefer to cite Saller and Shaw and very few have felt inspired to either test their assumptions or use a similar technique in other areas.⁷⁸ One exception is Dale Martin, who tested their results on 1,161 inscriptions from Asia Minor.⁷⁹ Martin's results led him to question not only the methodology used by Saller and Shaw but also the conclusions that they had drawn about the structure of the Roman family.

⁷⁶ Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves'.

⁷⁷ *Ibid*, 156.

⁷⁸ The significance of the article by Saller and Shaw can be illustrated by a search of the abstract and citation database 'Scopus' which indicates that the paper has been cited 152 times.

⁷⁹ Dale B Martin, 'The Construction of the Ancient Family: Methodological Considerations', *Journal of Roman Studies* 86, (1996): 41–60.

In conclusion, it is clear that despite some serious misgivings with the data used for both studies and how the results were presented, they are still being cited year after year with very few caveats on the methodology.

Other studies using a quantitative methodology

In the 1990s, Greg Woolf produced two studies that examined epigraphic density. In his work on society during the early empire, he used a relatively crude evaluation based on totals from *CIL* to assess the geographic distribution of Latin inscriptions.⁸⁰ His results showed that the densest concentrations were either in the more highly urbanized Mediterranean provinces or in the highly militarized areas such as Numidia, the Rhineland, and northern Britain. Woolf also used the frequency of inscriptions for cities to map cultural change in Gaul and suggested that inscriptions are often an index of Romanisation.⁸¹ By plotting concentrations of inscriptions in Gaul and the Germanic provinces, he mapped a provisional outline of the cultural geography of Roman Gaul. He concluded that he could not build on the study in Gaul because low numbers of inscriptions meant that the results would have little statistical significance.

Woolf's studies presented epigraphic density at a regional level based on frequencies of inscriptions. His approach focused on the regional at the expense of local variation. This has been criticised by Shawn Graham, who pointed out that density of inscriptions at the province level potentially obscures variation at a local level.⁸² This is in contrast to the current study which not only presents a local and regional analysis but also focusses on the relative popularity of an expression rather than its frequency in the epigraphic record.

The study of chronological age in funerary inscriptions by Laurence and Trifilò is the only recent study to use a similar methodology to this thesis.⁸³ Using a database of 23,227 inscriptions drawn from Italy (excluding Rome) and other provinces, Laurence and Trifilò analysed 1,790

⁸⁰ Woolf, 'Monumental Writing and the Expansion of Roman Society in the Early Empire'.

⁸¹ Greg Woolf, *Becoming Roman: The Origins of Provincial Civilization in Gaul* (Cambridge: CUP, 2000).

⁸² Shawn Graham, 'Networks, Agent-Based Models and the Antonine Itineraries: Implications for Roman Archaeology', *Journal of Mediterranean Archaeology* 19 (2006): 57.

⁸³ Laurence and Trifilò, "'Vixit Plus Minus' Commemorating the Age of the Dead: Towards a Familial Roman Life Course?'

inscriptions that contained the formula *plus minus* and a legible age at death. The analysis demonstrated that this methodology provides greater accuracy in indicating the age of children and young adults in inscriptions (perhaps because older relatives are probably still alive). Moreover, their work indicated that there is no overall pattern relating to gender, which indicated that male and female children were valued equally in this region. However, Laurence and Trifilò's work differs from this thesis because their results are based only on a sample of inscriptions, rather than an analysis of all epitaphs that include the formula *plus minus*.

2.3 A geographical approach

Computer-based spatial analysis has been widely used in archaeology for several years and increasing numbers of classicists and ancient historians are now using these techniques to understand the spatial data contained within classical texts.⁸⁴ However, while wide-ranging in its thematic nature, the scholarship on Roman epitaphs contains very few studies that have investigated spatial variation across a large area in order to understand differences in epigraphic culture. Therefore, despite the fact that quantitative and spatial approaches have been welcomed in other related disciplines, there have been remarkably few large-scale spatial analyses in epigraphy.⁸⁵

⁸⁴ A useful resource for spatial analysis of ancient history is: Leif Isaksen et al., 'Gap: A Neogeo Approach to Classical Resources', *Leonardo* 45 (2010): 82–83; Elton Barker et al., 'Colloquium: Digital Technologies: Help or Hindrance for the Humanities?', *Arts and Humanities in Higher Education* 11, no. 1–2 (2012): 185–200; 'ORBIS: The Stanford Geospatial Network Model of the Roman World', accessed 18 September, 2019, orbis.stanford.edu/. See also: Walter Scheidel, Elijah Meeks, and Jonathan Weiland, *ORBIS: The Stanford Geospatial Network Model of the Roman World*, 2012; Leif Isaksen et al., 'Pelagios and the Emerging Graph of Ancient World Data', in *Proceedings of the 2014 ACM Conference on Web Science - WebSci '14*, (New York: ACM), 2014, 197–201. For archaeological studies using this approach, see: David Mattingly and Robert Witcher, 'Mapping the Roman World: The Contribution of Field Survey Data', In *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World*, edited by S.E. Alcock and J. Cherry, 173–186. Oxford: OUP, 2004; Pearce, 'Archaeology, Writing Tablets and Literacy in Roman Britain'; Graeme Earl and Simon Keay, 'Urban Connectivity of Iberian and Roman Towns in Southern Spain: A Network Analysis Approach', in *Digital Discovery: Exploring New Frontiers in Human Heritage*, edited by Jeffrey T. Clark and Emily M. Hagemeister (Budapest: Archaeolingua, 2006), 89 - 98; Katia Schörle, Andrew Wilson, and Candace Rice, 'Roman Ports and Mediterranean Connectivity', in *Rome, Portus and the Mediterranean*, ed. Simon Keay (London: British School at Rome, 2012), 367–92. For Greek literature, see: Elton Barker and Melissa Terras, 'Greek Literature, the Digital Humanities, and the Shifting Technologies of Reading', *Oxford Handbooks Online*, 2016; Elton Barker et al., 'Mapping an Ancient Historian in a Digital Age: The Herodotus Encoded Space-Text-Image Archive (HESTIA)', *Leeds Int Classical Studies* 9 (2010).

⁸⁵ The study carried out by Laurence and Trifilò, discussed in the previously is an exception.

To date, the majority of epigraphic studies are based on regions, provinces or individual cities.⁸⁶ Whilst these have a value in their own right, they present a number of problems for researchers who have an interest in a wider view of cultural practices. As early as 2002, David Mattingly indicated his support for papers with a wider comparative overview of historical evidence.⁸⁷ He welcomed contributions that provided a broader regional overview over those based on local datasets. Mattingly also indicated how debates of Romanisation had focussed on the ‘similarities’ in culture, whereas he felt that the key concepts for the study of provincial culture ought to be ‘heterogeneity’ and ‘diversity’. He concluded that a more productive way forward was, essentially, to assess how one place was different from another.⁸⁸

This emphasis on regionally-based studies has also attracted criticism from historians and archaeologists. In his 2014-discussion of the Romanisation debate, Versluys noted that archaeologists were thinking, analysing, and publishing in terms of the archaeology of particular provinces.⁸⁹ He went on to say that these practices influenced their view of Romanisation, which was often based on studies of the north-western provinces. He suggested that archaeologists should move towards historical and archaeological studies based on a local and global analysis.⁹⁰ In order to move beyond the study of provinces, he proposed that theories of globalisation were a useful tool. This message was reinforced by Ray Laurence and Francesco Trifilò.⁹¹ They saw the use of age in epitaphs as a global practice, and through an analysis of inscriptions, they were able to assess how this global practice was adopted at a local level.

⁸⁶ The following are relevant to this thesis and serve as examples. For example, for Britain, see: Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’. For Gaul and Germany, see: Raepsaet-Charlier, *Dis Deabusque Sacrum : Formulaire Votif et Datation Dans Les Trois Gaules et Les Deux Germanies*. For Spain, see: Curchin, ‘Familial Epithets in the Epigraphy of Roman Spain’. For North Africa, see: Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’.

⁸⁷ These remarks were made in an article reviewing: Italy and the West: Comparative Issues in Romanization edited by S. Keay and N. Terrenato. Mattingly, ‘Vulgar and Weak ‘Romanization’, or Time for a Paradigm Shift?’, 536.

⁸⁸ *Ibid*, 538-40.

⁸⁹ Miguel John Versluys, ‘Understanding Objects in Motion. An Archaeological Dialogue on Romanization’, *Archaeological Dialogues* 21, no. 211 (2014): 30–40.

⁹⁰ *Ibid*, 11.

⁹¹ Laurence and Trifilò, ‘The Global and the Local in the Roman Empire: Connectivity and Mobility from an Urban Perspective’, 99. See also: Martin Pitts and Miguel John Versluys, ‘Globalisation and the Roman World: Perspectives and Opportunities’, in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, ed. Martin Pitts and Miguel John Versluys, 2015, 3–31.

For epigraphy in particular, the focus on regional studies presents us with a number of issues. Firstly, studies based on individual regions or cities promote the idea of the ‘uniqueness’ of the place in question. Secondly, they can result in a reliance on Rome and Italy for evidence, which carries the risk assuming that practices relating to one area could apply to other areas too. And finally, they do not provide a set of data on which we can base a comparative study so that we can start to understand the geographical spread and variation of commemorative practice. Each of these points will be discussed in turn below.

Virginia Campbell provides a recent example of how the study of one city can create the idea that the epigraphy in that place is unique.⁹² She presented a holistic approach to the study of funerary culture in Pompeii by covering social class, style of monuments, and epitaphs. When she discusses the format of the epitaphs in Pompeii, she concluded that although they fit into the expected pattern, the population of the city established their own practices, ‘independent of what was going on elsewhere in Italy and the Empire’.⁹³ This assertion is based on a number of elements related to this thesis, particularly the lack of use of *Dis Manibus* or *hoc monumentum heredem non sequetur*, and the lack of epithets, including *bene merenti*. However, Campbell presents no evidence to support her claim that patterns of commemoration in Pompeii were different to those found elsewhere. It is based mainly on what we might expect to find in any epitaph, and her interpretation of the ‘standard’ epitaph is defined by epitaphs from Rome. Highlighting what is missing from a Pompeian epitaph does not make its funerary culture unique, since other cities close by might have had a similar pattern of commemoration. It is only by analysing these local patterns of commemoration and comparing them with others that we can understand how the epigraphy of one city is similar to, or different from, another.

The reliance on the epigraphy of Rome and Italy is understandable. The sheer numbers of inscriptions that survive mean that these collections have often been used as evidence in previous studies.⁹⁴ Maureen Carroll also made this point in reference to studies in demography, which she

⁹² Campbell, *The Tombs of Pompeii: Organization, Space, and Society*.

⁹³ *Ibid*, 69.

⁹⁴ Buonocore, ‘Epigraphic Research from Its Inception: The Contribution of Manuscripts’.

says are ‘severely Rome-biased’.⁹⁵ However, this practice excludes large numbers of epitaphs from other parts of the empire and means that any conclusion can only be relevant to a subset of the full data. All too often, the results of these studies are then used (either explicitly or implicitly) to suggest that the results apply across the Roman world. For example, Hanne Sigismund Nielsen’s 1997-study of the use of epithets in Roman epitaphs, is based on a sample of 3,797 epitaphs from *CIL VI*.⁹⁶ She identifies two uses for *bene merenti* as a closing formula at the end of an inscription and a formula used to denote relationships of obligation.⁹⁷ Nielsen states that *bene merenti* is mainly used as a formula and not as a meaningful epithet, which carries information about the relationship between the dedicator and commemorated.⁹⁸ She also demonstrates how in the literature (for example Cicero and Plautus), it is used mainly to describe relationships denoting obligation and gratitude.⁹⁹ She also observes that because this formula is frequently found at the end of an epitaph, ‘it should probably be regarded only as a graphic indicator of the beginning and end of the inscription proper’ (2% of her sample).¹⁰⁰

However, this thesis reveals that although the formula is indeed frequently used in Rome, it is used in much higher proportions in port cities such as Misenum, Puteoli, and Neapolis where its use is related to members of the imperial fleet.¹⁰¹ Whilst not invalidating the conclusions of her study, the results of this thesis indicate that a regional analysis provides a more accurate interpretation of where and how formulae are used. This approach would also allow researchers to test their conclusions on a much larger body of data.

Finally, regional studies in epigraphy do not provide a set of data on which we can base a comparative analysis nor do they allow us to identify significant patterns that transcend political boundaries. For example, in his study of the funerary culture of the province of Lusitania,

⁹⁵ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 23.

⁹⁶ Nielsen, ‘Interpreting Epithets in Roman Epitaphs’.

⁹⁷ *Ibid*, 181.

⁹⁸ *Ibid*, 181.

⁹⁹ *Ibid*, 181-2.

¹⁰⁰ *Ibid*, 181.

¹⁰¹ For a discussion of epitaphs of members of the imperial fleet, see: Steven L Tuck, ‘Nasty, Brutish, and Short? The Demography of the Roman Imperial Navy’, in *Ancient Documents and Their Contexts*, ed. John Bodel and Nora Dimitrova (Leiden: Brill, 2011), 212–29.

Edmondson noted that local patterns were sometimes shared with cities in Baetica and Tarraconensis.¹⁰² However, unlike the analyses carried out in this thesis, he did not consider whether any of these features were shared with cities outside the Iberian Peninsula. This thesis highlights the similarities between the epigraphy found in Baetica in the Iberian Peninsula and that of the port city of Caesarea in Mauretania Caesariensis on the north-African coast. These homogenous patterns are only apparent in a cross-regional study, and would have been obscured in one based on the epigraphy of an individual city or region.

We have seen how current scholarship is often based on samples, or restricted to individual regions and places and how this can lead to an over reliance on evidence from Rome and Italy and a generalisation of results. The next topic to be addressed is how common epitaphic formulae have been discussed in the literature.

2.4 Studies of common formulae

There has never been a comprehensive study of common epitaphic formulae. All recent studies include basic information about common epitaphic formulae but this is often limited to a passing mention and occasionally a list of how to translate them. For most historians and epigraphers, common epitaphic formulae have very little to tell us about the ancient world. Saller goes so far as to state that the majority of epitaphs are ‘too brief and formulaic’ to be of much use to historians of the Roman family.¹⁰³ However, for the current study, it is this formulaic nature itself that provides the data for a geographic analysis of epigraphic practice.

A formula can be defined as an expression or phrase designed to convey a message about the tomb or the deceased. There is evidence for standardised expressions in epitaphs from across the ancient world, including Lycia, Greece, Oscan-speaking Italy and Bithynia.¹⁰⁴ They are a

¹⁰² Edmondson, ‘Funerary Inscriptions and the Development of Local Epigraphic Cultures in Roman Lusitania’.

¹⁰³ Richard P. Saller, ‘The Family and Society’, in *Epigraphic Evidence: Ancient History from Inscriptions*, ed. John Bodel (London: Routledge, 2001), 95.

¹⁰⁴ W Arkwright, ‘Penalties in Lycian Epitaphs of Hellenistic and Roman Times’, *The Journal of Hellenic Studies* 31, no. 1911 (1911): 269–75.; Lattimore, *Themes in Greek and Latin Epitaphs*; Kalle Korhonen, ‘Three Cases of Greek/Latin Imbalance in Roman Syracuse’, in *Greek Romans and Roman Greeks: Studies*

common feature of epigraphy across all cultures and time periods, and are still in use today.¹⁰⁵ A modern example is “R.I.P”, which is widely used on gravestones as an abbreviation of “Rest in Peace”.

In the empire, these phrases were so commonly used that they were often abbreviated to their capital letters. These repeated phrases, often used time and time again in the same cemetery or region, helped people interpret the message that the inscription was hoping to convey.¹⁰⁶ Woolf goes further and suggests that abbreviated formulae may have been read ‘quasi-pictographically’, making an inscription easier to read and taking on a symbolic meaning over time.¹⁰⁷

Despite their use in thousands of epitaphs, the treatment of these formulae in scholarship remains limited. Studies are often restricted to an individual formula, a particular region, or a particular social group. There are epigraphic studies on epitaphs from Rome,¹⁰⁸ Italy,¹⁰⁹ Gaul,¹¹⁰ Pannonia Superior,¹¹¹ Germania Superior, Baetica,¹¹² and the African provinces.¹¹³ Formulae have

in *Cultural Interaction*, ed. Erik N Ostenfeld (Aarhus: Aarhus University Press, 2002); James N Adams, *Bilingualism and the Latin Language* (Cambridge: CUP, 2003); Jonathan R.W. Prag, ‘Provincia Sicilia: Between Roman and Local in the Third Century BC’, in *De Fronteras a provincias. Interacción e integración en Occidente (ss.III-I aC)* edited by E. Garcia Riaza 86–95 (Palma de Mallorca: Ediciones Universitat de les Illes Balears, 2011); Hannah Cotton, *From Hellenism to Islam* (Cambridge: CUP, 2009); and Jonathan R.W. Prag, ‘Epigraphy in the Western Mediterranean: A Hellenistic Phenomenon?’, in *Epigraphy in the Western Mediterranean: A Hellenistic Phenomenon?*, ed. Jonathan R. W. Prag and Josephine Crawley Quinn (Cambridge: CUP, 2013).

¹⁰⁵ For a discussion of formulae used in commemorations in the early modern and modern period, see: Sarah Tarlow, *Bereavement and Commemoration: An Archaeology of Mortality* (Oxford: Blackwell Publishing, 1999).

¹⁰⁶ Carroll, ‘“Vox Tua Nempe Est” Dialogues with the Dead in Roman Funerary Commemoration’.

¹⁰⁷ Woolf, ‘Monumental Writing and the Expansion of Roman Society in the Early Empire’, 28.

¹⁰⁸ Nielsen, ‘Interpreting Epithets in Roman Epitaphs’.

¹⁰⁹ Kathryn Lomas, ‘Local Identity and Cultural Imperialism: Epigraphy and the Diffusion of Romanisation in Italy’, in *Papers of the Fourth Conference of Italian Archaeology: The Archaeology of Power Part 1* (London: Accordia Research Institute, 1991), 231–39; Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*.

¹¹⁰ Anatole de Barthélémy, *Recherches Sur La Formule Funéraire ‘Sub Ascia Dedicare’* (F.-A. Saurin, 1846). Marie-Thérèse Raepsaet-Charlier, ‘Hic Situs Est Ou Dis Manibus. Du Bon Usage de La Prudence Dans La Datation Des Épitaphes Gallo-Romaines’, *L’antiquité Classique* 71, no. 1 (2002): 221–27. Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*.

¹¹¹ Peter Kruschwitz, ‘H(Ic) i(- - -) s(Itvs) e(St): Meaning and Diffusion of a Regionally Used Sepulchral Formula | H(Ic) i(- - -) s(Itvs) e(St): Bedeutung Und Verbreitung Einer Regional Gebräuchlichen Sepulkralformel’, *Zeitschrift Fur Papyrologie Und Epigraphik* 144 (2003): 213–16.

¹¹² Muñoz, ‘Los Dioses Manes En La Epigrafía Funeraria Bética’ and Silvia Alfayé, ‘Sit Tibi Terra Gravis: Magical-Religious Practices against Restless Dead in the Ancient World’, in *Formae Mortis: El Tránsito de La Vida a La Muerte En Las Sociedades Antiguas*, ed. Marco, F., Pina, F., y Remesal, J. (Zaragoza: Universidad de Zaragoza, 2009), 181–216.

¹¹³ Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’.

also been discussed in relation to particular groups within Roman society. For example, David Noy discusses Jewish epitaphs and epitaphs set up by migrants in Rome.¹¹⁴ Mark Handley has also analysed the use of common expressions to identify Christian commemorations in Britain.¹¹⁵ These studies all provide valuable information on where and how particular formulae were used, but, unlike this thesis, they do not provide the data for a large-scale comparative study.

Many studies also make generalisations about the relative importance of particular formulae without supporting evidence. For example, Toynbee discusses the use of *in fronte in agro* as a ‘frequent’ practice, and observes it was ‘often’ followed by *hoc monumentum heredem non sequetur*.¹¹⁶ However, these generalisations can be misleading since I discovered that *in fronte in agro* is included in only 5% of epitaphs in the dataset. Moreover, of the 5,499 epitaphs that included it, only 3% also used *hoc monumentum heredem non sequetur*. Toynbee also states that formulae are so abundant ‘that no particular example need be cited.’¹¹⁷ However, this assumption leads scholars to conclude that the language content of an epitaph might be standardised across the Roman world, whereas this large-scale analysis indicates that epigraphic patterns are far from uniform, and are characterised by regional and local variation.

Nevertheless, there is some acknowledgment that certain expressions are used in some parts of the empire but are rare or absent in another.¹¹⁸ Alison Cooley referred to the fact that formulae ‘varied from place to place’ but provided little detail.¹¹⁹ Valerie Hope recognised this also in her 1994-PhD thesis, acknowledging that these expressions and abbreviations are not ‘universal’.¹²⁰ However, there is little recognition of how regional variation impacted the commemorators’ selection of formulae in different parts of the empire. For instance, Virginia Campbell indicated that Pompeian epitaphs are characterised by a combination of elements,

¹¹⁴ David Noy, *Jewish Inscriptions of Western Europe Volume 1* (Cambridge: CUP, 1993); Noy, *Foreigners at Rome: Citizens and Strangers*; Noy, ‘Epigraphic Evidence for Immigrants at Rome and in Roman Britain’.

¹¹⁵ Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’.

¹¹⁶ Toynbee, *Death and Burial in the Roman World*, 75.

¹¹⁷ *Ibid.*, 75.

¹¹⁸ Iiro Kajanto, ‘On the Idea of Eternity in Latin Epitaphs’, *Arctos* 8 (1974): 60.

¹¹⁹ Alison E Cooley, *The Cambridge Manual of Latin Epigraphy* (Cambridge: CUP, 2012), 435.

¹²⁰ Hope, ‘Reflections of Status : A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes. Vol 1’, 77.

including an opening formula, such as *Dis Manibus* or *Dis Manibus Sacrum*, and a closing formula, such as *hic situs est* and/or *sit tibi terra levis*.¹²¹ By giving the impression that any of these formulae might have been selected for use in a memorial regardless of its location, she implies that the Pompeian epigraphy is unique and unusual. However, this thesis shows that some of the examples she provides (particularly *hic situs est* and/or *sit tibi terra levis*) are rare in the epigraphy of Latium and Campania and there would have been little likelihood of their inclusion in the epigraphic landscape of Pompeii. Consequently, it is misleading to characterise the contents of an inscription in this way since it gives the impression that formulae choice was unrestricted. In fact, as the current study shows, the choice of which formulae to include would have been limited to those popular in the region where the memorial was located.

The absence of a major authoritative work on geographic variation is surprising. Maureen Carroll's study of funerary commemoration in Italy and Western Europe is the first study in recent years to discuss regionalism in epigraphic formulae in any detail and she recognises that formulae in the Western Empire varies across space.¹²² However, although she used the words 'frequently' and 'rarely' throughout her study, her evidence is not supported by quantitative analysis or maps to indicate where these formulae are found.¹²³

Although unpublished, the 1999-PhD thesis by Iveta Mednikarova is a study of formulaic methods of expression in Latin funerary inscriptions.¹²⁴ This study differs from mine in two respects. Firstly, it examines the linguistic structure and syntax of formulaic language (examining spelling errors, for example). Secondly, it is not a comprehensive analysis of the use of particular formulae based on a quantitative analysis. Mednikarova's methodology uses a variety of test cases to establish features of epigraphic language and her analyses are based on samples that she says are

¹²¹ Campbell, *The Tombs of Pompeii: Organization, Space, and Society*, 63.

¹²² Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 133.

¹²³ This is echoed by Valerie Hope in her review of Carroll, when she notes that the reader is left questioning how common or rare Carroll's chosen examples are. See: Valerie M. Hope, 'Carroll (M.) *Spirits of the Dead*. Roman Funerary Commemoration in Western Europe. Oxford: OUP, 2006', *The Classical Review* 58, no.1 (2008): 228.

¹²⁴ Iveta Mednikarova, 'Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae' (PhD Thesis, University of Reading, 1999).

representative of most places in the Latin-speaking world.¹²⁵ Although she states that these places are referenced in each section, I have been unable to find a comprehensive list of places and provinces. Thus, Mednikarova's study is neither comprehensive nor definitive.

Having seen that there are very few studies of epitaphs and common formulae that use a large-scale spatial analysis to understand regional variation, we need to consider the current literature on digital epigraphy to understand why so few studies in epigraphy employ this approach.

2.5 Digital epigraphy

The development of online databases of inscriptions led Ulrico Agnati to create the term 'Quantitative Epigraphy'.¹²⁶ He predicted that quantitative analyses would start to play a more prominent role in epigraphic research and that techniques used in epigraphic research would need to be re-evaluated.¹²⁷ However, epigraphy as a discipline has been slow to capitalise on this new resource. Despite this, the past ten years has seen a growth in the number of publications referring to 'digital epigraphy'.¹²⁸ This has developed as a sub-discipline within the wider discipline of epigraphy, and brings the potential for a step change in how epigraphic studies are constructed. This potential to change the way in which epigraphic studies are carried out was recognised by Cayless et al. in 2009.¹²⁹ The authors attempted to predict how epigraphy would be studied in 2017. They suggested that 'digitally-enabled epigraphy scholarship' would mean that scholars

¹²⁵ *Ibid*, 21.

¹²⁶ Ulrico Agnati, 'About Quantitative Epigraphy: Statistical Prolegomena', *Epigraphica; Periodico Internazionale Di Epigrafia* LX (1998): 123–36. See also: Ulrico Agnati, 'A Computerized Epigraphical Database', *Epigraphica; Periodico Internazionale Di Epigrafia* LXI (1999): 207–22.

¹²⁷ Agnati, 'About Quantitative Epigraphy: Statistical Prolegomena', 136.

¹²⁸ Hugh Cayless et al., 'Epigraphy in 2017', *DHQ: Digital Humanities Quarterly* 3, no. 1 (2009): 1–28; Babeu, 'Rome Wasn't Digitized in a Day': *Building a Cyberinfrastructure for Digital Classics*; John Bodel, 'Latin Epigraphy and the IT Revolution', *Proceedings of the British Academy*, 2012, 275–96; Sylvia Orlandi et al., 'Information Technologies for Epigraphy and Cultural Heritage', in *Proceedings of the First EAGLE International Conference* (Rome: Sapienza Università Editrice, 2014); Gabriel Bodard and Matteo Romanello, *Digital Classics Outside the Echo-Chamber: Teaching, Knowledge Exchange and Public Engagement* (London: Ubiquity Press, 2016); Sylvia Orlandi et al., *Digital and Traditional Epigraphy in Context: Proceedings of the EAGLE 2016 International Conference* (Rome: Sapienza Università Editrice, 2017).

¹²⁹ Cayless et al., 'Epigraphy in 2017'.

could ‘ask and answer new types of question’ and even ‘discover new questions to ask’.¹³⁰

Although this reflects the conceptual background of this thesis, it is clear that there are very few scholars who are using these methodological advances to drive their research, and few have taken up the challenge that these databases offer.

The omission of digital methodologies from the scholarship may be partly due to a general distrust of the accuracy of the databases. In 2016, Werner Eck announced that epigraphy had caught up with the digital age.¹³¹ He gave an excellent introduction to the development of digital epigraphy but followed this with an example of how a search might return an inaccurate result. His point was that databases might provide a result, but experience in the discipline is essential to interpret the results and spot the false hits.¹³² Whilst it is true that researchers need to have some expertise in identifying inaccurate results, they should not be discouraged from making full use of this resource. By providing an example of relevance to traditional epigraphic research, where a detailed knowledge and close reading of an inscription is paramount, he is on the one hand celebrating the development of a new and exciting resource, whilst on the other, warning that it should be used with caution. What Eck did not mention was the fact that the development of these databases might transform epigraphic research into something that moves beyond the traditional enquiry about individual inscriptions, to a macro approach, which looks at thousands of inscriptions. In effect, their use in epigraphic research changes the sorts of questions we can ask.

Despite the recognition that the development of digital epigraphy has the potential to change the way epigraphic studies are conducted, recent scholarship on the subject has focussed almost exclusively on standards and how inscriptions should be published and marked up, rather than how we might use the vast amounts of data at our disposal.¹³³ This focus on publishing

¹³⁰ *Ibid*, 38.

¹³¹ Werner Eck, ‘Tradition and Progress. The Roman World in the Digital Age - Seen through Inscriptions’, in *Digital and Traditional Epigraphy in Context: Proceedings of the EAGLE 2016 International Conference*, ed. Sylvia Orlandi (Rome: Sapienza Università Editrice, 2017), 19–36.

¹³² *Ibid*, 23.

¹³³ Fabio Fumarola et al., ‘EDB: Knowledge Technologies for Ancient Greek and Latin Epigraphy’, *Communications in Computer and Information Science* 385 (2014): 29–40; John Bodel, ‘Inchriften in Der Digitalen Welt’, *XIV Congressus Internationalis Epigraphiae Graecae et Latinae 27. – 31. Augusti MMXII*, 2012, 501–3; Bodel, ‘Latin Epigraphy and the IT Revolution’; Babeu, “‘Rome Wasn’t Digitized in a Day’”:

inscriptions and the use of EpiDoc guidelines for their mark-up is also apparent in the numerous training workshops available for scholars interested in learning how to publish inscriptions online.¹³⁴ Whilst not wishing to underestimate their importance, there is a risk that if we continue to focus on the gathering and publication of data, we will do so at the expense of realising the potential these databases offer to our research.

2.6 Conclusions

This chapter has shown that the epigraphic scholarship contains very little quantitative analysis. When a quantitative approach is used, it is based on samples, often from one or two regions, and then the results are generalised to apply across the empire. This has led to a dependence on evidence from Rome and Italy at the expense of epigraphic evidence from elsewhere in the empire. This chapter has also illustrated that common epitaphic formulae are frequently given a cursory mention and are generally considered uninteresting with little to tell us about epigraphic practice. We have also seen that the growth of interest in digital epigraphy has focussed on the management of the data rather than considering how we might exploit it.

It is evident that the study of epigraphy is developing at a slower pace than other related disciplines. Researchers in linguistics and archaeology, for example, have embraced the opportunities afforded by a quantitative or spatial methodology. The apparent reluctance of epigraphers to embed these methods within their research is surprising, since the data they require are readily available in online databases. Although the quality of the data may not be perfect, the inscriptions are easy to access and their analysis does not need specialist software. By embracing these techniques, those studying epigraphy will be able to steer their research in new directions and take a more global approach to the study of history.

Building a Cyberinfrastructure for Digital Classics’; Sylvia Orlandi, ‘Ancient Inscriptions between Citizens and Scholars:’, *Digital Classics Outside the Echo-Chamber*, 2016, 205–21.

¹³⁴ EpiDoc standards are used for the online publication of inscriptions. For more information, see: <https://sourceforge.net/p/epidoc/wiki/Home/>, accessed 21 February 2020. For an example of one of the many workshops organised to train epigraphers to use this tool, see: https://wiki.digitalclassicist.org/EpiDoc_Workshops#Training_programme, accessed 12 September 2019.

The way historians think about the ancient world is changing and epigraphy runs the risk of being left behind. When Eck announced that epigraphy had caught up with the digital age, he was celebrating the development of a single online database for all Latin inscriptions rather than congratulating researchers on how they were making use of online resources in general.¹³⁵ I address this by taking a fresh approach to the analysis of inscriptions. By mapping common formulae in thousands of epitaphs and establishing ‘epigraphic signatures’ for regions and cities, I can compare the epigraphy of one area with that of another to assess and understand global patterns of commemoration. By doing this, I am using an innovative methodology and taking a more global approach to the study of history.

¹³⁵ Eck, ‘Tradition and Progress. The Roman World in the Digital Age - Seen through Inscriptions’.

Chapter 3 – Methodological Approach

Introduction

This chapter explains the approach I have taken to investigate and visualise patterns of commemoration based on an analysis of frequently used formulae in epitaphs. Although differences in patterns of commemoration can be inferred from numerous regional studies, there has never been a study that analyses and maps the epitaphic patterns of a range of formulae and sets them in the context of patterns across the Roman world. The previous chapter highlighted how earlier studies of epitaphs have been based on samples or the epigraphy of individual provinces or regions, which leads to generalisations and a reliance on the inscriptions of Rome and Italy. These results, while important for the area in question, cannot answer questions relating to the whole of the empire. The aim of this thesis is to conduct a quantitative analysis of frequently used formulae and map their distribution, to understand spatial variation in epitaphic patterns of commemoration. As a result, this thesis shifts the analysis of epitaphs, from a reliance on local studies, to one that better fits a global approach to history.¹³⁶

This chapter outlines the quantitative spatial methodology used in this thesis and explains the benefits of this approach. It also provides a list of the common expressions that are analysed and information on how the epitaphs were identified and downloaded. It also describes the steps taken to produce the data and maps for the analysis in Chapter 4. In addition, it explains how epigraphic signatures for regions and places were constructed for the analysis in Chapter 5. I then clarify the reasons for the additional analysis in Chapter 6.

3.1 A quantitative spatial analysis

This thesis seeks to understand convergence and divergence in commemorative patterns and is based on a quantitative spatial analysis of common expressions in a large number of epitaphs. To

¹³⁶ Pitts and Versluys, 'Globalisation and the Roman World', 22.

achieve this, I required a database consisting of a large number of inscriptions, and a methodology that could analyse the data and visualise the results. Furthermore, to produce robust results, the database had to be comprehensive and not based on samples. It also required a means of comparing the results obtained from one region with that of another since this is the only way of understanding the variation in commemorative patterns and how far inscriptions from Rome influence these patterns.

To these ends, I created a database of 104,007 epitaphs, which were stored and analysed in MS Excel. I also used maps produced in ArcGIS to examine and visualise the differences and similarities in the use of common epitaphic formulae. These maps indicated where individual formulae were used and in what quantities. Furthermore, I created epigraphic signatures at a regional and local level to produce a set of results that could be compared for evidence of differences and similarities. By using this approach, I have been able to perform a rigorous analysis of a large amount of epigraphic data to produce quantifiable conclusions on commemorative patterns.

As we have seen in the previous chapter, the analysis of large numbers of inscriptions is still relatively rare in epigraphic research and there are few examples of how a study of this kind should be carried out. Despite the development of online epigraphic databases in the 1990s, very few researchers have adopted a quantitative approach in their studies.¹³⁷ Although there are some earlier scholars who have analysed larger samples of inscriptions in their research, these have tended to be based on either samples of data (sometimes collected by others) or on individual cities.¹³⁸ However, although still uncommon, there are a few epigraphic studies in recent years which have incorporated quantitative analyses of larger numbers of inscriptions in their methodology, similar to the approach taken in the current study. A notable example is the study by Laurence and Trifilò of chronological age in Roman tombstones which is supported by a database

¹³⁷ Agnati, 'About Quantitative Epigraphy: Statistical Prolegomena'. He concluded that quantitative analyses would start to play a more prominent role in epigraphic research and that techniques used to study inscriptions would need to be reconsidered.

¹³⁸ MacMullen, 'The Epigraphic Habit in the Roman Empire'; Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves'.

of 23,227 inscriptions from Italy and the provinces.¹³⁹ Building on this study, the current thesis has pioneered a new mode of studying global epigraphic patterns.

The quantitative spatial methodology used in this study, although rare in epigraphic research, has been used in some notable examples in other disciplines. These studies indicate the benefit of this methodology for humanities research and support my view that it is one that has value for epigraphic research. For example, since the early 1990s, GIS and mapping has been used increasingly in historical research. Consequently, it is now common to see researchers referring to the study of ‘Historical GIS’.¹⁴⁰ It has been used to good effect by Ian Gregory, who is part of the Digital Humanities Hub at Lancaster University, in the analysis of data from nineteenth century English censuses.¹⁴¹ Additionally, linguists, and particularly socio-linguists, are using these techniques to analyse and visualise their data and to drive their research in exciting directions.¹⁴² The evaluation of regional diversity in the use of Latin by John Adams pointed to the need to evaluate data to produce meaningful statistics from as large a data-set as possible.¹⁴³ Importantly for Adams, micro-studies at a local level had proven unsatisfactory and he suggested that future studies should be based on a large dataset in order to make comparisons between regions, an approach integral to the current study. Furthermore, increasing numbers of classicists and ancient historians are now using these techniques to understand the spatial patterns contained within their data.¹⁴⁴ Digital methods are revolutionising the study of Greek and Latin literature and bolstering textual analysis.¹⁴⁵ Of particular relevance is the work undertaken by Miko Flohr when he mapped

¹³⁹ Laurence and Trifilò, “‘*Vixit Plus Minus*’” Commemorating the Age of the Dead: Towards a Familial Roman Life Course?’

¹⁴⁰ DeBats and Gregory, ‘Historical GIS and the Study of Urban History’; Scheidel, Meeks, and Weiland, *ORBIS: The Stanford Geospatial Network Model of the Roman World*.

¹⁴¹ Ian N. Gregory and Richard. G. Healey, ‘Historical GIS: Structuring, Mapping and Analysing Geographies of the Past’, *Progress in Human Geography* 31, no. 5 (2007): 638–53.

¹⁴² Adams, *Bilingualism and the Latin Language*; David Bamman and David Smith, ‘Extracting Two Thousand Years of Latin from a Million Book Library’, *Journal on Computing and Cultural Heritage*, 5 (2012), 1–14; Barbara McGillivray, *Methods in Latin Computational Linguistics* (Brill, 2013); Peter Kruschwitz, ‘Linguistic Variation, Language Change, and Latin Inscriptions’, in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson, 2015, 719–42; McDonald, ‘Fragmentary Ancient Languages as ‘Bad Data’: Towards a Methodology for Investigating Multilingualism in Epigraphic Sources’.

¹⁴³ Adams, *The Regional Diversification of Latin 200 BC–AD 600*, 82, 624–83.

¹⁴⁴ Barker et al., ‘Mapping an Ancient Historian in a Digital Age: The Herodotus Encoded Space-Text-Image Archive (HESTIA)’.

¹⁴⁵ Barker and Terras, ‘Greek Literature, the Digital Humanities, and the Shifting Technologies of Reading’.

data on architecture and epigraphy to create a ‘big data map’ to understand Roman urban culture.¹⁴⁶ By mapping evidence for inscriptions and architecture, Flohr was able to identify ‘clusters’ or concentrations of epigraphic evidence of urban culture, which required further investigation. These studies all form a body of evidence to support the view that this methodology can be used to good effect in epigraphic research.

Basing my analysis on a quantitative spatial analysis of a large number of inscriptions had a number of benefits for this thesis. Firstly, it meant that the analysis was as comprehensive as possible and that the study was ‘data-led’ rather than focused on a particular region of interest. This meant that I made no assumptions about which formulae I should include and which would produce the most interesting results. Instead, as explained below, I spent time interrogating the databases to discover which expressions were used most frequently. This ‘macro’ approach represents a step change in how commemorative practices have been analyzed in earlier ‘micro-based’ studies and avoids generalizing results from the local level to apply to much larger areas.

Secondly, by using maps to display the results as part of the spatial analysis, I reveal previously unknown patterns of commemoration. For example, in Circa and its satellite towns, the local profile is heavily dominated by practices similar to those from Rome and Italy and not by the prevailing North African pattern. In addition, by constructing epigraphic signatures at a regional and local level, I have been able to compare patterns in the data across the dataset.

Finally, I have been able to quantify what epigraphers actually mean when they refer to an expression as ‘common’ or ‘ubiquitous.’ and to link this to a geographic area.¹⁴⁷ I therefore dispel the implication that some formulae are ‘common’ or ‘frequent’ when there are relatively few examples of the formula across the empire. For example, the expression *hoc monumentum heredem non sequetur* appears in most epigraphic manuals, giving the impression that it is a frequently used formula. However, its use in only 943 epitaphs in the current study indicates that it

¹⁴⁶ Miko Flohr, ‘A Clustered Empire? Mapping Roman Urbanism II’, BuildingTabernae, accessed 6 June, 2017, <http://buildingtabernae.org/2016/06/a-clustered-empire-mapping-roman-urbanism-ii/>.

¹⁴⁷ See: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 126; Cooley, *The Cambridge Manual of Latin Epigraphy*, 421.

is relatively rare in the epigraphic record. This generalization of patterns of commemoration in the literature can be misleading and unhelpful. It is particularly important for anyone new to epigraphy to understand the likelihood of encountering a particular formula in any given sample of inscriptions.

This quantitative approach, however, has been criticized by some scholars of epigraphy and there are some who are keen to highlight its drawbacks. Carroll suggested that quantifying information from tombstones and reducing it to hard data, can be ‘de-humanising’ since what we are seeing is individual human lives represented as data in tables and graphs.¹⁴⁸ Hope has also referred to epitaphs becoming ‘disassociated’ from the memorials on which they were located.¹⁴⁹ She added that the reliance on trends and patterns of statistics is at the expense of the context of the monument. Woolf has also warned that the analysis of inscriptions as statistics can only produce ‘crude results’.¹⁵⁰ Despite its unpopularity, this study demonstrates that, far from producing ‘crude results’, a quantitative spatial methodology has the potential to produce a rich and meaningful set of results. Furthermore, by placing each inscription in the context of all other inscriptions, I have moved this methodology from a blunt analytical tool, simply counting inscriptions, to a more sophisticated analytical one.

Having examined how others have used similar methodologies either in epigraphy or within the wider humanities, I will now turn to explaining how the study was constructed. I will first provide definitions for the key components of the research before turning to an in-depth discussion of the various steps on which the analysis is based.

¹⁴⁸ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 23.

¹⁴⁹ Hope, ‘Reflections of Status: A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes, Vol 1’, 255.

¹⁵⁰ Greg Woolf, ‘How the Latin West Was Won’, in *Becoming Roman, Writing Latin? Literacy and Epigraphy in the Roman West*, ed. Alison E. Cooley (Portsmouth, R.I.: Journal of Roman Archaeology, 2002), 181–88.

3.1.1 Definitions

Epitaph

An epitaph is an inscription on a tombstone written by an individual before death, or by family members or colleagues post mortem, with the intention of creating a permanent memorial to the person who has died. In its simplest form, an epitaph might record some or all of the following name; age; status; place of birth; occupation of the person who has died; and name(s) of the commemorator(s). Some may be a few words long, while others can run into many hundreds of words. Although the information they contain varies according to the commemorated individual, the vast majority include standardised wording, formulae, to represent a particular sentiment or wish.

Formula

A formula is a standardised phrase or idiom used in the wording of an epitaph. These phrases are found in thousands of epitaphs in all regions of the empire. However, there are variations in how and where these formulae were used. This provides a characteristic of an epitaph, which can be quantified and mapped to illustrate and contextualise the geographical variation of commemorative patterns.

Formulae are a simple and convenient way to convey, sometimes complex, messages. Some phrases, such as *Dis Manibus* ('to the spirits of the dead'), are used across the Roman world, whereas others, such as *ossa tibi bene quiescant* ('may your bones rest well'), have only been found in the North African provinces. Formulae are sometimes written in full or abbreviated; they are sometimes used alone but also frequently used together in the same inscription.

Regions and Provinces

All the provinces and Italic regions (as identified in EDCS) are assigned to major geographic groupings. These regions are Rome; the rest of Italy; the North-Western provinces; the Balkan and Danubian provinces; the Eastern provinces; the African provinces; the Iberian provinces; and the

Mediterranean islands. The full list of provinces assigned to each region is given in Table 3.1, although those provinces where all cities have a frequency of epitaphs below the 100-cut-off point will be missing from the list. These regions are used in Chapter 5 to establish epigraphic signatures.

By grouping provinces in this way, I was able to identify broad patterns of variation, which could then be used to compare regions. I could also establish how far Rome was influencing patterns in the provinces. These broad geographical analyses at the regional level revealed some interesting spatial patterns that led to further investigation at a local level.

Table 3.1 – Total epitaphs by region and province

Region	Province/Italic Region	Number of epitaphs
African provinces	Africa Proconsularis	12,336
	Mauretania Caesariensis	2,717
	Numidia	11,541
Balkan and Danubian provinces	Dacia	763
	Dalmatia	2,585
	Moesia superior	627
	Pannonia inferior	704
	Pannonia superior	953
Eastern provinces	Macedonia	279
Iberian provinces	Baetica	2,427
	Hispania Citerior	2,907
	Lusitania	2,331
Italy	Aemilia Regio VIII	770
	Apulia et Calabria Regio II	1,962
	Etruria Regio VII	1,451
	Latium et Campania	7,237
	Samnium Regio IV	1,223
	Transpadana Regio XI	802

	Umbria Regio IV	1,013
	Venetia et Histria Regio X	2,844
Mediterranean Islands	Sardinia	647
	Sicilia	362
North-Western provinces	Aquitania	727
	Belgica	897
	Belgica Germania superior	18
	Gallia Narbonensis	2,589
	Germania inferior	278
	Germania superior	808
	Lugdunensis	959
Rome	Rome	35,003

Cities

Each inscription in Epigraphik-Datenbank Claus-Slaby (EDCS) is assigned to a place that refers to the actual site where the inscription was found. In many cases, the inscriptions are no longer *in situ* or lost. Occasionally, some inscriptions located in museums are misattributed to their current location whereas the history of the inscription indicates they originated elsewhere.¹⁵¹ All locations discussed in this thesis are referred to as cities. This is a convenient label but not one which makes any assumptions about the size of the settlement or its status in the Roman world.

¹⁵¹ An inscription in the Roman Museum in Canterbury is currently attributed to Canterbury whereas it is likely to have originated in Emerita (Lusitania). See: Thomas J. Goessens, “‘*Titulum Non Repperi*’: The Identification of an *Alienum* in Canterbury with a Missing Inscription from Mérida (RIB 2328* = CIL II 585)”, *Arctos* 50 (2016): 59–72.

3.1.2 Sourcing the inscriptions

Although several online databases exist, all inscriptions for the current study were sourced from EDCS.¹⁵² EDCS is considered to be the most comprehensive of all databases and currently contains more than 519,000 inscriptions, which have also been published in print.¹⁵³

An alternative source was the Epigraphic Database Heidelberg (EDH), which contains additional useful information on each inscription, such as type of inscription and date.¹⁵⁴ However, EDH currently contains only 65,000 inscriptions and there are some provinces where the coverage is far less complete than EDCS. For example, the Balkan and Danubian provinces are fully entered whereas the North-Western and African ones are still provisional or ‘in progress’. These gaps in the data would have been a serious issue for a cross-regional study such as this, which relies on a large number of inscriptions from all parts of the empire.

Having chosen to use EDCS, I had to consider a number of issues regarding the quality of the data it contains, particularly regarding duplicate entries and transcription errors. Early on, it was clear that I would be downloading in excess of 100,000 inscriptions. I therefore took the decision that any duplicates or false hits would fall within an acceptable error range for a file of this size. An acceptable error rate would be below 1% (1,040 epitaphs). To assess the number of duplicated inscriptions in the database, I used a simple MS Excel function to compare the wording of an inscription with all others in the database. This returned the number of times where the same wording and abbreviations had been used. However, it was clear that in many cases, the same wording was used in hundreds of epitaphs, many of which may not have been duplicates. For instance, there are hundreds of partial epitaphs in the database which only contain the formula *D(is) M(anibus)*, with no other elements of the epitaph remaining. Since the only way to identify which of these are true duplicates is to examine each epitaph in turn, I restricted this analysis to those where the exact same wording and abbreviations were used in only one or two other inscriptions.

¹⁵² <http://www.manfredclaus.de/gb/index.html>, accessed 18 October 2018.

¹⁵³ Elliott, ‘Epigraphy and Digital Resources’, 80.

¹⁵⁴ <https://edh-www.adw.uni-heidelberg.de/home/> EDH is part of the Europeana Network of Ancient Greek and Latin Epigraphy (EAGLE) <https://www.eagle-network.eu/eagle-project/who-we-are/>.

The results indicated that there are 942 epitaphs where the same wording is used in one or two other epitaphs, indicating more than one entry in EDCS for the same inscription. Overall, this indicates that approximately 0.9% of epitaphs are repeated more than once (within the acceptable error rate of 1%).

Having made the decision to download the inscriptions from EDCS, I was aware that this would limit the type of analyses I would be able to perform. In December 2014, when the data download took place, EDCS only provided the following information: publication reference; EDCS unique identifier; province; place name; and text of the inscription. The current version of EDCS is more sophisticated and now provides an option for selecting '*tituli sepulcrales*' (epitaphs). A recent search (September 2019) indicated that there are currently 171,250 epitaphs in the database. The current version also provides information on estimated date and personal status. Because the database did not provide data on the type of inscription in December 2014, I was unable to download all the epitaphs it held. Instead, I constructed a number of searches, detailed below, to identify the inscriptions required for the study.

3.1.3 Selecting the inscriptions

Although this thesis study is based on an analysis of frequently used formulae, no assumptions were made about what constitutes 'frequently used'. Instead, these parameters were established by interrogating EDCS to determine the relative frequency of several formulae before the data were downloaded (see Table 3.2 for full list). To be included in the final list, a formula had to have the following characteristics: a recognised abbreviation or contraction (for example, *Dis Manibus Sacrum* written out in full or abbreviated); and had to be used in more than 200 inscriptions at the time of the download in December 2014. By restricting the study to those formulae that are *most* frequently used, I was confident that there would be sufficient data for an analysis across regions and that I had only excluded a small number of much rarer epitaphic formulae.

The inscriptions were identified by searches within EDCS. The function to search for inscriptions only identified as epitaphs was unavailable in EDCS at the time this part of the project

was carried out. Therefore, carefully constructed searches using Boolean operators (AND, OR, AND NOT) and wildcard characters were used to identify all inscriptions containing a particular formula. Searches were tested and amended before the final download in December 2014. As far as possible, all searches took account of variations in spelling and variable endings according to gender and number. A full list of the formulae, with their abbreviations and translation, and the searches used to identify them is included in Table 3.2.

Table 3.2 – Characteristics of epigraphic formulae in this study

Formula	Abbrev.	Translation	EDCS Search	Number of epitaphs
<i>Vixit Annos</i>	VA	Lived 'x' Years	<i>Vi??it ann or vixit ann</i> <i>Vi???it ann</i>	54,963
<i>Dis Manibus</i>	DM	To the spirits of the dead	<i>Manibus and not sacrum</i>	42,140
<i>Hic Situs (Sita) Est</i>	HSE	Here lies	<i>Hic sit or Hic est</i>	20,493
<i>Bene Merenti</i>	BM	Well deserving	<i>bene meren</i>	20,125
<i>Dis Manibus Sacrum</i>	DMS	Sacred to the spirits of the dead	<i>Manibus and sacrum</i>	18,588
<i>In Fronte In Agro</i>	IN AG IN FR	In frontage ... in depth ...	<i>Fronte ped or Agro ped or Retro ped</i>	5,499
<i>Sit Tibi Terra Levis</i>	STTL	May the earth lie lightly on you	<i>Sit tibi or levis sit</i>	4,059
<i>Libertis Libertabusque Posterisque Eorum</i>	LLPQE	For the freedmen and freedwomen and their descendants	<i>Libertabusque Posteris</i>	2,380
<i>Plus minus</i>	PM	More or less (relating to age)	<i>Plus minus</i>	1,805
<i>Ossa Tibi Bene Quiescant</i>	OTBQ	May your bones rest well	<i>Ossa tibi</i>	1,053
<i>Hoc Monumentum Heredem Non Sequetur</i>	HMHNS	This tomb does not pass to the heir	<i>Hoc monumentum and non seq</i>	943
<i>Locus Monumenti</i>	LM	Place for the Monument	<i>Locus mon</i>	750
<i>Sub Ascia Dedicavit (Dedicaverunt)</i>	SAD	Dedicated while still under the hammer	<i>Sub asc</i>	461

Formula	Abbrev.	Translation	EDCS Search	Number of epitaphs
<i>Hic Positus (Posita) Est</i>	<i>HPE</i>	Here lies	<i>Hic pos or hic est pos</i>	236

3.1.4 Creating the data files

All inscriptions included in the study were downloaded from EDCS in December 2014. Each search returned a number of inscriptions. The results were extracted from EDCS by cutting and pasting the results into text files. These were then manipulated to remove any special characters and spaces to produce files of inscriptions. These files were merged and duplicates removed in MS Access. A final file of 104,007 inscriptions was subsequently transferred to Excel. I chose to use Excel over MS Access for storing and analysing the data for two reasons. Firstly, Excel is easier to use and can be used to store large amounts of data. Secondly, it is better for analysing data and for performing complex calculations, both of which were essential for the current study.

I created two files from the downloaded data. The main one contained all 104,007 epitaphs. The second was a file of 84,436 complete epitaphs only (i.e. ones where the beginning and end was still present). It was essential that the number of formulae per epitaph, the length of an epitaph, and the combinations of formulae used were calculated in a file of complete inscriptions. I created this file by deleting any partial inscriptions (i.e. those missing the start or end of the epitaph). Both data files contained the following fields:- **publication** (publication reference from EDCS); **EDCS ID** (unique identifier from EDCS); **province** (name of province); **place name** (find site); **original epitaph** (text of epitaph from EDCS, which included all editorial symbols); **stripped text** (a second field was created by copying the text of the original epitaph and then removing all epigraphic editorial symbols such as brackets, square brackets and numbers denoting missing letters. This facilitated text-based searches for formulae); and finally, **indicators for each formula present** (for example, *DM*, *DMS*, *BM*, *HSE* etc.).

3.1.5 Creating the analysis files

The two data files were used to generate a series of analysis files that contained aggregations of the data for each city (copies of these can be found in the Appendix to this thesis). These analysis files excluded any inscriptions with an unknown provenance that had been assigned to *Provincia Incerta* in EDCS. Totals for each city and formula were calculated in Excel using pivot tables to summarise the data. It became apparent early on, that there were substantial differences in the numbers of epitaphs in each city, and a corresponding difference in the number of any one formula present. Therefore, an analysis based on frequency would always be dominated by high frequency cities such as Rome. To avoid this, these totals were converted to percentages of the total epitaphs from a particular city. For instance, in Rome 17,306 of 35,003 epitaphs included the expression *Dis Manibus*. This was recorded as 49% in the analysis file for formulae use. By normalising the data in this way, I was able to overcome the problem of comparing data based on frequencies thus making it easier to compare the data for one city with another.

I also restricted these files to cities with 100 epitaphs or above. This meant restricting the analysis to those cities with a substantial number of epitaphs. Because the analysis was based on percentages, I felt it important to ensure that the totals for each city returned meaningful results. I am aware, however, that this might have resulted in the loss of some interesting patterns.

A series of tables were created from the data files to support the analysis in Chapters 4 and 5. The main datafile of 104,007 epitaphs was used for the analysis of formulae use and expanded formulae (see Tables A1, A2 and A5). The smaller data file of 84,436 complete epitaphs was used to analyse numbers of formulae in a single epitaph, formulae combinations, and epitaph length (see Tables A3, A4 and A6). The analysis files were created by carrying out a number of searches in the original data files, and then using the pivot table function in Excel to summarise the data. The following analysis files were created

Prevalence of formulae as a percentage of city total (Table A1) and Regional prevalence of formulae as a percentage of region total (Table A2) – Created from the main datafile, these two

files consisted of the percentage of epitaphs in each city or region containing a particular expression. Results were calculated as a percentage of the total number of epitaphs for each city or region. Table A1 was used in Chapter 4 to provide data for the geographical analysis of each formula and Table A2 was used in Chapter 5 to calculate the popular formulae for each region as part of the epigraphic signature analysis.

Number of formulae in a single epitaph as a percentage of city total (Table A3) – This file recorded the percentages of the number of formulae included in a single epitaph for each city. These were identified by a series of filters applied to the complete epitaph file and summarised using the pivot table function. The file was used in Chapter 5 as part of the epigraphic signature analysis.

Use of combinations of formulae as a percentage of city total (Table A4) – This recorded the percentages of certain combinations of formulae in the same epitaph for each city. These were identified by a series of filters applied to the complete epitaph file and were summarised using the pivot table function. The file was used in Chapter 5 as part of the epigraphic signature analysis.

Use of expanded formulae as a percentage of city total (Table A5) – This file was created by calculating the percentages of formulae written in full for each city in the main datafile. These were identified by searching for words in any given formula in the original text field that did not include brackets (the symbol used to indicate expanded abbreviations and contractions). These were summarised using the pivot table function. The file was used in Chapter 5 as part of the epigraphic signature analysis.

Epitaph length by city (average and median character count) (Table A6) – This file recorded the median length of an epitaph for each city. This was calculated using an Excel function to count the number of carved characters on the stone (i.e. excluding any expansions in brackets) in the stripped text field of the complete epitaph file. The data were collated and median character counts were calculated for each city. I decided to use the median value rather than the mean in these calculations since this is considered a more robust measure, when the data includes outlier values.

For example, there are 377 epitaphs from Portus ranging from 2 to 355 characters in length. There are only 15 epitaphs with a character count above 200 and only 23 below 20 characters. These extreme outliers would have a significant impact if we calculated the average (84). In this case, the median character count of 71 provides a better representation of the central tendency of the length of epitaphs in the city. The file was used in Chapter 5 as part of the epigraphic signature analysis.

Median and average *in fronte* and *in agro* measurements and plot areas for each city (Table A7)

The inscriptions recording the measurements of the plot in *pedes* were extracted from the main datafile. The Roman numerals for each measurement were converted to Arabic numerals and recorded in separate fields in the spreadsheet. Where both measurements were present, a plot size (area) was calculated for each inscription. Table A7 in the appendix records the median value for both measurements and the area of the plot for each place together with the total number of inscriptions used to calculate this.

3.1.6 Spatial analysis

Spatial analysis was used to better understand the geographical distribution of formulae and their associated features. It was used in Chapter 4 to produce the maps that illustrate the distribution of each formula. These were produced in ArcGIS using a public account login.¹⁵⁵ Although there is a limited number of functions available with a public login, I found the software easy to use and suitable for my research. To produce the maps, latitude and longitude coordinates for every location with more than 100 epitaphs were added to the files. Coordinates were sourced from a file provided by Ray Laurence in January 2015 and from EDCS for those places not included in his file. If coordinates were not available in either source, the site/city and its coordinates were identified on Google Maps. A list of sites and their coordinates can be found in Table A8 – City coordinates.

¹⁵⁵ 'ArcGIS', accessed 16 September 2019, <https://www.arcgis.com/home/>. Maps in the thesis were created using ArcGIS® software by Esri. ArcGIS® and ArcMap™ are the intellectual property of ESRI and are used herein under licence. Copyright © Esri. All rights reserved.

The place names and their coordinates listed in the analysis files were checked extensively before the final spatial analysis. In terms of province and place names, I retained the labels established in EDCS. Most sites are labelled with their modern name as well as their ancient name. For example, epitaphs from Lyon in France are referred to as Lyon/Lugdunum. However, for current purposes, I have used the ancient place name.

In some cases, the same ancient site has more than one name, resulting in several places for the same ancient city. For example, inscriptions from Altinum near Venice are recorded in EDCS as Altino/Altinum and Venezia / Venedig / Altinum. This presented problems for the spatial analysis but also meant that total numbers of epitaphs assigned to the city were inaccurate. Therefore, the totals for these types of locations were merged to provide a single total for that city. For instance, the data for the two places associated with Altinum near Venice, were merged and are now shown as a single entry for Altinum. A full list is shown below in Table 3.3.

Table 3.3 – Duplicated place names in Epigraphik-Datenbank Clauss-Slaby (EDCS)

Place Name	Alternative place name
Perigotville / Ain el Kebira / Satafis	Ain el Kebira / Satafis
Venezia / Venedig / Altinum	Altinum
Anzio / Antium	Antium
Este / Ateste	Ateste
Atena Lucana / Atina	Atina
Nattabutes	Bu Atfan
Salvatierra de Santiago / Norba	Caceres / Norba
Bad Deutsch-Altenburg / Carnuntum	Carnuntum
Castellum Celtianum / Celtianis	Civitas Celtianensis
Ig / Emona	Emona
Hammam Zouakra / Thigibba	Ghaiada / Thigibba
Midid / Mididi	Henchir Meded / Mididi
Mechta Nahar / Caldis	Mechta Nehar
Misenum	Misenum
Saint-Gilles / Nemausus	Nemausus

Place Name	Alternative place name
Odrinhas / Olisipo	Olisipo
Rieti / Reate	Reate
Ain Four / Saddar	Saddar
Tarquinia / Tarquinii	Tarquinii
Trieste / Tergeste	Tergeste
Tibur	Tibur
Ibahernando / Turgalium	Turgalium
Grottaferrata / Tusculum	Tusculum

Mapping was carried out continuously throughout the analysis stage of the project. This stage helped me identify those areas where epitaphic patterns diverged from those in the wider region that required further investigation. I was then able to investigate if these divergences were also present when other features were mapped. This enabled further investigation of the data in the analysis files and, from this, I was able to identify the patterns that are presented and discussed in Chapters 4 and 5.

3.1.7 Constructing an epigraphic signature

The analysis files in 3.1.5 above were used in Chapter 5 to construct epigraphic signatures for regions and the case studies. In the context of this thesis, an epigraphic signature is a method of representing epitaphic patterns in a particular region and place. It consists of a number of variables associated with an epitaph, which can be measured and visualised to provide a profile for a given place or region. These variables are: use of common formulae; numbers of expressions per epitaph; combinations in the same inscription; use of abbreviations; overall length of the inscription; and plot size data associated with commemorations using the expression *in fronte in agro*. The creation of epigraphic signatures allowed me to compare the commemorative patterns of one place with another.

Epigraphic signatures for the cities used as case studies were constructed by extracting and summarising the relevant data from each of the analysis files. Those for the regions were constructed in a similar way, by aggregating the data and then calculating the percentage. The data for the size of an epitaph was slightly more complicated since the analysis file records a median score for each city. Therefore, the regional median score is simply the median of the median values for the cities in that region.

3.2 Analysis for migration, consistency and plot size

During the course of the analyses carried out for Chapters 4 and 5, it became apparent that there were a number of areas that required extra analysis to account for the variations discussed in Chapter 7. These extra analyses are presented in Chapter 6.

Migration and mobility

In order to assess the impact of migration, I analysed the use of the following terms, which were often used to mark the origin of the deceased *natione*, *civis*, and *origo*. A search for these terms was carried out on the stripped text field of the complete epitaph file. The presence of these terms in the epitaphs provided a better understanding of whether those dying overseas were importing expressions from their place of origin or simply using local patterns of commemoration.

Consistency

I carried out an analysis of the ‘combinations of formulae’ file to assess the location of places where there was significant consistency (above 50%) in the patterns of commemoration. This identified those cities where there was potential evidence for mass production of epitaphs.

Plot size and measurements

The analysis of plot sizes recorded by *in fronte in agro* revealed a remarkable consistency in the measurements recorded, and the plots themselves, that required extra investigation. Analyses of the dimensions were carried out to investigate: the preponderance of certain measurements; the plot

shapes these measurements created; and whether cities had a cultural tradition of designing tomb plots of certain shapes and sizes. The consistency observed in this analysis relates to a cultural tradition for particular shapes and measurements found in other areas of Roman architectural practice.

3.3 Limitations

In this section, I identify those factors that influenced the structure of the thesis, and their outcomes.

Calculating a reliable number of epitaphs

The epitaphs only comprise those inscriptions that contain frequently used formulae. Since we know that there are some epitaphs that do not include these expressions, the total number of epitaphs in this thesis is an underestimate of the total number that have survived. Published estimates of the total number of epitaphs vary. According to Saller and Shaw, around three quarters of all inscriptions are epitaphs, although it remains unclear how they arrived at this ratio.¹⁵⁶ They estimated that there are approximately 170,000 – 190,000 epitaphs, based on a total of 250,000 inscriptions of all types. A recent search of all inscriptions on EDCS carried out in March 2019 for this project indicates that there are 515,972 inscriptions in the database. If we follow Saller and Shaw's assumption that three quarters are epitaphs, then the total number could exceed 386,979.

The absence of a reliable estimate of the total number of epitaphs at the time the inscriptions were downloaded and the analysis carried out, restricted the types of analysis I was able to perform. If there had been a reliable estimate, I would have been able, for instance, to calculate the total number of epitaphs that did not include these expressions. This would have allowed me to analyse the relative importance of each formula used as a ratio of all surviving

¹⁵⁶ Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves'.

epitaphs. I would have also been able to assess whether those regions with a low frequency of epitaphs in the current project, were setting up commemorations without the use of these expressions. However, the current version of EDCS is more sophisticated than it was 5 years ago and now provides an option for selecting *'tituli sepulcrales'* (epitaphs). A recent search (September 2019) indicated that there are currently 171,250 epitaphs in the database. The ability to restrict a search to epitaphs only, is a major advance for the database, which was unavailable in December 2014.

Surviving epitaphs and epigraphic density

It is important to note that this study is based on the data available for analysis on EDCS in December 2014. This not only relates to the number of epitaphs included in EDCS at the time they were downloaded, but also to the number of surviving epitaphs in any one region. Rome and Italy combined (53,485) account for just over half of all inscriptions in the database, whereas regions that are shown to be epigraphically significant in the thesis, such as the Iberian and African provinces, account for only 7% and 26% respectively (see Table 3.1). These differentials are also evident when we examine the considerable variation in what Harris referred to as the density of inscriptions. These vary from 4,101 per 1000 sq. km in Campania through 127 per 1000 sq. km in Africa Proconsularis to 22 per 1000 sq. km in Baetica down to 7.8 per 1000 sq. km in Tarraconensis or even 3.3 per 1000 sq. km in Mauretania Tingitana.¹⁵⁷

Although these measures of density serve to illustrate inequalities in how the data are distributed, it is important to remember that density at province level can mask variation within the region.¹⁵⁸ These variations in the distribution of inscriptions have important implications for how we represent epigraphic culture derived from data. Hence, we need to recognise the effect of this

¹⁵⁷ Harris, *Ancient Literacy*, 266-8. Edmondson has criticised Harris for basing his study on dated collections of inscriptions; and for not taking the concentration of inscriptions in cities into account. This suggests that a reassessment of the body of evidence and the means of its geographical representation is overdue – see: Jonathan Edmondson, 'Writing Latin in the Roman Province of Lusitania', in *Becoming Roman, Writing Latin? Literacy and Epigraphy in the Latin West*, ed. Alison E. Cooley (Porstmouth R.I.: JRA Supplement 48, 2002), 41–60.

¹⁵⁸ Graham, 'Networks, Agent-Based Models and the Antonine Itineraries: Implications for Roman Archaeology', 57.

over- and under- representation across the regions.¹⁵⁹ Although, I have provided information on frequencies of formulae when necessary, I realised that analysing on frequency alone would have skewed the results in favour of those provinces and cities with a larger share of the data. I have addressed this by normalising the data, and comparing rates of use as a percentage of inscriptions in a given place or region, rather than comparing frequencies of use of any given formula. This is a more accurate representation of the popularity of an expression than that provided by analysing totals only. A full breakdown of frequencies is provided in Table A9 - Count of city formulae use and Table A10 - Count of formulae use by region, in the Appendix.

Dating the epitaphs

It has proved difficult to analyse variation in the use of formulae over time. At the time when the inscriptions were downloaded, EDCS did not include any information on the likely date of an epitaph, although this information is now available to researchers in the latest release of the database. It was also decided that reading each epitaph to look for clues for a date would have been impossible. There is general evidence regarding dates when particular expressions were popular, but this would not have been sufficient for a temporal analysis in a geographically diverse dataset. Some inscriptions may, of course, include consular dates but in a database of this size, these would be too difficult to identify. Some epitaphs from Mauretania Caesariensis include the dating formula, *anno provinciae*, or ‘year of the province’, which can be useful for dating an individual epitaph. Most other criteria for dating, such as style of lettering or personal names, are either unavailable or too time-consuming to be included in this study.¹⁶⁰ Where dates for the use of particular formulae are given in Chapter 4, these are based on dates commonly accepted for each expression and are not based on my own analysis.

It is also clear that many epigraphers date inscriptions based on the use of particular formulae such as *Dis Manibus* or *Dis Manibus Sacrum*. Because these two formulae are used

¹⁵⁹ Beltrán, ‘The ‘Epigraphic Habit’ in the Roman World’, 137.

¹⁶⁰ For a discussion of dating inscriptions, see: Christer Bruun and Jonathan Edmondson, ‘The Epigrapher at Work’, in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 15.

everywhere and because there is general acceptance that they are used mainly in the second century, there is a tendency, in the absence of any other data, to date an inscription with this expression to this period.¹⁶¹ Since these two formulae are found in over half of the epitaphs in the database, I could have followed established practice and provided a very broad indication of date. However, we know that the formula *Dis Manibus* is used as early as the late republic and as late as 616 CE (based on use of *Dis Manibus Sacrum* in Volubilis in Mauretania Caesariensis). I therefore remain sceptical about dating inscriptions on the use of formulae alone.

This inability to accurately date the inscriptions means that I have been unable to present an analysis of chronological variability across regions. It is likely that some of the regional differences evidenced in the study relate to date, particularly in those regions and places with quite limited chronological profiles, such as Dacia (106 - 275 CE) and the North-Western Provinces (First century CE onwards). Although I could have assigned broad date ranges to the inscriptions, I felt that the lack of detail would not have contributed significantly to the results of the study. However, this could be addressed in future more regionally-focussed analyses.

Data quality

Working with such a large file of over 104,000 epitaphs presented me with a number of issues regarding reliability of data. For instance, the size meant that opportunities to check the data for problems and ‘false hits’ were limited. Although the searches were carefully constructed, it is possible that a few epitaphs were downloaded in error. An acceptable error rate would be below 1% (1.040 epitaphs). I am confident that the searches would not have generated an error rate greater than this. There are also probably some duplicates but these would have been duplicated within the EDCS database itself. The error rate for duplicate inscriptions in the database is 0.9% and therefore within acceptable limits for a database of this size (see Section 3.1.2).

¹⁶¹ Laura Chioffi has gone as far as suggesting that the formula is a ‘useful dating criterion’. Laura Chioffi, ‘Death and Burial’, in *The Oxford Handbook of Roman Epigraphy*, ed. Christer Bruun and Jonathan Edmondson (Oxford: OUP, 2015), 637. See also: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 126. For dating of *Dis Manibus Sacrum*, see: Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’.

Mapping at 100 epitaphs per city

I made the decision to analyse only those cities that had 100 and above epitaphs. Firstly, I wanted the sample size for each city to be large enough to be credible. I was aware that when talking about percentages, seemingly large numbers might only equate to a small quantity of epitaphs. I decided that conclusions needed to be based on a significant number of inscriptions. Secondly, by restricting the analysis files, I reduced the number of cities for analysis to 107. My early explorations were based on 200 cities with 50 and above. I found these early analyses difficult to interpret and map, and I was arriving at conclusions based on very small samples. By restricting to 100 and above, I was confident that any conclusions I reached would be based on a significant number of epitaphs.

Regional groupings

The groupings used and described above are based on broad geographical areas. These groupings shape how the results are displayed and have the potential to influence the interpretation of the results. Other scholars have grouped provinces differently. For instance, Beltrán grouped provinces as follows: Italia; Hispania; Gallia; Africa; Dalmatia; and *Limes*.¹⁶² The groupings used here are appropriate for the analysis described in the thesis.

Monumental context

The study does not include an analysis of formulae use in relation to monumental context due to the absence of 'object type' in EDCS. Although this feature is unavailable in EDCS, the more recent Epigraphic Database Roma (EDR) records 'object type' alongside the text of an inscription. However, the incomplete nature of the EDR database meant that it was not a suitable source of data for the current study. In the current study, an analysis of monumental context alongside formulae use would have provided valuable data on how far the regional distribution of different monument types influenced the choice of formulae.

¹⁶² Beltrán, 'The 'Epigraphic Habit' in the Roman World', 140.

The value of considering the words of an epitaph alongside the imagery and features of the monument and how this might lead to a better understanding of the message that the commemoration was attempting to convey, was underlined by Valerie Hope in her study of the epitaphs of Aquileia, Mainz and Nimes.¹⁶³ Hope has shown that where an epitaph was displayed (for example, inside a tomb, on a columbarium niche, stele, or altar, or, in an enclosure) impacted what an epitaph needed to express and would therefore have been a significant influence on the choice of wording for a monument. Although unsuitable for a large-scale study such as this, monumental context should be considered in a more regionally-focused or smaller-scale analysis.

Social context

It is clear from previous studies that the choice of formulae and wording for an epitaph could be related to the social status of the commemorated or commemorator.¹⁶⁴ It is also possible that other features, such as gender, age or numbers commemorated could have impacted the style of an epitaph and therefore the choice of formulae. These features are often retrievable in the wording of an epitaph and have been used extensively in other epigraphic studies.¹⁶⁵ However, it would not have been possible to identify these characteristics for the large number of inscriptions on which this study is based and therefore, an analysis of the relationship of formulae use with these social factors was excluded from the study.

Researcher skill set

The innovative methodology employed for this project is rarely used in epigraphy. Although it is ideal for those unable to undertake fieldwork, it requires the development of an in-depth knowledge of epitaphs, how they are structured, and how formulae might be identified. It also entails the

¹⁶³ Valerie M. Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes* (Oxford: Archaeopress, 2001).

¹⁶⁴ Hanne Sigismund Nielsen, "Interpreting Epithets in Roman Epitaphs," in *The Roman Family in Italy: Status, Sentiment, Space*, ed. Beryl Rawson and Paul Weaver (Oxford: OUP, 1997), 169–204.

¹⁶⁵ Ray Laurence and Francesco Trifilò, "'Vixit Plus Minus': Commemorating the Age of the Dead: Towards a Familial Roman Life Course?," in *Families in the Roman and Late Antique World*, ed. Mary Harlow and Lena Larsson Lovén (London: Continuum Publishers, 2012), 23–40.

design of a suitable approach to manage a large body of data, and the development of digital literacy skills, including advanced training in Excel and ArcGIS.

However, although it is perfect for uncovering and describing results, it does not reveal ‘why’ the results are the way they are. This has been compounded by the fact that there are so few epigraphic studies of this nature. Consequently, I have had to establish and identify the factors accounting for variations in the data from a wide range of themes used to interpret Roman society. Thus, the results of the analysis and their discussion should be seen as an initial interpretation and an indication of those areas requiring further research.

3.4 Conclusions

This chapter has shown that I have developed a methodology designed to overcome the problems of previous epigraphic studies which were often based on samples, leading to generalisations and a reliance on the inscriptions of Rome and Italy, at large. I designed it to facilitate the analysis of a large number of inscriptions and to investigate the results for convergence and divergence in patterns of commemoration. The use of similar methodologies in related disciplines, demonstrates that this approach has value for epigraphic studies, where quantifiable conclusions are often absent.

The thesis is organised according to a format that consists of separate chapters for an introduction; a review of previous research; the methodology; the results of analysis; a discussion of the results; and conclusions. The following three chapters present the results of this study. Chapter 4 contains a detailed account of the results for each formula including frequency and geographical distribution. Chapter 5 covers regional and local epigraphic signatures. Chapter 6 contains additional analysis to illustrate various themes that arose during the analysis conducted in Chapters 4 and 5. Although there is some discussion of the results in these chapters, the bulk of the discussion will be in Chapter 7.

Chapter 4 – Geographic Variation in use of Epitaphic Formulae

Introduction

This chapter provides a detailed description and analysis of all common formulae included in the study. It examines their geographic distribution and makes observations on their reach and spread. Formulae have been categorised according to the type of message they convey. Within each of these groupings, individual formulae are discussed according to the following criteria: the type of message conveyed; the meaning of the formula; the time period of its use; and common abbreviations and contractions. The discussion then moves on to their geographic distribution, exploring where they were used and, just as importantly, where they were not used. This chapter thus identifies patterns; makes comparative observations; and analyses the data for previously unknown patterns of use. It shows that although common formulae were included in epitaphs across the empire, the overall rate of use varied according to the type of formula and their geographic location. The chapter concludes with a discussion of regional variation and highlights those areas where previously unknown patterns have been revealed.

4.1 Types of epitaphic formulae

The formulae discussed here are all frequently used in the epigraphic corpus of Latin inscriptions. As discussed in Chapter 3, no assumptions were made about those most frequently used. Instead, I interrogated online databases of inscriptions to determine their relative frequency. Table 4.1 provides a list of all formulae in the study arranged by category of expression. Although there are other ways to classify them, it was decided that grouping by type of message was appropriate for the current study.¹⁶⁶ The following five groupings were identified and have been used to structure the discussion and analysis:

¹⁶⁶ Categorising formulae can be problematic since they often fit into more than one group. Virginia Campbell categorised them by their position in an epitaph and type of message. However, using her groupings, *bene merenti* could be assigned to epithets or to concluding formulae. See: Campbell, *The Tombs of Pompeii: Organization, Space, and Society*, 63.

Ritual

Dis Manibus and *Dis Manibus Sacrum*

These expressions generally commence an epitaph and serve the purpose of indicating that the inscription relates to a funerary commemoration.

Personal Information

Vixit annos; bene merenti and *plus minus*.

This group provides a range of identifying characteristics (relating to character and age at death) of the deceased with the intention of ensuring that they are identifiable to subsequent generations.

Location of remains

Hic situs (sita) est and *hic positus (posita) est*.

These phrases associate the physical remains of the deceased with a particular tomb.

Restrictions on the tomb

Libertis libertabusque posterisque eorum; hoc monumentum heredem non sequetur; locus monumenti; sub ascia dedicavit (dedicaverunt) and *in fronte in agro*.

This group often express more complex messages designed either to convey who can or cannot use the tomb or they identify the plot as a tomb.

Metaphorical Expressions

Sit tibi terra levis and *ossa tibi bene quiescant*.

These expressions are often metaphors for death and promote a dialogue between the living and the dead.

Table 4.1 - Characteristics of the epitaphic formulae

Category	Formula	Abbrev.	Translation	Number of epitaphs
Personal Information	<i>Vixit Annos</i>	VA	Lived x years	54,963
	<i>Bene Merenti</i>	BM	Well deserving	20,125
	<i>Plus minus</i>	PM	More or less (relating to age)	1,805
Ritual	<i>Dis Manibus/ Dis Manibus Sacrum</i>	DM/DMS	(Sacred) To the spirits of the dead	60,728
Location of remains	<i>Hic Situs (Sita) Est</i>	HSE	Here lies	20,493
	<i>Hic Positus (Posita) Est</i>	HPE	Here lies	236
Restrictions on the tomb	<i>In Fronte ... In Agro...</i>	IN AG.....IN FR	In frontage ... in depth ...	5,499
	<i>Libertis Libertabusque Posterisque Eorum</i>	LLPQE	For the freedmen and freedwomen and their descendants	2,381
	<i>Hoc Monumentum Heredem Non Sequetur</i>	HMHNS	This tomb does not pass to the heir	943
	<i>Locus Monumenti</i>	LM	Place for the Monument	750
	<i>Sub Ascia Dedicavit (Dedicaverunt)</i>	SAD	Dedicated while still under the hammer	461
Metaphorical expressions	<i>Sit Tibi Terra Levis</i>	STTL	May the earth lie lightly on you	4,060
	<i>Ossa Tibi Bene Quiescant</i>	OTBQ	May your bones rest well	1,053

4.2 Results of the analysis

This section presents the detailed analysis for each formula in the study. Although supporting data are included throughout, the full results of the analysis for each city can be found in Table A1 in the Appendix.

4.2.1 Ritual expressions

The most recognisable of all funerary formulae is *Dis Manibus* and its numerous variants.

Although the total number of variations is not easy to quantify, the most commonly used alternative is *Dis Manibus Sacrum*. Other variants of the formula identified in the course of the current study

are: *Dibus Manibus*; *Deis Manibus*; *Dis Inferis Manibus*; *Manibus Dis*; *Dis Manibus et memoriae (aeternae)*; *Dis Manibus et quieti aeternae*; *Dis Manibus et (perpetuae) securitati*; *Dis Manibus et bonae memoriae*; *Dis Manibus et sanctae memoriae*. These were used so infrequently that they do not need quantifying or mapping.

The formula is an opening invocation to the spirits of the underworld, dedicating the tomb and the deceased to their protection.¹⁶⁷ It is so distinctive and recognisable, particularly in its abbreviated form and position at the beginning of an epitaph, that it can be considered a signal that the inscription is part of a funerary monument. As an opening invocation to the spirits of the departed, the formula assumed some sort of absence from the surviving family in the form of an after-life.¹⁶⁸ Translations vary, but the original intention of the formula is clear.¹⁶⁹ It was a warning to the *Manes*, or the deified spirits of the ancestors, that another spirit would be joining them and it marked the monument as a '*res sacra*' (sacred object).¹⁷⁰ Often interpreted as a way of honouring a dead relative, this connection between the deceased and the spirits of the Underworld was reinforced by the offer of food and gifts by the surviving family at public festivals to commemorate the dead, such as the *Parentalia* and *Feralia*.¹⁷¹ Pastor Muñoz suggested that *Dis Manibus* indicated worship of the chthonic gods and that the prevalence of this formula in high numbers suggested an acceptance of the '*Manes*' by provincial populations.¹⁷² However, its inclusion in thousands of epitaphs over a period of 700 years, challenges the idea that it remained an indicator of religious belief.

¹⁶⁷ The expression is nearly always found at the start of an inscription but is sometimes at the end. For example, *Corn(elius) Hermes et / Ulatoani(us?) / ser(vus) eius / d(is) M(anibus)* (CIL 13, 11103).

¹⁶⁸ Although the formula is usually associated with the deceased, its use was so widespread that it was used in commemorations set up by people during their lifetime. See footnote: Valerie M. Hope, 'Reflections of Status: A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes. Volume II: Catalogue and Appendices' (PhD Thesis, University of Reading, 1994), 6.

¹⁶⁹ I have translated this as 'To the Spirits of the Dead'. The need for consistency in translations of formulae was recognised in 2014 at the First Eagle Conference: Orlandi et al., 'Information Technologies for Epigraphy and Cultural Heritage', 169.

¹⁷⁰ Funerary monuments were both a *res sacra* and a *res religiosa*, meaning that they were sacrosanct and protected by law. See: David J Bloch, '*Res Sanctae* in Gaius and the Founding of the City', *Roman Legal Tradition* 3 (2006): 50-1.

¹⁷¹ Nadine Brundrett, 'Roman Tomb Gardens: The Construction of Sacred Commemorative Landscapes', *The Brock Review* 11, no. 2 (2010): 53.

¹⁷² The chthonic gods were gods of the underworld. See: Muñoz, 'Los Dioses *Manes* En La Epigrafía Funeraria Bética', 389.

Although the original intention of either *Dis Manibus* or *Dis Manibus Sacrum* was to denote respect for the *Manes*, the widespread use of the formulae over many centuries, suggests that their original meaning or intention may have been lost.¹⁷³ Indeed, these essentially pagan formulae, used in thousands of epitaphs (many of them Christian), may have taken on a symbolic meaning over time. Greg Woolf has proposed that abbreviated formulae can be read ‘quasi-pictographically’ suggesting that these were, to some extent, symbolic representations of the message.¹⁷⁴ He argued that images on a monument were also an important method of communication, and that the overall style of a monument, together with its context, would have assisted the reader to understand the overall message. By proposing that these abbreviations could be interpreted as pictographs, he made the point that the words were not the defining element of the message.¹⁷⁵ A reader might have recognised the symbols and understood what they expressed without being able to repeat the words correctly. In effect, these symbolic representations, combined with the overall context of the monument, might have also assisted those with little knowledge of the written language, to understand its message. In this way, a reader might have recognised the letters *DM* as an indication of a tomb, without having a full understanding of the formula’s original meaning. This would have resulted in the formula becoming ‘redundant’ except as a ‘signifier’ or marker that the inscription belonged to a funerary monument.¹⁷⁶

The addition of ‘*Sacrum*’ to *Dis Manibus* represents an interesting variation to the standard formula. An object that was ‘*sacrum*’ was known by all to be the property of a deity, and to violate it was considered a ‘deadly crime’.¹⁷⁷ Muñoz suggested that adding ‘*Sacrum*’ amended the formula so that it related specifically to the monument, rather than acting as an address to the *Manes*.¹⁷⁸ The appearance of *Dis Manibus Sacrum* in North Africa has also been associated with the

¹⁷³ Muñoz, ‘Los Dioses *Manes* En La Epigrafía Funeraria Bética’, 392.

¹⁷⁴ Woolf, ‘Monumental Writing and the Expansion of Roman Society in the Early Empire’, 28.

¹⁷⁵ *Ibid.*, 28.

¹⁷⁶ Redundancy in communication does not necessarily convey worthlessness. Sarah Tarlow suggests that concepts of redundancy and entropy are highly relevant to the study of metaphorical meaning in funerary contexts. She goes on to say that redundancy is the degree of predictability of a communication, and that when an expression becomes a cliché, it reflects a high degree of redundancy. Tarlow, *Bereavement and Commemoration: An Archaeology of Mortality*, 42.

¹⁷⁷ WW Fowler, ‘The Original Meaning of the Word *Sacer*’, *The Journal of Roman Studies*, 1, (1911): 58.

¹⁷⁸ Muñoz, ‘Los Dioses *Manes* En La Epigrafía Funeraria Bética’, 387.

emergence of a specific type of monument in the province.¹⁷⁹ It is thus possible that the addition of ‘*sacrum*’ to the standard formula in the provinces, helped to emphasize the legal concept that the tomb was inviolable and placed it under divine protection.¹⁸⁰

Unlike other formulae in this study, the use of *Dis Manibus* was so widespread, and such a crucial component of an epitaph, that it was sometimes translated for inclusion in epitaphs written in other languages, particularly in bilingual communities. Instances of the Greek version of *Dis Manibus* (‘Θεοῖς καταχθονίοις’) have been found in Italy and Sicily, although only in the context of a Roman burial.¹⁸¹ Punic translations are rare, although Adams notes one Punic inscription that appears to be a direct translation of *Dis Manibus*.¹⁸² Katherine McDonald has also suggested similarities between the Roman formula and a particular form of wording in Oscan inscriptions.¹⁸³ These examples attest to a universally understood concept that was an integral part of the ancient funerary landscape.

Period in use

Most commentators suggest that inscriptions that include *Dis Manibus* or *Dis Manibus Sacrum* should be dated to the first three centuries, with the majority dating to the second century CE.¹⁸⁴ However, the evidence from dated inscriptions suggests that it was in continuous use for approximately 700 years and that it was not exclusive to pagan commemorations. The earliest address to the *Manes* was in an epitaph dated to the mid-first century BCE.¹⁸⁵ The addition of the word *sacrum* to the standard formula in North Africa has been dated by Lassère to the second half

¹⁷⁹ Mednikarova, ‘Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae’, 45-6.

¹⁸⁰ Brundrett, ‘Roman Tomb Gardens: The Construction of Sacred Commemorative Landscapes’, 52.

¹⁸¹ For examples and a discussion, see: Kathryn Lomas, ‘Urban Elites and Cultural Definition: Romanization in Southern Italy’, in *Urban Society in Roman Italy*, ed. Timothy J. Cornell and Kathryn Lomas (London: Routledge, 1995), 113–26.

¹⁸² Adams, *Bilingualism and the Latin Language*, 229.

¹⁸³ McDonald, ‘Language Contact in South Oscan Epigraphy’, 244.

¹⁸⁴ The addition of *Dis Manibus* in an epitaph is considered a useful dating criterion: Chioffii, ‘Death and Burial’, 637. However, in relation to epitaphs set up in Gaul, Marie-Thérèse Charlier suggests care should be taken when using the formula to date epitaphs unless there are other dateable features present. Raepsaet-Charlier, ‘*Hic Situs Est Ou Dis Manibus*. Du Bon Usage de La Prudence Dans La Datation Des Épitaphes Gallo-Romaines’, 226.

¹⁸⁵ *Di Manes / sacr(um)* (CIL VI 37528) Chioffii, ‘Death and Burial’, 643.

of the second century CE.¹⁸⁶ Although essentially pagan formulae, they were included in epitaphs set up to commemorate Christians. For instance, the early third-century CE bilingual epitaph commemorating Licinia Amias from Rome combines *D(is) M(anibus)* and *bene merenti* with Christian symbols and the phrase *ἰχθύς ζώντων*.¹⁸⁷ In the database used to support the project, ‘Age and Imperialism’, epitaphs have all been dated using the *anno provinciae* formula found in Mauretania Caesariensis.¹⁸⁸ Thus, *Dis Manibus Sacrum* was utilised in this part of North Africa from 155 CE and was still in use in Volubilis in 616 CE. We can thus ascertain that these formulae are in continuous use for up to 700 years.

Data analysis

The formulae that comprise the Ritual group are used in 60,728 epitaphs, accounting for 58% of all the epitaphs in this study. Table 4.2 indicates that the dedication of a tomb to the *Manes* was an established tradition in all regions of the empire. However, the way in which the concept was expressed demonstrates a marked geographic variation.¹⁸⁹ Of the 60,728 epitaphs that include a dedication to the *Manes*, 18,588 add *Sacrum*; 811 use *Diis* rather than *Dis*; and 695 add *et* (*memoriae (aeternae); quieti aeternae; (perpetuae) securitati; bonae memoriae; or sanctae memoriae*).

Further analysis reveals that the vast majority of epitaphs (94%) that include the *Dis Manibus* group, use these expressions in their abbreviated forms. There were a variety of abbreviations or contractions, ranging from the simple *DM/DMS* to partial truncations such as *D. Manib.* or *Dis Manib.* When we consider the two main variants, the data shows that *Dis Manibus* is abbreviated or contracted in 93% of epitaphs; whereas *Dis Manibus Sacrum* is abbreviated or

¹⁸⁶ Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’, 120.

¹⁸⁷ *ICUR* II, 4246. See also Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’, 183.

¹⁸⁸ The ‘Age and Imperialism’ research project was led by Prof. Ray Laurence and funded by the Leverhulme Trust in 2009.

¹⁸⁹ There are a number of regional studies which discuss the use of *Dis Manibus* and *Dis Manibus Sacrum*. See: Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’; Lomas, ‘Local Identity and Cultural Imperialism: Epigraphy and the Diffusion of Romanisation in Italy’; Muñoz, ‘Los Dioses Manes En La Epigrafía Funeraria Bética’; Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*.

contracted in over 97% of epitaphs. The regional breakdown of how abbreviations and contractions are used will be discussed in Chapter 5 as part of the analysis of epigraphic signatures.

The general pattern indicated by Table 4.2 is that use of *Dis Manibus* was concentrated in the centre and northern regions whilst *Dis Manibus Sacrum* was found in higher concentrations in the African and Iberian Provinces. Although use of these expressions was widespread, Table 4.2 indicates that they were not an essential element of all epitaphs. For instance, while nearly half of all epitaphs in Rome included *Dis Manibus*, only 3% included *Dis Manibus Sacrum*. The remaining 48% included neither expression and possibly opened with an alternative form of wording.¹⁹⁰ In some regions, however, there was a much stronger cultural tradition of using *Dis Manibus* than that found in Rome. For example, it is found in 75% of all epitaphs in the North-Western provinces and 61% of those in the Balkan and Danubian provinces, suggesting that the formula was more embedded in the commemorative landscape of the provinces than that of Rome and the centre of the empire.

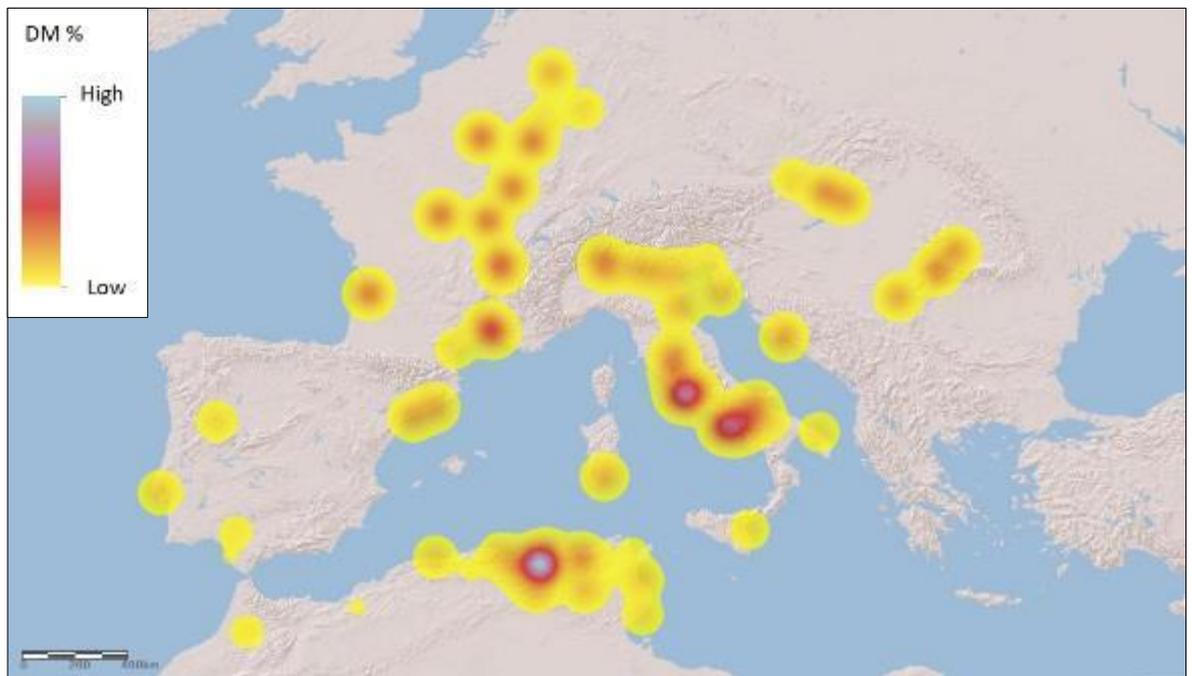
Table 4.2 – Regional prevalence of *Dis Manibus* and *Dis Manibus Sacrum* as a percentage of region total

Region	Number of epitaphs (region)	DM	DMS	Neither included
Rome	35,003	49%	3%	48%
African	26,961	16%	51%	33%
Italy	18,482	47%	6%	47%
Iberian	7,665	18%	27%	55%
North-Western	7,088	75%	1%	24%
Balkan and Danubian	6,723	61%	4%	35%
Mediterranean Islands	1,026	52%	9%	39%
Eastern	919	41%	9%	50%

¹⁹⁰ For instance, some epitaphs opened with the name of the deceased or the commemorator: *T(itus) Urbanius Felix / Eutychie / co(n)iugi suae b(ene) m(erenti) / quae vixit annis XXX* (CIL 06, 04317).

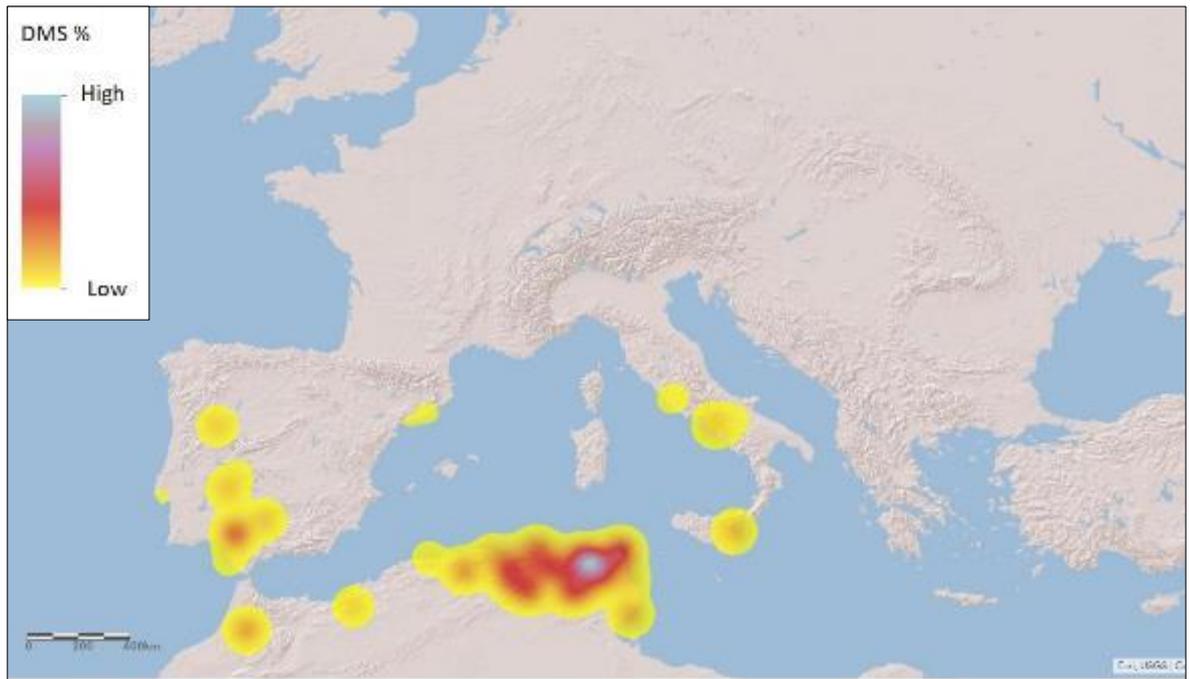
While most of these regions included both variants in their epitaphs, we can see broad differences to their regional distribution. Figure 4.1 illustrates that *Dis Manibus* was used throughout the empire but that higher usage was found in Rome and Italy. Use was also high in the North-Western provinces, in the Balkan and Danubian provinces, and in a group of cities around Cirta in central Numidia. Epitaphs in the North-Western Provinces are sometimes characterised by the addition of other words such as ‘*et memoriae*’ to the standard formula. These are found throughout the region in small numbers with the main concentrations appearing in Gallia Narbonensis and Lugudunensis.¹⁹¹ The use of *Dis Manibus Sacrum*, however, is concentrated in the African and the Iberian Provinces, although there is some use in Rome and central Italy as well as Sicily (see Figure 4.2). The impact of this on regional and local epigraphic signatures will be discussed in Chapter 5.

Figure 4.1 – Distribution of *Dis Manibus* across the Roman world



¹⁹¹ Maureen Carroll has dated these additions to the mid second and third centuries CE. See: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 126.

Figure 4.2 – Distribution of *Dis Manibus Sacrum* across the Roman world



Despite these broad regional differences, there are many cities where both formulae are used. As Figure 4.3 illustrates, cities had a local tradition of using one variant over the other. However, this custom was not always replicated equally throughout a region and led to variations in the regional pattern at a local level. This is particularly evident in the cities close to Cirta in central Numidia where, despite the prevailing regional pattern of using *Dis Manibus Sacrum*, there was a cultural tradition for using *Dis Manibus*.¹⁹² Additionally, many ports, particularly Catina (Sicily), Carales (Sardinia), Barcino and Tarraco (both Hispania Citerior), and Olisipo (Lusitania) did not use the variant prevalent in the region where they are located.¹⁹³ A notable exception to this was the port of Gades, where, in line with the regional pattern, there was a cultural tradition of using *Dis Manibus Sacrum* over *Dis Manibus* (13% to 4%). Finally, the map highlights the slight predominance of *Dis Manibus Sacrum* in central Italy in a region where the overwhelming custom is for using *Dis Manibus*. These local variations will be discussed in the following sections.

¹⁹² This is indicated by the cluster of green markers in North Africa in Figure 4.3.

¹⁹³ See Table A1 in the Appendix for full data on these cities.

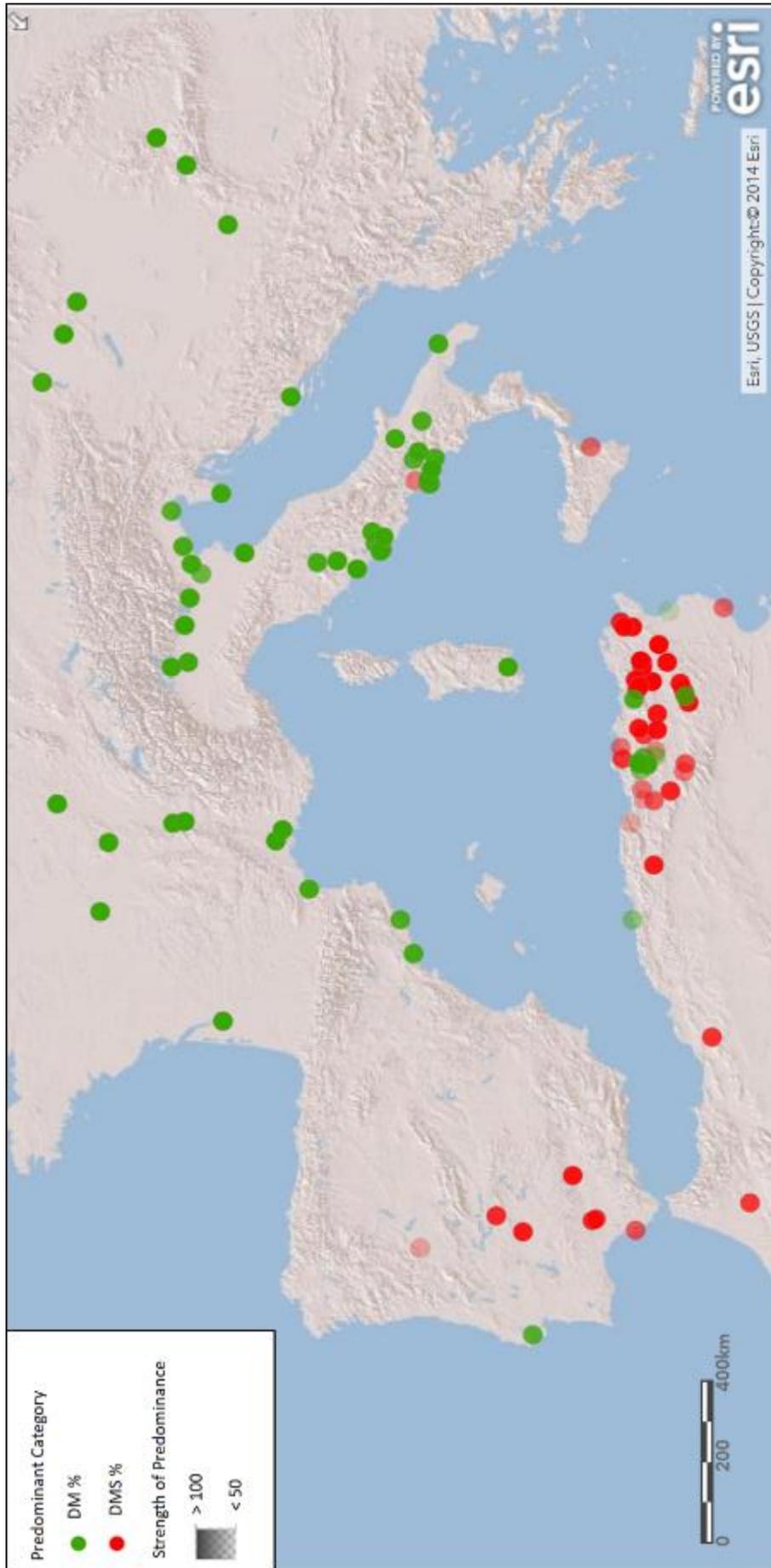


Figure 4.3 – Comparison of *Dis Manibus Sacrum* and *Dis Manibus* including level of predominance

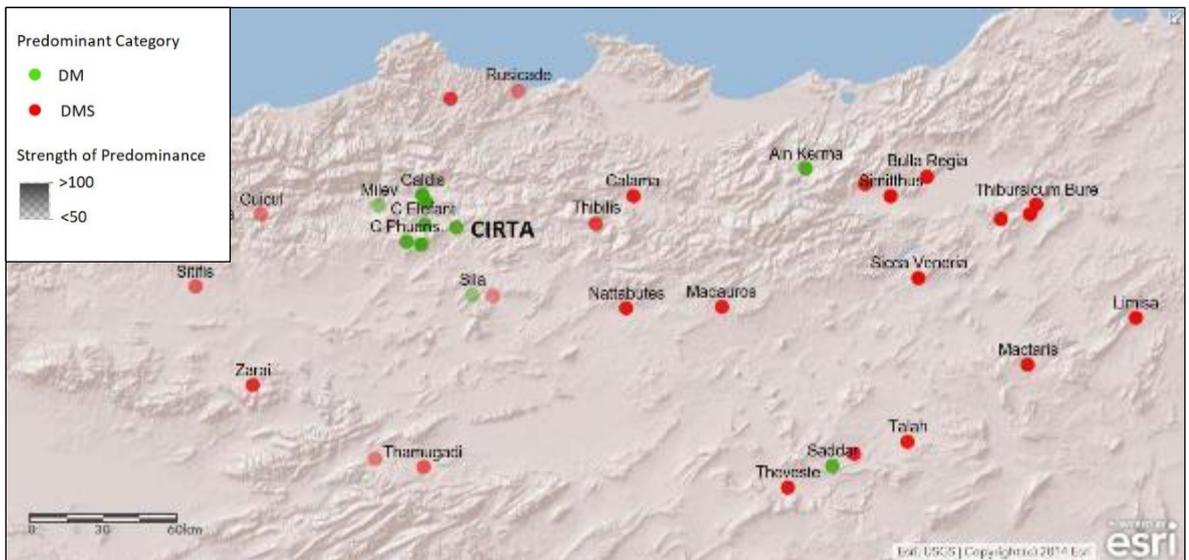
Cirta (Numidia) and surrounding cities

The prevailing pattern in North Africa indicates a regional tradition for using *Dis Manibus Sacrum* (see Figure 4.3). This tradition is particularly significant when we set it in the context of the overall frequency of inscriptions in North Africa. Cities in the region represent over a quarter (26%) of all inscriptions in the current study (see Table 4.2). Even in those cities where there are lower frequencies of inscriptions (e.g. Mauretania Caesariensis and Mauretania Tingitana), the traditional opening formula was *Dis Manibus Sacrum*. However, as already noted, there are some interesting features of the data that require further explanation.

Close examination of the data reveals a cluster of cities in Numidia where, conversely, *Dis Manibus* was the preferred formula. This is a remarkable anomaly that has attracted very little attention to date.¹⁹⁴ Figure 4.4 illustrates how commemorations in a group of cities close to Cirta include *Dis Manibus*, despite the regional tradition for using *Dis Manibus Sacrum*. Interestingly, the cities to the west of this cluster, all display a lower predominance for *Dis Manibus Sacrum*, perhaps indicating that this local pattern created by Cirta extended westwards to impact the regional pattern without altering it completely. This shared cultural tradition will be investigated further as we discuss other formulae used in the area. It will also be discussed as part of the epigraphic signature analyses in Chapter 5.

¹⁹⁴ Use of *Dis Manibus* in Cirta is discussed by Jean-Marie Lassère but without reference to its unusual appearance in the epigraphy of the city. Lassère, 'Recherches Sur La Chronologie Des Épitaphes Paiennes de l'Africa'.

Figure 4.4 – Comparison of *Dis Manibus* and *Dis Manibus Sacrum* in area around Cirta, Numidia including level of predominance



Port cities

A recurring feature of the analyses carried out for this study is that ports often had a pattern of epigraphy at odds with the prevailing regional patterns. This is particularly true for the analysis of these two formulae.

Close inspection of Table 4.3 illustrates that port cities in some regions had a pattern of commemoration distinct from other cities in their region. We can see this particularly in those regions such as the Iberian and African provinces where there was a regional tradition of using *Dis Manibus Sacrum*. For example, we can see this in the Iberian Provinces, at Olisipo (Lusitania) and Tarraco and Barcino (Hispania Citerior). In these cities, there was a cultural tradition for using *Dis Manibus*, even though *Dis Manibus Sacrum* was prevalent in the province. Although epitaphs in Gades in Baetica were more likely to include *Dis Manibus Sacrum*, *Dis Manibus* was also used (4% for *DM* and 13% for *DMS*). It is also worth noting that the overall rates for either formula in Gades were particularly low, with 83% of inscriptions opening with an alternative form of words suggesting that interest in using a ritual formula was not strong. Furthermore, in North Africa, where the cultural tradition was to use *Dis Manibus Sacrum*, commemorators in Caesarea

(Mauretania Caesariensis) used *Dis Manibus* and those in Thaenae and Hadrumentum in Africa Proconsularis only used *Dis Manibus Sacrum* in a small proportion of epitaphs.

Port cities in Italy also have a pattern of commemoration at odds with the wider region. Although commemorators followed the prevailing tradition of using *Dis Manibus*, they seem to do so in much higher percentages than the rest of the region. For example, the prevalence of *Dis Manibus* in Latium and Campania is 32%, but ports such as Ostia (70%), Portus (75%), Puteoli (73%), and Misenum (81%) indicate much higher rates. Based on this formula alone, this would also suggest that patterns of commemorations in ports are not following regional patterns. This will be tested as we discuss other formulae in study, and will be debated further in Chapter 5, when we examine the epigraphic signatures of cities.

Table 4.3 – Prevalence of *Dis Manibus* and *Dis Manibus Sacrum* in port cities as a percentage of city total

Place Name	Province	Number of epitaphs (city)	DM	DMS	Neither formulae included
Roma	Roma	35,003	49%	3%	48%
Ostia Antica	Latium et Campania	1,966	70%	2%	28%
Carthago	Africa Proconsularis	1,935	5%	54%	41%
Salona	Dalmatia	1,363	66%	1%	33%
Puteoli	Latium et Campania	1,221	73%	7%	20%
Caesarea	Mauretania Caesariensis	551	34%	16%	50%
Gades	Baetica	481	4%	13%	83%
Portus	Latium et Campania	463	75%	3%	22%
Brundisium	Apulia et Calabria Regio II	443	24%	1%	75%
Misenum	Latium et Campania	379	81%	3%	16%
Tarraco	Hispania Citerior	360	64%	4%	32%
Narbo	Gallia Narbonensis	295	24%	1%	75%
Rusicade	Numidia	290	17%	37%	46%
Carales	Sardinia	260	57%	1%	42%
Ravenna	Aemilia	241	51%	0%	49%
Barcino	Hispania Citerior	123	63%	6%	31%
Hadrumetum	Africa Proconsularis	121	37%	35%	18%
Thaenae	Africa Proconsularis	114	25%	63%	12%
Olisipo	Lusitania	111	36%	5%	59%
Catina	Sicilia	110	22%	52%	26%

Central Italy

The analysis has revealed that cities in central Italy were using *Dis Manibus Sacrum* in their epitaphs in preference to *Dis Manibus*. In the context of the overall pattern for the region, this is unusual. Although the frequency of epitaphs in many of these cities falls below the 100-cut-off point, a decision was taken to highlight this pattern.

The data in Table 4.4 indicates that all cities had a cultural tradition of including *Dis Manibus Sacrum* rather than the regional preference of *Dis Manibus*.¹⁹⁵ Most of the cities are located in Samnium, a region geographically remote from the rest of Italy. However, two are located in Latium and Campania, and well connected with other Italian cities.¹⁹⁶ The custom for using *Dis Manibus Sacrum* in Capua is particularly surprising. The city was connected to Rome and the other cities in Latium and Campania via the *Via Appia* and also had close links with Naples and Puteoli. One possible explanation that could be explored in the future, is that alternative patterns of commemoration developed in the region as a result of geographic isolation. However, with such a small sample size for each city, any results would need to be treated with caution.

Table 4.4 – Prevalence of *Dis Manibus* and *Dis Manibus Sacrum* in cities in central Italy as a percentage of city total

Place Name	Province	Number of epitaphs (city)	DM	DMS	Neither formulae included
Capua	Latium et Campania	417	14%	27%	59%
Larinum	Samnium Regio IV	78	14%	40%	56%
Venafrum	Latium et Campania	77	5%	23%	72%
Alba Fucens	Samnium Regio IV	71	15%	44%	41%
Marruvium	Samnium Regio IV	61	11%	49%	40%
Corfinium	Samnium Regio IV	58	16%	40%	44%
Histonium	Samnium Regio IV	52	17%	50%	33%
Aesernia	Samnium Regio IV	51	14%	20%	66%

Discussion

The results of the data analysis show that there was a separation between the western part of the empire and the African and Iberian provinces in their use of *Dis Manibus* and *Dis Manibus Sacrum*

¹⁹⁵ It is worth noting that, in several of these cities, the preferred option was to include **neither** of these formulae.

¹⁹⁶ Graeme Barker described how the area was traditionally viewed as a ‘backwoods’ region, although his Biferno Valley project showed that the region was more closely connected with the Mediterranean world than previously thought. See: Graeme Barker, *A Mediterranean Valley: Landscape Archaeology and Annales History in the Biferno Valley* (London: Leicester University Press, 1995), 213ff.

Sacrum. Commemorations in Rome and Italy include both formulae in similar proportions but as we move north-east and north-west from this central pattern, the custom for using *Dis Manibus* grows stronger, as the use of *Dis Manibus Sacrum* grows weaker. The pattern south of Rome and Italy is very different. Once we leave Italy, the inclination towards *Dis Manibus Sacrum* grows; although it weakens slightly as we move west through the African Provinces. This trend in favour of *Dis Manibus Sacrum* is continued to the north of the African Provinces into the Iberian Provinces.

There are some exceptions to these general trends, notably in epitaphs in port cities which, often exhibit a pattern of commemoration unlike other cities in their region. There are also anomalies in a group of cities around Cirta in Numidia and in some cities in central Italy, particularly in Samnium. Patterns of commemoration in Cirta will be examined using other formulae in this thesis and discussed further in Chapter 5.

This study of the most commonly used formulae in epitaphs, raises a number of interesting questions about how the use of a particular epitaphic formula is adopted and spreads through a region. For instance, we can question whether use of one variant over another, was determined by a need to express the dedication to the *Manes* in a different manner due to local beliefs and customs. One solution was simply that the African and Iberian Provinces were developing a local epitaphic culture, distinct from Rome and Italy. Analysis of other formulae in the study that follows, will help further nuance this idea.

4.2.2 Personal information

Formulae that describe the deceased or give information about the individual commemorated are a high frequency group within the current study (see Table 4.1 for the number of epitaphs including these formulae). They are used in all regions of the empire to provide the reader with extra personal information about the deceased, such as age (sometimes approximate) and an indication of how well the individual was regarded during their lifetime. However, their use across the empire shows a marked regional variation in their prevalence and significance in the epigraphic record (see

Table 4.5). The three formulae included in the current study that relate to the deceased person are the epithet *bene merenti* and the formulae that indicate the age of the deceased *vixit annos* and *plus minus* (for approximate age).

Table 4.5 – Regional prevalence of formulae providing personal information as a percentage of region total

Region	Number of epitaphs (region)	VA	BM	PM
Rome	35,003	51%	36%	2%
African	26,961	87%	2%	1%
Italy	18,482	42%	26%	2%
Iberian	7,665	11%	4%	2%
North-Western	7,088	19%	2%	1%
Balkan and Danubian	6,723	37%	22%	1%
Med Islands	1,026	74%	27%	9%
Eastern	919	51%	17%	0%

Vixit Annos

The formula *vixit annos* expresses the number of years lived and is the second most frequent formula in this study after the ritual formulae *Dis Manibus* and *Dis Manibus Sacrum* (see Table 4.1 for details of frequency).¹⁹⁷ Although the usual translation is ‘age at death’, I have chosen to take the literal meaning, ‘lived x years’. Although the two translations mean the same thing, I feel that my translation reflects the original intention of the formula as a personal identifier, which is describing life rather than death, and privileges the former over the latter. The practice of adding the number of years a person has lived to an epitaph, emphasises the individual identity of the deceased to a reader, especially when combined with other personal information such as name and, in some cases, origin. In effect, it connects the monument or tomb to an individual, in the hope that the person will be remembered beyond a few subsequent generations.

¹⁹⁷ The formula in its abbreviated form seems to be expanded to either *vixit annos* or *vixit annis*. The use of the accusative or ablative in the formula is discussed in: Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’, (see note 7 on page 21). For consistency, I will use the accusative form (*vixit annos*) in the discussion.

The use of *vixit annos*, was not the only way to indicate age on a funerary monument. A person's age at death could be recorded by using '*annorum*' ('of a certain number of years') and, occasionally, with words that indicated death, such as '*defunctus*' ('died'), followed by the age of the individual. The alternative '*annorum*' was excluded from the current study because I would not have been able to separate its use as an indicator of age from its use in other contexts when constructing searches in EDCS. Therefore, I focus on the formula *vixit annos*, although alternative methods of indicating age will be noted if this helps interpretation of particular geographic patterns.

The practice of recording someone's age at their death has been extensively discussed in the literature.¹⁹⁸ Regional analyses of age groups and differentials in ages represented in specific regions have been used to understand this practice.¹⁹⁹ Others have examined age at marriage and relationships between the commemorated and the commemorator for various age groups.²⁰⁰ Carroll has examined how accurately age is recorded in an epitaph, particularly those set up to commemorate small children, where number of months, days and hours are inscribed.²⁰¹ Other epitaphs, however, highlight less certainty around the age of the individual commemorated, by adding the formula *plus minus* to show that the recorded age is approximate.²⁰²

Scholars have also looked at the age at death in more general terms. For example, Nielsen considered if use of age in an epitaph commissioned by parents for their children could be a substitute for using more than one epithet in an inscription. Her analysis of a sample of inscriptions from Rome indicated that recording age in an epitaph was rarely found together with more than one epithet. She even conjectures that noting the age of the individual could be considered as an epithet

¹⁹⁸ For example, Brent D Shaw, 'The Age of Roman Girls at Marriage: Some Reconsiderations', *The Journal of Roman Studies* 77, (1987): 30–46; Tim G. Parkin, *Demography and Roman Society* (Baltimore: Johns Hopkins Press, 1992); Laurence and Trifilò, "'Vixit Plus Minus' Commemorating the Age of the Dead: Towards a Familial Roman Life Course?"; Richard P. Saller, 'Men's Age at Marriage and its Consequences in the Roman Family', *Classical Philology* 82, no. 1 (1987): 21–34.

¹⁹⁹ Laurence and Trifilò, "'Vixit Plus Minus' Commemorating the Age of the Dead: Towards a Familial Roman Life Course?'

²⁰⁰ Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves'; Saller, 'Men's Age at Marriage and Its Consequences in the Roman Family'.

²⁰¹ This is often seen as a higher level of bereavement and grief due to the poignancy of recording time lived down to numbers of days and hours since birth. See: Maureen Carroll, 'No Part in Earthly Things. The Death Burial and Commemoration of Newborn Children and Infants in Roman Italy', in *Families in the Roman and Late Antique World* ed. Mary Harlow and Lena Larsson Lovén (London: Continuum Publishers, 2012), 48.

²⁰² Laurence and Trifilò, "'Vixit Plus Minus' Commemorating the Age of the Dead: Towards a Familial Roman Life Course?'

in its own right, since it provided information about the nature of the relationship between the commemorator and commemorated.²⁰³ Although her analysis does indeed show that the age at death is rarely used alongside other more meaningful epithets, Mednikarova has pointed out that her suggestion should remain tentative, given the lack of more detailed analysis.²⁰⁴

Lastly, we find that the formula can also be abbreviated or contracted, and when written in full, has a number of variant spellings, including *vixit annis*, *bixit annos*, or *vixxit annos*. The search I used in EDCS was constructed to capture all these variations (see Chapter 3 Table 3.2 for details of searches used).

Period in use

Vixit annos was in use in the Danubian Provinces in the second century CE and is seen as a replacement for the use of *annorum* (for example, ‘XXX *annorum*’ ‘of 30 years’).²⁰⁵ In the Iberian Provinces, ‘*annorum*’ continues to be used throughout the second century, but is rare by the third century.²⁰⁶ By the fourth century, the *plus minus* formula is in common use.

According to Lassère, *vixit annos* is rare in pagan epitaphs in Africa, although this thesis is unable to verify whether the formula is predominantly a Christian tradition.²⁰⁷ I have checked EDCS and other databases, which show that *vixit annos* was used in Mauretania Caesariensis from 127 CE and was still in use in Sitifis in 642 CE.²⁰⁸

Data analysis

The formula is used in 54,963 epitaphs in the current study. Figure 4.5 shows that it is used throughout the Roman world with the highest rates of use in cities in the African provinces and

²⁰³ Nielsen, ‘Interpreting Epithets in Roman Epitaphs’, 177.

²⁰⁴ Mednikarova, ‘Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae’, 186ff.

²⁰⁵ *Ibid.*, 20.

²⁰⁶ Helen Woodhouse, ‘Epigraphy and Urban Communities in Early Roman Baetica’ (PhD Thesis, University of Southampton, 2009), 324.

²⁰⁷ Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’, 127.

²⁰⁸ Many of these epitaphs were dated using the *anno provinciae* formula as part of the ‘Age and Imperialism’ project led by Prof. Ray Laurence and funded by the Leverhulme Trust.

central Italy. The Iberian Provinces appear to have low rates of use, with the highest concentrated around Baetica.

The full data presented in Table A1 in the Appendix, provides more detail on these overall patterns. Compared to the other formulae investigated in this study, overall rates of use are high across several regions. Across the whole dataset, the average usage is 57%. Rome is close to the average and employs the formula in 51% of all epitaphs in the city, whereas Ostia and Portus are slightly lower at 36% and 32% respectively. The three cities in Italy that stand out as having rates of use well above the average are Pompeii (81%), Brundisium (80%) and Misenum (72%). In general, the percentages for the north of Italy are lower, except for Ravenna, where rates are 60%.

Cities in the Balkan and Danubian provinces have rates of use close to the average, except for Aquincum (36%), Salona (21%) and Carnuntum (8%). The low rate in Carnuntum is particularly surprising compared to other cities in the region. Of the 282 epitaphs in the city, 23 include the formula *vixit annos*, and 208 contain the word *annorum*, indicating that an alternative method of indicating age was in use.²⁰⁹

Rates in the North-Western provinces are below average. Cities with the highest percentages are Vienne (46%) and Lugudunum (40%), but more than half of the cities have rates of use between 15% and 1%. Mogontiacum has a rate of use of 15% but, like Carnuntum above, includes a high proportion of epitaphs that include *annorum*. Interestingly, the city of Narbo has a rate of use of 7%, which closely matches the port city of Barcino in Hispania Citerior, which has a rate of use of 6%.

Rates in the Iberian Provinces are all below the average. Italica has the highest rate at 50%, but two cities, Turgalium and Hinojosa de Duero, fall below 1%. While the port city of Tarraco has a rate of 29%, it is much rarer in the other three port cities in the region Barcino (6%), Gades (2%) and Olisipo (2%). Since the tradition of expressing age was a widespread practice, it

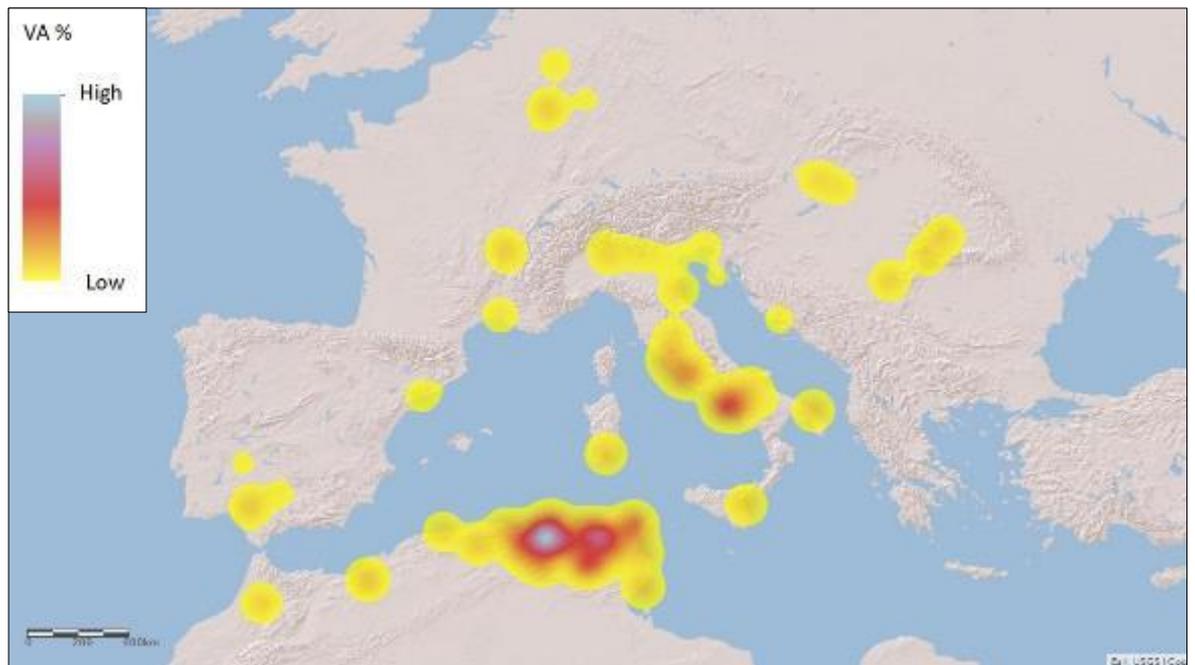
²⁰⁹ Even though it is possible that the word *annorum* may be using the word to record something other than age (years served in the army for instance), I think it is reasonable to assume that epitaphs in the city were recording years lived, but using a different form of words to do this.

seems likely that those setting up memorials in these areas were using alternative wording to express age at death. Of the 7,665 epitaphs from the Iberian provinces, only 11% use *vixit annos*. The vast majority of epitaphs (6,840) include the word *annorum*, so it is highly likely that this was being used to express ‘years lived’ in an epitaph. The reasons for the absence of the standard formula in the epigraphic record of the Iberian provinces will be discussed in Chapter 7.

All cities in the African Provinces have a rate of use for the formula well above the average, ranging from Sigus in Numidia (98%) to Caesarea in Mauretania Caesariensis (61%). All of the cities in the Cirta confederation have a rate above 90%.

Cities around Carthage indicate a cultural tradition for using a variant of the formula, where *pious* or *pia* is inserted to produce *pious/pia vixit annos* (‘having lived dutifully’). This is frequently abbreviated to *PVA*. Of the 5,265 epitaphs using this variant, very few occur outside North Africa, and most of them are concentrated in just four cities Thugga (1120); Carthago (766); Thubursicu Numidarum (501); and Madauros (382).²¹⁰ This will be discussed in full in the case study section for Thugga in Chapter 5.

Figure 4.5 – Distribution of *vixit annos* across the Roman world



²¹⁰ Mednikarova has suggested that the formula originated in the *familia domus Augusti* from the cemeteries of the *officiales* in Carthage, see: Mednikarova, ‘Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae’, 148.

Plus Minus

This formula, found in 1,805 epitaphs, is added to express uncertainty concerning the age of the individual commemorated, thus indicating that the recorded age of an individual is approximate.²¹¹ It first appeared in epitaphs in Rome in the third century CE and then is common in Christian epitaphs from the fourth century.²¹² However, Lassère noted that the formula was also used in Africa and can be dated to the second century CE.²¹³ The expression is often used to identify Christian epitaphs and Brent Shaw has even suggested that it is never used in pre-Christian epigraphy.²¹⁴

Figure 4.6 indicates that the expression is used in some cities in Italy, the North-Western provinces, and the African provinces.²¹⁵ It is found less often in the Iberian provinces and almost never used in the Balkan and Danubian Provinces. Rates of use across all regions are generally low; the highest is in Carales on Sardinia, where it is used in 21% of epitaphs but, where used, rates are generally between 3% and 1%. Ninety-one percent of epitaphs that include the formula use it alongside *vixit annos*. A review of the epitaphs in the database **not** using *vixit annos*, reveals that *plus minus* is also used with the word *annorum* in the Iberian provinces.

²¹¹ Laurence and Trifilò, “‘*Vixit Plus Minus*’ Commemorating the Age of the Dead: Towards a Familial Roman Life Course?”

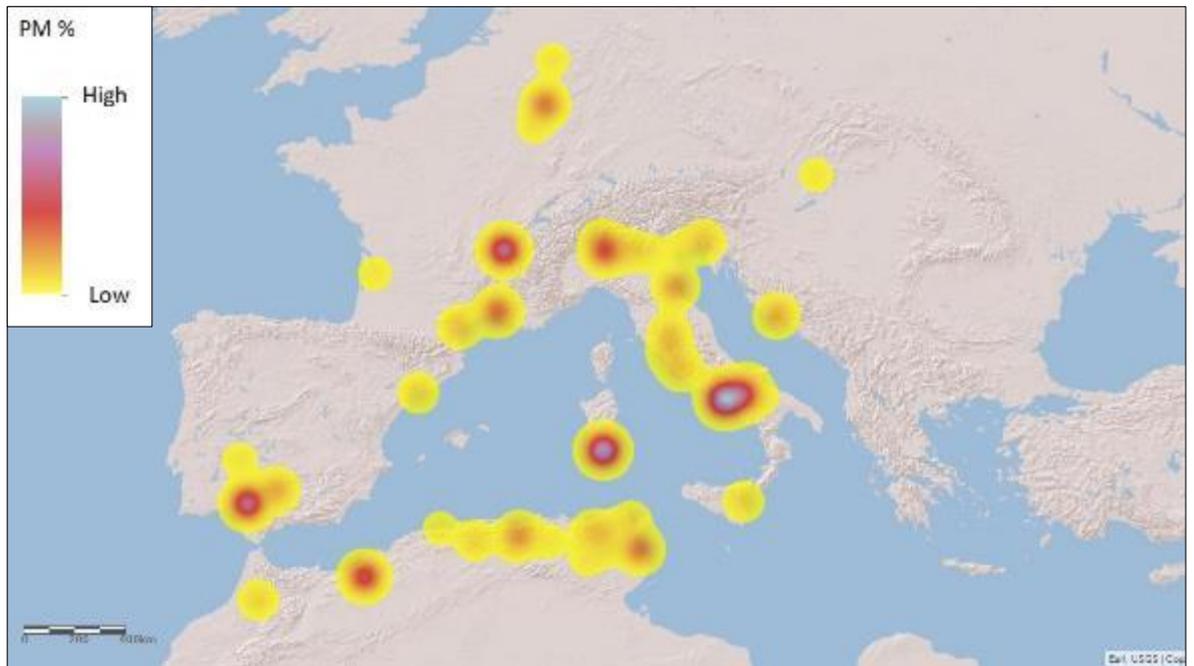
²¹² Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’, 184.

²¹³ Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’, 127.

²¹⁴ Shaw, ‘Seasons of Death : Aspects of Mortality in Imperial Rome’, p.104. In the database 21% of the epitaphs which include *plus minus*, also include *Dis Manibus* or *Dis Manibus Sacrum* both of which are traditional pagan formulae. However, as Mark Handley noted, many Christian epitaphs continued to use pagan formulae, so this cannot be seen as an indication that these epitaphs were **not** Christian commemorations. See: Handley, ‘The Origins of Christian Commemoration in Late Antique Britain’, 183.

²¹⁵ Lassère noted that the formula is used infrequently in the African provinces. In the current study there are 244 epitaphs from North Africa which use the formula, accounting for 13% of all uses. However, this is less than 1% of all inscriptions in the region.

Figure 4.6 – Distribution of *plus minus* across the Roman world



Bene Merenti

Bene merenti is one of several expressions known as ‘epithets’, which are included in epitaphs to describe the qualities of the deceased. Alongside adjectives such as *dulcissimus/a* and *pientissimus/a*, it is used to give a sense of what the deceased person meant to those left behind. However, unlike the other epithets, which are more meaningful in their message, *bene merenti* conveys a formulaic impersonal meaning that has led Sigismund Nielsen to suggest that it is used by specific social groups or as a closing formula.²¹⁶ Her analysis of a sample of inscriptions from Rome suggests that the formula was used mainly by commemorators who wished to indicate a formal non-familial relationship, based on obligation with the deceased (for example, between a foster child and foster parent). However, although this may be true for Rome, it seems unlikely that every instance of its use (in over 20,000 epitaphs in the current study) can be linked to a particular social group.²¹⁷ She also suggested that *bene merenti* could be a closing formula, simply

²¹⁶ Nielsen, ‘Interpreting Epithets in Roman Epitaphs’.

²¹⁷ Nielsen’s 1997 study of epitaphs from Rome associates it with the concept of duty and patronage. In her analysis of a sample of inscriptions from Rome (3,797 from *CIL VI*) Nielsen identified two uses for *bene merenti*: as a closing formula at the end of an inscription; and a formula used to denote relationships of

denoting the end of an inscription.²¹⁸ In these cases, it is placed at the end of the epitaph rather than closely associating it with an individual.

Bene merenti's use in military epitaphs has led Mednikarova to suggest that the formula had a meaning more akin to 'to him who has done his service well'. She explains that in this context it expresses the concept that soldiers can be considered as 'deserving well' of the state. Use of the formula might also simply relate to their merits in their private lives.²¹⁹ Its use in cities associated with the Roman fleet will be discussed in Chapter 5.

The use of *bene merenti* in an epitaph is a conventional way of saying that someone had led a good life and done the things that were expected of them. It was used continuously from the end of first century CE through to at least 400 CE.²²⁰ Indeed, the fact that the widely-used Christian formula, *bonae memoriae* ('of good memory'), which expresses similar sentiments to *bene merenti*, was also abbreviated to 'BM' suggests that *bene merenti* had lost its original meaning or intention. It is probable that the abbreviation *BM* had simply become an additional visual signifier of a funerary monument or another formulaic generic expression to be carved on the monument.²²¹

obligation. She states that *bene merenti* is mainly used as a formula and not as a meaningful epithet which carries information about the relationship between the dedicator and commemorated. She demonstrates how in the literature (for example Cicero & Plautus) it is used mainly to describe relationships denoting obligation and gratitude. She also states that because it is frequently found at the end of an epitaph that 'it should probably be regarded only as a graphic indicator of the beginning and end of the inscription proper' (2% of her sample).

²¹⁸ Nielsen, 'Interpreting Epithets in Roman Epitaphs', 181.

²¹⁹ Mednikarova, 'Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae', 201. For a full discussion of literary uses of the expression and its meaning in military and civilian contexts see 193-204.

²²⁰ For a discussion of the use of *BM* in Christian epitaphs, see: Cooley, *The Cambridge Manual of Latin Epigraphy*, 231ff.

²²¹ Interestingly because the two formulae are used during the same period, it is often difficult to know exactly how to translate the abbreviation *BM*, even when the epitaph is clearly a Christian commemoration. Alison Cooley makes the point that the two abbreviations could be translated as either *bene merenti* or *bonae memoriae* in Christian epitaphs. Although the formula *bonae memoriae* is common in Christian epitaphs, *bene merenti* is also used: Cooley, 62.

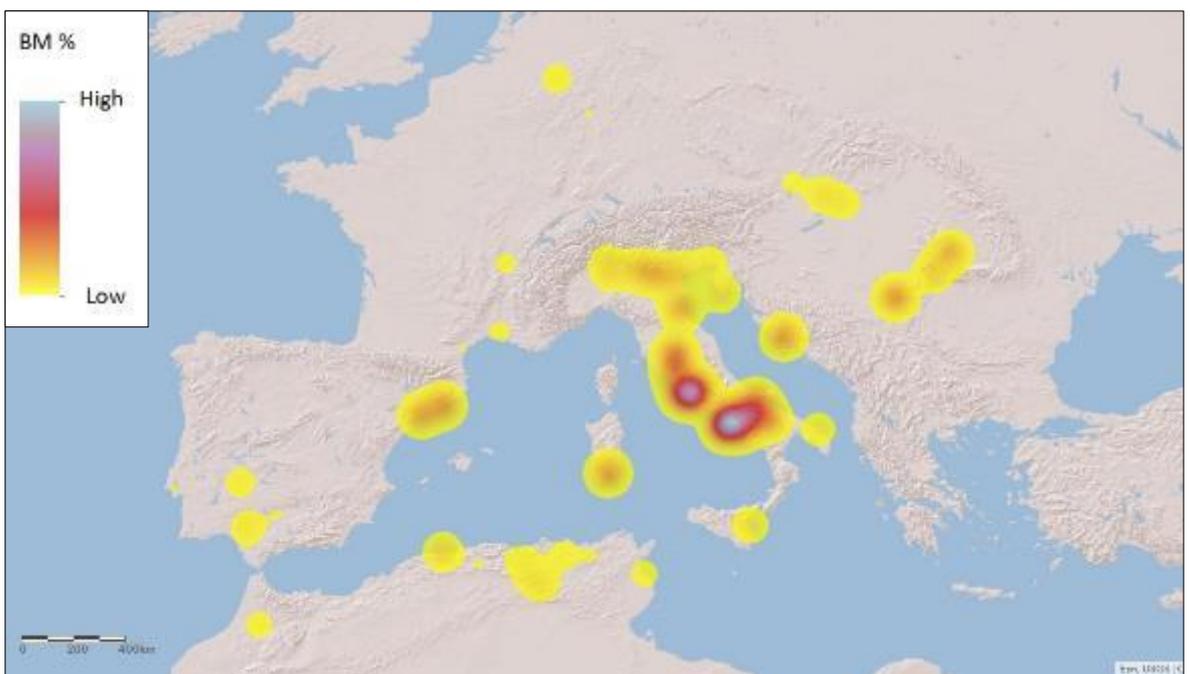
Period in use

The expression was in use between the first and fourth centuries CE. It was used in 29% of the epitaphs in Dacia which, based on the dates of the province, means they can be dated to 106 to 275 CE.

Data analysis

Bene merenti is used in 20,125 epitaphs in the current study. Figure 4.7 illustrates that high rates of use are concentrated in Rome and Italy. It is also found in coastal cities around the Adriatic and occasionally used in a few cities in the African provinces and in those in the south of the Iberian Peninsula. The formula is rare in the North-Western provinces whereas rates of use are higher in the Balkan and Danubian provinces. This indicates that *bene merenti* is one of a ‘core group’ of formulae used at the centre of the Roman world and rarely used on the peripheries of the empire. Analyses carried out in Chapter 5 have revealed an association between this expression and members of the imperial fleet based in Rome and in other ports around the Mediterranean. A discussion of this pattern is provided in Chapter 7.

Figure 4.7 – Distribution of *bene merenti* across the Roman world



Despite the fact that the most significant academic article on *bene merenti* is based on a sample of inscriptions from Rome, the formula is found in only 36% of epitaphs from the city.²²² Close reading of Table A1 in the Appendix shows that although this is above the average rate of use of 26% of epitaphs for cities in Italy (including Rome), the results do not mark Rome and the surrounding cities out as the main centre of use.²²³ The cluster of cities around the port cities of Misenum and Puteoli have consistently higher rates of use: Misenum (66%); Puteoli (42%); and Neapolis (39%). Although rates of use are higher in central and southern cities of the region, there are exceptions. For example, Brundisium has one of the lowest rates of use, where only 7% of epitaphs include the formula.

Two cities in the Balkan and Danubian provinces have rates of use similar to those found in Rome. Viminacium (Moesia Superior) and Salona (Dalmatia) use *bene merenti* in 38% and 35% of epitaphs. Percentages in cities in Dacia are slightly lower (Apulum 26% and Sarmizegetusa 16%). Other cities in the region are below 10%.

Rates of use in the North-Western provinces are extremely low. Seven of the cities are below 1%. The highest rate in the region is Colonia Claudia Ara Agrippinensium (Germania Superior) with 5% of epitaphs using the formula. Unlike port cities in Italy, some of which have high rates of use, epitaphs in Narbo only use the formula in 2% on epitaphs.

Rates of use in the Iberian provinces are generally low except for the port cities of Barcino (35%) and Tarraco (29%). Other cities use the formula in less than 6% of epitaphs.

Use of *bene merenti* in military epitaphs

In scholarship, *bene merenti* has been associated with military epitaphs.²²⁴ Table 4.6 provides data for rates of use in cities with military-linked populations. Only four indicate a higher than average use: Misenum, Rome, Salona and Ravenna. Three of these cities are in Italy where the formula is

²²² Nielsen, 'Interpreting Epithets in Roman Epitaphs'.

²²³ Ostia (26%) and Portus (24%) have lower rates of use than Rome.

²²⁴ Pertti Huttunen, 'Some Notes on the Use of the Verb *Mereo* (*Mereor*) in Republican Political Terminology and in Pagan Inscriptions', *Arctos* 4 (1966): 47–61.

most popular whilst the fourth is a port city on the Adriatic coast with close ties to the Italian mainland. This association with military-linked populations, particularly those associated with the imperial fleet, such as Misenum and Ravenna, will be discussed further as the part of the epigraphic signature analysis for Misenum in Chapter 5.

Table 4.6 – Prevalence of *bene merenti* in cities with military-linked populations as a percentage of city total

Place Name	Province	Number of epitaphs (city)	BM
Misenum	Latium et Campania	379	66%
Roma	Roma	35,003	36%
Salona	Dalmatia	13,632	35%
Ravenna	Aemilia	241	29%
Brigetio	Pannonia superior	104	9%
Lambaesis	Numidia	1,496	8%
Aquileia	Venetia et Histria Regio X	1,238	7%
Aquincum	Pannonia inferior	283	6%
Lugdunum	Lugdunensis	554	3%
Carnuntum	Pannonia superior	279	3%
Mogontiacum	Germania superior	304	2%
Carthago	Africa Proconsularis	1,935	1%
Theveste	Numidia	446	1%
Ammaedara	Africa Proconsularis	473	0%

Use of *bene merenti* as a closing formula

Sigismund Nielsen states that because *bene merenti* is frequently found at the end of an epitaph, that it should probably be considered a ‘graphic indicator’ of the end of an inscription.²²⁵ My analysis indicates that of 84,435 complete epitaphs, 17,245 include *bene merenti*. Of these, only 20% (3,408) use it as a closing formula. Other cities use the formula at the end of an epitaph more often – Salona (45%) and Ostia (35%) and Puteoli (23%). Therefore, it appears that its use as a

²²⁵ Nielsen, ‘Interpreting Epithets in Roman Epitaphs’, 181.

closing formula was limited, and that her conclusion is the result of a study carried out on a restricted sample.

Discussion

The idea of providing personal information as an identifier of the deceased in epitaphs is widespread. The most popular concept in this group is that which expressed a number of years lived. Although the concept was universal, the results show that commemorators in the Iberian provinces preferred to use the word *annorum* rather than the accepted formula *vixit annos*. This will be discussed further in Chapter 7.

The results have shown that the formal epithet *bene merenti*, was more popular in cities in Italy than it was in Rome. It had a particular association with epitaphs in ports linked with the imperial fleet and this will be investigated further in Chapter 5 as part of the analysis of epigraphic signatures.

4.2.3 Location of remains

Hic Situs Est

This formula is found in 20,493 epitaphs. Its meaning, ‘here lies (the deceased)’, implies a physical association between the remains of the dead and the tomb. Nadya Popov notes that the phrase is included in virtually every epitaph associated with the *Legio XIV* before and after the move to Carnuntum.²²⁶ She argues that this indicates the determination of the military to recover the war dead and place them in a grave.²²⁷

²²⁶ Nadya Popov, ‘Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE’, in *Ancient Documents and Their Contexts*, ed. John Bodel and Nora Dimitrova (Leiden: Brill, 2011), 238. For a further discussion of *Hic Situs Est* in Carnuntum, see: Kruschwitz, ‘*H(Ic) i(- - -) s(Iivs) e(St)*: Meaning and Diffusion of a Regionally Used Sepulchral Formula | *H(Ic) i(- - -) s(Iivs) e(St)*: Bedeutung Und Verbreitung Einer Regional Gebräuchlichen Sepulkralformel’.

²²⁷ Popov, ‘Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE’, 238.

The formula has a number of variants: the masculine form *hic situs est*; the feminine *hic sita est* and, occasionally, the plural *hic siti sunt*. Furthermore, the word order can sometimes be changed to *hic est situs*.

We should also note that there are a number of alternative formulae that express similar concepts, such as *hic requiescit*, which associates death with sleep (an idea absent from *hic situs est*); and *hic positus est*, which conveys a similar message to *hic situs est*, but is used at the beginning of an epitaph, rather than at the end.²²⁸

Period in use

The formula seems to have been in wide use across all periods. In Carthage, it was employed from the first to the third centuries CE.²²⁹ In Gaul, it was in use in the first century CE.²³⁰ According to Mednikarova, it had disappeared from use by the second century CE.²³¹

Data analysis

Hic situs est (and its associated grammatical variants) appears in 20,493 epitaphs.²³² Table 4.7 and Figure 4.8 indicate that rates of use are low in Rome, Italy, and the North-Western provinces. High rates are concentrated in the Iberian provinces, the African provinces, and the north-eastern borders. However, there are some exceptions to these broad patterns, which are examined below.

²²⁸ Nicolas Laubry, 'Une Nouvelle Inscription Funéraire de Lyon: Remarques Sur Le Formulaire Hic Adquiescit Dans l'Occident Romain', *La Revue Archéologique de l'Est (RAE)* 54, no. 176 (2005): 301.

²²⁹ Lassère, 'Recherches Sur La Chronologie Des Épitaphes Païennes de l'Africa'.

²³⁰ Raepsaet-Charlier, '*Hic Situs Est* Ou *Dis Manibus*. Du Bon Usage de La Prudence Dans La Datation Des Épitaphes Gallo-Romaines'.

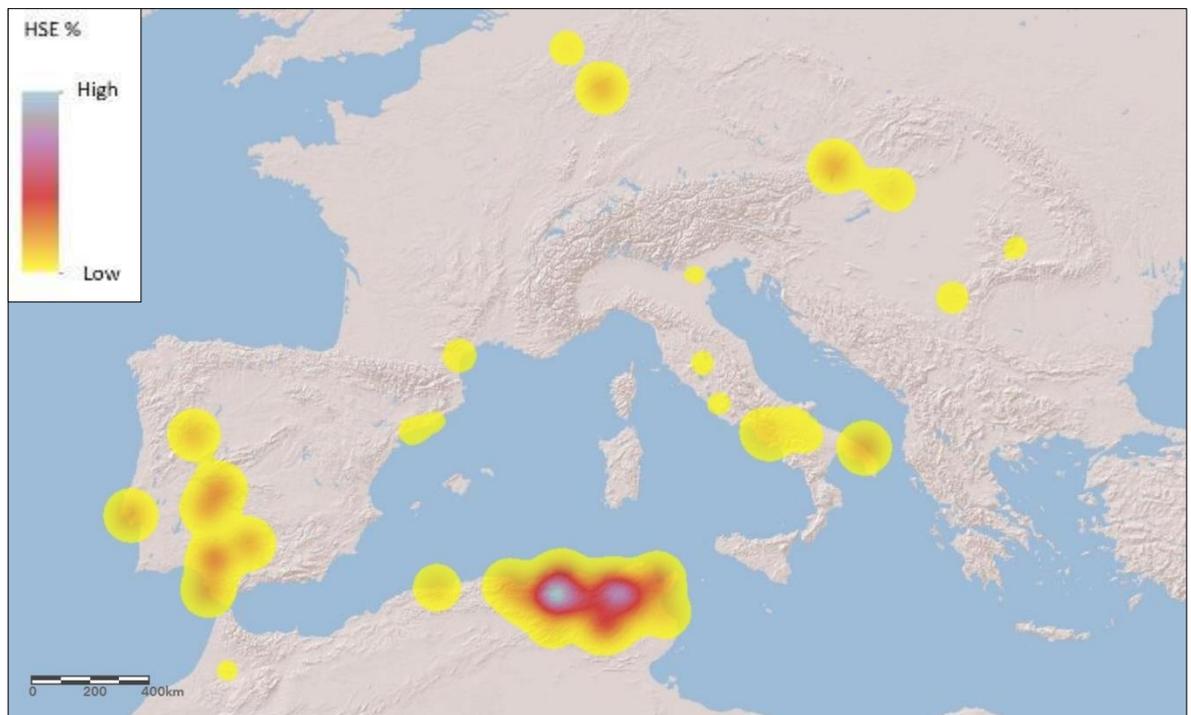
²³¹ Mednikarova, 'Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae', 104.

²³² Throughout the thesis, I will refer to all grammatical variants of the formula as *hic situs est* or *HSE*.

Table 4.7 – Regional prevalence of *hic situs est* as a percentage of region total

Region	Number of epitaphs (region)	<i>HSE</i>
Rome	35,003	2%
African	26,961	46%
Italy	18,482	5%
Iberian	7,665	60%
North-Western	7,088	7%
Balkan and Danubian	6,723	17%
Med Islands	1,026	4%
Eastern	919	22%

Figure 4.8 – Distribution of *hic situs est* across the Roman world



Close examination of the data in Table A1 in the Appendix confirms that overall rates of use in Rome and Italy were low. Although 695 epitaphs in Rome used the formula, this only constitutes 2% of inscriptions in the city. In Ostia and Portus, rates are even lower, at only 1%. This pattern of low use is reflected throughout northern and central Italy whereas cities in the south

of Italy, used the formula in much higher rates. In particular, there was a strong tradition of including the formula in Brundisium (71%) and Capua (31%).

In the North-Western provinces, rates of use are also low at around 1% of epitaphs for most cities. Epitaphs in Narbo (Gallia Narbonensis) have a higher rate of use (13%), more in keeping with Barcino and Tarraco in Hispania Citerior (6% and 9% respectively). Epitaphs from cities in the Balkan and Danubian provinces include the formula at an average rate of 4%, which is above the rate in Rome and northern Italy. The exceptions to this general trend in these regions are the cities on the far eastern boundaries of these northern provinces (see Table 4.8). Some cities, such as Carnuntum, Mogontiacum and Aquincum, have a rate of use far above that demonstrated in the centre of the Empire (see Table 4.7 for regional patterns).

Table 4.8 – Comparison of *hic situs est* in frontier cities in the north-eastern provinces as a percentage of city total

Place Name	Province	Number of epitaphs (city)	HSE
Carnuntum	Pannonia superior	279	73%
Mogontiacum	Germania superior	304	64%
Aquincum	Pannonia inferior	283	25%
Colonia Claudia Ara Agrippinensium	Germania inferior	136	14%
Viminacium	Moesia superior	110	12%
Apulum	Dacia	171	7%
Brigetio	Pannonia superior	104	6%
Sarmizegetusa	Dacia	104	4%

Rates of use are exceptionally high in all cities in the Iberian provinces, except for Tarraco and Barcino in Hispania Citerior, which indicated a pattern of use closer to Narbo than to other cities in the Iberian Peninsula. If we discount these two port cities, all cities in the Iberian provinces used *hic situs est* in over 50% of epitaphs with the highest rates of use found in Turgalium (90%) and Gades (75%). Cities in these provinces also regularly used *hic situs est* alongside *sit tibi terra levis*. Of the 4,579 epitaphs that included *hic situs est*, 58% (2,686) also included *sit tibi terra levis*.

In the African provinces, percentages are highest in cities in Africa Proconsularis and Numidia. Rates are lowest in those cities on the southern edge of both provinces and rates decline in cities to the west of Numidia. Rates of use in cities in Mauretania Caesariensis are higher than Italy and the North-Western provinces but low when compared with other cities in Africa. Overall, while rates of use in cities in the African provinces are high, they are lower than those found in cities in the Iberian Peninsula.

Cities with above 50% are predominantly in the African and Iberian provinces. The exceptions are Mogontiacum 64%, Brundisium 71%, and Carnuntum 73%. Analysis of the data indicates that *hic situs est* is more popular in cities on the peripheries of the empire than in the centre. Some cities with military populations have high rates of use, particularly those on the north-eastern borders of the empire such as Carnuntum (73%), Mogontiacum (64%), and Aquincum (25%) and also in North Africa, such as Ammaedara (53%), Carthago (48%), and Theveste (43%).

Discussion

This analysis in this section underlines the importance of a thorough appreciation of the geographic distribution of commemorative patterns when discussing epitaphs. The study has shown that, although *hic situs est* was widely used, it was relatively rare in Rome and Italy. The results have also shown that commemorators in cities with military-linked populations may have been following a pattern established in military commemorations where linking the monument to the remains was important. This will be investigated further in Chapter 5, when we examine epigraphic signatures for regions and cities.

4.2.4 Restrictions on the tomb

The four formulae that will be examined in this section form a group that can be categorised as indicating either restrictions on the use of the funerary monument or they convey a message about

the location or status of the monument. As Table 4.9 demonstrates, the use of these formulae is restricted to certain regions with highest rates concentrated in Rome and Italy.

Table 4.9 – Regional prevalence for formulae denoting restrictions as a percentage of region total

Region	Number of epitaphs (region)	<i>LLPQE</i>	<i>HMHNS</i>	<i>IFIA</i>	<i>SAD</i>
Rome	35,003	5%	1%	6%	0%
African	26,961	0%	0%	0%	0%
Italy	18,482	2%	2%	16%	0%
Iberian	7,665	0%	1%	2%	0%
North-Western	7,088	0%	1%	3%	6%
Balkan and Danubian	6,723	0%	1%	2%	0%
Med Islands	1,026	0%	0%	1%	0%
Eastern	919	0%	2%	3%	0%

Hoc Monumentum Heredem Non Sequetur

Hoc monumentum heredem non sequetur is one of the low-frequency formulae in this thesis and occurs in only 943 epitaphs.²³³ Described as a ‘prohibition’ formula by Maureen Carroll, the formula translates as ‘this monument should not pass to the heirs’.²³⁴ There was some debate in the early part of the twentieth century about its exact meaning. Sandys suggested that it referred to the tomb not passing to an heir, who is not part of the immediate family whereas Mierow argued that the formula limited use of the tomb only to the current individual.²³⁵ Familiarity with the concept the formula expressed is confirmed by its use by Horace and Petronius. It is used by Horace in the *Satires* in a description of the Potter’s Field on the Esquiline, and by Petronius in the *Satyricon*, during Trimalchio’s dinner party when he is providing a description of his intended tomb.²³⁶

²³³ There are 23 epitaphs that include the spelling *sequetur* rather than *sequitur*.

²³⁴ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

²³⁵ J E Sandys, *Latin Epigraphy: An Introduction to the Study of Latin Inscriptions* (Cambridge: CUP, 1927), 81ff; Charles C. Mierow, ‘*Hoc Monumentum Heredem Non Sequitur* - An Interpretation’, in *Transactions and Proceedings of the American Philological Association*, vol. 65, 1934, 174.

²³⁶ Horace, *Sermones* 1.8, 10-13; Petronius, *Satyricon* 71. See also: Valerie M. Hope, ‘A Roof over the Dead: Communal Tombs and Family Structure’, in *Domestic Space in the Roman World: Pompeii and Beyond*, ed. Andrew Wallace-Hadrill and Ray Laurence (Portsmouth, R.I.: Journal of Roman Archaeology, 1997), 69–88.

There are a number of variants of the formula, the most common of which are, *hoc monumentum heredem externum non sequetur* and *hoc monumentum heredem familiae externum non sequetur*. These amend the meaning to be more specific about which heirs are to be excluded (either external heirs or heirs who are external to the family).²³⁷ In the current study, the addition of ‘*exterum*’ (‘external to the family’) occurs 122 times, with ‘*externum*’ (which also means ‘external to the family’) occurring 4 times. A further variant is *hoc monumentum sive sepulcrum heredem non sequetur* (this monument or tomb should not pass to the heirs). The addition of ‘*sive sepulcrum*’ amends the meaning to include tombs as well as monuments and occurs 55 times in the database.

Period in use

Mid-first century BCE to mid-first century CE.²³⁸

Data analysis

A regional analysis indicates that use of the formula is almost non-existent in the African provinces (it is used once in Numidia and once in Africa Proconsularis) but that it is used at a rate of 1 or 2% of epitaphs in other regions (see Figure 4.9 and Table 4.9).

According to Maureen Carroll, *hoc monumentum heredem non sequetur* is used regularly in Rome, Ostia, and Portus as well as in southern Gaul.²³⁹ Analysis of the data at a city level in this study (see Table A1 in the Appendix) indicates that Barcino (Hispania Citerior) uses it in 20% of epitaphs, in Verona (Venetia et Histria), it is 13%, in Narbo (Gallia Narbonensis) it is 9% and Portus it is 8%. In Rome and Ostia, it is only used in 1% of epitaphs. These results, therefore, do not support Carroll’s assertion of regular use in Ostia, Portus and Rome and underline the importance of contextualising the evidence in terms of the overall number of inscriptions in any location. The uneven distribution of epigraphic evidence means that results based on frequency can be misleading. The rates of use as a percentage of epitaphs in these three cities are low and the

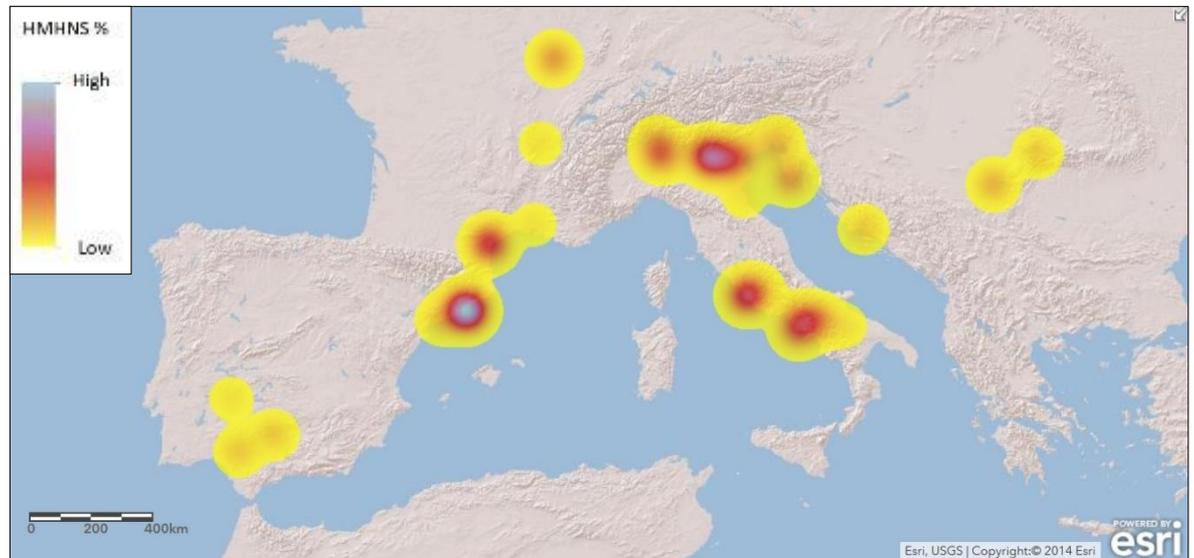
²³⁷ Campbell, *The Tombs of Pompeii: Organization, Space, and Society*, 67.

²³⁸ Cooley, *The Cambridge Manual of Latin Epigraphy*, 136.

²³⁹ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

frequency of use is equally low. In Rome, it is used in only 291 of 35,003 epitaphs; in Ostia 28 of 1,966 epitaphs; and in Portus in only 36 of 463 epitaphs. It is clear therefore, that *hoc*

Figure 4.9 – Distribution of *hoc monumentum heredem non sequetur* across the Roman world



monumentum heredem non sequetur is rare in the epigraphic record of all three cities and that its appearance in most epigraphic manuals as a frequently-used formula is misleading.²⁴⁰

Libertis Libertabusque Posterisque Eorum

Libertis libertabusque posterisque eorum is found in 2,381 epitaphs in the current study.

Translated as, ‘For the Freedmen and Freedwomen and their Descendants’, this formula conveys an explicit message that the tomb is for the use of an individual and his or her entire household. An epitaph that includes this formula must commemorate an affluent individual. It implies ownership of slaves, and refers to a household of ex-slaves, which only the wealthiest individuals (many of them freed slaves themselves), could have attained.²⁴¹ The use of the expression is testament to the integration of freed slaves into the family of the individual setting up the inscription.²⁴² Although these freed slaves were not mentioned individually by name, they were given full rights to use the

²⁴⁰ The expression is always referred to as ‘frequent’ or ‘common’. See: Carroll, 134; Cooley, *The Cambridge Manual of Latin Epigraphy*, 136; Bruun and Edmondson, *The Oxford Handbook of Roman Epigraphy*, 792.

²⁴¹ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 90.

²⁴² Henrik Mouritsen, *The Freedman in the Roman World* (CUP, 2011), 41-2.

tomb.²⁴³ It was not strictly a legal restriction in the same sense as *hoc monumentum heredem non sequetur*, but it related to the *'ius'* of a particular type of tomb, stating who had a right to use it.²⁴⁴ According to Valerie Hope, the formula is frequently found on memorials set up by an individual during their lifetime.²⁴⁵

Period in use

First to third century CE.

Data analysis

Figure 4.10 and Table 4.9 show that the formula has a very limited geographic reach. Its use is concentrated around Rome, the Bay of Naples, the Adriatic coast and there is also low use in south-east Gaul. The highest concentration of epitaphs using this formula is in Rome (80%), with a further 8% in Ostia and 2% in Portus. This high concentration in and around Rome has led Saller and Shaw to suggest that *libertis libertabusque posterisque eorum* is found 'most frequently' in this area.²⁴⁶ Since 90% of all these epitaphs are found in cities close to Rome, this is clearly a commemorative practice peculiar to the region, which never travelled much beyond Rome and her port cities. However, it is important to note that this high concentration represents a low proportion of the total epitaphs for all three cities in the study.

The appeal of this expression in cities close to the centre of the empire, may relate to its popularity in commemorations set up by freed slaves. Although I am not implying it was exclusive to this social group, its use in Ostia, where there is evidence that a large proportion of commemorations were set up by ex-slaves, suggests that there is a correlation between the expression and social class, at least when it was first used. Further research is needed to establish this connection.

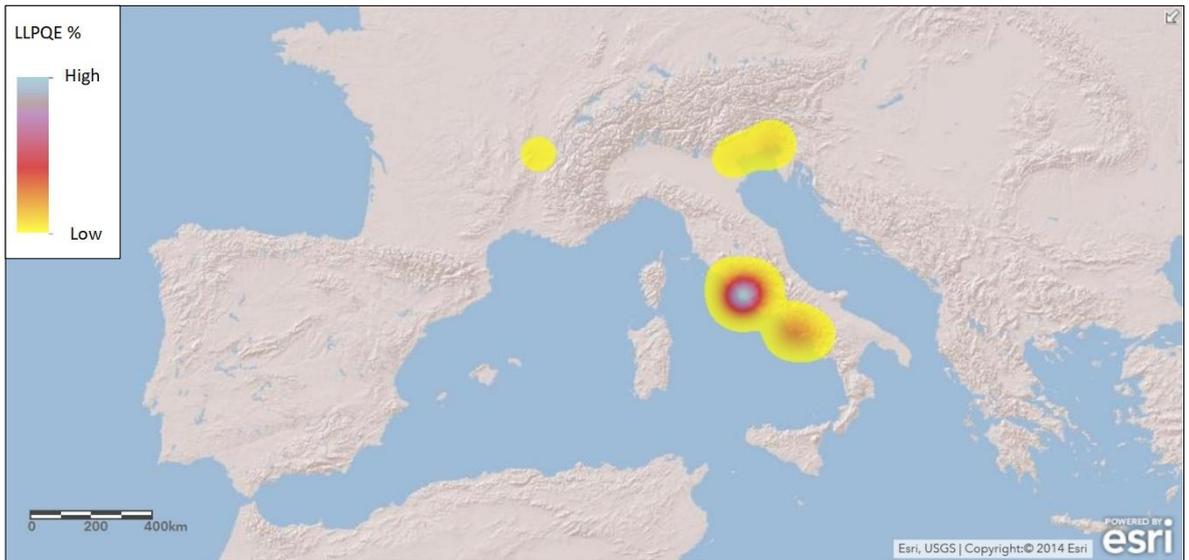
²⁴³ Mouritsen, 'Freedmen and Decurions: Epitaphs and Social History in Imperial Italy', 47.

²⁴⁴ Mednikarova, 'Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae', 48.

²⁴⁵ Hope, 'Reflections of Status: A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes. Vol 1', 78.

²⁴⁶ Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves', 132.

Figure 4.10 – Distribution of *libertis libertabusque posterisque eorum* across the Roman world



In Fronte In Agro In Retro

This formula, used to define the width of the plot along the road (*in fronte*) and the depth of the plot away from the road (*in agro* or *in retro*), records specific dimensions in Roman *pedes* (feet) for the plot of land where a tomb or burial plot is located. The expression was frequently inscribed on simple stone boundary markers (*cippi* or *stelae*) although it could also be included within the text of a more detailed epitaph. It is also sometimes associated with *Locus Monumenti* ('Place of the Monument' or 'Plot').²⁴⁷

In Rome and Italy at large, it was common to define the limits of public and private space, using boundary markers or *cippi*.²⁴⁸ In the context of funerary monuments, a piece of land purchased for the erection of a funerary monument would be recorded as belonging to a specific individual, and the limits of the area of land purchased would be publicly displayed on the boundary marker. It would define legal ownership of the land and marked the land as 'sacred'. Like other formulae in this study (for example, *libertis libertabusque posterisque eorum* and *hoc monumentum heredem non sequetur*), it spelled out the intended purpose of the land in the hope of

²⁴⁷ For example, *L(ocus) m(onumentum) / P(ubli) Staumi / Primigen(i) / in fr(onte) p(edes) XXXVIII / in agr(o) p(edes) XXX* (AE 1981, 00447) from Altinum in northern Italy.

²⁴⁸ Cooley, *The Cambridge Manual of Latin Epigraphy*, 18.

avoiding violation of the plot and reuse by later generations.²⁴⁹ Its appearance in the classical literature of the first century CE confirms its familiarity in Rome. It was used in a satirical poem by Horace in a description of the visit of two witches to the garden of Maecenas, a former cemetery.²⁵⁰ In the poem, Priapus described a grave pillar inscribed as 1000 *pedes* wide by 300 *pedes* in depth. It was also noted in Petronius' *Satyricon* when Trimalchio (an ex-slave) was giving instructions for his tomb, which was to be built on a plot measuring 100 x 200 *pedes*.²⁵¹

Period in use

First century BCE to third century CE.

Data analysis

In fronte in agro/in retro is found in 5,499 epitaphs in the current study. Figure 4.11 and Table 4.9 illustrate that the formula is found throughout Italy with a particularly strong indication of use on the Adriatic coast, specifically in Venetia and Histria. Rates of use are also high in Narbo, in Gallia Narbonensis, where it is included in 51% of all epitaphs. The formula is never used in the African provinces and although it is present in the Iberian provinces, particularly in the region around Emerita (Lusitania), it occurs at a much lower rate than in Italy: Emerita (6%); Hispalis (2%); Italica (1%) and Olisipo (1%). Its use in Baetica has led others to suggest that the formula is evidence of the presence of immigrants or early colonists from Italy although I have been unable to confirm this.²⁵²

Of the 5,499 epitaphs using this formula, 135 of them choose the variant *in retro* instead of *in agro*. These are all found in cities on the Adriatic coast of Italy with over 30% of these in Altinum. In addition, 478 epitaphs are associated with *locus monumenti* ('place of the monument') or *locus sepulturae* ('place of the tomb').

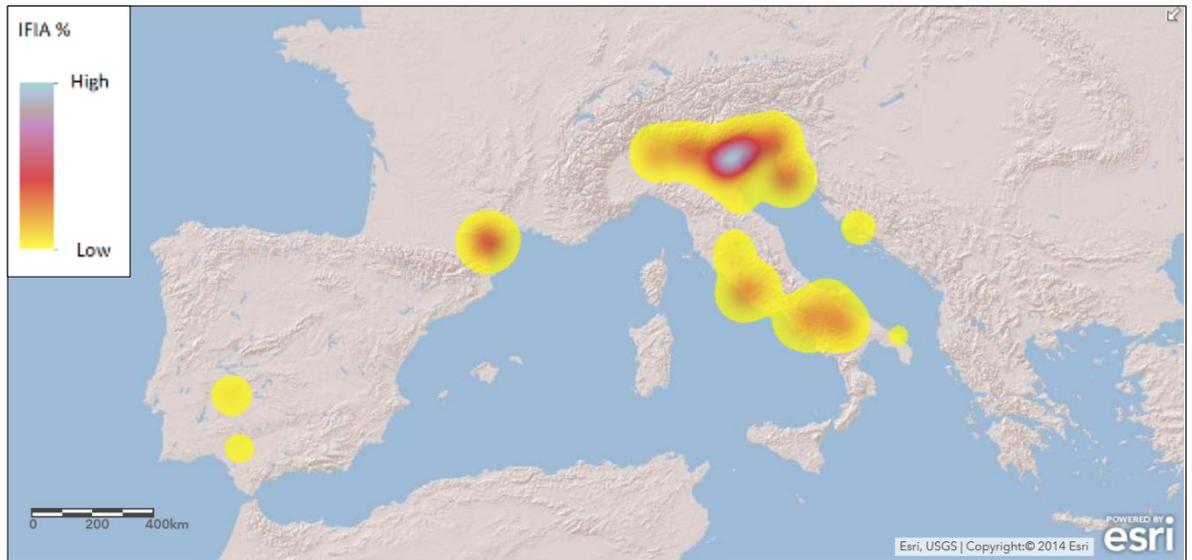
²⁴⁹ Brundrett, 'Roman Tomb Gardens: The Construction of Sacred Commemorative Landscapes', 61.

²⁵⁰ Horace, *Sermones* 1.8, 10-13.

²⁵¹ Petronius, *Satyricon*, 71.

²⁵² Desiderio Vaquerizo and S Sánchez, 'Entre Lo Público y Lo Privado. *Indicatio Pedaturae* En La Epigrafía Funeraria Hispana', *Archivo Español de Arqueología*, 2008, 127. Woodhouse, 'Epigraphy and Urban Communities in Early Roman Baetica', 322.

Figure 4.11 – Distribution of *in fronte in agro* across the Roman world



Discussion

The geographic distribution of *in fronte in agro* reveals that its popularity was limited to Rome and certain parts of Italy. Its use in these areas, and a possible relationship with the cost of land, will be discussed in Chapter 7. The expression is significant not only because of its restricted distribution but also because it records valuable data regarding the size of funerary plots. The size and shape of the plots it recorded will be discussed in Chapter 6.

Sub Ascia Dedicavit

The formula *sub ascia dedicavit* has the lowest frequency of any formula in the current study, but has generated much interest.²⁵³ It is usually translated as ‘Dedicated whilst under the Hammer’, which relates to the dedication of the tomb as a sacred monument, thus giving it the legal status of a

²⁵³ See: Marc Mayer-Olivé, ‘*Prae Textibus Imagines in Titulis Latinis. La Imagen Antes Del Texto. Nuevas Consideraciones Sobre El Símbolo Del Ascia*’, *Sylloge Epigraphica Barcinonensis (SEBarc)* 11 (2013): 15–40; José Encarnação, ‘Leite de Vasconcelos e as Inscrições Romanas: Flagrantes de Um Quotidiano Vivido’, *O Arqueólogo Português Série IV* 26 (2008): 385–406; Amable Audin and Paul-Louis Couchoud, ‘Nouvelles Considérations Sur l’*ascia*’, *Revue de l’histoire Des Religions* 152, no. 2 (1957): 153–73; Anatole Barthélemy, ‘Recherches Sur La Formule Funéraire *Sub Ascia Dedicare* by Anatole Barthélemy’, *Revue Archéologique* 1, no. 1 (2014): 57–58; Bengt Mattsson, *The Ascia Symbol on Latin Epitaphs* (Göteborg: P. Åströms Förlag, 1990).

'*locus religiosus*',²⁵⁴ It is sometimes found alongside the carving of an *ascia*, a tool used for cutting stone. Maureen Carroll understood this as a symbolic representation, and therefore she has proposed that the wording related to the dedication of the tomb as a sacred monument during its creation.²⁵⁵ Although it is plausible that it was an alternative to *hoc monumentum heredem non sequetur*, marking the tomb as sacred, it may also relate to the long-standing tradition in Gaul of carving an axe above the entrance to megalithic tombs.²⁵⁶ Ian Morris stated that there is a similarity between Roman-period barrows and those of the Late Bronze Age, so it is possible that commemorators in the Roman period were imitating a commemorative symbol, familiar in the funerary landscape of Gaul.²⁵⁷ The use of this symbol on a tomb may have led to the creation of a form of words that represented the concept embodied by the symbol itself.

Period in use

Use of the formula seems to have been from the second century CE through to the third century.²⁵⁸

Data analysis

Sub ascia dedicavit and *sub ascia dedicaverunt* appear in 461 epitaphs, of which 96% are found in Aquitania, Gallia Narbonensis and Lugudunensis (see Figure 4.12). The vast majority are found in the city of Lugudunum (297). Popularity of the expression in this city is confirmed by its use in 54% of epitaphs. The variant *sub ascia dedicaverunt* is used in 137 epitaphs.

²⁵⁴ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 81 and Hope, 'Reflections of Status: A Contextual Study of the Roman Tombstones of Aquileia, Mainz and Nimes. Vol 1', 78.

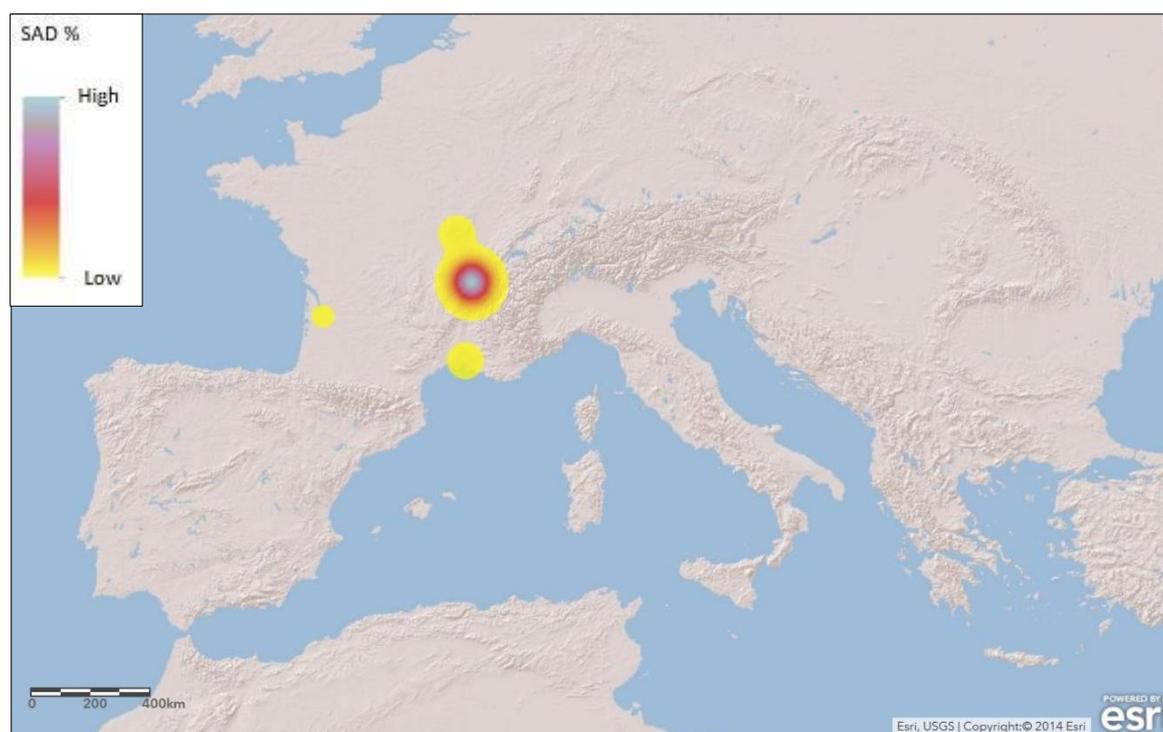
²⁵⁵ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 81.

²⁵⁶ For a discussion of the relationship between the two formulae, see: Mierow, 'Hoc Monumentum Heredem Non Sequitur - An Interpretation'. For a discussion of the carving of axe heads on megalithic tombs in Gaul see: Rodney Castleden, *Making of Stonehenge* (Abingdon-on-Thames: Routledge, 1994).

²⁵⁷ Ian Morris, *Death-Ritual and Social Structure in Classical Antiquity, Key Themes in Ancient History* (Cambridge: CUP, 1992), 51.

²⁵⁸ Hope, *Constructing Identity: The Roman Funerary Monuments of Aquileia, Mainz and Nimes*; Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*.

Figure 4.12 – Distribution of *sub ascia dedicavit* across the Roman world



Discussion

Although this group of formulae are not particularly frequent, their geographic distribution has important implications for patterns of commemoration. The three main expressions have traditionally been associated with the epigraphy of Rome, yet none of them play a significant role in the epigraphic signature of the city. For example, overall rates of use are low: *hoc monumentum heredem non sequetur* (1%); *libertis libertabusque posterisque eorum* (6%); and *in fronte in agro* (1%). Their popularity outside Italy was mainly limited to a few Mediterranean port cities and early colonies but never extended to the African provinces. This indicates that localised patterns of commemoration were a feature of the epigraphic signatures of Rome and Italy and that styles developed in the centre were not always disseminated throughout the empire.

4.2.5 Metaphorical expressions

The formulae *sit tibi terra levis* and *ossa tibi bene quiescant* were both ‘greetings’ to the deceased, and meant either ‘may the earth lie lightly on you’ or ‘may your bones rest well’. Most often found at the end of an epitaph, both served the same purpose, for the living to speak to the dead. The implication was that the spirit of the deceased remained in the tomb and that some sort of discomfort was felt at death.²⁵⁹ This connection between the reader and the deceased, particularly if the deceased was known to the reader, created a continuing bond between the two.²⁶⁰ Both the reader and the deceased would derive some sort of comfort from the action. These expressions were also a result of a fear of the restless dead in some parts of the Roman world.²⁶¹ By speaking these words, the reader would in some way placate a sleepless spirit. We might also consider these formulae as ‘metaphorical’ or euphemisms for death, where death was considered as akin to sleep. Metaphorical expressions such as these, have been used in epitaphs of all periods to help the living make sense of encounters with death.²⁶²

Both expressions were usually used in an abbreviated form consisting of initial letters. There is a rare contraction of *sit tibi terra levis* consisting of *S.T.L. levis* but this appears in only around 5% of the total number. In the case of *ossa tibi bene quiescant*, only one or two epitaphs spelled the formula out in full. The vast majority used its abbreviated form.

Both of the formulae have variant forms in the database. *Sit tibi terra levis* is sometimes inverted and written as *terra tibi levis sit*. According to Maureen Carroll, when the formula was used in Baetica in the first and second centuries, it was amended, to include a phrase such as *dicas/dicite qui legas/legitis* (‘those of you who read may say’) as a direct address to the reader to

²⁵⁹ Matteo Massaro, *Epigraphia Metrica Latina Di Etá Republicanana* (Bari: Università di Bari, 1992); Alfayé, ‘*Sit Tibi Terra Gravis*: Magical-Religious Practices against Restless Dead in the Ancient World’, 189.

²⁶⁰ For an anthropological discussion of continuing bonds, see: Jonsson and Walter, ‘Continuing Bonds and Place’.

²⁶¹ Alfayé, ‘*Sit Tibi Terra Gravis*: Magical-Religious Practices against Restless Dead in the Ancient World’, p.189; Valerie M. Hope, ‘Contempt and Respect: The Treatment of the Corpse in Ancient Rome’, in *Death and Disease in the Ancient City*, ed. Valerie M. Hope and Eireann Marshall (London: Routledge, 2000), 104–27.

²⁶² Tarlow, *Bereavement and Commemoration: An Archaeology of Mortality*, 47.

ask them to speak the words of the formula to the deceased.²⁶³ There are fewer variant forms for *ossa tibi bene quiescant* although there are some epitaphs where the final word is sometimes replaced with *cubent* ('sleep') rather than *quiescant* ('rest').

Period in use

The concept expressed within *sit tibi terra levis* dates from the late Republican period.²⁶⁴ It became a fixed formula in around 50 CE, passed to Spain via Gades and then again appeared in Rome in the form found in Spain.²⁶⁵ According to Woodhouse, the phrase is used frequently in Baetica in the second and third centuries.²⁶⁶

Dates for *ossa tibi bene quiescant* have been more difficult to find in the literature, although its use with *DMS* in Africa suggest that it was in use in the second and third centuries CE.²⁶⁷

Data analysis

Table 4.10 – Regional prevalence for metaphorical formulae as a percentage of region total

Region	Number of epitaphs (region)	<i>STTL</i>	<i>OTBQ</i>
Rome	35,003	0%	0%
African	26,961	2%	4%
Italy	18,482	0%	0%
Iberian	7,665	43%	0%
North-Western	7,088	0%	0%
Balkan and Danubian	6,723	1%	0%
Med Islands	1,026	0%	0%
Eastern	919	0%	0%

²⁶³ Carroll, “‘*Vox Tua Nempe Est*’ Dialogues with the Dead in Roman Funerary Commemoration”, 43.

²⁶⁴ *CIL* 06, 10096. Dated to 100-44 BCE.

²⁶⁵ Francis A Sullivan, ‘Romans and Non-Romans in the Latin Metrical Epitaphs’, in *Transactions and Proceedings of the American Philological Association*, vol. 70, 1939, 508.

²⁶⁶ Woodhouse, ‘Epigraphy and Urban Communities in Early Roman Baetica’, 129.

²⁶⁷ Lassère, ‘Recherches Sur La Chronologie Des Épitaphes Païennes de l’Africa’, 53.

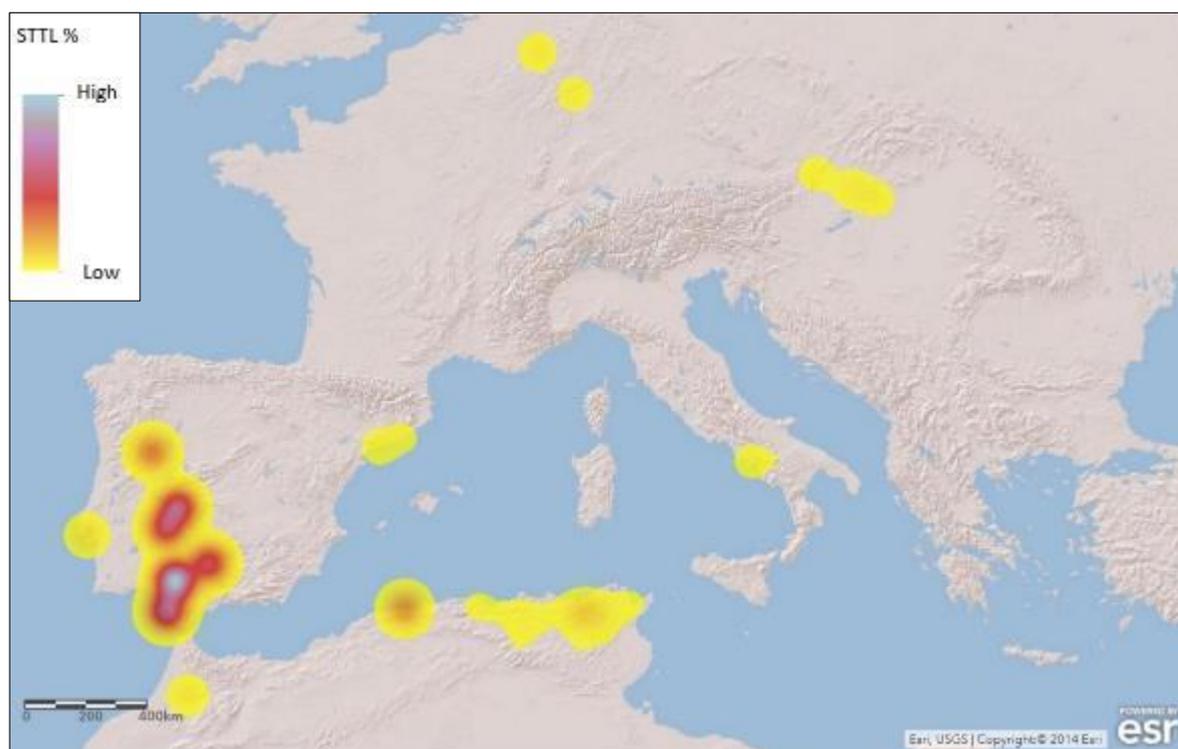
Sit Tibi Terra Levis

Maureen Carroll has explained that epitaphs using *sit tibi terra levis* have a ‘wide distribution throughout the empire’.²⁶⁸ My analysis shows that while this is true, rates of use also indicate variation in terms of the formula’s popularity (see Table 4.10). Figure 4.13 shows that while there is evidence that the formula appeared in epitaphs in the African and Iberian provinces, rates of use in other regions of the empire were low, with very few cities indicating a rate of use above 1% (see Table A1 in the Appendix for full data). Notable exceptions were cities on the north-eastern border, with rates between three and four per cent. Percentages were extremely low in Rome, with only 114 epitaphs out of 35,003 using the formula.

Cities with the highest rates of use are in the Iberian provinces. In all three provinces in the region, epitaphs have rates of use between 31% and 71% (Gades), which is well above the 1% average for the rest of the empire. The only exceptions are Olissipo (7%), Tarraco (3%), and Barcino (2%). The expression is used in only 762 epitaphs outside the Iberian provinces. Of these 27% are found in cities in Mauretania Caesariensis, particularly Caesarea (25%), a port on the Mediterranean with close links to the Iberian provinces. In Africa Proconsularis, 63% of epitaphs (130 out of 207) use the formula in its variant form of *Terra Tibi Levis Sit*.

²⁶⁸ Carroll, “‘*Vox Tua Nempe Est*’ Dialogues with the Dead in Roman Funerary Commemoration’, 50.

Figure 4.13 – Distribution of *sit tibi terra levis* across the Roman world



Ossa Tibi Bene Quiescant

The formula appears in 1,053 epitaphs and is almost exclusively used in the African provinces. It is included in only 14 epitaphs in Rome, and used once in Jerusalem. All other epitaphs that include the expression are in cities in North Africa.

Figure 4.13 and Table 4.11 indicate that use of the formula is concentrated in the cities around Circa in Numidia.²⁶⁹ Although *ossa tibi bene quiescant* is found in other cities in the region, the formula is rare in Africa Proconsularis and Mauretania Caesariensis. Interestingly, it is combined with *sit tibi terra levis* in 169 epitaphs, most of which are from Africa Proconsularis, frequently in the abbreviated form *OTBQSTTL*.

²⁶⁹ Its use in Circa will be discussed as part of the epigraphic signature discussion in Chapter 5.

Figure 4.13 – Distribution of *ossa tibi bene quiescant* across the Roman

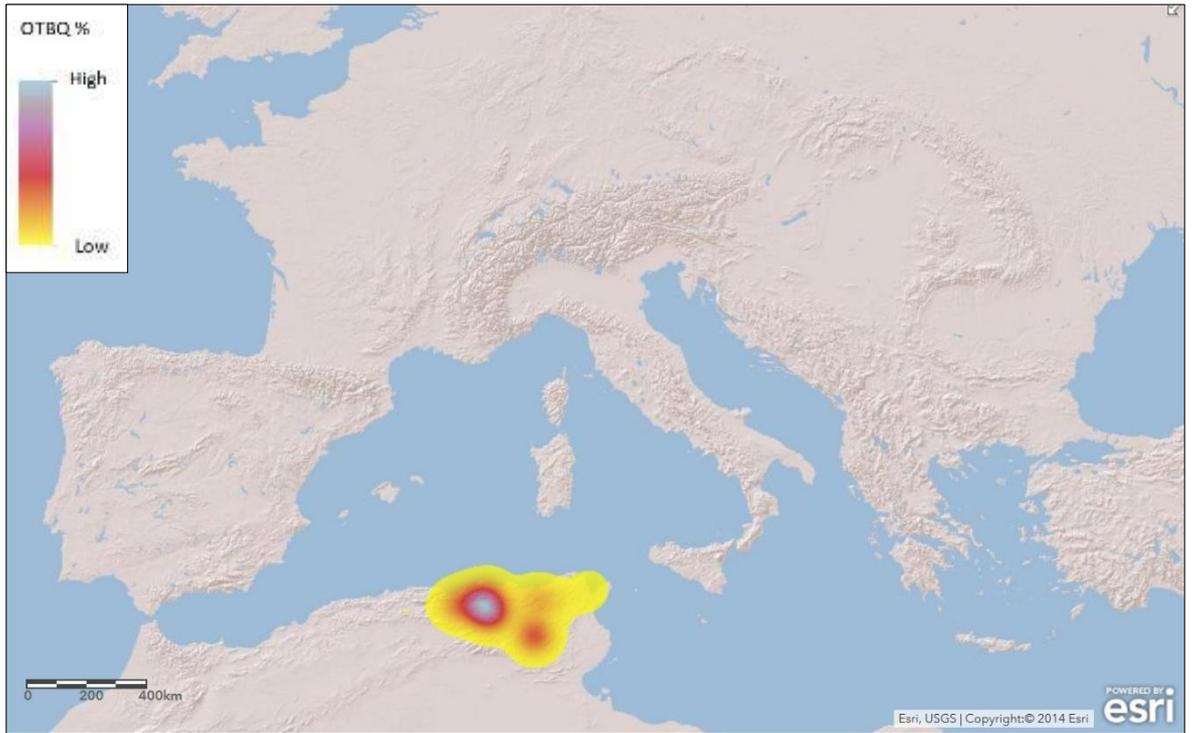


Table 4.11 – Comparison of *ossa tibi bene quiescant* in cities close to Cirta as a percentage of city total

Place Name	Province	Number of epitaphs (city)	OTBQ
Saddar	Numidia	120	36%
Sigus	Numidia	329	31%
Castellum Phuensium	Numidia	174	21%
Satafis	Mauretania Caesariensis	120	20%
Milev	Numidia	167	16%
Castellum Tidditanorum	Numidia	540	13%
Cirta	Numidia	1,126	11%
Simitthus	Africa Proconsularis	133	10%
Castellum Arsacalitanum	Numidia	289	8%
Castellum Elefantum	Numidia	639	7%

Discussion

Popularity of these two formulae is concentrated in the African and Iberian provinces. Although *STTL* is popular throughout all provinces in the Iberian Peninsula, commemorations in the port cities of Barcino and Tarraco indicate low rates of use. This is similar to patterns of use for other formulae, particularly *Dis Manibus*, where port cities do not follow the prevailing patterns dominant in the rest of the region. In North Africa, the cities associated with Cirta yet again indicate patterns of commemoration that diverge from the prevailing paradigm by using *ossa tibi bene quiescant*. Port cities and the cities around Cirta will be examined in more depth in the next chapter on epigraphic signatures.

4.3 Conclusions

This chapter illustrated where epitaphic formulae were used in the empire. I have demonstrated that although the majority of common formulae are found in most regions, measuring their popularity in specific locations is a much more robust way of analysing their use rather than aggregating numbers of inscriptions. This is particularly relevant when we consider commemorations in Rome because the total number of epitaphs from the city can dominate an epigraphic study. The results of the analysis have demonstrated that certain regions had a cultural tradition of using certain types of formulae, and occasionally, these regional traditions conceal more local patterns. Quite often, regions demonstrate a tradition, not just for certain formulae, but also for particular types of messages.

Having analysed the distribution of each formula, we should now consider the prevalent formula in each region. By ranking the formulae used in each region, we can assess the predominant expression and type of message for each region. Figure 4.14 maps the predominance of all the formulae investigated, and shows that two formulae dominate: *Dis Manibus* in Italy and the North-Western provinces, and *vixit annos* in the African provinces. The Iberian provinces are dominated by *hic situs est*, except for Barcino and Tarraco, where there was a strong tradition of using *Dis Manibus*.

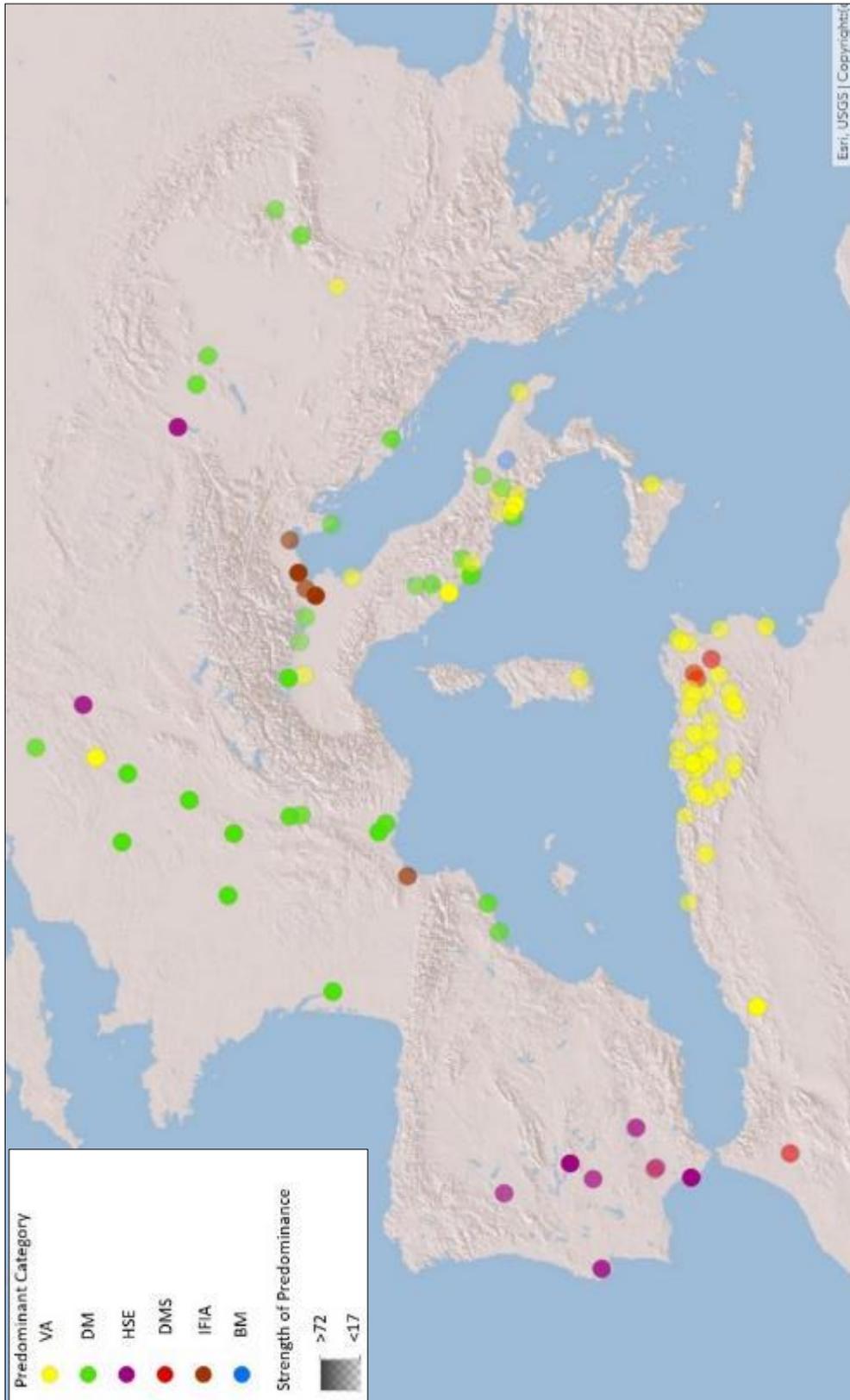


Figure 4.14 – Comparison of all formulae in the study including strength of predominance

Two other patterns are worth noting, the inclination towards *in fronte in agro* on the Adriatic Coast, and the use of *hic situs est* in frontier cities on the north-western boundary of the empire. The most notable point that this map makes is the remarkable consistency throughout each of the regions in the study. Except for some notable exceptions (such as the cities associated with Cirta in North Africa and the port cities around the Mediterranean), most regions have a well-established predominant formula, which is used consistently. Therefore, although epitaphs at a city level might seem different to each other, the same formulae are used time and time again and this generates a pattern of geographical variation. This consistency must be the result of regional traditions for certain types of messages. Although the reasons might be difficult to explain, it is worth noting these traditions, and what this might tell us about the study of epitaphs in general.

Ritual formulae such as *Dis Manibus* were an important part of commemorative practice. Inclusion of the phrase at the start of an epitaph would have sent a clear message to the reader that the monument was a sacred object and subject to the laws which protected them. Therefore, wide-use marks a desire by every commemorator to protect the tomb and warn others that it was subject to protection.

If the inclusion of *Dis Manibus* was a warning that the tomb was subject to protection under the law, we need to consider why there was a regional tradition in the African and the Iberian provinces, as well as Samnium, of adding ‘*sacrum*’ to the formula. It is likely that this was originally a way of emphasising that the tomb was a sacred object and that over time it became accepted practice. There is also the possibility that this act became popular in those areas distant from Rome where perhaps there was less understanding of the sacred nature of funerary monuments.²⁷⁰ Although use of the formula was widespread, the inclusion of the variant *Dis Manibus Sacrum* in epitaphs in the African and Iberian provinces seems to split the empire between the West, on the one hand, and the African and Iberian provinces on the other. These regional

²⁷⁰ This will be discussed further in Chapter 7.

differences in epigraphic practice will be illustrated further in Chapter 5 and discussed in Chapter 7 Section 7.1.3.

Formulae that provide personal information about an individual also have a universal appeal. Each region had a desire to provide details of the age of the deceased (either an accurate age or approximate), although not all regions used the standard *vixit annos*. Commemorators in some regions, particularly Spain, prefer to use *annorum* rather than the formula, *vixit annos*, which was particularly popular in epitaphs in Africa. Although the use of *annorum* to specify age is used in other areas too, only commemorators in the Iberian provinces employed it in preference to the standard formula. In the case of *bene merenti*, the formula had a very restricted use and was mainly popular in epitaphs in the cities of Italy. Again, other areas may have been using less standardised methods to express the character of the deceased but it remains a point of interest that this standardised impersonal expression was popular in a large number of cities in the centre of the Roman world. Regional traditions for these expressions will be discussed in Chapter 5 alongside other features that contribute to an epigraphic signature.

The group of formulae I have categorised as ‘Restrictions on the tomb’, had a very restricted geographical reach. Three of the four are used mainly in Italy, the fourth, *sub ascia dedicavit* appears mainly in Lugudunensis. Of the three used in Italy, *libertis libertabusque posterisque eorum* is popular only in Ostia and Portus (I examine this in more detail in the next chapter on epigraphic signatures) and *in fronte in agro* is most popular in northern Italy, particularly on the Adriatic coast. Neither *libertis libertabusque posterisque eorum* nor *hoc monumentum heredem non sequetur* was used in any quantity outside Italy, which indicates that the need to specify who can or cannot use the tomb was specific to Italy. The desire to measure the extent of the limits of a monument was popular in some cities outside Italy, particularly Narbo, hence the reach of this formula extended beyond the boundaries of its primary use. These three formulae are clearly an Italian epitaphic practice.

Linking the remains of the deceased with the monument on which they are commemorated by using *hic situs est* has a more complicated pattern. While the idea itself is universal and the

formula is found throughout the empire, popularity is concentrated mainly in the peripheries, predominantly in the Iberian and African provinces, together with a higher use in epitaphs in cities with military-linked populations on the north-western borders of the Empire. Use in cities with a military-linked population will be investigated in the next chapter when I discuss the epigraphic signature of Carnuntum.

Use of formulae that bear a metaphorical message were most popular in areas geographically distant from Rome. The concept behind these formulae are virtually identical even though the wording is different. *Ossa tibi bene quiescant*, which is limited to the area around Cirta, could be an African equivalent of the much more popular *sit tibi terra levis*, which is inverted to *terra tibi levis sit* when used in North Africa. The rates at which these formulae are used outside the centre raises an interesting question about the extent to which cities in the provinces were developing their own epigraphic patterns of commemoration that were different from those at Rome. I investigate these in more depth when I develop epigraphic signatures for specific locations in Chapter 5.

The results of this chapter have also revealed a number of patterns of commemoration that require further investigation. These patterns all reveal significant differences, when compared with those of the wider regions in which they are located. The main anomalous patterns revealed by the current analysis are in epitaphs in Cirta and its neighbouring cities; Mediterranean port cities; and some cities with a military-linked population (including those with close ties to the imperial fleet, such as Misenum and Ravenna). These will be investigated in the next chapter, when I explore epigraphic signatures for regions and cities.

Overall, based on the formulae in use, the results indicate that commemorators in the African and Iberian provinces were much more open to innovation than their counterparts in Italy and Rome. I am not making any assumptions that these formulae had their origins in a provincial

context, indeed it is quite possible that *sit tibi terra levis* at least, originated in Rome.²⁷¹ However, formulae of this type were more popular in provincial environments, and their use indicates a readiness by commemorators to establish a pattern of commemoration distinct from that of the centre. This suggests that commemorators in the provinces were producing a style of epitaph that was not dependent on Rome for leadership or direction.²⁷²

These results also have important implications for the study of epigraphy. They are evidence that the domination of Rome and Italy in epigraphic studies is based more on the frequency of epitaphs and ease of access to the inscriptions rather than a real understanding of how representative these inscriptions are. When I was studying epigraphy in the early 1980s, I learnt about formulae that are actually quite rare in the epigraphic corpus and are found mainly in Rome and Campania. This is particularly true of a formula such as *hoc monumentum heredem non sequetur*, which is atypical overall but is always discussed in epigraphic handbooks.²⁷³ This is compounded by the scholarly habit of emphasizing the unusual, when researchers provide examples of epitaphs that provide an unrealistic impression of what epigraphy in a particular area looks like. Essentially, we are learning standardised language based on inscriptions from Rome and Italy and therefore our knowledge is dependent on an unrepresentative set of inscriptions. This is misleading and is sometimes exacerbated by museums and epigraphic handbooks when only the most visual inscriptions are used to illustrate a point rather than those that are truly representative in terms of language frequency.²⁷⁴ This chapter has illustrated that the inscriptions from Rome and Italy in general, together account for only 51% of the total epitaphs in the study so half of all the

²⁷¹ For a discussion of the origin of the formula in Rome in the late Republic and its transfer to Spain via Gades, see: Mednikarova, 'Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae', 58.

²⁷² For a discussion of agency and power relations, see: Ray Laurence, *Roman Archaeology for Historians* (London: Routledge, 2012), 64-6.

²⁷³ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, p.134; Cooley, *The Cambridge Manual of Latin Epigraphy*, 136.

²⁷⁴ The cover of the paperback edition of Maureen Carroll's 2006 book on epigraphy illustrates this very well. The image is a perfect example of the formulaic and abbreviated nature of Latin epigraphy, but it is a poor example of what most inscriptions look like. Only six inscriptions out of a database of over 104,000 include all five formulae, two from Portus, one from Ostia and three from Rome. See: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*.

inscriptions come from outside the centre of the empire. This serves to emphasize the need to be as inclusive as possible when selecting inscriptions for epigraphic studies.

The results also help us better understand how the language of an epitaph was selected, and those responsible for language selection. One or two cases of an unusual formula in a city might indicate individual choice on the part of the commemorator and possibly could be an indicator that the individual is not local to the area where they are being commemorated. However, as these results show, where the vast majority of epitaphs in a city seem the same, and only vary in terms of the personal details they record, it is possible that stonemasons had control over what was included in an inscription. This has important implications for the way in which ‘words’ were selected for an epitaph and how we, as scholars, should discuss these inscriptions. If word selection was within the remit of a stonemason, then this would result in a very homogenised pattern of epigraphy since choice of formulae would be limited to those popular in that location at that time. This will be investigated further in the discussion of the epigraphic signature of Thugga in Chapter 5 and evidence for consistency in patterns of commemoration will be presented in Chapter 6.

Chapter 5 – Epigraphic Signatures for Regions and Cities

Introduction

This chapter analyses the data to construct ‘epigraphic signatures’ or profiles for regions and cities. These will be used to discover shared trends and to explain how these expressions were used to produce either a unique or a common pattern of commemoration. It combines the results of Chapter 4 with a number of additional epigraphic variables associated with how formulae are used within an inscription. More specifically, I analyse how many formulae are used in a single inscription and how these expressions are used together. I then evaluate how abbreviations or contractions are used and assess the variation in the median length of an inscription. By assessing the latter, I have been able to assess the impact of standardised language on the overall length of an epitaph. In those places where the data are available, I also analyse the recorded plot size and shape associated with the expression *in fronte in agro*. The results are used to construct a profile for each of the regions. Subsequently, these are used to compare regions with each other and with Rome in preparation for a discussion in the next chapter, which gauges how far Rome influenced and dominated the epigraphy of the provinces. Finally, I provide epigraphic signatures for six cities that have a profile that deviates from the regional trend. These cities are Cirta (Numidia); Ostia (Campania); Misenum (Campania); Carnuntum (Pannonia); Thugga (Africa Proconsularis) and Narbo (Gallia Narbonensis). The conclusion points out that epigraphic signatures of cities can comprise both local and global elements. By defining epigraphic signatures, this thesis provides new perspectives on current issues in ancient history such as migration and mobility. These will be discussed in detail in Chapter 6.

5.1 What is an epigraphic signature?

In the context of this thesis, an epigraphic signature is a method of representing epitaphic patterns in a particular region and place. This part of the analysis developed from the need to compare the epitaphs of one place with those of another and allows us to contextualise patterns of

commemoration. It is an innovative feature of the methodology, designed for this thesis. It consists of a number of variables associated with an epitaph, which can be measured and visualised to provide a profile for a given place or region. This thesis demonstrates that it is possible to identify commonalities in the epigraphy of a particular site, city or region. Once these commonalties have been identified, the term epigraphic signature is used to express this connection of the epitaphs to a particular location. This is illustrated in the following example for the city of Rome. Here, epitaphs are characterised by the inclusion of *vixit annos*, *Dis Manibus* or *bene merenti*. They are likely to include only one formula, fewer abbreviations and are longer than those found in regions such as North Africa. The square shaped plots in Rome were smaller than those in other parts of Italy. By expressing the epitaphs of a city in this way, we can compare cities and regions to assess homogenisation and heterogenization of commemorative patterns across a large dataset.

‘Epigraphic signature’ and ‘epigraphic footprint’ are uncommon terms in the scholarship. Moreover, epigraphic signature has never been used in relation to geographic variation. The term was used by Dennis Trout to distinguish the epigraphy of Late Antiquity from that of earlier periods. He describes the epigraphic signature of Late Antiquity as ‘heavily epitaphic’, using the phrase to refer to the categorisation of epigraphy in the period; I use it to distinguish variation across space.²⁷⁵ By defining epigraphic signatures, I can compare the epigraphy of one place with another to identify similarities and differences in patterns of commemoration. However, ‘epigraphic footprint’, which has a similar connotation to epigraphic signature, has been used by two scholars to describe the pattern of epigraphy created by particular social groups. Nadya Popov refers to inscriptions left by members of a single legion, which are found in several different areas.²⁷⁶ Similarly, David Lewis utilises it in his study of slaves in Classical Attica when he refers

²⁷⁵ Dennis E Trout, ‘Inscribing Identity: The Latin Epigraphic Habit in Late Antiquity’, in *A Companion to Late Antiquity*, edited by Philip Rousseau with the assistance of Jutta Raithel (Wiley-Blackwell, 2009), 173. He uses the term when describing the re-emergence of the epigraphic habit in the fourth century. He explains that epigraphy at this time was dominated by funerary inscriptions and describes the epigraphic signature as being ‘heavily epitaphic’.

²⁷⁶ Popov, ‘Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE’, 232.

to an epigraphic footprint left behind by slaves of Near-Eastern origin.²⁷⁷ Both these studies have identified groups whose epigraphy can be linked to their social status or role in society. Therefore, the term ‘footprint’ is linked to a group of individuals sharing a common identity, and their desire to emphasize their shared background, in the way they are commemorated. In this study, the term ‘epigraphic signature’ refers to a pattern of epigraphy that represents a region or location. Unlike the study above, it is not used as a way to categorise the epigraphy of a particular period, nor is it a ‘footprint’, referring to the epigraphy of a particular social group. An epigraphic signature in this study defines the features that characterise the epitaphs of a location and provides the data on which a comparative analysis can be based.

The creation of an epigraphic signature for a place allows us to compare the epigraphy of one place with that of another. When we examine the large corpus of inscriptions that have survived, we have no way of knowing how any of these inscriptions are similar to, or different from, any other inscription that exists from another nearby city or province. Thus, for example, the epigraphy of Ostia tells us about the people who lived and died in the harbour city of Rome.²⁷⁸ However, to understand the funerary inscriptions found in the city, we need to establish its epigraphic ‘signature’ so that we can compare its ‘signature’ with that of other cities (such as Rome and Portus), and thus set its inscriptions in the context of epitaphic patterns across the empire. In this way, we can discover not only the similarities and differences between places but also how far particular epigraphic styles were associated with certain regions and cities.

Epigraphic signatures can also indicate how the epitaphs from one location differ to those found in Rome. Traditional debates of ‘Romanisation’ have placed Rome at the centre of the empire so there is a tendency to assume that the epigraphy of Rome can be used to illustrate the epigraphy of all localities.²⁷⁹ While there is a recognition that provincial epigraphy was different

²⁷⁷ David Lewis, ‘Near Eastern Slaves in Classical Attica and the Slave Trade With Persian Territories’, *The Classical Quarterly* 61, no. 1 (2011): 103.

²⁷⁸ Mouritsen, ‘Freedmen and Decurions: Epitaphs and Social History in Imperial Italy’.

²⁷⁹ We have already seen in Chapters 2 and 4 how far researchers rely on inscriptions from Rome. For debates on Romanisation see: David Mattingly, ‘Being Roman: Expressing Identity in a Provincial Settings’, *Journal of Roman Archaeology* 17, no. 1 (2004): 5–25; Mattingly and Witcher, ‘Mapping the Roman World: The Contribution of Field Survey Data’; David Mattingly, *An Imperial Possession: Britain in the Roman*

from that of Rome, there is still a reliance for research to be based on evidence from Rome and Italy.²⁸⁰ More recent debates regarding ancient globalisation have ‘decentred’ Rome, lessening its role in the process of cultural exchange. These no longer see Rome influencing the peripheries but they also see the peripheries influencing Rome.²⁸¹ The data analysis in this thesis therefore provides us with the opportunity to test these ideas to see how far Rome was influencing styles of commemoration in the provinces, and how far provincial styles of commemoration were changing styles in Rome (see Chapter 6). This will then allow us to understand how far Rome was dominating the epigraphy of the provinces, and how far the provinces were evolving their own epigraphic practices.

The results of Chapter 4 demonstrate that epigraphic expressions were not used evenly in commemorations, and that regions had a tradition for using certain formulae. In order to illustrate the epigraphic signature of a region or place, I have combined these results with an analysis of several other variables. These comprise numbers of expressions per epitaph; combinations in the same inscription; use of abbreviations; overall length of the inscription; and plot size data associated with commemorations using the expression *in fronte in agro*. These results provide a broad epigraphic signature or profile for a region, and also identify those cities that are exceptions to the broad pattern.

5.2 Approach to analysing epigraphic signatures

Size of the dataset

All further analysis must take into account the size of the database for each region and city. The database used in this study consists of 104,007 epitaphs but the number of surviving epitaphs for

Empire 54 BC - AD 409 (London: Allen Lane, 2006); Pitts and Versluys, ‘Globalisation and the Roman World: Perspectives and Opportunities’.

²⁸⁰ A recent example would be the study of freed slaves in the Roman World by Henrik Mouritsen which relies heavily on evidence from Rome and Italy. Mouritsen, *The Freedman in the Roman World*.

²⁸¹ Jan Nederveen Pieterse, ‘Ancient Rome and Globalisation: Decentring Rome’, in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, ed. Martin Pitts and Miguel John Versluys (Cambridge: CUP, 2015), 233.

each region or city varies hugely. For example, while 35,003 of these can be found in Rome, only 919 are found in the Eastern Provinces. Therefore, the size of the dataset for each region and city and how this impacts the results of the analysis will be discussed.

Popular formulae

Each region or city has a specific set of formulae that defines its epigraphic signature. These are listed at the start of the description for each region. In most cases I have listed the three expressions that were used most frequently together with their prevalence. This data has been extracted from Tables A1 and A2 in the Appendix, which display percentages of formulae within cities and regions. For more information on each of the formulae, see Chapter 4. During the discussions in this chapter, I frequently refer to formulae by their abbreviated forms. For example, *Dis Manibus* as *DM*, *vixit annos* as *VA*, *bene merenti* as *BM* etc. This is a convenient way of discussing several expressions, without having to spell each one out several times. I have made it clear when I am referring to abbreviations or contractions so this stylistic choice should not create confusion.

Number of formulae per epitaph

By analysing the numbers of expressions within each inscription, we can assess the extent to which their use was part of the epigraphic habit in each region. This thesis has already demonstrated that the use of individual formulae varied across regions and that there is evidence that some formulae were used together whilst others were used alone. This section examines this evidence in detail to assess how formulae were used together, and how this varied geographically.²⁸²

Overall, the data for numbers of formulae in any one inscription indicate that nearly half of all the inscriptions in the database only include one formula. Just over half consist of either two or three (n=46,539) (See Table 5.1). Combinations of four, five or six are rare, comprising only 1%

²⁸² This analysis has been carried out on the file of complete inscriptions only (n=84,435) in order to exclude any partial inscriptions.

of all inscriptions. This suggests that although the culture of using these expressions was well established, their popularity for conveying more than three messages was limited.

Table 5.1 – Prevalence of number of formulae in a single epitaph

Number of formulae	Number of epitaphs	Percentage of total (n= 84,435)
One	37,896	45%
Two	30,619	36%
Three	14,650	17%
Four	1,120	1%
Five	145	0%
Six	5	0%

Although 45% of epitaphs include only one formula (see Table 5.1), analysis has indicated that some expressions, particularly those with a defined regional use, such as *STTL* and *OTBQ*, are rarely used alone (see Table 5.2). Full city data on how many formulae are used per epitaph can be found in Table A3 in the Appendix.

Table 5.2 – Prevalence of formulae when used as sole expression

Formula	Number of epitaphs	Sole Formula	Percentage
<i>IFIA</i>	4,506	2,918	65%
<i>HMHNS</i>	761	308	40%
<i>DM</i>	36,334	13,600	37%
<i>HPE</i>	205	75	37%
<i>VA</i>	46,207	11,694	25%
<i>LM</i>	620	144	23%
<i>HSE</i>	17,841	3,230	18%
<i>BM</i>	17,245	3,044	18%
<i>DMS</i>	16,335	2,251	14%
<i>LLPQE</i>	2,027	283	14%
<i>STTL</i>	3,420	312	9%
<i>SAD</i>	402	33	8%
<i>PM</i>	1,493	0	0%
<i>OTBQ</i>	923	4	0%

Combinations

Although all types of expressions could be used together, the most frequent combinations include ritual expressions alongside those providing personal information about an individual (see Table 5.3). For instance, *DM* was frequently used with either *BM* or *VA*. The expression *HSE* could also be included, but in most cases, this appears to be an additional expression to already existing combinations.

Table 5.3 – Most frequent combinations of formulae²⁸³

Formulae	Label	Number of epitaphs
<i>DM with VA</i>	<i>DMVA</i>	7,979
<i>DM with BM</i>	<i>DMBM</i>	5,615
<i>DMS VA and HSE</i>	<i>DMSVAHSE</i>	5,563
<i>DMS with VA</i>	<i>DMSVA</i>	5,429
<i>DM BM and VA</i>	<i>DMBMVA</i>	4,144
<i>VA with HSE</i>	<i>VAHSE</i>	3,550
<i>DM VA and HSE</i>	<i>DMVAHSE</i>	1,371
<i>HSE with STTL</i>	<i>HSESTTL</i>	1,283
<i>DMS HSE and STTL</i>	<i>DMSHSESTTL</i>	761
<i>DMS BM and VA</i>	<i>DMSBMVA</i>	551

Full city data for how formulae are combined can be found in Table A4 in the Appendix.

Abbreviations

All formulae were shortened to some extent but the format of these varied from a straightforward abbreviation to longer contractions of the words, such as *D. Manib.* or *Dis Manib.* It would have been impossible in the current study to analyse and map each variation for every formula, therefore I have only considered if an expression was expanded to its full form or shortened. Table 5.4 illustrates that expressions such as *hic positus est* and *bene merenti* were less likely to be shortened whereas *Dis Manibus Sacrum* and *ossa tibi bene quiescant* were rarely spelled out in full. A discussion of why some were less likely to be shortened is presented in Chapter 7.

²⁸³ This is a table of the most frequently found combinations. Other permutations were also used, but some were very localised within a particular region and were only included in a few inscriptions. These were therefore excluded from the analysis.

Table 5.4 – Prevalence of expanded formulae

Formula	Number of epitaphs	In full	% In full
<i>HP(E)</i>	236	175	74%
<i>BM</i>	20,125	6,237	31%
<i>LLPQE</i>	2,381	431	18%
<i>PM</i>	1,805	281	16%
<i>VA</i>	54,963	7,835	14%
<i>IFIA</i>	5,499	747	14%
<i>DM</i>	42,140	2,968	7%
<i>HSE</i>	20,493	1,299	6%
<i>HMHNS</i>	943	53	6%
<i>STTL</i>	4,060	204	5%
<i>DMS</i>	18,588	203	1%
<i>OTBQ</i>	1,053	8	1%
<i>LM</i>	750	6	1%
<i>SAD</i>	461	0	0%

Full city data for formulae use in full can be found in Table A5 in the Appendix.

Length of inscription

There are a number of factors that impact the number of carved characters on an epitaph. These include the number of commemorators; the length of names as recorded; the amount of information recorded on the epitaph; the use of formulae; and the use of abbreviations. Although these factors might apply to any of the epitaphs in the study, I made the assumption that the way in which these factors were applied would have varied geographically, and that these patterns of variation would be repeated in a similar way throughout cities and regions. An analysis of length provides valuable data for assessing the impact of formulae use.

Full city data for inscription length can be found in Table A6 in the Appendix.

Plot size as indicated in the formula *IFIA*

Although use of the *IFIA* formula is limited to certain areas (see Chapter 4), it records a wealth of data relating to the size and shape of plots set aside for funerary monuments. As we have seen, it is used to define the width of the plot along the road (*in fronte*) and the depth of the plot away from the road (*in agro*). It records specific dimensions in *pedes* (feet) for the plot of land where a tomb or burial plot was located. By converting the measurements to Arabic numerals, it is possible to calculate the areas of funerary plots. These can then be analysed to calculate the size and shapes of funerary plots and monuments.²⁸⁴ The geographic variation in these results can be combined with data about the inscription to enhance our understanding of the funerary culture of a region. As the analysis progressed, it became clear that there was a remarkable consistency in the measurements. These often included the same numbers or their multiples 5, 10, 12, 16, 32 etc. Since the purpose of the thesis is not only to describe these results, but also to seek to explain them, a decision was taken to carry out a further analysis on these numbers to inform the discussion presented in Chapter 7. This further analysis is presented in Chapter 6. Full city data for plot size can be found in Table A7 in the Appendix.

5.3 Regional epigraphic signatures

This section presents the epigraphic signatures for each of the regions identified in the analysis.

5.3.1 Rome

The epigraphic signature of Rome is an important starting point since it serves as a model against which other epigraphic signatures can be measured. It also provides us with the evidence we need to assess if the epigraphic styles used in Rome were influencing styles in the provinces.

²⁸⁴ I was only able to calculate the sizes and shapes of plots where both dimensions have survived.

Size of dataset

In the current study, there are 35,003 epitaphs from Rome available for analysis. This accounts for 34% of the 104,007 epitaphs considered in this study and thus Rome is the region with the greatest number of surviving funerary inscriptions for analysis.

Popular formulae

Vixit annos (present in 51% of inscriptions), *Dis Manibus* (49%), *bene merenti* (36%).

Number of formulae per epitaph

Table 5.5 – Number of formulae in a single epitaph as a percentage of region total (Rome)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
Rome	28,834	50%	37%	12%	1%	0.2%	0.01%

Epitaphs in Rome mainly include one or two of the expressions in the current study.

Combinations

Epitaphs in Rome are more likely to use one formula rather than combining several in a single epitaph. The main combinations are *DMVA* (12%), *DMBM* (12%) and *DMBMVA* (8%). *HSE* and *DMS* combinations, frequently found in the Iberian and North African Provinces, do not feature in the profile for Rome see Table A4 in the Appendix for full data.

Abbreviations

Abbreviation rates for Rome vary according to the expression in use see Table A5 in the Appendix for data on use of expanded formulae. The following were sometimes found spelled out in full *HSE* (59%), *STTL* (39%), and *BM* (37%) whereas *DM* was less likely to be written in full (11%).

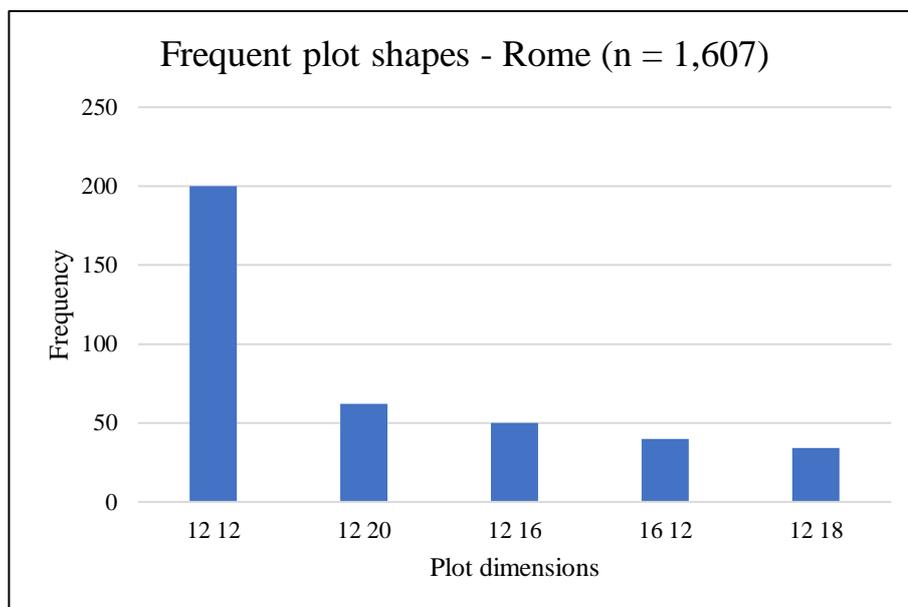
Length

Epitaphs in Rome have a median character count of 60, with only 21 of 87 cities displaying a higher median length. Therefore, Rome has a relatively high number of characters per epitaph.

Plot size

The median plot size is 12 x 12 *pedes* and the median area for plots is 168 *pedes*². Figure 5.1 shows that, although square plots of 12 x 12 were most frequent, rectangle shaped plots, where the depth (*in agro*) was larger than the width (*in fronte*) were also popular. The data for these plots also indicates that certain measurements, such as 12 *pedes* and 16 *pedes* were regularly used.²⁸⁵ Although this formula was not common throughout the empire, based on the data it provides, plots in Rome were particularly small. Epitaphs from the Balkans and the North-Western Provinces record much larger plots. Those plots recorded in Emerita in Lusitania appear to be smaller than those in Rome with a median area of 96 *pedes*². However, comparison across the Roman Empire is difficult due to the limited reach of the formula which was not widely used and, even in Rome, is found in only 6% of epitaphs.

Figure 5.1 – Comparison of common plot sizes (Rome)



²⁸⁵ An analysis of use of these numbers and their popularity across the dataset will be presented in Chapter 6.

Epigraphic signature

Epitaphs in Rome are most likely to include the expressions *VA*, *DM*, *BM*, which will either be used alone or combined into a two-formulae combination of *DMVA* or *DMBM*. Abbreviation rates are lower in Rome than other regions (particularly the African and Iberian provinces). With a median of 60 characters, epitaphs in Rome are short when compared to the rest of the Roman world.²⁸⁶ Plot sizes of 12 x 12 *pedes* are amongst the smallest in the dataset.

5.3.2 Italy

Size of dataset

With 18,482 surviving inscriptions available for analysis, Italian epitaphs account for 18% of the total epitaphs in the current study.

Popular formulae

Dis Manibus (present in 47% of inscriptions), *vixit annos* (42%), and *bene merenti* (26%).

Number of formulae per epitaph

Table 5.6 – Number of formulae in a single epitaph as a percentage of region total (Italy)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
Italy	15,211	54%	34%	11%	1%	0%	0%

The numbers of formulae used in commemorations in Italy are comparable with those of Rome.

There is a similar tradition for using one, two or three formulae.

²⁸⁶ Rome is in the upper quartile of cities ranked by length of inscriptions largest to smallest.

Combinations

Like Rome, the regions of Italy display low rates of combining formulae (see Table A4 in the Appendix). In the vast majority of cities, epitaphs contain only one formula and rates of using more than one are 25% and lower. However, three cities show significant differences to this overall trend Misenum (high use of the three-formula combination *DMBMVA* (48%)); Capua, which uses *DMSVA* in 7% of its inscriptions; and Ostia, which had a tradition for *DMVA* over *DMBM*, unlike other cities in Latium and Campania.

Abbreviations

Like Rome, cities in Italy also had a tradition for unabbreviated formulae, particularly *BM*, *VA* and *HSE* (see Table A5 in the Appendix). However, there are notable differences in Brundisium and Misenum, both of which show a strong tradition of using abbreviated or contracted formulae.

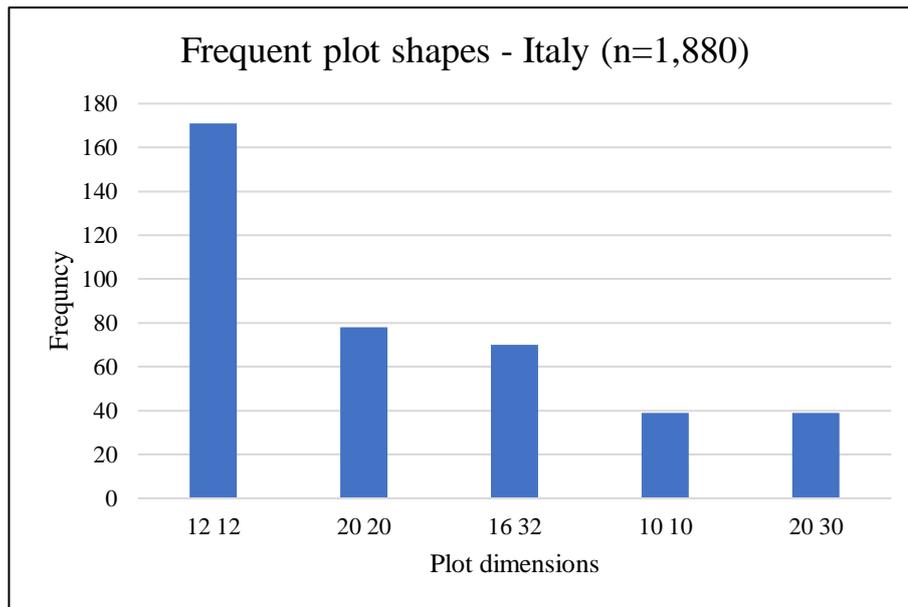
Length

Table A6 in the Appendix shows that inscriptions in Latium and Campania are comparable to those in Rome but that other parts of Italy have much shorter inscriptions. Once again Brundisium and Misenum show distinct differences to these general patterns. Brundisium has much shorter inscriptions (median 26 characters) whereas Misenum is at the top of the table with consistently longer inscriptions (median 85 characters).

Plot size

Plot sizes in most parts of Italy were considerably larger than those in Rome (see Table A7 in the Appendix). Like Rome, plots of 12 x 12 *pedes* were the most frequent. However, other frequently used shapes, such as 16 x 32, were larger than those found in Rome (see Figure 5.2). Where shapes were less regular, the depth (*in agro*) varies more than the measurement along the road (*in fronte*). For example, in Aquileia, the median value of the *in agro* measurement is double the median value of the measurement *in fronte* (16 and 32 *pedes* respectively).

Figure 5.2 – Comparison of common plot sizes (Italy)



Plots of more than 400 *pedes*² were common in northern Italy (see table 5.7). The city with the largest plot sizes was Aquileia where the median area value was 512 *pedes*². Ostia is the exception to the pattern of larger tombs in northern Italy and smaller tombs in Rome and the surrounding area. Despite being a city close to Rome, the current study indicates that Ostia’s plots were larger than those in Rome, with a median area of 434 *pedes*² as opposed to a median of 168 *pedes*² in Rome.

Table 5.7 – Comparison of tomb plot areas in cities in northern Italy

Place	Province	Number of epitaphs	Area <i>pedes</i> ² (median)
Patavium	Venetia et Histria Regio X	46	720
Aquileia	Venetia et Histria Regio X	370	512
Altinum	Venetia et Histria Regio X	73	500
Mediolanum	Transpadana Regio XI	40	441
Ateste	Venetia et Histria Regio X	31	408
Brixia	Venetia et Histria Regio X	30	348
Verona	Venetia et Histria Regio X	26	313
Pola	Venetia et Histria Regio X	45	275
Roma	Roma	1,607	168

Epigraphic signature

Epitaphs in Italy are most likely to include the expressions *VA*, *DM*, *BM*, which will either be used alone or combined into a two-formulae combination of *DMVA* or *DMBM*. Abbreviation rates are lower in Italy than other regions (particularly the African and Iberian provinces). For example, the length of epitaphs in Latium and Campania is comparable to those of Rome but they are also shorter in other parts of the region. Plot sizes in Italy are the largest in the dataset with 16 x 16 *pedes* the most common. Broadly speaking, we can say that there is a close correlation between epigraphic patterns in Rome and Italy at large. Both Rome and Italy had a tradition for one or two formulae; *DM*, *VA* or *BM* are often written out in full. However, epitaphs tend to be longer in Italy and are associated with plots of a larger size. There are exceptions to these general trends, notably in the port cities of Misenum and Brundisium. Misenum has longer epitaphs, uses more abbreviations, and had a tradition for a three-formulae combination. By contrast, Brundisium has shorter epitaphs, more abbreviations, and a tradition for the two-formulae combination *VAHSE*.

5.3.3 North-Western provinces

Size of dataset

With 7,088 surviving inscriptions available for analysis, epitaphs from the North-Western provinces account for 7% of the total epitaphs in the current study.

Popular formulae

Dis Manibus (present in 75% of epitaphs), *vixit annos* (19%) and *hic situs est* (7%).

Number of formulae per epitaph

Table 5.8 – Number of formulae in a single epitaph as a percentage of region total (North-Western provinces)

		Number of formulae in a single epitaph					
Region	Number of epitaphs	One	Two	Three	Four	Five	Six
North-Western	5,783	85%	12%	3%	0%	0%	0%

There is a strong regional tradition for using only one formula in commemorations in these provinces.

Combinations

Formulae use is low in this region, displaying low incidence of using more than one expression in a single epitaph. The only combination that makes any impact in the region is *DMVA* but even then, the rates are below 10%.

Abbreviations

Rates of using *BM*, *VA* and *HSE* in full are high throughout the region (see Table A5 in the Appendix). However, like Rome and Italy, *DM* is mainly used in its abbreviated form.

Length

Epitaphs in Gallia Narbonensis and Lugudunensis are longer than in other parts of the region.

Inscriptions in Lugudunum are the longest in the database (median character count 115) (see Table A6 in the Appendix).

Plot size

The *IFIA* formula was rare in the region although it was used in 151 epitaphs in Narbo. Here, there was a median plot size of 225 *pedes* (larger than in Rome) with squares of 15 x 15 *pedes* the most common shape (see Table A7 in the Appendix and the case study on Narbo, Section 5.5.6 below).

Epigraphic signature

Epitaphs in the North-Western provinces are likely to contain only one formula and, most likely, this will be *DM*. Abbreviation rates are lower in these provinces than other regions (particularly the African and Iberian provinces). Epitaphs in some parts of southern Gaul are usually longer than those in Rome; those in the north of the region are shorter.

5.3.4 Balkan and Danubian provinces

Size of dataset

With 6,723 surviving inscriptions available for analysis, epitaphs from the Balkan and Danubian provinces account for 6% of the total epitaphs in the current study.

Popular formulae

Dis Manibus (present in 61% of epitaphs), *vixit annos* (37%) and *bene merenti* (22%).

Number of formulae per epitaph

Table 5.9 – Number of formulae in a single epitaph as a percentage of region total (Balkan and Danubian provinces)

		Number of formulae in a single epitaph					
Region	Number of epitaphs	One	Two	Three	Four	Five	Six
Balkan and Danubian	4,691	55%	32%	11%	2%	0%	0%

The numbers of formulae used in commemorations in these provinces are comparable to those of Rome. There is a similar tradition of using one, two or three formulae.

Combinations

Like Rome and Italy, over half of the inscriptions include only one formula. Interest in combining formulae is low in most cities, although two do not follow this general trend, Salona in Dalmatia, and Aquincum in Pannonia Inferior (see Table A4 in the Appendix). In the port city of Salona, there was a tradition of using *DMBM* (24%) whereas in the frontier city Aquincum, the tradition was to use *DMVA* (25%).

Abbreviations

DM, the most popular formula in the region, was used mainly in its abbreviated form. Rates of using *BM*, *VA* and *HSE* in full are high throughout the region (see Table A5 in the Appendix). The expression *STTL* was rarely used in the region but when it was included, it was employed in its

abbreviated form in Aquincum and Carnuntum in Pannonia, and spelled out in full in Salona (Dalmatia).

Length

Character counts vary across the region. Aquincum in Pannonia Inferior has a high median character count (83) whereas Salona in Dalmatia has shorter epitaphs (51). Epitaphs in Carnuntum (Pannonia Superior) have a median length of 62 characters, which is similar to Rome.

Plot size

The data available for Salona indicates that the median plot size of 300 square *pedes* is larger than that of Rome (see Table A7 in the Appendix). Interestingly, these larger plot sizes in the city are similar to those found in Portus (355 sq. ft.) and some cities in northern Italy, such as Brixia (348 sq. ft.) and Verona (313 sq. ft.). However, use of *IFIA* is extremely low and evidence of plot data is only found in 2% of surviving epitaphs from this region. Therefore, we cannot draw any conclusions regarding plot size in the Balkan and Danubian provinces.

Epigraphic signature

Epitaphs in the Balkan and Danubian provinces are likely to contain only one formula and, most likely, this will be *DM*, *VA* or *BM*. Where combinations of formulae are found, these are likely to be *DMVA* or *DMBM*. Abbreviation rates are lower in these provinces than other regions (particularly the African and Iberian provinces). Epitaphs on the north-eastern borders of the empire are likely to be longer than those in Rome.

5.3.5 Mediterranean islands

Size of dataset

With 1,026 surviving inscriptions available for analysis, epitaphs from the Mediterranean islands account for 1% of the total epitaphs.

Popular formulae

Carales (Sardinia) - *vixit annos* (present in 78% of epitaphs), *Dis Manibus* (57%) and *bene merenti* (35%).

Catina (Sicilia) - *vixit annos* (present in 73% of epitaphs), *Dis Manibus Sacrum* (52%) and *Dis Manibus* (22%).

Overall, this indicates high use of *VA* (74%), *DM* (52%) and *BM* (27%).

Number of formulae per epitaph

Table 5.10 – Number of formulae in a single epitaph as a percentage of region total (Mediterranean islands)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
Mediterranean islands	842	34%	45%	20%	1%	0%	0%

In Rome, Italy, the North-Western and the Balkan and Danubian provinces, the analysis has indicated a custom for using one formula, with a secondary custom for two, and a much lower custom for three or more (see Figure 5.10). There is a reversal of this trend among commemorations in the Mediterranean islands where we see the increased likelihood that commemorations will include two formulae, over one or three. There is greater use of three expressions among the Mediterranean Islands than has been characteristic of regions previously discussed.

Combinations

Like Rome, the commemorators in the Mediterranean islands show a tradition of including *DMVA* (12%) and *DMBMVA* (10%). However, unlike Rome, they are less likely to use *DMBM* (2%) and have a higher partiality for *DMSVA* (5%). Although there is a clear inclination to use *DM*, the use of *DMS* alongside *VA* is the first indication of a provincial African/Iberian pattern influencing

commemorations in islands close to Italy. See Table A4 in the Appendix and the following discussions of African and Iberian epigraphic signatures for further information.

Abbreviations

DM is rarely abbreviated whereas rates of using *HSE* in full are high in Carales (38%) and Catina (100%) (see Table A5 in the Appendix).

Length

Commemorations in Carales in Sardinia have a median character count of 64, which is similar to those in Rome and Italy.

Plot size

Formula is not used.

Conclusion

Epitaphs in the Mediterranean islands are most likely to include two formulae (frequently *DMVA*), although combinations of three are also popular (in particular *DMBMVA*). Both Sicily and Sardinia have a tradition of using *VA*, *DM*, and *BM*. Abbreviation rates are lower in these locations than for other regions (particularly the African and Iberian provinces). With a median of 64 characters, epitaphs in the region are similar in length to those in Rome, putting them in the top quartile for epitaph length.

5.3.6 Eastern provinces

Size of dataset

With 919 surviving inscriptions available for analysis, epitaphs from the Eastern provinces account for 1% of the total epitaphs in the current study. This is particularly low because the use of Latin in these epitaphs was lower than in other regions. This impacts the data available for constructing a meaningful epigraphic signature.

Popular formulae

Vixit annos (present in 51% of epitaphs), *Dis Manibus* (41%), and *hic situs est* (22%).

Number of formulae per epitaph

Table 5.11 – Number of formulae in a single epitaph as a percentage of region total (Eastern provinces)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
Eastern	747	59%	29%	11%	1%	0.1%	0%

The Eastern provinces have a similar profile to Rome but there is slightly increased likelihood of epitaphs including one formula over two.

Combinations

Because the overall numbers of inscriptions in any city in this region is low and below 100, the analysis does not include data for how formulae are combined.

Abbreviations

Because the overall numbers of inscriptions in any city in this region is low and below 100, the analysis does not include data for how formulae are abbreviated.

Length

Based on a total of 62 epitaphs from the province of Macedonia, the median character count is 45.

Plot size

Formula is not used.

Epigraphic signature

The small number of epitaphs for the region make it difficult to produce a reliable epigraphic signature. Epitaphs in the region are likely to use only one formula, either *DM* or *VA*. Inscriptions in the region are generally shorter than those in Rome.

5.3.7 Iberian provinces

Size of the dataset

With 7,665 surviving inscriptions available for analysis, epitaphs from the Iberian provinces account for 7% of the total epitaphs in the current study.

Popular formulae

Hic situs est (present in 60% of epitaphs), *sit tibi terra levis* (43%), and *Dis Manibus Sacrum* (27%).

Interestingly, formulae that have been frequently popular across the empire, such as *DM*, *BM*, and *VA* are distinctly low in the Iberian Provinces. They are found in only 18%, 4%, and 11% of epitaphs in the region. Equally, *HSE*, which is found in 60% of Iberian epitaphs, was less popular in the centre of the empire. For instance, in Rome, we see only 2% of epitaphs with *HSE*.

Number of formulae per epitaph

Table 5.12 – Number of formulae in a single epitaph as a percentage of region total (Iberian provinces)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
Iberian	6,024	46%	34%	17%	3%	0.3%	0%

Overall, there is a tradition of using one formula rather than two. However, commemorations in Baetica are more likely to include two (and, in some cases, three) of these expressions.

Combinations

A wide variety of formulae are used in the Iberian provinces, which is reflected in how they combine the expressions within a single epitaph. Cities in Baetica are more likely to use a combination of *HSESTTL* with or without *DMS*, whereas commemorations in Emerita (Lusitania) are more likely to use *DMSHSESTTL*. In Hispania Citerior, both Tarraco and Barcino display a tradition for using *DMBM*, which is popular in other port cities in Italy. Gades has very few inscriptions using *DMS* so commemorations predominantly use *HSESTTL*.

Abbreviations

Rates of abbreviation in cities in the region are high; only *BM* and *VA* have a high rate of use in their unabbreviated form. The exception to this is the port city of Tarraco, which has a lower abbreviation rate for two formulae that are common in the region: *HSE* (21%) and *STTL* (40%).

Length

The majority of cities in the region have a median character count of around 50-60 characters, which is low when compared with Rome (60 characters) (see Table A6 in the Appendix). The exception is Tarraco, which has a low abbreviation rate and a higher character count (median 71). Gades has a much lower character count (25), which is more like cities in the African provinces.

Plot size

In Emerita, the median plot size of 96 *pedes* is smaller than that of Rome. But on the whole, the expression is not widely used across the Iberian Provinces and can only be seen in 2% of epitaphs.

Epigraphic signature

Although the analysis indicates that there is a tradition for commemorations to include only one of these expressions, like the Mediterranean islands, there is a higher chance of three being used than we find in the regions already discussed. There is a wider variety of popular formulae in the region than we have seen elsewhere, with the addition of *HSE* and *STTL* to the usual *DM*, *DMS*, and *VA*. Inscriptions are shorter than those in Rome and are more likely to use abbreviations. The

popularity of lesser used formulae, and the omission of *DM* and *BM* from the epigraphic signature, indicate geographic variation in epigraphic culture between the Iberian provinces and those to the north and east. The Iberian and African provinces present different epigraphic patterns to the rest of the empire and these results will be consolidated in the analysis of data from the African provinces below.

5.3.8 African provinces

Size of the dataset

With 26,961 surviving inscriptions available for analysis, North African epitaphs account for 26% of the total epitaphs studied in this thesis. It is therefore the region that has the second highest number of surviving epitaphs.

Popular formulae

Vixit annos (present in 87% of epitaphs), *Dis Manibus Sacrum* (51%), and *hic situs est* (46%).

Number of formulae per epitaph

Table 5.13 – Number of formulae in a single epitaph as a percentage of region total (African provinces)

Region	Number of epitaphs	Number of formulae in a single epitaph					
		One	Two	Three	Four	Five	Six
African	22,188	19%	45%	34%	2%	0.3%	0.01%

Cities in the African provinces include the most formulae per epitaph in the database. Inscriptions in the region are more likely to include two or three formulae.

Combinations

Commemorations in the region include a wide variety of combinations. Those in Africa Proconsularis use combinations of expressions in large percentages and, frequently, the same patterns are repeated. The most widely used permutation is *VAHSE*, either with, or without, *DMS*

(see Table A4 in the Appendix). The cluster of cities around Thugga have a tradition of using it with the addition of *DMS*, whereas those in in Numidia (and the neighbouring cities in Africa Proconsularis), had a tradition for the standard *VAHSE*. The tradition for including *HSE* in epitaphs was uncommon in cities in Mauretania Caesariensis, where *DMSVA* was more popular. The cities associated with Cirta have a tradition of combining the more Italian *DM* with *VAHSE*, or they simply use *VAHSE* alone. Use of *HSESTTL*, popular in Baetica and Lusitania, is used in half of all commemorations in the port city of Caesarea.

Abbreviations

Overall, commemorations in the region are heavily abbreviated (see Table A5 in the Appendix). Only those expressions that are rare in the region are likely to be written out in full. For example, the opening formula *DM*, popular in Rome and Italy, is frequently written in full in cities in Africa Proconsularis, even when used in large numbers. *BM* and *VA* are frequently found written in full, a pattern seen in some other regions in the analysis. This is particularly surprising in the African provinces where the overall rates of abbreviation for other formulae are high.

Length

In general, cities within the African provinces have a higher formula count and lower character count (see Tables A3 and A6 in the Appendix). Ninety-five percent of cities have a median character count below that of Rome (60). The exceptions are two cities in Mauretania Caesariensis Auzia (79) and Altava (61). Cities around Cirta have much shorter inscriptions (median between 27 and 23), again indicating that these cities have a pattern of commemoration that is different to the prevailing pattern in the region.

Plot size

No data – the expression is rare in the African Provinces.

Epigraphic signature

Epitaphs in the region are more likely to use two or three of these expressions. They have a wider range of popular formulae than Rome, by including the closing formula *HSE* along with *DM*, *DMS*, and *VA*. Epitaphs in these provinces also have a wider variety of combinations than any other region. Like the Iberian provinces, inscriptions are heavily abbreviated and the vast majority are shorter than those found in Rome.

5.4 Discussion of regional epigraphic signatures

The data described in the previous section have been used to provide regional epigraphic signatures. Although assigning regional epigraphic signatures ‘smooths’ any variation in the epigraphic record from location to location, it has the advantage of allowing us to compare the epigraphy of one region with another. I have presented the data for regions in the following tables (Tables 5.14 – 5.17) and used colours to group regions by similar or shared patterns. I have shown where trends are shared, where there is a marked divergence, and how far regions deviate from, or follow, the patterns of epigraphy found in Rome. A shared pattern does not suggest the results are the same. Rather, it suggests similar proportions for certain formulae, features or ratios that are very close. Although some of these similarities may be ambiguous, this method of visualising the data provides a useful tool for comparing a range of data points. It is also a first step towards answering the question posed at the start of the thesis regarding the dominance of patterns of commemoration from Rome over epigraphy in the provinces. By providing the characteristics that represent the epigraphy of the regions, we are able to compare each one with Rome to reveal where the influence of Rome is greatest. However, as we saw during the analysis presented in Chapter 4, these general regional trends conceal some significant anomalies, where the pattern of epigraphy diverged from the established pattern. These will be discussed in Section 5.5.

When we examine the data in Table 5.14, which indicates which formulae were being used, and Table 5.16, which displays how they were combined in each of the regions, there are two

main groupings. Rome, Italy, and the Mediterranean islands share a similar profile with a tradition for *DM*, *VA* and *BM* whereas the Balkan and Danubian provinces, and the North-Western provinces share a tradition for *DM*. The African and Iberian provinces indicate a unique profile. Whilst engagement with these expressions was high in the African provinces, the Iberian provinces used a wider variety. This confirms that the habit of using standardised expressions was embedded in the epigraphic culture of the region.

When we examine the data in Table 5.15, which indicates the number of formulae by region, we can see that commemorations in the North-Western Provinces used the least number of formulae in a single epitaph, with most of the inscriptions including only one formula. Rome, Italy, and the Balkan and Danubian provinces all had a tradition for one or two of these expressions. Those in the Iberian provinces also had a tradition of using one formula but, unlike Rome, there was a higher likelihood for using three, particularly in Baetica. Commemorations in the African provinces and the Mediterranean islands were more likely to include two or three expressions, suggesting that, together with the Iberian provinces, these regions had incorporated standardised expressions within their epigraphic culture to a much greater extent.

In terms of median lengths, I have grouped regions with similar character counts (see Figure 5.17). Epitaphs in the Danubian and Balkan provinces have the longest median length while those in the African provinces have the shortest. Rome and Italy are still grouped together but the Mediterranean islands now share a pattern with the Iberian provinces. The North-Western provinces are grouped with the Eastern provinces.

A clear pattern emerges from this regional analysis. The epigraphic signature for Italy is closely associated with Rome. The two regions use similar expressions, combine them in similar ways, and have inscriptions of similar lengths. The Balkan and Danubian provinces also share some features with Rome, particularly the numbers of formulae per epitaph and how these are combined in a single inscription.

The regions which do not share epigraphic features with Rome are the North-Western provinces and, to a greater extent, the African and Iberian provinces. The African provinces evolved a pattern of commemoration unique to the region. Their epitaphs included more formulae, which were often abbreviated, and formulae were sometimes exclusive to the region (for example, *OTBQ*). In addition, the region favoured short inscriptions. In the Iberian provinces, however, epitaphs used a wider variety of formulae, which were often abbreviated. The North-Western provinces, by contrast, do not appear to have developed a unique epigraphic culture. Their epigraphic signature mainly consists of one formula, popular in Rome and Italy, which they used to construct relatively short inscriptions. There is some regional variation to this general pattern, such as use of *sub ascia dedicavit* and longer inscriptions in Lugudunum, but the general trend for the region is defined by the use of one formula.

The least consistent epigraphic signatures, in terms of a shared pattern, are those of the Mediterranean islands and the Eastern provinces. In the former, choice of formulae is associated with Rome, length with the Iberian provinces, and numbers of formulae with African provinces. This lack of consistency may be due to the location of the islands and their cultural links with other regions. For instance, in terms of how combinations of expressions are used, epitaphs on Sicily could be emulating patterns in the African provinces whereas those in Sardinia follow the patterns set by Italy (particularly Misenum). The lack of consistency in the Eastern provinces is less easy to explain. It may be a result of a low number of epitaphs in any one city in the dataset or it may be the result of emulating a strong pre-existing tradition of inscribing in Greek.²⁸⁷

In conclusion, the results of this analysis indicate that there was a split between those regions to the north and north east of Rome and Italy (currently northern and central Europe), and the Iberian and African provinces, where distinct epigraphic cultures dominate the epigraphic record. On a local scale, all the regions contain a few elements in their epigraphic signature that might be identified as having an origin in Rome. For instance, five percent of inscriptions in Carthage include *DM* rather than the customary African variant of *DMS*. However, these small

²⁸⁷ All cities in the region have fewer than 100 epitaphs in the current study.

local variations do not impact the profile for the region as a whole and it is this regional profile that can be compared with Rome to assess how different the epigraphic signature is. In conclusion, the analysis indicates that Italy shares the same epigraphic signature as Rome whereas the Mediterranean islands and the Balkan and Danubian provinces only share some elements of Rome's epigraphic signature. The North-Western provinces, whilst not sharing its epigraphic signature, indicate that there was some influence from Rome over their choice of formulae. The regions that display unique epigraphic signatures distinct from Rome are the African and Iberian provinces.

Table 5.14 – Formulae use by region as a percentage of regional total (colours indicate groupings of regions with similar profiles)

Region	Number of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Rome	35,003	49%	3%	36%	51%	2%	0%	6%	0%	1%	5%	0%	0%	0%	2%
Italy	18,482	47%	6%	26%	42%	5%	0%	16%	0%	2%	2%	4%	0%	0%	2%
Mediterranean islands	1,026	52%	9%	27%	74%	4%	0%	1%	1%	0%	0%	0%	0%	0%	9%
North-Western provinces	7,088	75%	1%	2%	19%	7%	0%	3%	0%	1%	0%	0%	0%	6%	1%
Balkan and Danubian provinces	6,723	61%	4%	22%	37%	17%	1%	2%	0%	1%	0%	0%	0%	0%	1%
Eastern provinces	919	41%	9%	17%	51%	22%	0%	3%	0%	2%	0%	0%	0%	0%	0%
African provinces	26,961	16%	51%	2%	87%	46%	2%	0%	0%	0%	0%	0%	4%	0%	1%
Iberian provinces	7,665	18%	27%	4%	11%	60%	43%	2%	0%	1%	0%	0%	0%	0%	2%

Table 5.15 – Number of formulae in a single epitaph by region as a percentage of regional total (colours indicate groupings of regions with similar profiles)

Region	Number of epitaphs	One	Two	Three	Four	Five	Six
Rome	28,834	50%	37%	12%	1%	0.2%	0.01%
Italy	15,211	54%	34%	11%	1%	0.0%	0.0%
Balkan and Danubian provinces	4,691	55%	32%	11%	2%	0.0%	0.0%
Eastern provinces	747	59%	29%	11%	1%	0.1%	0.0%
Iberian provinces	6,024	46%	34%	17%	3%	0.3%	0.0%
African provinces	22,188	19%	45%	34%	2%	0.3%	0.01%
Mediterranean islands	842	34%	45%	20%	1%	0.0%	0.0%
North-Western provinces	5,783	85%	12%	3%	0.0%	0.0%	0.0%

Table 5.16 – Use of combinations of formulae as a percentage of regional total (colours indicate groupings of regions with similar profiles)

Region	Number of epitaphs	<i>DMVA</i>	<i>DMBM</i>	<i>DMVAHSE</i>	<i>DMSVA</i>	<i>DMSVAHSE</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>VAHSE</i>	<i>HSESTTL</i>	<i>DMSHSESTTL</i>
Rome	28,834	12%	12%	0%	1%	0%	8%	1%	0%	0%	0%
Italy	15,211	7%	6%	0%	1%	0%	5%	1%	2%	0%	0%
Mediterranean islands	842	12%	2%	0%	5%	0%	10%	0%	0%	0%	0%
Balkan and Danubian provinces	4,691	5%	5%	0%	0%	0%	2%	0%	0%	0%	0%
North-Western provinces	5,783	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Eastern provinces	747	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Iberian provinces	6,024	0%	1%	0%	0%	0%	0%	0%	0%	7%	5%
African provinces	22,188	6%	0%	5%	14%	19%	0%	0%	12%	0%	0%

Table 5.17 – Median length of epitaph for each region (colours indicate groupings of regions with similar profiles)

Region	Number of epitaphs	Median Length (character count)
Rome	28,834	60
Italy	15,211	55
Balkan and Danubian provinces	4,691	71
Eastern provinces	747	45
North-Western provinces	5,783	42
Iberian provinces	6,024	40
Mediterranean islands	842	37
African provinces	22,188	33

5.5 Establishing an epigraphic signature for a city

While regional epigraphic signatures can enhance our understanding of Roman epigraphic culture, there are clearly some cities that are exceptions to these regional patterns. To understand the inscriptions found in one city, we need to establish its epigraphic signature so that we can compare its signature to those of other cities. We have already seen how effective it can be to compare regional patterns of epigraphy in order to help us understand how far a pattern of epigraphy in one region of the empire was different to that of Rome. We can apply the same techniques at a city level.

Establishing an epigraphic signature for a city is can help us understand local divergences from the established pattern for a region. Chapter 4 highlighted several areas where cities were using different formulae to those that were popular in the rest of the region. In addition, the extra analysis presented in this chapter has highlighted similar divergences from a regional trend. I have selected six case studies to illustrate these differences: the Numidian city of Cirta; the port cities of Ostia and Misenum; the frontier city of Carnuntum; the north African city of Thugga; and the former colony of Narbo in southern Gaul.

5.5.1 Cirta (Numidia)

The results of the data analysis in Chapter 4 and the first part of this chapter clearly illustrate that there are a group of cities associated with Cirta in Numidia where the epigraphic signature includes some features that are rare compared to other cities in the region. These ‘small towns’ or ‘*cirtensium pagi*’ are located within a 56 km radius of Cirta: Celtianis (30 km), Castellum Arsacalitanum (17km), Castellum Tidditanorum, (16km), Castellum Elefantum (13km), Sila (32 km), Sigus (32km), and Thibilis (56km).²⁸⁸ These cities can be thought of as ‘satellites’ of Cirta and therefore, these ‘satellite towns’ offer an interesting perspective on the epigraphy of the local area.

²⁸⁸ Tacitus, *Annales III*, 74.

Cirta was founded in 27 BCE as a triumviral colony.²⁸⁹ Jacques Gascou has studied the epigraphy of these satellite towns and found that they developed public institutions and epigraphic practices related to Roman society.²⁹⁰ However, their use of inscriptions to commemorate the dead produced an epigraphic pattern quite different to other cities in North Africa.

The epigraphic signature for the small towns associated with Cirta shows a marked difference to other cities in the African provinces. Figures 5.3 and 5.4 compare some features of the epigraphic signature of Cirta and its satellite towns with large cities in Africa Proconsularis. Epitaphs in Cirta and these small towns were shorter than in Ammaedara, Lambaesis, and Carthago (see Figure 5.4).²⁹¹ Unlike other cities in Africa, commemorations here were likely to include two rather than three formulae and were more likely to incorporate *DM* rather than *DMS*. This is a remarkable choice for commemorations in Numidia, since it gives them an appearance unlike those in the rest of the province (see Table A1 in the Appendix). Overall, the only feature that might mark the African origin of these epitaphs is their use of *VA* and *HSE*, which are common in the region. These differences suggest that Cirta and its satellite towns developed a local epigraphic culture independent of the wider region.

²⁸⁹ Jacques Gascou, 'Sur Le Statut de Quelques Villes de Numidie et de Maurétanie Césarienne', *Antiquités Africaines* 40–41 (2004): 259–67.

²⁹⁰ Jacques Gascou, 'Pagus et Castellum Dans La Confédération Cirtéenne', *Antiquités Africaines* 19, no. 1 (1983): 175–207; Claude Briand-Ponsart, 'Les Relations de Cirta et La Confédération Cirtéenne Avec Le Pouvoir Pendant Le Haut-Empire', *Cahiers Du Centre Gustave Glotz* 17 (2006): 105–22; Hélène Jouffroy, *La Construction Publique En Italie et Dans l'Afrique Romaine* (Strasbourg: A.E.C.R. [Association pour l'étude de la civilisation romaine], 2006). Samir Aounallah discusses these settlements in Roman Africa: Samir Aounallah, *Pagus, Castellum et Civitas: Études d'épigraphie et d'histoire Sur Le Village et La Cité En Afrique Romaine* (Pessac: Ausonius Éditions, 2010).

²⁹¹ Epitaphs in Cirta are amongst the shortest in the database.

Figure 5.3 – Formulae use – Cirta, its satellite towns and major cities in Africa Proconsularis.²⁹²

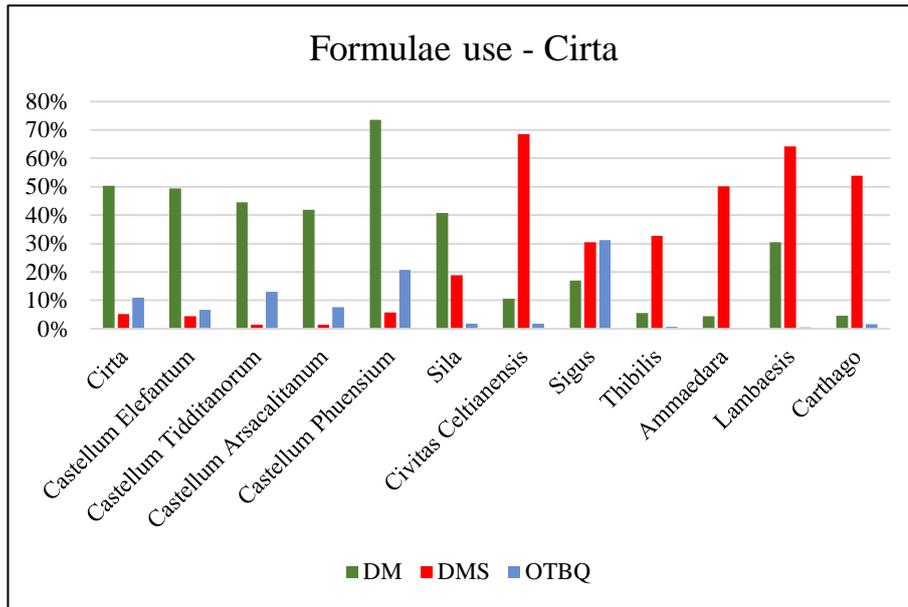
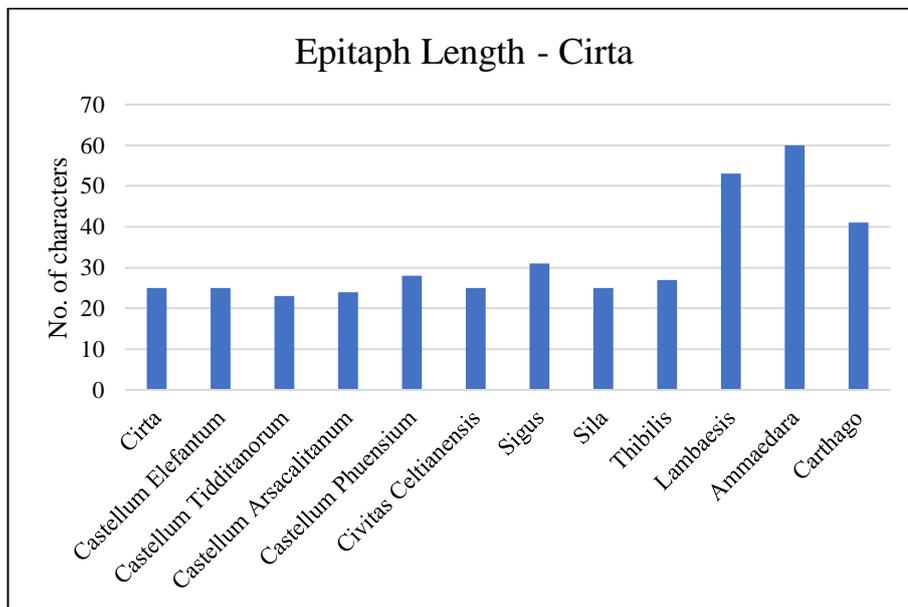


Figure 5.4 – Length of epitaphs - Cirta, its satellite towns and major cities in Africa Proconsularis.²⁹³



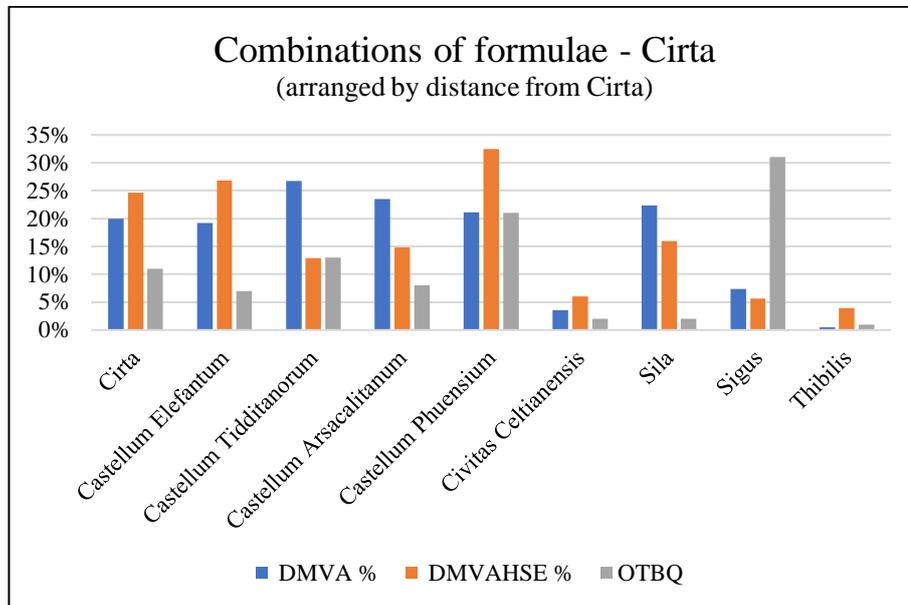
Whilst there was remarkable consistency in the patterns of commemoration in this cluster of towns, the analysis revealed that the reach of Cirta’s influence was limited by distance from the city. Figure 5.5 indicates that those locations geographically close to Cirta were using the same combinations of formulae. Those furthest away, such as Celtianis, Sila, Sigus and Thibilis, whilst

²⁹² Satellite towns are arranged by distance from Cirta.

²⁹³ Satellite towns are arranged by distance from Cirta.

still using the same expressions, did so in lower proportions. Interestingly, these towns were also more likely to use *DMS* rather than the usual expression of *DM* found in Cirta and those towns close by.

Figure 5.5 – Combinations of formulae - Cirta and satellite towns (arranged by distance from Cirta)



This can also be seen in other cities associated with Cirta. As the capital of the confederation known as the ‘four colonies’, Cirta was also closely associated with Rusicade, Chullu, and Milev.²⁹⁴ Having been settled by colonists from Italy, these four cities were founded together in the late Republic. The connections between these four cities were reflected in some shared features in their commemorations, led by the influence of their capital, Cirta.²⁹⁵ For instance, Rusicade and Milev shared Cirta’s custom for shorter epitaphs and for the use of *OTBQ*. However, while Cirta and Milev shared a tradition for using *DM*, there was a custom in Rusicade, for using the more characteristically African expression, *DMS*.²⁹⁶ This demonstrates that although the epigraphic influence of Cirta extended beyond its satellite towns to other cities, the reach of this influence was limited by distance.

²⁹⁴ Ptolemy, *Geographia* vol. IV, iii, 7.

²⁹⁵ Due to a lack of data in EDCS and the current study (2 epitaphs), Chullu has been excluded from this comparison.

²⁹⁶ In terms of distance from Cirta, Milev was 20km, whereas Rusicade was 65km.

Discussion and conclusion

There is a remarkable consistency between the epigraphic signature of Cirta and its satellite towns that were under its administrative control. There is also evidence that some features of Cirta's epigraphic signature, particularly the use of *OTBQ*, were shared with the three other colonies founded at the same time as Cirta. Overall, these results indicate that there is a separate pattern to the commemorations in both the satellite towns and the 'four colonies', which created a local epigraphic signature distinct from the wider regional pattern. However, the results have also shown that the reach of Cirta's influence was limited by distance. Cities further away from Cirta were likely to share fewer features in their epigraphic signature. Despite this shared local pattern, we can also see that epigraphy in the region was influenced by global patterns, indicating an epigraphic signature consisting of both global and local influences. These results will be discussed in Chapter 7.

5.5.2 Ostia (Latium and Campania)

Establishing an epigraphic signature for Ostia is particularly useful when we are thinking about the effects of mobility and migration on funerary commemoration in a city. There is a vast amount of evidence that there was an ethnically diverse and mobile population in Ostia.²⁹⁷ Epigraphic evidence of all types attests to a cosmopolitan and prosperous trading community. The population consisted of communities from around the empire, connected by a shared culture and sustained contact with communities overseas.²⁹⁸ The inscriptions in the mosaics within the *stationes* of the

²⁹⁷ For use of skeletal material to establish origin see: Tracy L Prowse and Henry P Schwarcz, 'Isotopic Evidence for Age-Related Immigration to Imperial Rome', *American Journal of Physical Anthropology* 519, no. May 2006 (2007): 510–19; Christer Bruun, 'Water, Oxygen Isotopes, and Immigration to Ostia-Portus', *Journal of Roman Archaeology* 23 (2010): 109–132.. For studies of onomastics and mobility see Olli Salomies, 'People in Ostia. Some Onomastic Observations and Comparisons with Rome', in *Ostia e Portus Nelle Loro Relazioni Con Roma*, Eds. C. Bruun and A. Gallina Zevi (Rome: Acta IRF 27, 2002), 135–159. For a discussion of epigraphy in Ostia, see: Mouritsen, 'Freedmen and Decurions: Epitaphs and Social History in Imperial Italy'. For a discussion of mobility and migration more generally see and Walter Scheidel, 'Human Mobility in Roman Italy, I: The Free Population', *Journal of Roman Studies* 94, (2004): 1–26.

²⁹⁸ Ghislaine Van der Ploeg, 'African and Ostian Connections: The Case-Study of Lucius Caecilius Aemilianus', *Ancient Society* 47 (2017): 221–36.

Piazzale delle Corporazioni are a particularly rich source of evidence, designating merchants from cities throughout North Africa, Gaul and Sardinia. Despite the presence of a rich and diverse community in Ostia, there is little evidence that this affected the funerary culture. In fact, Ostian epitaphs were closely aligned to those in the rest of Latium and Campania and to Rome. In order to assess this, epitaphs from Ostia will be compared to those in Rome and its wider region, Latium and Campania. We will then consider to what extent this trend was replicated in other port cities across the empire.

First, the epigraphic signature of Ostia will be established. Figure 5.6 indicates that the expression *DM* was used particularly frequently in Ostia, where it is found in 70% of inscriptions. *VA* and *BM* were also popular in the city and used in 36% and 26% of commemorations respectively. The expression *IFIA* was used in 13% of epitaphs, demonstrating a tradition for using expressions also popular in Latium and Campania. There was a similar tradition of incorporating *DM* (59%), *VA* (45%), *BM* (31%) and *IFIA* (9%) in epitaphs across Latium and Campania. *DMS* and *STTL* were extremely rare (only used in 44 and 6 epitaphs respectively) and *OTBQ* was non-existent.

Equally, the numbers of formulae per epitaph in Ostia and the wider region follow a similar trend (see Figures 5.6 and 5.7). In Ostia, there was a tradition for the using one formula over two and three (45%, 42%, and 12% respectively), which is similar to Latium and Campania (46%, 37%, and 16%) (see Figure 5.6). In those epitaphs where more than one formula was used, the same combinations are popular in both Ostia and other cities in Latium and Campania. For instance, *DMVA* and *DMBM* were both used in similar proportions in Ostia and the wider region. However, the three-formulae combination of *DMBMVA*, which was popular in some cities (particularly Misenum (48%) and Puteoli (20%)) was rarely used at Ostia (8%).²⁹⁹

²⁹⁹ See Table A4 in the Appendix for full data.

Figure 5.6 – Formulae use for cities in Latium and Campania as a percentage of city total

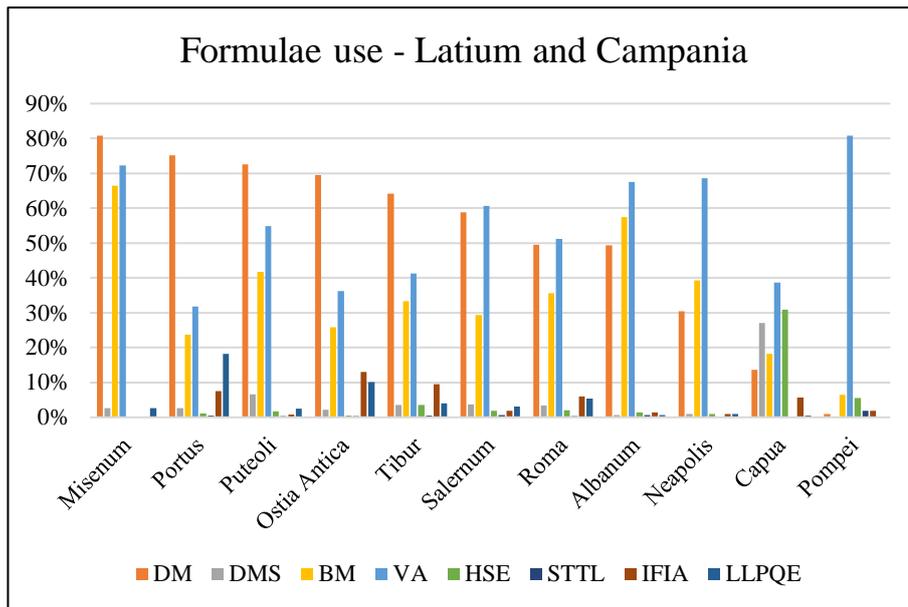
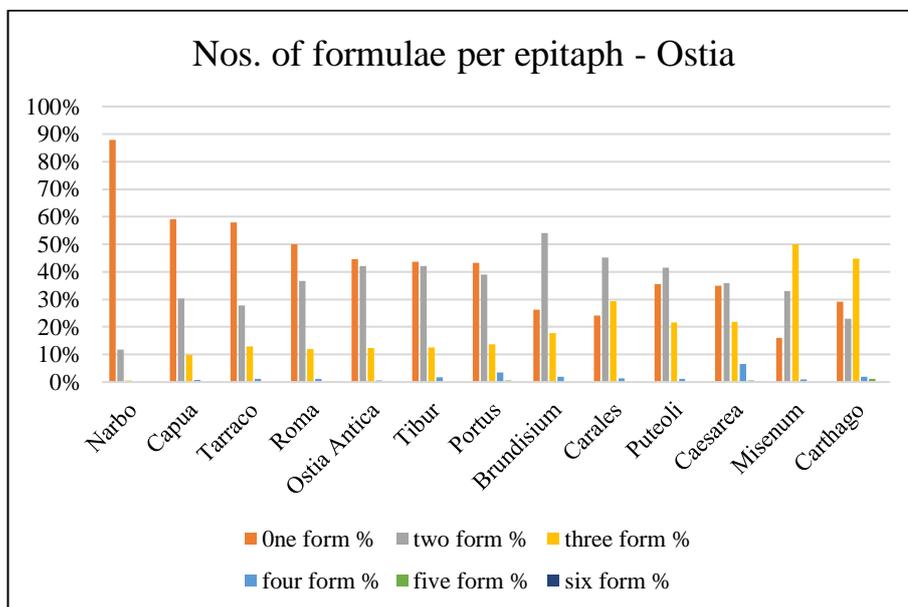


Figure 5.7 – Number of formulae in a single epitaph (Ostia, Rome and Mediterranean port cities as a percentage of city total)



Two other variables contribute to the epigraphic signature of the city: the length of the inscriptions and the use of abbreviations. Epitaphs in Ostia and Rome had a similar median character count at around 60 characters whereas those in Portus were longer (71). Generally, cities in Latium and Campania followed the same pattern, with a median character count of 60 characters across the region (see Figure 5.8). When use of abbreviations in epitaphs is examined, it is clear that Rome, Ostia, Puteoli, and Misenum in Campania had a strong tradition for using abbreviations

(Figure 5.9). Interestingly, Portus had a tradition for unabbreviated formulae which, despite the convergence of Ostian patterns of commemoration with those of Latium and Campania, points to a divergence in the epigraphic signatures of the two cities.

Figure 5.8 – Length of epitaphs (Ostia, Rome and Mediterranean port cities as a percentage of city total)

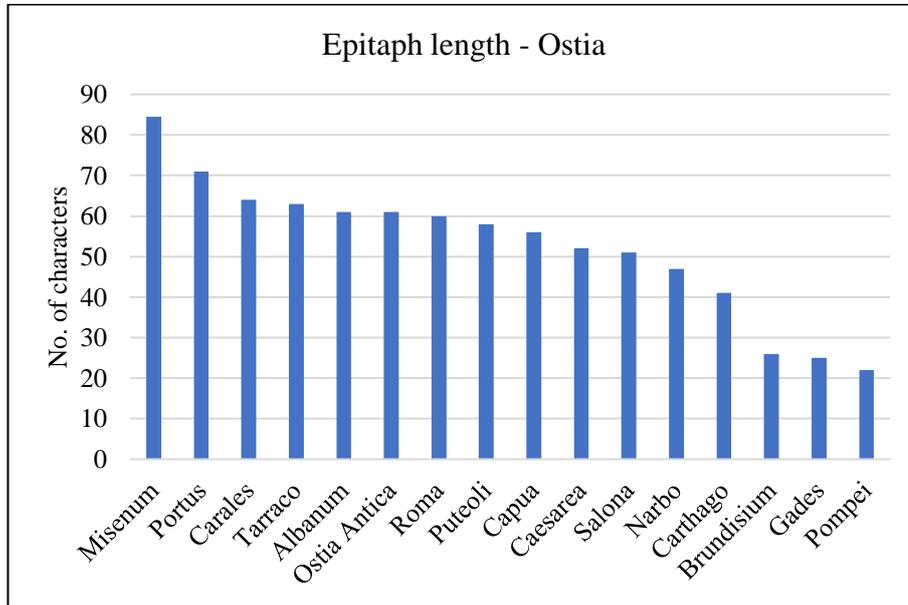
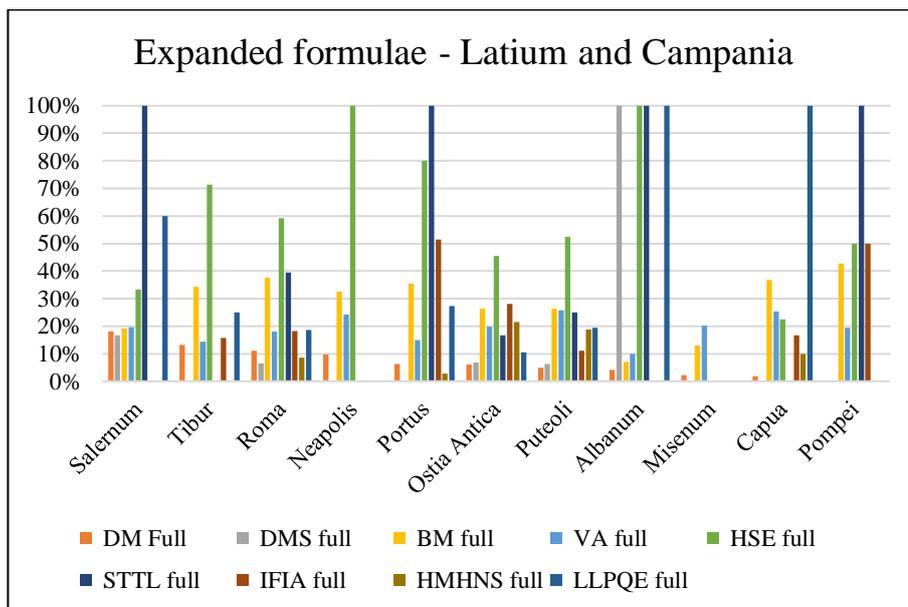


Figure 5.9 – Expanded formulae - Latium and Campania



Having established that patterns of commemoration in Ostia were similar to those found in other cities in the area, we should consider to what extent these trends were replicated in other port cities around the Mediterranean. To reiterate, the epigraphic signature of Ostia consists of high use

of *DM*; a tradition for also using *VA*, *BM*, and *IFIA*; a tradition for incorporating one formula over two or three; a median character count of 60 (similar to Rome); and a tradition for using abbreviations. Figure 5.10 compares the formulae use of Ostia with other port cities and demonstrates that some ports also had a tradition of using *DM*, *VA*, and *BM* in their epitaphs. For example, Tarraco and Barcino, both in Hispania Citerior, use *DM* and *BM* in 64% and 63% of their epitaphs respectively, which is particularly surprising for cities located in a region where the tradition would have been for *DMS*. However, ports in Baetica and the African provinces had a tradition for epitaphs that incorporated quite different formulae. For instance, Gades in Baetica and Carthago in Africa Proconsularis used *HSE* in 75% and 48% of their epitaphs respectively, whereas this formula was only used in 1% of epitaphs at Ostia. Furthermore, epitaphs in Caesarea in Mauretania Caesariensis had a higher than usual tradition for the expression *STTL*, which was rare in the province but used widely in the Iberian provinces. In terms of how abbreviations were used, Figure 5.11 indicates that all port cities shared Ostia's tradition for abbreviations except for Narbo and Portus, which show a higher use of some formulae written in full. However, there is very little convergence in how formulae are combined in an epitaph in the wider community of port cities (see Figure 5.12). For example, in Brundisium, there was a cultural tradition for *VAHSE* in 47% of its epitaphs whereas in Ostia, the tradition was to use *DMVA*. Finally, apart from other port cities in Latium and Campania, most other port cities had a median character count shorter than Ostia (see Figure 5.5). For instance, Gades in Baetica and Carthago in Africa Proconsularis had median character counts of 25 and 41 characters respectively. The exceptions are port cities in Hispania Citerior, which, like their tradition for using *DM*, followed the pattern set by Ostia.

Figure 5.10 – Formulae use (Rome and Mediterranean port cities as a percentage of city total)

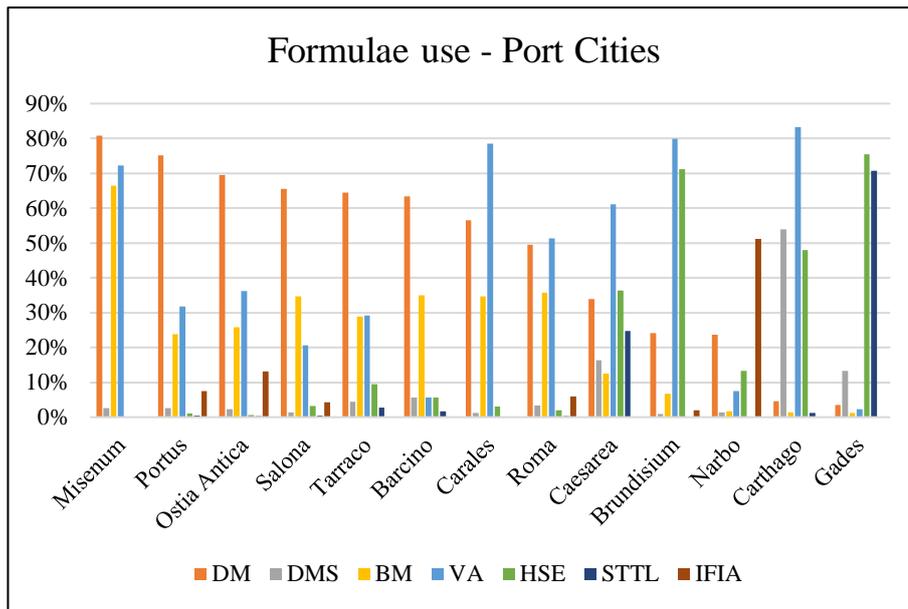


Figure 5.11 – Expanded formulae (Rome and Mediterranean port cities as a percentage of city total)

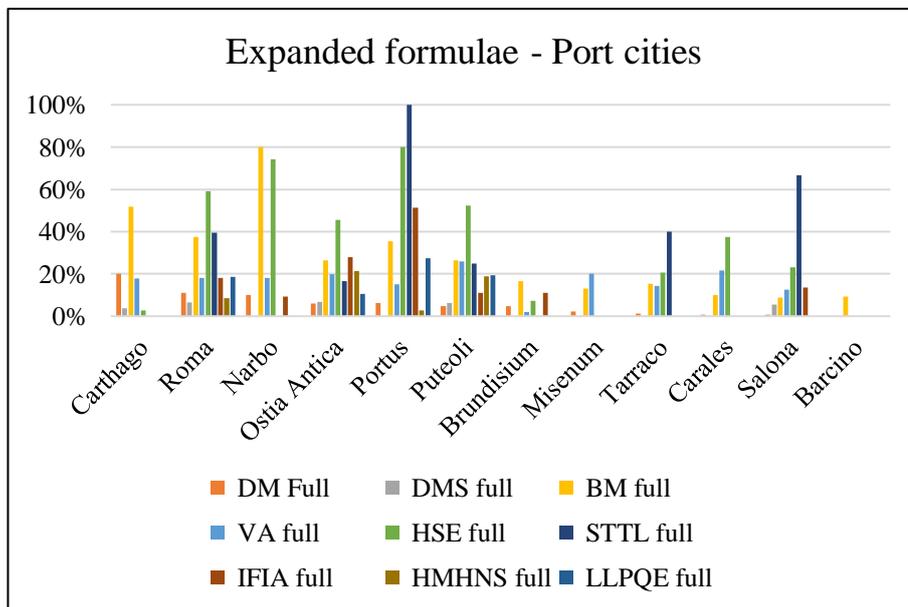
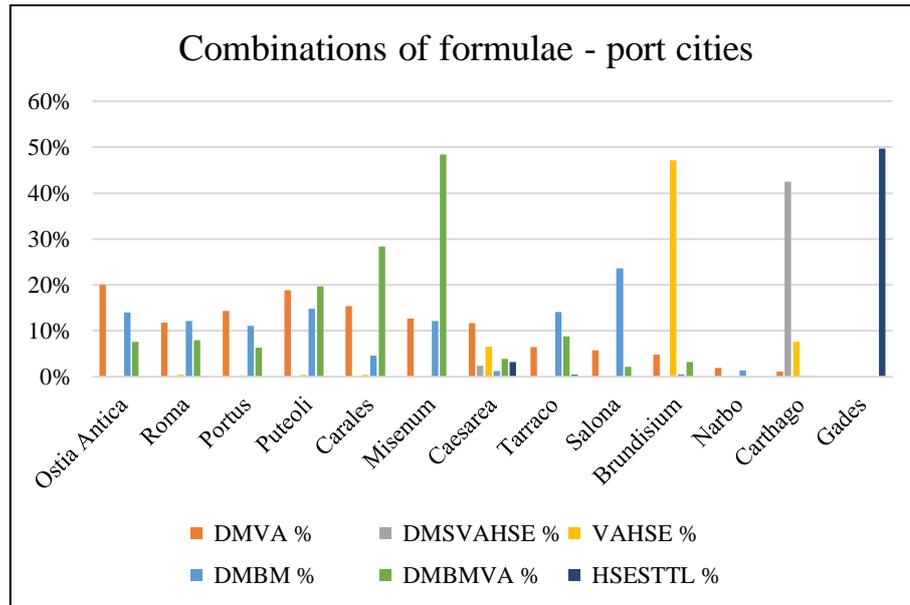


Figure 5.12 – Combinations of formulae (Rome and Mediterranean port cities as a percentage of city total)



Having set the epigraphic signature of Ostia in the context of Latium and Campania, and other port cities around the Mediterranean, there are some general conclusions to be made. First, Ostia has an epigraphic signature close to that found in Rome and other cities in the area. There is no evidence that the diverse population in Ostia influenced styles of commemoration. Secondly, all port cities in the study use formulae that were rare in their respective regions. For example, commemorations in Barcino (Hispania Citerior) use *HMHNS*, those in Caesarea (Mauretania Caesariensis) use *STTL*, and those in Narbo (Gallia Narbonensis) use the *IFIA* formula, which was rare outside Rome and Italy see Chapter 4. Finally, the epigraphic signature of Portus, Rome’s harbour city and close neighbour of Ostia, has features of its epigraphic signature that diverged from that of Ostia.

Discussion and conclusion

An analysis of the data indicates that Ostia had an epigraphic signature consistent with the prevailing pattern evident in Rome and most parts of Latium and Campania. Moreover, there is no evidence in the epigraphic signature that the diverse population inhabiting the city had an impact on the styles of commemoration in the city. Cities that had close trading links, such as those represented in the *stationes* of the Piazzale delle Corporazioni, had very different epigraphic

signatures. Carthage, in particular, had an epigraphic signature that was very different to Rome and Ostia, both in use of formulae and length of inscriptions. Even ports such as Carales in Sardinia, which is close to Ostia in terms of sailing time, had few features in common. The one exception is the port of Narbo (Gallia Narbonensis) which, like Ostia, included *IFIA* in its epigraphic signature. However, unlike Ostia, where the overall rate was only 13%, commemorators in Narbo used it in just over half of all epitaphs.³⁰⁰ These results imply that commemorators were ‘hosted’ in Ostia but within a very ‘local’ epigraphic culture. This suggests that overseas commemorators may have shaped some elements of the epigraphic signature but that they did not change it overall.

This ‘local’ epigraphic culture in Ostia, where the epigraphic signature replicates the pattern found in the wider region, is not reproduced in other port cities. Ports in the Iberian provinces appear to develop an epigraphic signature unlike that found in the immediate region. For example, Tarraco and Barcino in Hispania Citerior, and Gades in Baetica have some elements in their profile that are not found in other commemorations in the Iberian Provinces. In the African provinces, the port of Caesarea in Mauretania Caesariensis had a tradition for using *STTL*, which is used widely in Baetica but is much rarer in the African provinces. In contrast to Ostia, we see that these ports developed a ‘local’ epigraphic culture influenced by ‘global’ patterns of commemoration rather than those found in their local region.

Finally, we should note the differences discovered in this analysis between the epigraphic signatures of Ostia and Portus. Although there is a very close association between Ostia, Rome, and Portus in terms of which formulae were used and how they were combined, there are some significant differences in the epitaphs of the two cities, particularly in how they use abbreviations and the length of their epitaphs. These differences may be due to Portus’ unique position as Rome’s imperial harbour. It is also possible that the reverse was true at Portus, although a mobile population had very little impact at Ostia, and this is reflected in their epigraphic signatures. A more detailed analysis of the data is required to account for this variation. However, it is worth

³⁰⁰ The pattern of commemoration in Narbo is much more closely aligned to cities in north-eastern Italy such as Altinum and Ateste.

stating that these differences have important implications for how we study the epigraphy of the two cities. All too often, the inscriptions of Ostia and Portus are analysed as a whole, whereas the current study has identified several features where the epigraphy of the two can be shown to be different.³⁰¹

5.5.3 Misenum (Latium and Campania)

The results of this research demonstrate that port cities frequently had a different epigraphic signature to other cities in the same regions. For instance, Tarraco, Brundisium, Misenum and Caesarea all indicated features within their epigraphic signature that were not part of the established pattern for the region in which they are located.³⁰² Nowhere is this difference more obvious than in Misenum, located on the Bay of Naples in Campania.

Together with Ravenna, Misenum was established in the early Principate as a base for the Praetorian fleet.³⁰³ As the headquarters of the naval fleet, over 10,000 sailors were based on the Bay of Naples, with a further 5,000 at Ravenna, on the Adriatic coast.³⁰⁴ The inscriptions in Misenum and Ravenna have been studied extensively to understand the social composition and origin of those serving in the fleet.³⁰⁵ However, an analysis of the language used to commemorate these men has been absent from the scholarship. By examining the epigraphic signature for Misenum, and comparing it with other ports in the Mediterranean, we can assess whether there are certain aspects of an epitaph that are particularly associated with commemorations of members of the imperial fleet.

³⁰¹ The index of places in the Oxford Handbook of Roman Epigraphy refers only to Ostia Portus. Bruun and Edmondson, *The Oxford Handbook of Roman Epigraphy*.

³⁰² See Chapter 4 for details.

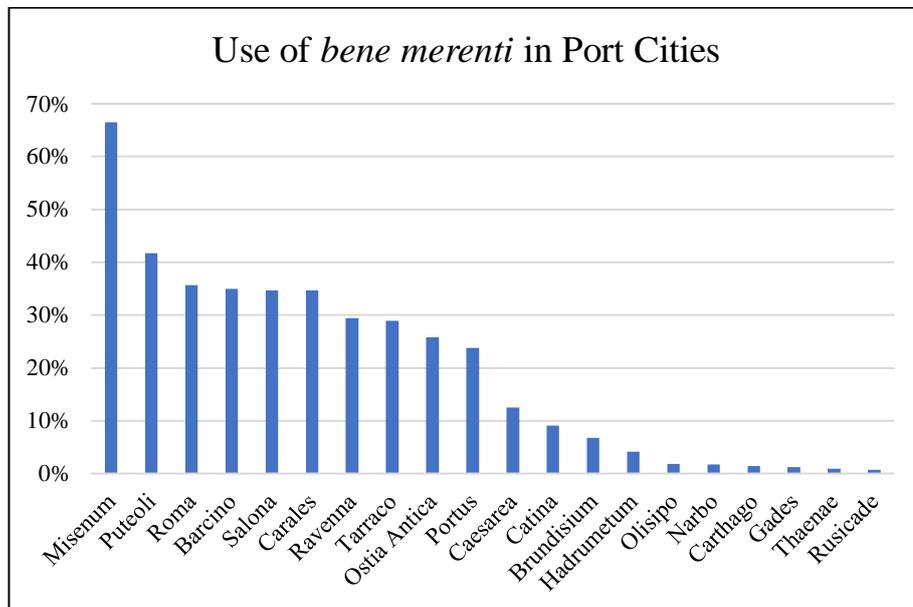
³⁰³ Tacitus, *Annales* IV, 5.1 and Chester G. Starr, *The Roman Imperial Navy, 31B.C. – A.D. 324* (Chicago: Ares Publishers, 1993).

³⁰⁴ For more on the imperial fleet see: Lionel Casson, *Ships and Seamanship in the Ancient World* (Baltimore: JHU Press, 1995); Starr, *The Roman Imperial Navy, 31B.C. – A.D. 324*.

³⁰⁵ See: Starr, *The Roman Imperial Navy, 31B.C. – A.D. 324*; A Kurilić, 'Roman Naval Bases At the Eastern Adriatic', *Histria Antiqua*, 21 (2012): 113–22; Tuck, 'Nasty, Brutish, and Short? The Demography of the Roman Imperial Navy'.

As we saw in the case study of Ostia, all port cities in this study use formulae that were rare in their respective regions. For example, commemorations in Barcino (Hispania Citerior) use *HMHNS*, those in Caesarea (Mauretania Caesariensis) use *STTL* and those in Narbo (Gallia Narbonensis) use the *IFIA* formula, which was rare outside Rome and Italy.³⁰⁶ However, the formula that was used consistently in Mediterranean ports is *BM*. The expression is even found in commemorations in ports in the African and Iberian provinces where overall use in most other cities is extremely low. Figure 5.13, which compares the use of the formula *BM* in Mediterranean ports with Rome, demonstrates that while the expression is used in all ports, its use is higher in ports in Italy, Sardinia, Dalmatia and Hispania Citerior.

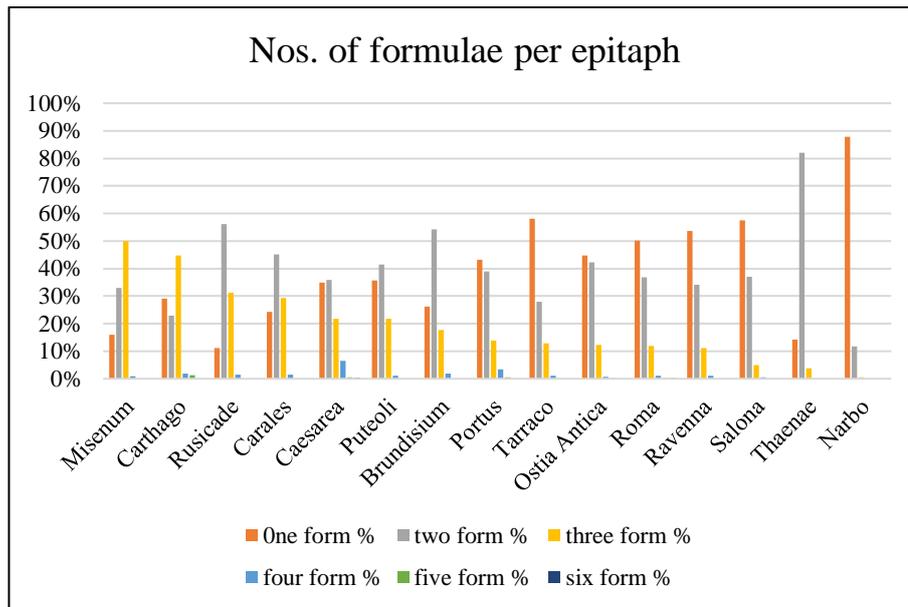
Figure 5.13 – *Bene merenti* (Misenum, Rome and port cities as a percentage of city total)



When we examine the number of formulae per epitaph, Misenum shows a pattern of commemoration consistent with cities in the African provinces, with a strong tradition for three formulae over one or two see Figure 5.14. This is in contrast to other cities in Italy, where there was a tradition for one and sometimes two formulae.

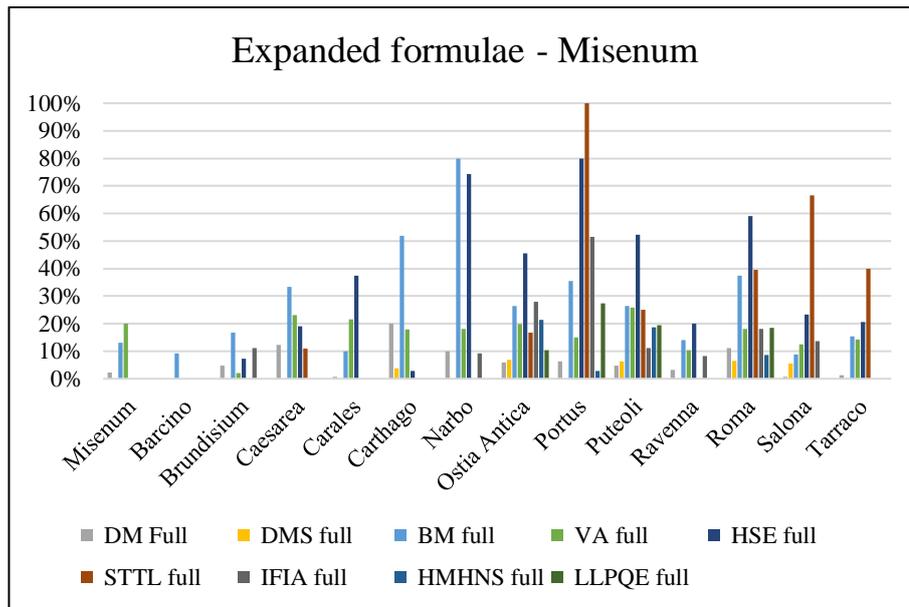
³⁰⁶ See Chapter 4 for full details.

Figure 5.14 – Number of formulae in a single inscription (Misenum, Rome and Mediterranean port cities as a percentage of city total)



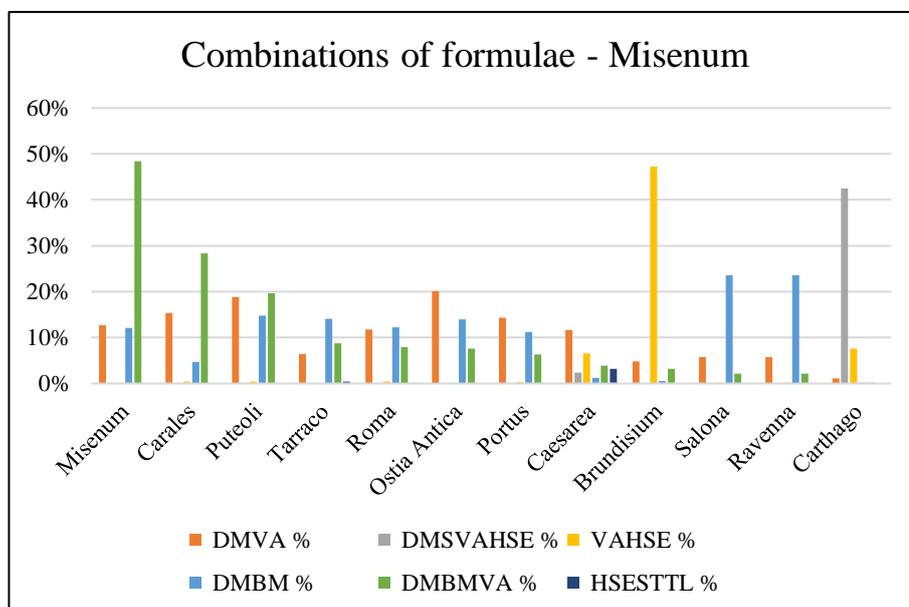
Misenum, like other port cities, had a high abbreviation rate. The data in Figure 5.15 demonstrates that all ports except Misenum, Barcino and Brundisium used at least one formula, which is less likely to be abbreviated, for instance, *BM* at Narbo and Caesarea, and *STTL* at Portus and Salona. These are all expressions that were relatively rare in the regions where these ports are located, which suggests that an abbreviated form may have been unfamiliar to the reader. This phenomenon will be discussed further in Chapter 7.

Figure 5.15 – Expanded formulae (Misenum, Rome and Mediterranean port cities as a percentage of city total)



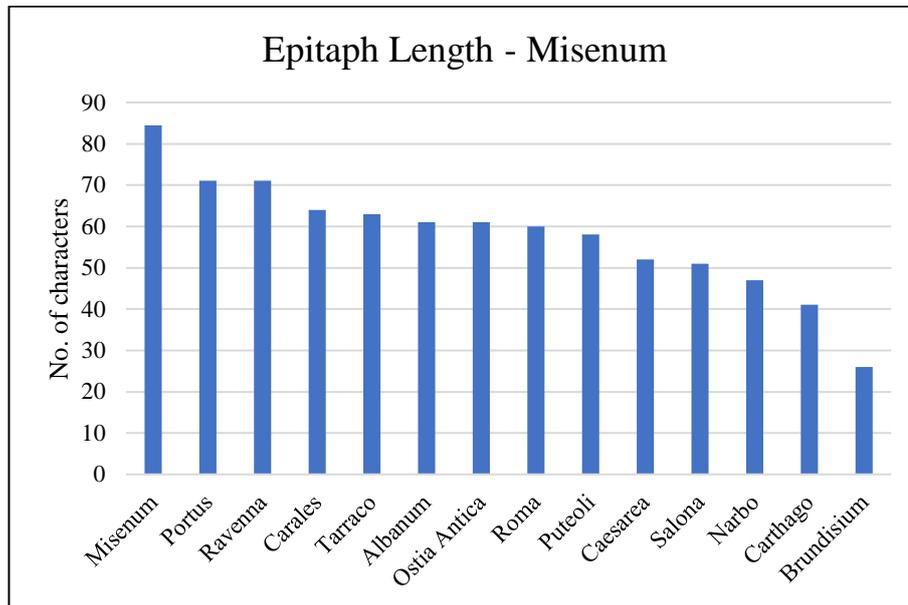
When we compare how formulae were combined across the dataset, it is clear that Misenum, Carales, and Puteoli had a similar epigraphic signature with a tradition for *DMBMVA* (see Figure 5.16). This is in contrast to Ostia and Portus where epitaphs were more likely to include *DMVA*. Both Ravenna and Salona share the same tradition for the two-formulae combination of *DMBM*.

Figure 5.16 – Combinations of formulae (Misenum, Rome and Mediterranean port cities as a percentage of city total)



The length of epitaphs in these cities shows similar geographic variation. The median length of inscriptions at Misenum and Ravenna was higher than Rome by 24 and 11 characters respectively (see Figure 5.17) whereas at Salona and the port cities in the African provinces, they are shorter, at around 50 characters.

Figure 5.17 – Formulae length (Misenum, Rome and Mediterranean port cities as a percentage of city total)



Discussion and conclusion

Misenum has a profile unlike any other city in Campania. Although the cities in Latium and Campania used the same expressions, Misenum is the only one that shows a strong tradition for the three-formulae combination of *DMBMVA*. Inscriptions were more abbreviated and longer than other cities in the area. In terms of other port cities, Misenum has the highest proportion of epitaphs using *BM* in the database, a feature shared with Puteoli, Rome, and Salona. It has a profile similar to Carales (Sardinia) for high use of *DMBMVA* and is also comparable to Portus and Ravenna in having longer than usual inscriptions. Overall, Misenum has few local elements in its epigraphic signature and shares very little with Rome, except a high use of *BM*. The evidence thus indicates that the epigraphic signature consists of global elements and this points to an alignment with patterns overseas.

Interestingly all the cities that share an aspect of their signature with Misenum have an association with the fleet. For instance, the imperial fleet had a barracks in Rome where they were stationed over the winter.³⁰⁷ Inscriptions have also been found in Portus that suggest that the city hosted a detachment of the fleet, and at Salona, where Kurilić suggests that a *statio* of the fleet might have been based.³⁰⁸ This shared association with the fleet must account, in some part, for the features the ports have in common within their epigraphic signatures. This will be discussed further in Chapter 6 and 7.

5.5.4 Carnuntum (Pannonia)

Establishing an epigraphic signature for Carnuntum, the provincial capital of Pannonia Superior, will help us to understand the epigraphic habit of a Roman frontier town. In particular we can compare it with military settlements in the same part of the empire, such as Aquincum and Mogontiacum, and settlements with a similar civilian and military population in other provinces, such as Ammaedara and Lambaesis. Located on the banks of the Danube and originally the home of the *Legio XV Apollinaris*, the survival of both military and civilian epitaphs at Carnuntum attests to its transformation from a military garrison to a thriving civilian settlement.³⁰⁹

A limited number of formulae were used in the city, which possibly accounts for the tradition of using only one formula see Figure 5.18.³¹⁰ The opening formula, *DM*, is used in only 25% of epitaphs, suggesting that most open with the name of the deceased. In terms of recording age, the use of *VA* is rare but much more frequent in other frontier cities such as Aquincum and in other military settlements, such as Ammaedara and Lambaesis. While it is possible that age was recorded using *annorum* (as discussed in Chapter 4), it is interesting that the use of *VA* is low in

³⁰⁷ Noy, *Foreigners at Rome: Citizens and Strangers*, 22.

³⁰⁸ Simon Keay, 'The Port System of Imperial Rome.' In *Rome, Portus and the Mediterranean.*, ed. Simon Keay, London: British School at Rome, 2012, 59; Kurilić, 'Roman Naval Bases At the Eastern Adriatic', 117.

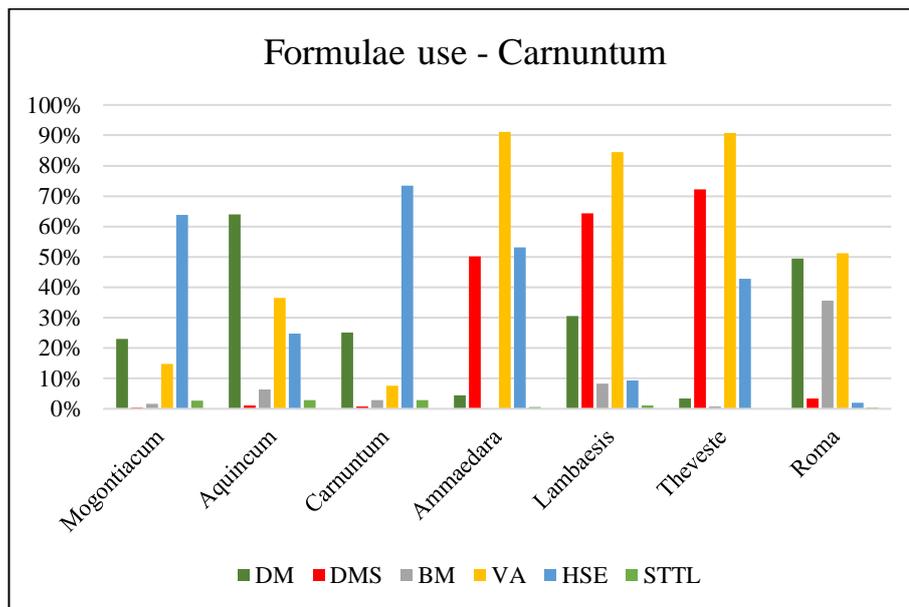
³⁰⁹ Popov, 'Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE', 235.

³¹⁰ Epitaphs in Carnuntum, Mogontiacum and Aquincum have high rates for using only one formula, see Table A3 in the Appendix.

both Carnuntum and Mogontiacum, both cities where the *Legio XIV Gemina* was based. There is evidence of some use of *STTL* in these cities although overall rates are small. However, this is notable since the expression is relatively rare outside the Iberian provinces. Formulae, such as *BM*, which was popular in Misenum and Ravenna with members of the Imperial Fleet, were rare in these cities (<10%).

The most popular expression in Carnuntum was the closing formula, *HSE*. Used mainly in its abbreviated form, the expression was popular in other military cities on the frontier (see Figure 4.8 in Chapter 4). High rates of use were also found in Ammaedara and Theveste but those in Lambaesis were lower. The discussion of formulae in Chapter 4 indicates that *HSE* had a particular relevance to military burials since it indicated the location of the remains, a concept of particular importance to those in the military.³¹¹ However, of the 205 epitaphs from Carnuntum that use *HSE*, 67 are not associated with soldiers.³¹² This indicates that a formula popular in military epitaphs in the region was also used in civilian inscriptions.

Figure 5.18 – Formulae use (Carnuntum, Rome and cities with a military-linked population as a percentage of city total)

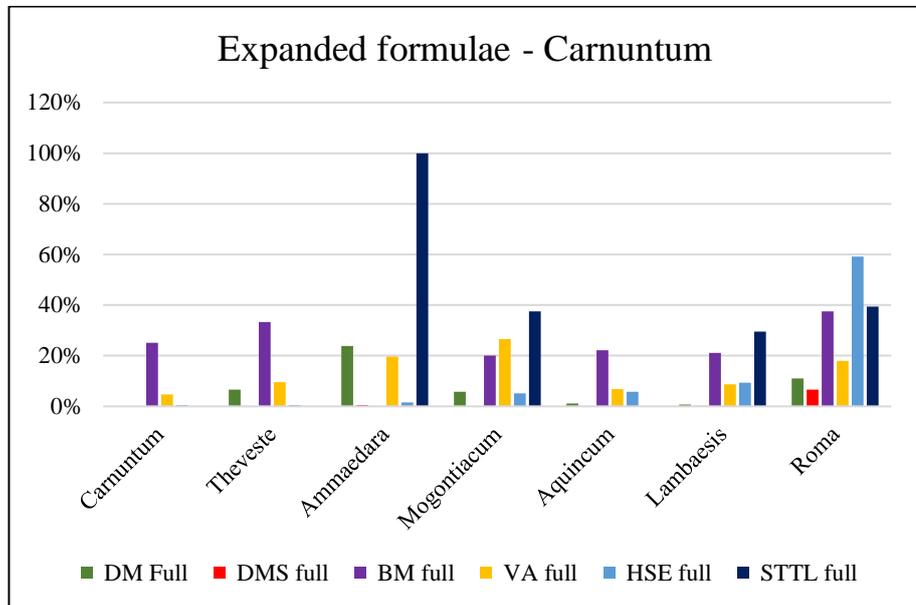


³¹¹ Popov, ‘Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE’, 238. Recovery of the war dead was a particular concern in the ancient world. A statement confirming the location of a deceased’s remains would have been particularly important to those in the military.

³¹² This was calculated by searching the stripped text field in the database for epitaphs that did not include ‘legio*’ or ‘stipend*’

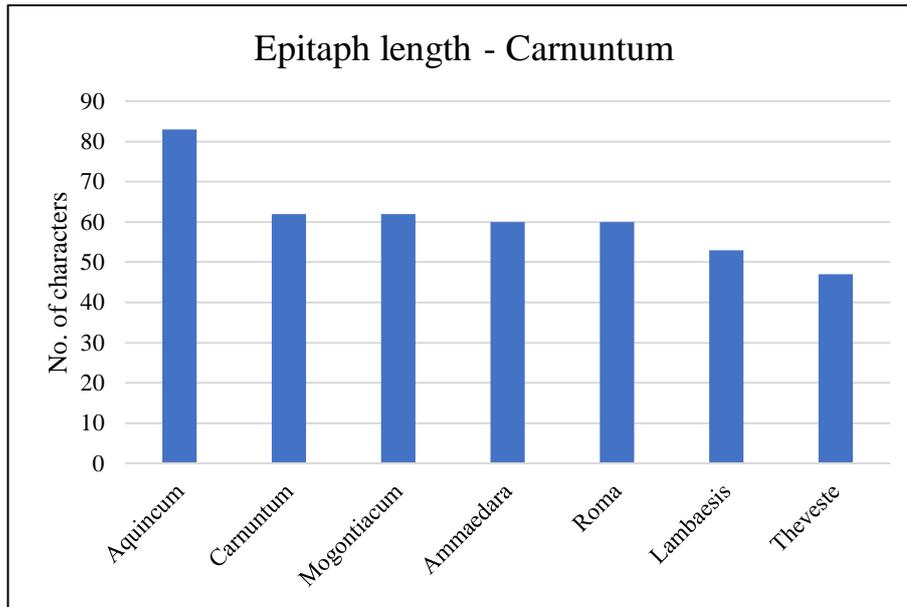
Abbreviation rates at Carnuntum and other military settlements were high when compared to Rome. Only Ammaedara demonstrated an increased rate of using the full version of a formulae (*STTL*) and that is for one that is rare in the African provinces (see Figure 5.19).

Figure 5.19 – Expanded formulae – (Carnuntum, Rome and cities with a military-linked population as a percentage of city total)



If we consider the length of epitaphs in military settlements, Carnuntum had a median character count similar to Rome and the majority of other military settlements (see Figure 5.20). Only Aquincum had a much higher median character count (82), with Lambaesis and Theveste slightly shorter at 53 and 47 respectively.

Figure 5.20 – Length of epitaphs (Carnuntum, Rome and cities with a military-linked population as a percentage of city total)



Discussion and conclusion

The epigraphic signature for Carnuntum consisted of a limited number of expressions that were frequently abbreviated and rarely used together in the same epitaph. The median length of the epitaphs was similar to Rome. If we compare the epigraphic signature with other military cities on, or close to, the frontier, such as Mogontiacum and Aquincum, it is clear that commemorators were using the same formulae (particularly *HSE*), that there was a tradition for abbreviations, and that they all have median lengths longer than the average.

A different picture emerges when we compare the epitaphs in Carnuntum with military cities in the African provinces. Those in Lambaesis, Ammaedara, and Theveste use *DMS* instead of *DM* but, like Carnuntum, these cities had a tradition for abbreviated formulae. The use of *HSE* in these cities is less remarkable since the expression is popular throughout the region. However, rates of use in these cities is lower in Lambaesis and Theveste with only Ammaedara showing a rate of use equal to those on the frontiers. The median length of the inscriptions in these cities is lower than Carnuntum but is higher than usual for cities in the region. Overall, this indicates that military cities in the African provinces had epigraphic signatures that had developed from local and regional practices. There are some elements that are different to local practice and these suggest a

profile reminiscent of a military connection (such as a longer median length). However, the epigraphic signatures have more in common with regional practice than they do with Carnuntum.

By comparing the epigraphic signature of Carnuntum with other cities with a military-linked population, we can conclude that there were certain similarities that linked the epitaphs of these cities. There were some local variations, particularly in terms of which form of the *Dis Manibus* expression was used, but there is a level of consistency in the epitaphs of cities located far from each other, which can only be the result of a shared heritage. This will be discussed further in Chapters 6 and 7.

5.5.5 Thugga (Africa Proconsularis)

The results of this study indicate that there are some cities with close links or geographically close to each other where a common cultural background creates a shared epigraphic signature. For instance, we have already seen this phenomenon in the group of cities associated with Cirta in Numidia, many of which shared an epigraphic signature that is distinct from the wider regional pattern. However, there are other clusters of cities in the African provinces where this shared profile is more apparent. The results of Chapter 4 and the analysis of the regional profile for the African provinces have highlighted a cluster of three cities in Africa Proconsularis with a pattern of epigraphy which is remarkable in its consistency. These cities, Thibursicum Bure, Uchi Maius and Thugga, share many features of their epigraphy. To investigate this further, the city of Thugga is the subject of the next case study.³¹³

Located in a fertile region within 12km of each other, these three cities were originally part of the territory of the more powerful colony Carthage, situated over 100 km away to the north-east.³¹⁴ The original Punic settlement of Thugga came under Roman control after the Carthaginian wars. There is much debate in the literature over the legal identification of these towns as double

³¹³ The modern name for Thugga is Dougga but I have used the ancient name of Thugga throughout this thesis.

³¹⁴ Measured in ArcGIS: Thugga to Uchi Maius is 12km and Thugga to Thibursicum Bure is 5km as the crow flies. The cities were well connected by road in the Roman era.

communities of migrants and Roman citizens and their relationship with larger *colonia* such as Carthage.³¹⁵ However, by 205 CE, Thugga had received the status of a *municipium liberum*, which would have ended the division between these double communities within the city, and united the population, giving them the same civic and legal rights. The surviving inscriptions from Thugga, many of them bilingual (Punic, Greek and Latin) and many still *in situ*, form a remarkable epigraphic collection and an excellent source of evidence for this study.³¹⁶

A shared epigraphic signature amongst closely linked cities, especially one which is almost identical, could be indicative of a pattern transmitted by peripatetic stonemasons. Whilst this study cannot demonstrate direct evidence for this, it can illustrate those cities where a shared profile is so similar that it is unlikely to have developed by chance. Therefore, the intention here is to establish an epigraphic signature for Thugga and to assess how similar it is to those for Thibursicum Bure and Uchi Maius. The epigraphic components can also be compared with those of Carthage. We can then consider if the level of uniformity within these cities is such that it is indicative of diffusion of a pattern from one city to another with a shared administrative background.

We have already seen in Chapter 4 that there was remarkable uniformity in how these three cities use the formula *vixit annos*, but it is important to check how far this consistency extends to other expressions in the study. Figure 5.21 indicates that epitaphs in all three cities included *DMS*, *VA* and *HSE* in very similar proportions. The pattern seen in epitaphs in Carthage and Madauros (a city 130km to the west of Thugga) is similar, although there is also a slight use of *DM* in these cities. Although we have seen cities with similar patterns before, what makes this unusual is the almost total absence of other formulae. Of the 1,567 epitaphs in the study from Thugga, only 6 included *DM* and only 2 included *BM*. This pattern is repeated in other cities close by suggesting that commemorators in these cities were using a specific pattern of commemoration to the

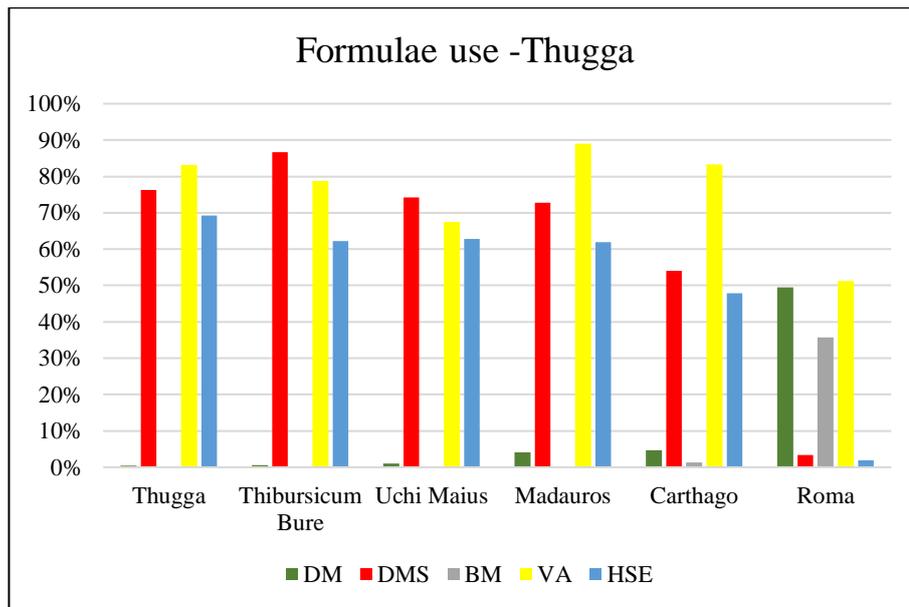
³¹⁵ S Beschouch, 'Le Territoire de Sicca Veneria (El Kef)', *CRAI*, 1981, 105–22; S Beschouch, 'L'histoire Municipale d'Uchi Maius, Ville Africo—Romaine à Double Communauté Civique', *CRAI*, 2002, 1197–1214; Aounallah, *Pagus, Castellum et Civitas: Études d'épigraphie et d'histoire Sur Le Village et La Cité En Afrique Romaine*.

³¹⁶ For a discussion of epitaphs in Thugga, see: Meyer, 'Explaining the Epigraphic Habit in the Roman Empire: The Evidence of Epitaphs'.

exclusion of all others. Epitaphs in Carthage however have an increased likelihood of using other formulae.³¹⁷

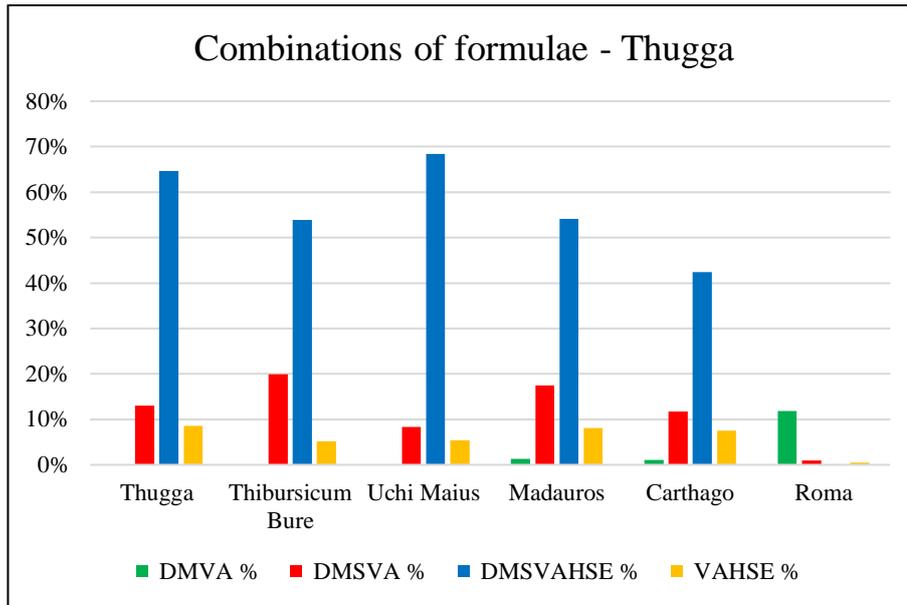
This is also apparent when combinations of formulae are examined see Figure 5.22. This shows that epitaphs in cities close to Thugga has a strong tradition for *DMSVAHSE*. In Thugga, 65% of the 1,139 epitaphs analysed, include all three of these formulae. In Uchi Maius, the rate is 68% of 168, and in Thibursicum Bure, it is 54% of 156 epitaphs.

Figure 5.21 – Formulae use – (Thugga, Rome and cities in Africa Proconsularis as a percentage of city total)



³¹⁷ At Carthage, of 1,935 epitaphs: only 90 include *DM*; 27 *BM*; and 25 *STTL*.

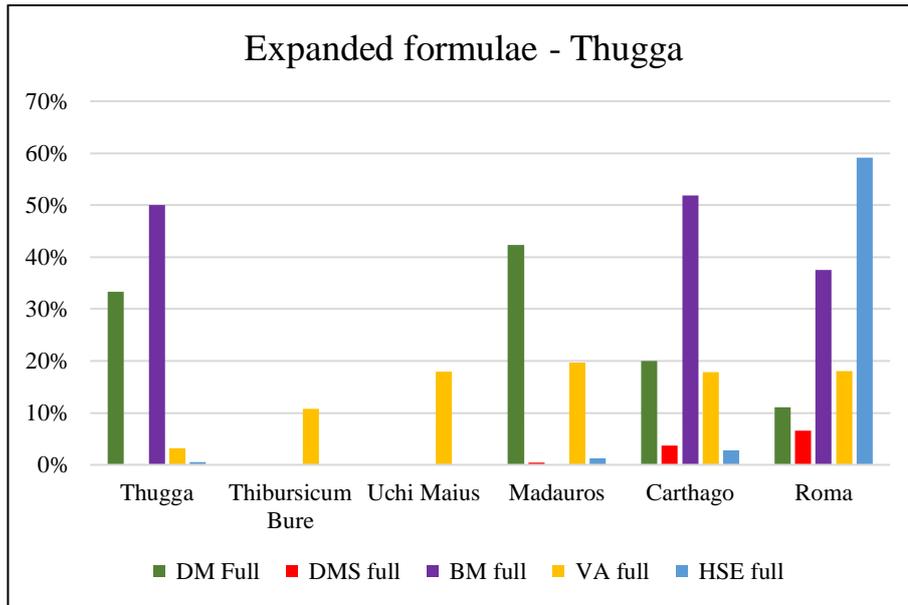
Figure 5.22 – Combinations of formulae (Thugga, Rome and cities in Africa Proconsularis as a percentage of city total)



Abbreviation rates in Thugga were high. Figure 5.23 illustrates that only those expressions unusual in the city were spelled out in full. However, the expression VA has a higher chance of being spelled out in full in all three cities, a common feature of this type of formula.³¹⁸ Interestingly, Carthage indicates a pattern for using abbreviations which is closer to that of Rome.

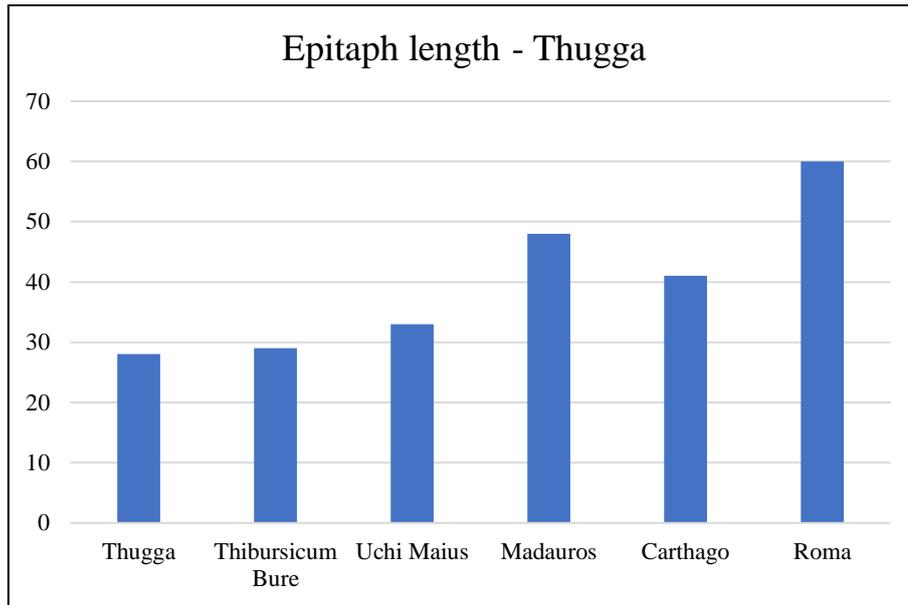
³¹⁸ The results indicate that expressions conveying personal information about the deceased, are more likely to be spelled out in full.

Figure 5.23 – Expanded formulae - (Thugga, Rome and cities in Africa Proconsularis as a percentage of city total)



The overall length of the epitaphs in the cities close to Thugga also shows remarkable consistency. Figure 5.24 indicates that the median character count for all three cities was within the range of 28 to 33 characters, with those at Thugga the shortest with a median character count of 28. Epitaphs from Carthage (41) and Madauros (48) were longer and in the case of Madauros, closer to the lengths found in Rome. A closer look at the inscriptions from Thugga indicates that they consisted mainly of the name of the commemorated, the epithet *pius* or *pia* to denote piety, and three abbreviated formulae (*DMS*, *VA* and *HSE*). This style of commemoration and the use of abbreviations resulted in much shorter epitaphs than those in Rome or Carthage.

Figure 5.24 – Epitaph length – (Thugga, Rome and cities in Africa Proconsularis as a percentage of city total)



Discussion and conclusion

The epigraphic signature of Thugga consisted of a very limited number of formulae that were nearly always abbreviated and nearly always used together in the same epitaph. The use of abbreviations and the limited amount of information the epitaph contained has resulted in shorter epitaphs than those in Carthage and Rome. In effect, the same style was used repeatedly in over two thirds of the epitaphs in Thugga and was also replicated in two cities close by.

This concept of a shared profile raises important questions about the way in which features of an epigraphic signature might have been shared across several cities. A repeated pattern in more than one city could be considered evidence for peripatetic stonemasons and the use of copy books or model texts for the stonecutters to use. I have already stated that there is no direct evidence of this in the data for the current study, but these repeated patterns imply an organisation to the production of epitaphs that cannot be explained by chance. Evidence for this consistency and the use of these repeated patterns will be discussed further in Chapter 6.

There are some elements of this shared epigraphic signature, however, particularly the length of the epitaphs and the use of abbreviations, which were not shared with Carthage. This could be considered a surprising result considering the administrative control which Carthage

exerted over Thugga. There are two reasons which might account for this. Firstly, the administrative control which Carthage exerted over Thugga, may predate the bulk of the epitaphs under consideration. And secondly, the original status of a city may have influenced the development of their epigraphic signature. For instance, settlements such as Thugga, that were not former colonies, may have developed a different epigraphic signature to those, such as Carthage, that were founded as *colonia*. Only a more detailed analysis of the relationship and the epigraphy of these cities can explain these differences.

By comparing the epigraphic signature of Thugga with other cities in Africa Proconsularis, we can conclude that a similar profile linked the epigraphy of these cities. There are some local variations when we compare the epitaphs of Thugga with those of Carthage, but remarkable similarities when they are compared with cities a short distance away. Although this local profile consisted of elements common to the region (such as short epitaphs and use of *DMSVAHSE*) these elements were repeated in large numbers of inscriptions in the commemorations of these three cities. We can conclude, therefore, that Thugga, Uchi Maius and Thibursicum Bure developed a shared local epigraphic signature distinct from that of larger cities in the region, such as Carthage. The diffusion of this local epigraphic signature will be investigated in the next chapter.

5.5.6 Narbo (Gallia Narbonensis)

The results of the study so far have indicated that the commemorative pattern created by epitaphs in the port city Narbo in Gallia Narbonensis are distinct from that of the wider region. Although, as we have already seen, this is not an unusual phenomenon when we are examining the inscriptions of port cities, the epitaphs of Narbo not only include formulae which are rare in the region but they do so in large numbers. For instance, the use of *IFIA* to measure the size of a plot for a tomb, which was rare outside Italy, was included in more than half of all epitaphs in the city. In order to investigate this further, the epigraphic signature for Narbo will be established and features of this will be compared with other cities in the wider region.

Established in 118 BCE as Colonia Narbo Martius, Narbo was the first Roman colony founded outside Italy. Settled by former legionaries from Italy, its location at the intersection of the *Via Domitia* (which linked Italy with Spain) and the *Via Aquitania* (which linked the Mediterranean with the Atlantic) led to its development as a strategically important port city in southern Gaul.

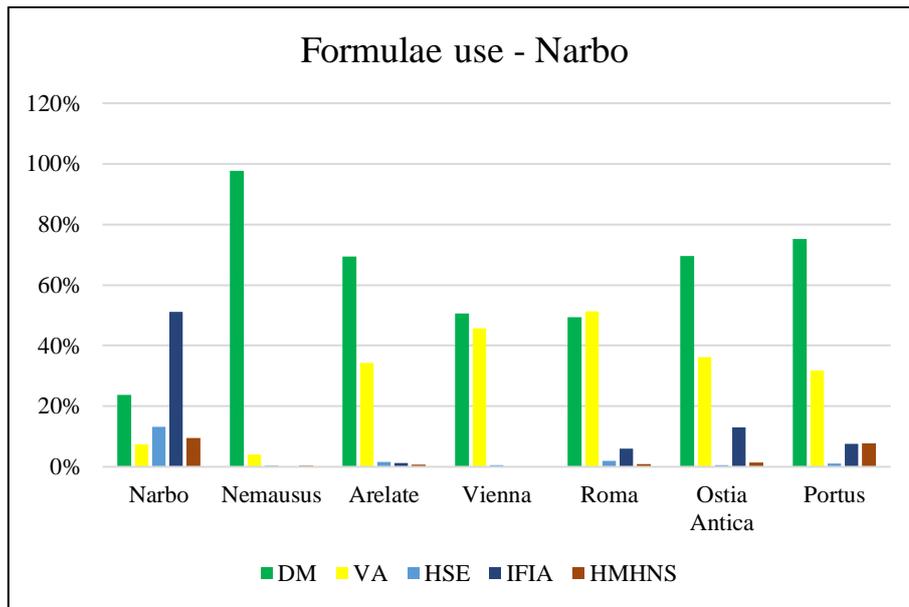
The formulae included in epitaphs in Narbo created a profile for the city that is unlike any other in Gallia Narbonensis (see Figure 5.25). Although included in high numbers in other cities in the region, *Dis Manibus* is found in only 24% of epitaphs. Similarly, the expression *VA* is used widely in Arelate and Vienna but is comparatively rare in Narbo. Epitaphs in the city also include two expressions that are rare or non-existent in the rest of the region: *IFIA*; and *HMHNS*. These expressions were particularly associated with commemorations in Italy and Rome and rarely used in other regions.³¹⁹

The inclusion of *IFIA* and *HMHNS* in commemorations in the city is particularly noticeable. The use of *IFIA* is remarkable, not only because this expression was rare outside Italy, but also because its prevalence in Narbo was high. It was included in over half of all epitaphs in the city, which is surprising when we consider that only three cities had a higher rate and all are in Venetia and Histria, the region of Italy with the highest rate of use.³²⁰ *HMHNS*, an expression also associated with the northern regions of Italy, was used in 9% of epitaphs and, together with *IFIA*, confirms the city had a tradition for expressions which denoted a legal restriction on the tomb.

³¹⁹ The exception to this is the use of *HMHNS* in Barcino (Hispania Citerior) – see Chapter 4.

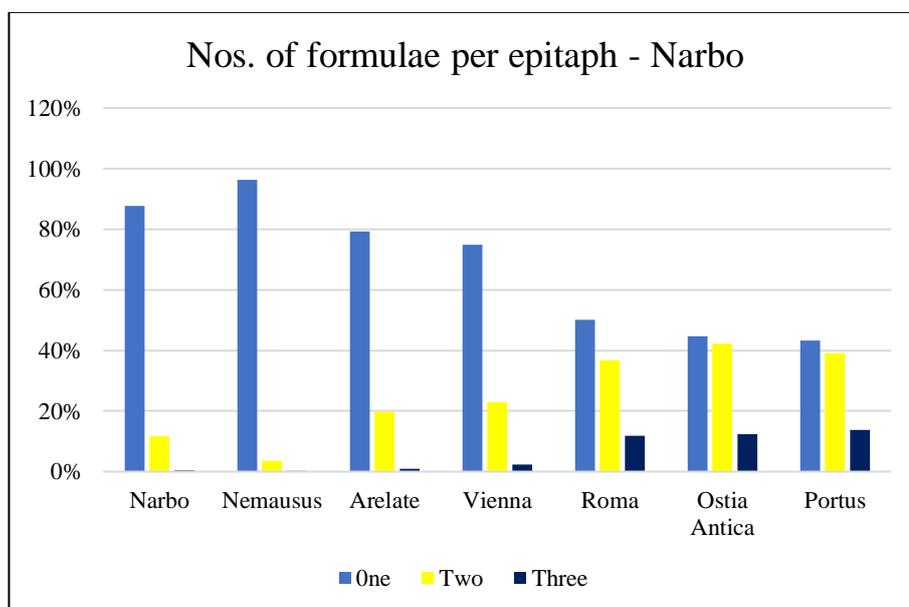
³²⁰ Altinum (76%) Ateste (75%) and Patavium (53%).

Figure 5.25 – Formulae use (Narbo, Rome and cities in Gallia Narbonensis as a percentage of city total)



In terms of how expressions are combined in a single epitaph, the overwhelming tradition was for using one formula (see Figure 5.26). Since over half of all inscriptions include *IFIA*, the desire to mark the area of the plot for the memorial must have dominated the epigraphic landscape of the city.

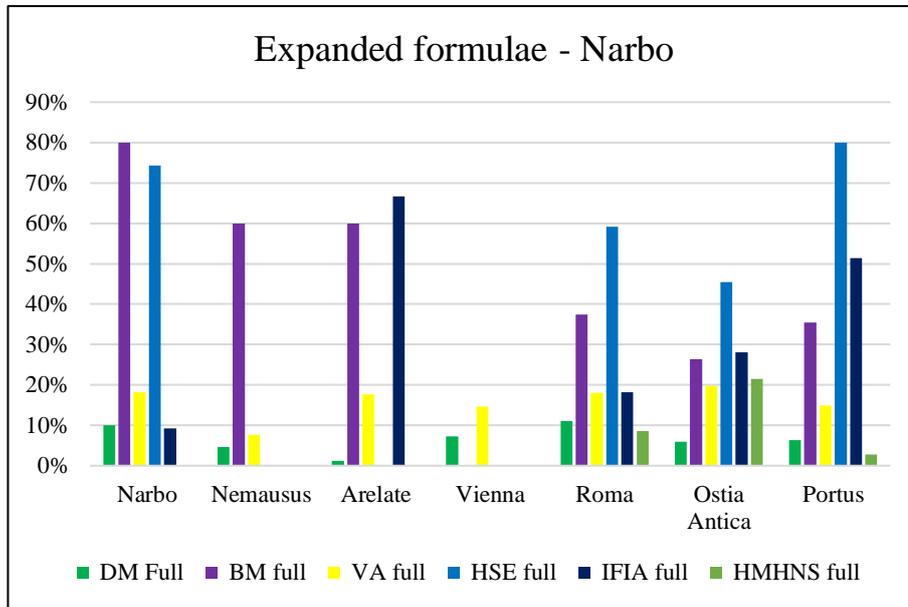
Figure 5.26 – Number of formulae in a single epitaph use (Narbo, Rome and cities in Gallia Narbonensis as a percentage of city total)



Abbreviation rates in the city were high for frequently used formulae such as *IFIA* and low for less frequently used expressions such as *BM* see Figure 5.27. This confirms the pattern

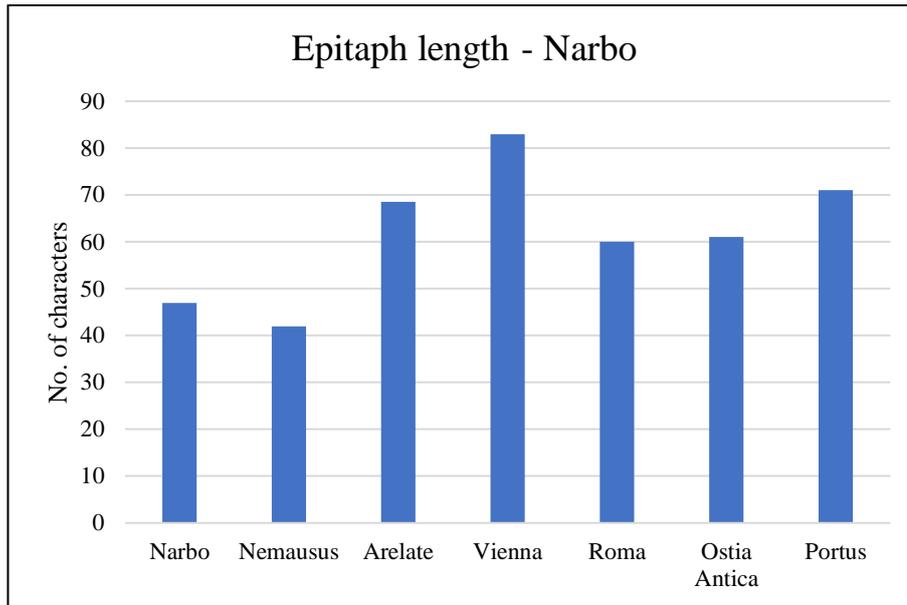
discovered in other case studies where abbreviations were used more frequently when an expression was less well known in the epigraphy of a city.

Figure 5.27 – Expanded formulae - (Narbo, Rome and cities in Gallia Narbonensis as a percentage of city total)



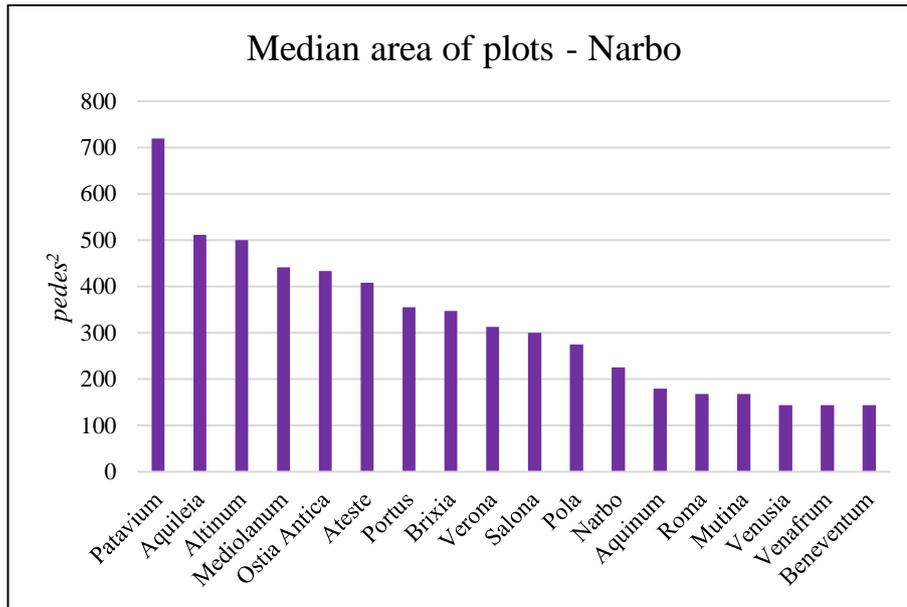
When we consider the median length of the epitaphs in Narbo (47), it is clear that epitaphs in the city were generally shorter than those in most other cities in the region, see Figure 5.28. Only Nemausus had a shorter median length (42), whereas those in Vienne were considerably longer (83). The length of epitaphs in cities to the north of Narbo may be the results of variation in the epigraphic signature of the wider region. The discussion concerning the profile of the epigraphy for the North-Western provinces noted that epitaphs in Lugudunum were some of the longest in the database with a character count of 115. It is possible that the epigraphic signature of Vienne was influenced by styles in the provincial capital of Lugudunensis located 30km to the north rather than by those in other cities in Gallia Narbonensis.

Figure 5.28 – Epitaph length use (Narbo, Rome and cities in Gallia Narbonensis as a percentage of city total)



An analysis of the measurements associated with the use of the formula *IFIA* reveals some interesting data which we can add to the epigraphic signature of the city. Although the expression is used in 150 of the 295 epitaphs in the city, full information for calculating the area of a plot is only available for 37. Figure 5.29 provides data on the median area of these plots. This illustrates that plots in Narbo (225 pedes^2) were larger than those in Rome but smaller than most other cities for which we have data, and that most of these larger plots are in Italy where use of the formula is strongest. In terms of the shape of the plot, the information in Table A7 in the Appendix shows that the commonest shape was $15 \times 15 \text{ pedes}$ which is larger than that in Rome ($12 \times 12 \text{ pedes}$). There is a regularity to the shape of these plots which indicates that measurements of plots were frequently formed of numbers divisible by five or three. These shapes and their regularity will be discussed further in Chapter 6.

Figure 5.29 - Median area of plot sizes (Narbo, Rome and cities in Gallia Narbonensis as a percentage of city total)



Discussion and conclusion

The epigraphic signature of Narbo shows a notable variation from those of other cities in the region. The opening formula *Dis Manibus* is rarely used, perhaps indicating that commemorations opened with the name of the deceased. Unlike other cities in the region, commemorations included expressions popular in Italy and Rome, particularly those that imposed a legal restriction on the monument. The tradition found here for indicating the dimensions of a tomb plot means that the expression *IFIA* was used more frequently than other expressions. The plots described by this expression were likely to be 15 x 15 *pedes*, covering an area of 225 *pedes*². Finally, epitaphs in Narbo were shorter than others in the region.

As a port city, Narbo follows the tradition common to other ports of developing a style of epigraphy distinct from other cities close by. In effect, commemorators in the city were emulating a style of epigraphy popular in Italy. The epigraphic signature is composed almost entirely of global elements with little contribution from the regional profile. However, unlike other port cities, the global elements they chose to use were unusual and suggest a preference for formality and tradition. This formality may relate to the status of the city as an early colony settled by military veterans from Italy.

5.6 Conclusions

The use of formulae in epitaphs was a universal practice and a fundamental characteristic of the epigraphic habit. The analysis presented in this chapter has shown that the way in which these formulae were used can be investigated and measured to create an epigraphic signature for a region or location. These epigraphic signatures demonstrate that communities implemented this ‘global’ practice to create a series of local adaptations rich in their diversity. While some profiles across the regions in the western part of the empire were impacted by patterns in Rome and Italy, it is apparent that those for the Iberian and African provinces developed independently, with little influence from the centre. One surprising result is that commemorations in the North-Western provinces did not appear to have more in common with those in Rome and Italy. This is possibly due to a less vibrant epigraphic culture in the region where there was only a perfunctory habit of inscribing on stone. The analysis has also shown that the Mediterranean islands shared elements of their epigraphic signature with those of mainland regions to which they had close connections. This contrast of a local vibrant culture developing in regions geographically distant from the centre, and ‘stagnation’ in a region much closer, together with the overall dominance of Rome, will be discussed further in Chapter 7.

Overall, the results indicate that epigraphic signatures could comprise both local and global elements. For example, in Cirta and its satellite towns, the local profile was heavily dominated by practices similar to those in Rome and Italy. In the case of Ostia, the results indicate that its major influence came from cities in Rome and Campania, therefore creating a locally influenced epigraphic signature. In Misenum, a unique local epigraphic signature distinct from other cities close by was shared, to some extent, with other port cities in the Mediterranean. At Carnuntum, the epigraphic signature was shared with other frontier cities but also some elements were shared with cities with a military-linked population in other regions. In the case of Narbo, commemorators disregarded the local regional pattern, in favour of a pattern popular in Rome and Italy. Finally, the epigraphic signature of Thugga was shared with cities close by to create a local epigraphic profile,

remarkable for its consistency. This idea of local and global epigraphic signatures will be explored further in Chapter 7.

Having established that there was no single homogenised commemorative pattern across the empire, we need to consider how these patterns were created. We need to understand why some regions had profiles different to the rest of the empire and why some cities created a local profile distinct from the regional pattern. Importantly, we need to evaluate the evidence for globalising forces that might have impacted a regional profile to generate a local adaptation. The analysis presented in this chapter (and Chapter 4) has identified that the type of message and how it was used is, in part, responsible for the regional differences evident in the epigraphic signatures. This will be discussed further in Chapter 7. However, the analysis has also identified a number of globalising cross-regional factors that impacted regional patterns to create a shared adaptation.

The cross-regional factors identified in this chapter all resulted in changes to the profile of a region. For example, a communal group identity, such as that shared by members of the army and the navy, created adaptations discovered in the epigraphic signatures of Carnuntum and Misenum. Moreover, where epigraphic culture in a city is derived from military commemorations, we see that these patterns are adopted by the military and civilians alike. Similarly, the power and influence exerted by Rome over its colonies and by a regional capital over its satellite towns created the pattern of epigraphy seen in Narbo, and in Cirta and satellite towns close by. However, there are some globalising factors apparent in the analysis that require additional investigation. For instance, the impact of migration and mobility on cities such as Ostia, is unclear. Therefore, there is a need to investigate the data in more detail for evidence of migration or travel. Similarly, the almost identical epigraphic signatures of Thugga and cities close by, suggests the involvement of stonemasons in the production of epitaphs. A more thorough analysis of the data for other examples of consistent patterns will help confirm this. Finally, the evidence presented for variation of plot size and shape in Chapter 5 indicates that a tradition for certain measurements could be responsible for the distribution of these shapes. A more thorough analysis of the data will verify this. Without these supplementary analyses it is difficult to formulate firm conclusions regarding

the reasons for this variation in Chapter 7. Therefore, these additional analyses will be presented in Chapter 6.

Chapter 6 – Variation in commemorative patterns - further analysis

Introduction

This chapter presents the results of additional analyses that were designed to interpret the patterns of variation noted in the previous two chapters. A number of themes have dominated the thesis so far, some of which require extra analysis if they are to be credible explanations for the geographic variation demonstrated in this thesis. The results will also provide context for the discussion in the following chapter.

The following three topics have been identified as requiring additional analysis and are the subject of this chapter. First, a more detailed analysis of the impact of migration on patterns of commemoration is required. This is based on the result from Chapter 4 which illustrated that port cities frequently displayed a pattern of epigraphy at variance with the wider region. This idea was investigated further in Chapter 5, as part of the discussion of the epigraphic signature of Ostia, where I considered the impact of migration on the epigraphy of the city. Secondly, I will see if the consistency of words selected for an epitaph in many locations could be the result of word selection by stonemasons. This was indicated for the epigraphic signature of Thugga, which drew attention to the consistency of its epigraphy with that of other cities close by. Finally, I provide a more detailed analysis of plot size, since a cultural preference might have contributed to their distribution.

6.1 Impact of migration and mobility

One of the surprising results of the analysis presented in Chapter 5 was that Ostia's epigraphic signature did not reflect the city's significant migrant community. This is remarkable because archaeological and scientific evidence indicates an ethnically diverse population in this period.³²¹ Instead, the Ostian pattern of epigraphy reflects that of Rome and the wider region. This is in

³²¹ See the epigraphic signature for Ostia in Chapter 5 (Section 5.5.2).

contrast to the data presented for the epigraphic signature of Misenum and other ports, where commemorative forms diverge from those of the region, creating unique local patterns. This suggests that the impact of migration on commemorative patterns is inconsistent and is influenced by other factors. In order to investigate this further, a number of extra analyses of the data are required.

The first step is to assess whether we can measure levels of migration. Epitaphs that include a reference to overseas birth can be checked to see if commemorators were using a commemorative pattern local to the area or importing one from their place of birth. It is not necessary to know exactly where individuals were born; it is more important to assess if their commemorations were representative of the local area or were influenced by commemorative patterns from elsewhere.

There were a number of ways that commemorators could indicate an overseas origin. They could indicate nationality by using ethnic descriptors, such as *Graecus* or *Pannonicus*. Since the variety and quantity of these descriptors would have required a lengthy analysis to identify a complete list of search terms, I excluded these from the analysis. Commemorators also indicated place of birth by using *domo* (home), *cives/civis* (citizen), or *natione* (nationality), followed by a place name or ethnic descriptor. These nouns provided a more straightforward indication of origin overseas and were easier to identify in the database. Interestingly, I found they were not widely used. *Natione* is included in 859 epitaphs, *domo* in 402, and *cives* or *civis* in 174.³²² This shows that an indication of place of birth using these terms appears in only 1% of all inscriptions in the database. Table 6.1 breaks this down according to cities with more than 10 epitaphs marking the deceased's place of origin. I have also included the data for Ostia to demonstrate the infrequency of these terms in the epigraphy of the city.

³²² The text filter search for inscriptions including *natione* was constructed to exclude any that might have included *donatione*.

Table 6.1 – Comparison of terms denoting origin of commemorators by city and type of settlement

City	Province	Type	Number of epitaphs	<i>Natione</i>	<i>Civis or Cives</i>	<i>Domo</i>	Origin noted
Roma	Roma	centre	35,003	389	20	74	483
Ostia Antica	Latium et Campania Regio I	port	1,966	0	1	3	4
Lambaesis	Numidia	military	1,496	2	0	14	16
Salona	Dalmatia	port	1,363	9	2	13	24
Aquileia	Venetia et Histria Regio X	port	1,238	2	3	7	12
Puteoli	Latium et Campania Regio I	port	1,221	25	0	0	25
Lugdunum	Lugdunensis	port	554	12	19	5	36
Misenum	Latium et Campania Regio I	port	379	162	0	1	163
Mogontiacum	Germania superior	military	304	9	6	10	25
Aquincum	Pannonia inferior	military	283	5	0	23	28
Carnuntum	Pannonia superior	military	279	1	1	20	22
Corduba	Baetica	port	262	9	1	0	10
Ravenna	Aemilia Regio VIII	port	241	55	1	3	59
Burdigala	Aquitania	port	206	2	11	0	13
Apulum	Dacia	military	171	0	2	8	10
Intercisa	Pannonia inferior	military	94	2	1	9	12

Despite the low use of these terms, there is significant variation in their distribution.

Figure 6.1 shows that *natione* was used in some port cities on the coast of Italy and in Corduba; *domo* was employed by commemorators in cities with a military-linked population on the north-eastern frontiers, in ports on the Dalmatian coast, and in Lambaesis; and *cives/civis* was used by commemorators in Aquitania and Lugdunensis.

Figure 6.1 – Geographic variation in use of terms to denote place of origin



The most frequently used term was *natione*. This was used almost exclusively in those cities associated with the Roman fleet, such as Rome, Misenum, Puteoli and Ravenna. Interestingly, it was also used in nine epitaphs in Corduba, most of which commemorated gladiators who died in the city. Further analysis reveals that 58% were either associated with the fleet or were military in nature (494 of 859). Of these military epitaphs, 54% also included the formula *bene merenti* (269 of 494).³²³

In summary, very few epitaphs included an indication of the deceased's place of origin. It is clear that the use of *natione* and *domo* to denote origin was associated with communities with a military-linked population. Marking the deceased's nationality appears to be a military tradition found in epitaphs commemorating praetorians and members of the *equites singulares*. The use of *natione* is particularly associated with cities linked to the imperial fleet, is used to commemorate sailors, and is also connected to the use of *bene merenti*. However, the use of *cives/civis* in Gaul is less easy to associate with a particular social group although this could be resolved by a more detailed analysis of these inscriptions at a later date.

³²³ The epitaphs were filtered using a text filter to show those that included *class** (for fleet) or *militav** (for 'served' in the army).

The relative absence of these terms in Ostia indicates that marking nationality in this way did not extend to all Mediterranean ports. Since we already know from the results of Chapter 5 that Ostia's epigraphic signature followed Rome's, it seems likely that the majority of migrants who died in Ostia were commemorated using the traditions of Rome and the local region. There are one or two exceptions worth noting. Of the 56 epitaphs that use the African *DMS* in Ostia and Portus, only two indicate place of birth. Both commemorate individuals originally from Africa.³²⁴ However, as the epigraphic signature for Ostia in Chapter 5 shows, there are few occurrences of regional formulae such as *STTL* and *DMS* in the city's epigraphic record, despite the evidence from other contexts, of an ethnically mixed population. The epigraphic signature is dominated by very traditional patterns that suggests that there was little opportunity for new formulae from overseas to be introduced and absorbed into Ostia's commemorative culture.

The absence of these terms to mark nationality might also be due to a general preference to commemorate migrants using local traditions. Overall, regional epigraphic signatures in Chapter 5 appear to indicate a constant epigraphic tradition. The use of formulae that were popular elsewhere had little impact. Although there are some notable exceptions, for example, in former colonies of Rome and some port cities, overall, the general trend is for stable patterns of commemoration. To investigate further, we need to examine evidence of the introduction of new formulae to an area when people migrate or travel. This can be done by analysing the use of those formulae that indicated a specific region of use in Chapter 4. Their inclusion in epitaphs outside their main area of use could indicate the commemoration of an individual born outside the region. If they are included in a large number of epitaphs, they have the potential of changing the epigraphic signature for the city and possibly the region. Conversely, use in their traditional region, by those from elsewhere, would indicate the acceptance of regional patterns of commemoration.

³²⁴ *D(is) M(anibus) s(acrum) / Vale[ri]us / Veturius / civis Afer colonicus vix/i<t=I annis LXX / me(n)si(bu)s II die(bu)s / VIII - CIL 14, 00481 and D(is) M(anibus) s(acrum) / P(ublius) Caesellius Felix / civis Sullecthinus / vixit ann(os) n(umero) XLVII m(enses) / n(umero) VI Pomponia Lici/nia marito digni/ssimo - CIL 14, 00477.*

The expressions that indicated a specific regional use are *STTL* in the Iberian provinces; *OTBQ* in North Africa; *HMHNS* around Rome and Italy; and *SAD* in Gaul.

The data does not support the theory that inclusion of regional specific formulae, such as *STTL* or *HMHNS*, in an area outside their normal place of use, could be considered evidence of birth overseas. Of particular relevance are examples from epitaphs in the Rhineland cited by Maureen Carroll.³²⁵ She suggested that use of *pia in suis* ('s/he looked after her/his own') together with the more frequent *HSE* and *STTL* to produce *PISHSESTTL*, is virtually non-existent outside Spain. Used together in this way, she proposed that these formulae indicate a Baetican origin for either the commemorator or commemorated.³²⁶ She added that *PIS* (*pius/pia in suis*) is spelled out in full, rather than abbreviated, because it is unfamiliar in the Rhineland. Although she is correct in her assumption that these formulae are used together in Baetica, her evidence to suggest that this indicates a Baetican origin for the deceased is tenuous. The evidence for *PIS* shows that only 35% of instances are abbreviated. All the instances where it is spelled out in full are in the Iberian provinces except the example she cites.³²⁷ Therefore, its use in its expanded form in the Rhineland cannot simply be a result of unfamiliarity.

Carroll provided further evidence by pointing out that the Italian formula *HMHNS* was only used once in both Mainz and Cologne, and that it appeared in epitaphs of people with an Italian origin.³²⁸ Although she made a reasonable assumption based on the naming conventions of the individuals, yet again, the evidence she used is problematic. My analysis indicates that two other inscriptions that include this expression outside Italy commemorated individuals born in Viminacium in Moesia (commemorated in Sarmizegetusa in Dacia) and Cemenelum in Alpes

³²⁵ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

³²⁶ *Euthenia / annor(um) XXXV / pia in suis / h(ic) s(ita) e(st) s(it) t(ibi) t(erra) l(evis) / Gemellus / contuber/nali* - AE 1978, 00572.

³²⁷ 235 out of a total of 362 epitaphs include this formula in full together with *HSESTTL*.

³²⁸ *L(ucio) Poblicio L(uci) f(ilio) Tere(tina) / vetera(no) leg(ionis) V Alauda(e) ex testamento / et Paullae f(iliae) et vivis / [3 coniugi] / [et L(ucio?) Poblicio 3 f(ilio)] / [et libertis] / [L(ucio) Poblici]o Modesto L(ucio) P[oblicio 3] / [h(oc)] m(onumentum) h(eredem) [n(on) s(equetur)]* - AE 1979, 00412; *Dis Manibus Ti(berio) Claudio / Aug(usti) l(iberto) Zosimo proc(uratori) / praegustatorum Imp(eratoris) / Domitiani C[ae]saris / Aug(usti) Germanici h(oc) m(onumentum) h(eredem) n(on) s(equetur)* - AE 1989, 00564.

Maritimae (commemorated in Andetrium, Dalmatia).³²⁹ In effect, Carroll has highlighted one or two examples to prove her point but, in doing so, she creates the impression that common formulae alone provide adequate evidence of place of origin, an assumption not supported by this thesis.³³⁰

Having established that there is little evidence that inclusion of a formula outside its main area of use is an indication of place of birth, we need next to consider whether migrants moving into an area were using local patterns of commemoration. This can be illustrated by examining the epitaphs that record a place of origin to reveal if they are using local styles. For example, 23 Iberian inscriptions include ethnic origin using the indicator *natione*. All represent origins from around the Empire (Thrace, Gaul, Greece, Germany and Syria). The majority of these 23 epitaphs have a very Iberian pattern of commemoration: 11 include *STTL*; 12 also include *annorum*, and 12 include *HSE*. Similar results are revealed when we examine the 21 epitaphs using the indicator *domo*. Of these, 20 include *HSE* and 17 use *annorum* to indicate age. However, only five use *STTL*, although this might reflect overall rates for Hispania Citerior where use of *STTL* is only 20%. Similar patterns can also be detected for other formulae. The formula *sub ascia dedicavit*, local to Gaul, is included in commemorations of individuals from Africa, Asia, Pannonia and Greece. We should bear in mind that the overall numbers of epitaphs discussed here are low, particularly for a database of this size. This is mainly due to the low incidence of ethnic identifiers in the evidence as discussed above. However, they do provide some evidence that local styles of commemoration were being used in commemorations for individuals born overseas.

In summary, this analysis reveals a number of factors associated with commemorative patterns and migration. First, marking nationality is important in a military context but rare for the general population. Second, whilst the importation of formulae from other regions was not unknown, this practice should not be used as evidence of ethnic origin in the absence of other,

³²⁹ *D(is) M(anibus) / C(ai) Iul(i) C(ai) f(ili) Rufi dom(o) Vimin(acio) ann(or)um XX Iul(ia) / Gemellina fratri pientissimo et / M(arco) Aurel(io) M(arci) f(ilio) Maximo mens(ium) VIII / Aurel(ius) Helico et Iul(ia) Gemellin(a) parentes / h(oc) m(onumentum) h(eredem) n(on) s(quetur) - CIL 03, 01524; Ser(vius) Ennius Ser(vi) f(ilius) / Claudia Fuscus / domo Cemeneli / miles coh(ortis) VIII vol(untariorum) / stip(endiorum) XVIII ann(or)um XXXIIX / Fulvia Vitalis v(iva) f(ecit) sibi / et coniugi b(ene) m(erenti) f(ecit?) / h(oc) m(onumentum) h(eredem) n(on) s(quetur) - CIL 03, 09782.*

³³⁰ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

more reliable, indicators. Finally, and most importantly, the majority of commemorations, regardless of the nationality of the deceased, follow local conventions. Commemorators made very little attempt to amend local patterns by introducing new formulae into the established epigraphic signature of a city. This has important implications for the production of epitaphs since it indicates, indirectly, that management of the epigraphic signature for a region lay with the stonemasons rather than the commemorators. A stonemason could control the conventions for a city and wider region through copybooks or manuals, which would be used to create standardised patterns through a region. The evidence for heavily standardised patterns will be discussed in the next section.

6.2 Measuring consistency

As the analysis in Chapters 4 and 5 progressed, and shared patterns were analysed, it became clear that there was a level of consistency in the style and content of the epitaphs that required further explanation. This homogeneity comprised groups of epitaphs sharing an identical structure with the same combination of expressions, thus creating a uniformity that cannot have developed by chance. This sense of ‘sameness’ and ‘conformity’ has also been noted by Maureen Carroll, particularly in cemeteries on Palma and in *columbaria* in Rome.³³¹ My purpose is to assess whether the scale of this uniformity is sufficient evidence to suggest mass production of epitaphs by stonemasons.

Identifying consistency in a group of epitaphs requires an examination of the wording and structure of a group of inscriptions found in a similar location. The first step is to check Chapter 5 for evidence of locations where the same combinations of formulae are used in many inscriptions. There are 10 cities where the use of any combination of formulae exceeds 50% (see Table 6.2 and Table A4 in the Appendix). I will discuss each of these in turn although those used as case studies in Chapter 5 will only be mentioned briefly.

³³¹ Carroll, “‘*Vox Tua Nempe Est*’ Dialogues with the Dead in Roman Funerary Commemoration”, 47.

Table 6.2 – Comparison of epitaph consistency in cities using same combination of formulae in over 50% of epitaphs as a percentage of city total

Place	Province	No. of epitaphs	<i>DMSVA</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>HSESTTL</i>	<i>OTHER</i>
Bulla Regia	Africa Pr.	141	25%	52%	10%	0%	13%
Djebel Djelloud	Africa Pr.	129	58%	13%	5%	0%	23%
Madauros	Africa Pr.	521	17%	54%	8%	0%	20%
Nattabutes	Africa Pr.	147	5%	22%	61%	0%	12%
Thaenae	Africa Pr.	106	58%	3%	0%	0%	39%
Thibursicum Bure	Africa Pr.	156	20%	54%	5%	0%	21%
Thugga	Africa Pr.	1,139	13%	65%	9%	0%	14%
Uchi Maius	Africa Pr.	168	8%	68%	5%	0%	18%
Gades	Baetica	368	1%	0%	0%	50%	49%
Auzia	Mauretania C.	149	70%	1%	0%	0%	28%
Thibilis	Numidia	994	7%	21%	53%	0%	19%

Consistent patterns of epigraphy seem to be most prevalent in the African provinces.

Seven cities have an epigraphic signature where more than 50% of inscriptions follow a consistent pattern. Chapter 5 showed that four cities in Africa Proconsularis used *DMSVAHSE* in high percentages Thugga (65%), Uchi Maius (68%), Madauros (54%) and Thibursicum Bure (54%).³³² Other cities in the region that followed the pattern are Bulla Regia which uses *DMSVAHSE* at a rate of 52%, and Nattabutes and Thibilis, both of which used *VAHSE* at the rates of 61% and 53% respectively. Other cities in the region that had consistent wording, were those closely associated with Cirta. It should be noted that in these cities, the percentages were lower, ranging from 15% - 30% for *DMVA*, *DMVAHSE* or *VAHSE*.

Evidence for consistency in the rest of the Roman world is less apparent. Only a few locations demonstrate the high levels of consistency seen in the African provinces. For example, in Gades (Baetica), 50% of the inscriptions included *HSESTTL*. The wording of many of these

³³² See Chapter 5, section 5.5.5.

follows the same pattern of name of deceased; the inclusion of *cara suis* ('dear to her own' on a commemoration to a woman); statement of age using *annorum*; and then the formulae *HSESTTL*. Closer to Rome, epitaphs in Misenum show a similar level of conformity.³³³ Here, 48% of commemorations include exactly the same combination of formulae *DMBMVA*. A closer examination reveals that, in addition to *DM* and *VA*, over half also include *militavit* (recording military service in years) and *natione* to indicate place of birth. They also include the name of the commemorator and end with *bene merenti fecit* or *fecerunt*. Epitaphs with a similar construction are also found in Ravenna, although the final wording here is *bene merenti ponendum curavit*, which states that the heir 'took care to set [the memorial] up' to the deceased.

These results demonstrate that while high levels of consistency (for example, above 50% of inscriptions) can be detected, examples are not evenly spread around the empire. Most are centred in the African provinces, particularly Africa Proconsularis. High levels can also be detected in cities associated with the imperial navy, suggesting that some patterns are locally generated and remain within the region, whereas others, whilst also locally generated, can be globalised through a shared group identity such as that which links members of the fleet.

These results are significant. They indicate that some commemorators were producing epigraphy that was accessible and understandable. A large number of inscriptions using the same structure would have been easy to interpret once the basic meaning of each element was understood. This is particularly true of epitaphs in Africa Proconsularis, Misenum, and Ravenna. Consistency in locations associated with the fleet would have also marked these epitaphs as military-related inscriptions. This high level of uniformity also lends support to the argument of mass production and the use of stonemasons' copybooks. Consistency in cities associated with the fleet may also indicate a group of peripatetic stonemasons. Although confirmation of these similarities requires additional research into the physical appearance of the monuments, the evidence on the wording alone points to content selection based on local practice and advice. The

³³³ See Chapter 5, section 5.5.3.

epitaphs of Africa Proconsularis, Gades, and Misenum would provide an ideal body of data for a follow-up project.

6.3 Cultural preference for plot size and measurements

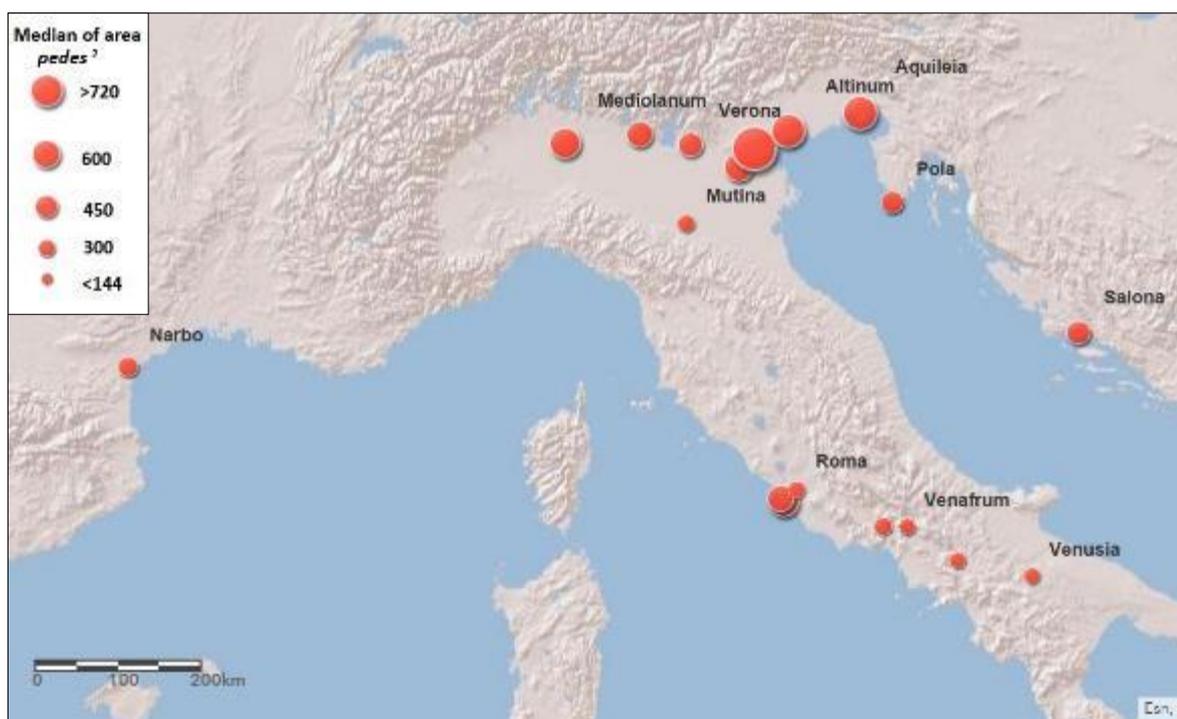
Chapter 5's analysis of plot size demonstrated the repeated use of certain measurements across all locations where the formula *IFIA* is used.³³⁴ These dimensions relate to proportional preferences discussed by Vitruvius, and similar proportions have been detected in buildings across the empire.³³⁵ The following analysis will determine if the sizes conform to general preferences for particular measurements found in other architectural contexts.

In fronte in agro is the only expression that is used to record extra information about the size and shape of a tomb plot. Used to define the width of the plot along the road (*in fronte*) and the depth of the plot away from the road (*in agro*), the formula records specific dimensions in *pedes* (feet) for the plot of land where a tomb or burial plot was located. Chapter 4 revealed that use of the expression is restricted to certain areas (mainly Rome and northern Italy), whereas Chapter 5 showed that there was geographic variation in the size and shape of funerary plots recorded by the expression. Figure 6.2 illustrates that plot sizes as recorded by the expression were generally larger in northern Italy than in Rome. For example, the plots in Aquileia (512 *pedes*²) were, in general, three times larger than those in Rome (168 *pedes*²). However, when we examine the measurements and shapes of these plots, we find a level of uniformity that suggests they conformed to certain values and forms. Therefore, although the sizes might have varied, there was also standardisation.

³³⁴ Table A7 in the Appendix presents median and average measurements and areas for those cities where *IFIA* is used to record tomb dimensions.

³³⁵ Vitruvius *De Architectura* Book III Chapter 1. See also: Mark Wilson Jones, *Principles of Roman Architecture* (New Haven, Connecticut: Yale University Press, 2000), 74ff.

Figure 6.2 – Distribution and comparison of median area of plot sizes (*pedes*²) as recorded in *IFIA*



As far as I am aware, this standardisation has never been analysed. Previous scholars have referred to the preponderance of certain sizes and these were all noted by Maureen Carroll in 2006.³³⁶ She cited studies that suggest that around 66% of plots measured between 10 and 20 *pedes* on one of their sides in Rome. Furthermore, the measurement 16 *pedes* was a common measurement in Aquileia in northern Italy and widths in Cordoba measured between 10 and 14 *pedes* and depths of 12 *pedes* were common. Her own studies of epitaphs in Narbo indicated that 15 *pedes* was a common measurement.³³⁷ In effect, there are a number of studies, mainly of individual sites, which have all noted the dimensions of tomb plots as recorded by the formula, but these have never been analysed as a group to assess similarities and differences.

This analysis was restricted to the 3,750 epitaphs in the study where a record of both measurements still survives. These inscriptions represent 384 cities where the formula is used. In terms of *in fronte*, 124 different measurements are recorded from 1 to 750. Twenty-five per cent of these are multiples of 6, 10 or 16 (e.g. 10, 12, 16, 20, 24, 30, 32) For *in agro*, 133 different

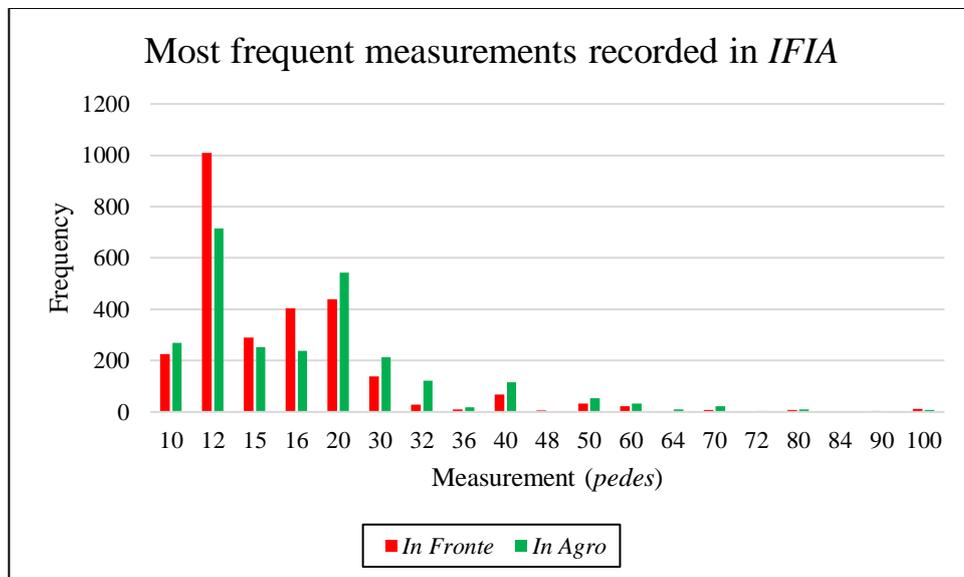
³³⁶ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 100.

³³⁷ *Ibid*, 100.

numbers from 1 to 500 are recorded and 21% are multiples of 6, 10 or 12. Half numbers are frequently recorded in both directions, suggesting that surveyors required a degree of accuracy. Many of these recorded measurements indicate a consistency and regularity to recorded plots that requires further explanation.

My analysis shows that there was a preponderance of plots of certain dimensions and shapes. The same sizes and shapes were often repeated, the most frequent of which are recorded in Figure 6.3. Despite this regularity, there were also some unusual measurements and sizes. For example, an epitaph from Rome records a plot measuring 74.5 x 93.5 *pedes*, a size and shape restricted presumably by the shape of the land available.³³⁸

Figure 6.3 – Common measurements of plots recorded in *IFIA*



It is clear that the high frequency numbers are all multiples of 6, 10 and 16, numbers that had a particular relevance to builders and architects. In his discussion of the planning of temples, Vitruvius explained how the symmetry of a temple should be based on the proportions of the human body.³³⁹ He made particular reference to the significance of the numbers 10 and 6, and that they combine to make the perfect number, 16.³⁴⁰ The numbers 6, 10 and 16 and their multiples

³³⁸ *CIL* 06, 38585.

³³⁹ Vitruvius, *De Architectura* Book III Chapter 1.

³⁴⁰ Vitruvius, *De Architectura* Book III Chapter 1, sentence 8.

represented proportion and symmetry and were used as the leading measure in many buildings in and around Rome.

The importance of these numbers to architects and surveyors can also be detected in the plans of many buildings. In his analysis of architectural measurements of buildings in central Rome, Mark Wilson Jones noted that there was a preponderance of certain proportions and numbers.³⁴¹ Measurements recording whole numbers, multiples of 10 or 12 and, to some extent, multiples of 16, were associated with virtually all 26 buildings discussed in his study.³⁴² Notable examples are the Mausoleum of Augustus (width of base exterior 300 *pedes*) and the Tomb of the Plautii (width of podium exterior 80 *pedes*).³⁴³ Units of 50, 60, and 100 were especially popular. He also noted that these principles applied to buildings in other parts of the empire and cites the examples of the 10-foot wide tower at Mactar in North Africa and the one in Glanum in Gaul with ‘its 20, 25 and 10 *pedes* wide tiers’.³⁴⁴ He proposed that the frequency of these particular numbers could not have arisen by chance, but must have represented an architect’s desire to conform to an ideal standard of design.³⁴⁵

Obviously, these same principles guided those responsible for marking out property for funerary structures. Land surveyors were responsible for marking out a plot of land for a tomb and would have followed the same process and rules used by those in control of centuriation (the division of land into square or rectangular blocks).³⁴⁶ They used a ‘simple dimensional system’ influenced by the proportion and symmetry found in the design of major public buildings.³⁴⁷ Furthermore, Wilson Jones noted that measurements of plots recorded in epitaphs from Aquileia were not approximations but were reasonably accurate.³⁴⁸ These principles of symmetry and the

³⁴¹ Wilson Jones, *Principles of Roman Architecture*, 74-84.

³⁴² Interestingly, many of these buildings are tombs e.g. Cestius’ Pyramid, the tomb of Munatius Plancus and the tomb of Caecilia Metella.

³⁴³ For a full list of significant measurements from buildings, see: Wilson Jones, *Principles of Roman Architecture*, 79.

³⁴⁴ *Ibid*, 79.

³⁴⁵ *Ibid*, 79.

³⁴⁶ *Ibid*, 83.

³⁴⁷ *Ibid*, 83.

³⁴⁸ My own measurements of tomb plots taken in November 2015 confirm that the dimensions recorded in the epitaphs at Ostia were also accurate.

simple dimensional system employed by the surveyors resulted in the prevalence of plots of particular frontage to depth ratios.

The data recorded in Table 6.3 presents an analysis of the 3,750 epitaphs in this study where a record of both measurements survive. The results indicate that the dimensions of the most frequent shapes are all multiples of 6, 10 or 16. In terms of ratio type, square-shaped plots are the most frequent, particularly in Rome. Tombs in Aquileia are more likely to have a frontage measurement of 16 *pedes*, whereas those in Ostia tend to be multiples of 5 or 10. However, this regularity does not preclude more irregular shapes, such as 8 x 7 or 14 x 17 *pedes*. However, since these are recorded only once or twice, they were perhaps determined by the availability of land rather than cultural preference.

Table 6.3 – Plot size, shape and ratio type with areas of main use as a percentage of total sample

Shape (<i>pedes</i> ²)	Ratio Type	Number of epitaphs	Percentage of total (n = 3,750)	Main Use
12 x 12	square	380	10%	Rome
20 x 20	square	119	3%	Rome
12 x 20	3 to 5	95	3%	Rome
10 x 10	square	75	2%	Rome
15 x 15	square	74	2%	Rome and Narbo
16 x 32	1 to 2	72	2%	Aquileia
12 x 16	3 to 4	70	2%	Rome
12 x 10	3 to 2.5	69	2%	Rome and Larinum
12 x 14	3 to 3.5	55	1%	Rome and Mutina
16 x 16	square	54	1%	Aquileia and Rome
20 x 30	2 to 3	52	1%	Altinum
16 x 20	4 to 5	52	1%	Aquileia
20 x 25	4 to 5	52	1%	Rome and Ostia
16 x 12	4 to 3	50	1%	Altinum

In terms of the distribution of shapes, Table 6.4 sets out the rates for the most popular plot shapes in the top ten cities for which we have data. The most popular shapes and sizes in Rome, Ostia, and cities in the north of Italy account for a low percentage of their total, indicating a wide range of plot shapes. In contrast, there is more consistency in cities distant from Rome. 80% of plots in Venusia and 43% of plots in Narbo have the same size. Chapter 7 will discuss the implications of this for land management in Italy.

Table 6.4 – Comparison of most popular plot shapes as a percentage of total plots for each city

Place	Province	Number of epitaphs	Popular Shape	Frequency	Percentage
Venusia	Apulia et Calabria Regio II	45	12 x 12	36	80%
Narbo	Gallia Narbonensis	37	15 x 15	16	43%
Mutina	Aemilia Regio VIII	45	12 x 14	10	22%
Aquileia	Venetia et Histria Regio X	370	16 x 32	70	19%
Altinum	Venetia et Histria Regio X	73	20 x 30	11	15%
Roma	Rome	1,607	12 x 12	200	12%
Ostia Antica	Latium et Campania	154	20 x 25	17	11%
Pola	Venetia et Histria Regio X	45	12 x 12	4	9%
Mediolanum	Transpadana Regio XI	40	15 x 18	3	8%
Patavium	Venetia et Histria Regio X	46	20 x 25	3	7%

6.4 Conclusions

This chapter has presented the results of a number of analyses that will inform the discussion in the following chapter. These analyses cut across individual formulae and regions and underpin the reasons for convergence and divergence of commemorative patterns.

The results indicate that local epigraphic signatures could be shaped and amended by external factors. They demonstrate that the epigraphic habit was characterised by stable patterns of commemoration and that formulae imported from overseas, as a consequence of migration and mobility, had very little impact on local patterns. Having quantified the evidence for consistency in epigraphic patterns, I have suggested that stonemasons played a significant role in determining the appearance of the epigraphic landscape. The consistency demonstrated in the results is not a consequence of free choice by commemorators, rather it suggests control and management of epigraphic signatures by those responsible for the trade in epitaphs. It also presents evidence to show that cultural preferences for particular measurements and proportions associated with the plot of a funerary monument, were derived from architectural practice.

These results have important implications for how we interpret epitaphic patterns. They indicate that patterns are not just determined by local and regional preference. They also provide evidence that epigraphic signatures are not simply the result of the influence of one place over another. Amendments and adaptations could also be the consequence of the external cross-regional factors illustrated in this thesis. This chapter also demonstrate the versatility of the methodology that supports this thesis. They show how it can be adapted to investigate cross regional patterns to produce robust results that inform the overall outcomes of the study.

Chapter 7 – Explaining geographic patterns in funerary commemoration

Introduction

By analysing the common formulae that were used across the Roman Empire between first century BCE and fifth century CE, Chapters 4 and 5 have illustrated significant variation in where and how expressions were used. Furthermore, the creation of epigraphic signatures has been used to highlight the characteristics that define the epigraphy of regions and cities across the Roman world. These results have highlighted a global epigraphic culture that was both rich in diversity and yet also surprisingly uniform in some areas. They have also revealed that Rome's influence on provincial epigraphy did not extend to all parts of the Roman world. Indeed, some regions had an epigraphic profile that was significantly different to that found in Rome and Italy. The results have also illustrated that there was no single cause for this diversity or uniformity. Rather, a number of different factors, including the impact of migration, the presence of the military and specific regional traditions for a formula or abbreviation, all affected the way in which inscriptions were formed.

The purpose of this chapter is twofold. First, it identifies and discusses each of the factors that influenced patterns of epigraphy across the empire. Secondly, it considers what this spatial variation indicates with regard to the global and the local influences on epigraphic patterns across the Roman world. I argue that the epigraphic culture of the Roman world was characterised by local cultural patterns. In fact, the 'power and influence' of the imperial centre was not all-encompassing. Rome only had a local influence on surrounding areas and on cities that were its former colonies. I argue that Rome's 'power and influence' only extended to cities and regions that were culturally or geographically close. It is for this reason that some regions, especially those on the peripheries, such as the Iberian and African provinces, were able to develop their own epigraphic habits independent of Rome. The evidence points to an epigraphic culture that was far from monolithic. It was not the product of a single point of origin; rather, it was an epigraphic

culture that evolved in many locations, creating commemorations that adapted to local habits and conditions.

In order to demonstrate the local nature of epigraphic habits, this chapter first discusses the formulae used across the empire. Analysis of the results from Chapters 4, 5, and 6 indicate that only two formulae, *Dis Manibus (DM)* and *Vixit Annos (VA)*, are truly ‘global’. Other messages have a more localised use. In particular, the examples of the Iberian and African provinces exemplify distinct epigraphic habits that are in contrast to the centre of the empire. This is explored further when we examine how formulae were combined, and how these abbreviations varied across the Roman world. This examination of epigraphic content and characteristics is followed by a discussion of how ‘Globalising Forces’ such as migration, stonemasonry, and the collective identity of those in the military enabled the creation of distinct epigraphic signatures within a region. In particular, I explore the idiosyncratic patterns of commemoration in port cities, military cities, and satellite cities in the provinces.

This chapter, therefore, provides an in-depth analysis of epitaphs across the Roman world. It demonstrates that the emphasis placed on epitaphs from Rome and northern Italy within current scholarship does not represent patterns across other Roman provinces. We must acknowledge spatial variation and not assume that Rome’s ‘power and influence’ was overarching. In fact, I argue that epigraphic habits across the Empire were ‘local’ rather than ‘global’, with great variation both across and within provinces. The conclusion discusses whether the epigraphic evidence provided in this thesis ‘decentres’ Rome and northern Italy from the rest of the Roman world and, in fact, points to the existence of an empire with more than one centre of influence.

7.1 Local and global expressions

As standardised elements of an epitaph, the formulae included in the wording of these inscriptions are central to a discussion of geographic variation in epigraphic patterns. By analysing their spatial distribution and assigning epigraphic signatures to cities, regions, and provinces, Chapters 4 and 5

have demonstrated major variation in the formulae found in epitaphs. Indeed, the fact that ‘epigraphic signatures’ have been deemed necessary to analyse commemorative habits, underlines the significance of their spatial variation.

In this section, I argue that Rome had a significant local influence that affected the formulae used in some cities and provinces surrounding the centre of the empire. However, Rome’s influence was not extensive. The Iberian and African provinces are used as an example of regions that developed their own epigraphic cultures, with very little similarity to those of the centre of the Roman world. In fact, only two formulae, *DM* and *VA* can be defined as global terms which were used throughout all Roman provinces.

In order to demonstrate that the content of an epitaph was frequently regional, this section first assesses why *DM* and *VA* can be defined as the only global formulae. This is followed by an evaluation of Rome’s ‘local’ influence on the epitaphs of cities in Italy and on former colonies of Rome as well as a discussion of the development of distinct epigraphic practices in the Iberian and African provinces.

7.1.1 Global formulae

The results presented in Chapter 4 demonstrate that some formulae had a universal appeal whereas others had a more restricted or local use. When a formula had universal appeal, it means that these formulae were used in most regions where commemorations were set up. Those with a restricted or local appeal were either limited to a local region or to small parts of several regions. In this sense, those formulae that can be considered ‘global’ are *Dis Manibus* (together with the variant *Dis Manibus Sacrum*) and *vixit annos*. Those with a more ‘local’ use are *bene merenti; plus minus; hic situs (sita)est; libertis libertabusque posterisque eorum; hoc monumentum heredem non sequetur; locus monumenti; sub ascia dedicavit (dedicaverunt); in fronte in agro; sit tibi terra levis* and *ossa tibi bene quiescant*. The results of Chapter 4 therefore reveal that only two expressions were accepted components of commemorations in all regions in the study and are therefore the only ‘global’ formulae in the study.

The universal appeal of the ritual expressions *Dis Manibus* and *Dis Manibus Sacrum* created the most recognisable formula in this study. Although the results presented in Chapter 4 (Section 4.2.1) show that these two expressions were regionally distributed, their combined range of use extends to all parts of the Roman world. Although pagan in origin, the appearance of *Dis Manibus* and *Dis Manibus Sacrum* in Christian commemorations and a seventh-century epitaph in Volubilis, suggests that their original intention as an address to the *Manes* had been altered from a ritual meaning to one that simply denoted a funerary inscription. Frequently abbreviated to *DM* or *DMS*, they had become, as Woolf has suggested, a ‘quasi-pictograph’, readily understood by populations throughout the empire as a message indicating a tombstone.³⁴⁹ This adaptation of the expression’s original intention, marking the tomb as a *res sacra*, defines it as a ‘global’ formula in this study.

The concept of recording the number of years lived, in the form of the expression *vixit annos* (*VA*), also has a ‘global’ appeal. The results presented in Chapter 4, (Section 4.2.2), show that it is used extensively throughout the Roman world. Despite the tradition for using the alternative *annorum* to denote age in the Iberian provinces, *VA* still has a presence in the epigraphic signature of the region. A statement of age is an essential component of how the dead were memorialised in the Roman world since it added definitive information about the deceased to create a permanent record of their life. In an age when an accurate date of birth might have been difficult to establish and therefore record, a statement on the number of years lived, emphasised an individual’s identity and created a link between that person and their tomb. The desire to create this type of permanent record of the deceased as a link to their life, led to the widespread adoption of *vixit annos* as a personal identifier and its characterisation as a ‘global’ formula in this thesis.

Despite the global appeal of these two expressions and their relevance in funerary commemorations, the pattern each produced reveals a difference in how their messages were perceived. The addition of age to an epitaph using *vixit annos* was an ‘optional’ expression due to the widespread use of *annorum* in the Iberian provinces. The concept of recording age as the

³⁴⁹ Woolf, ‘Monumental Writing and the Expansion of Roman Society in the Early Empire’, 28.

number of years lived was universal but the way it was expressed could vary. This suggests that although adding the age of the deceased was an important element, its inclusion in a fixed style was not mandatory. The use of the ritual formula, *Dis Manibus* (with or without the addition of *sacrum*), however, was a universal concept, which created a global pattern that transcended geographical and political boundaries. In the case of this ritual formula, there was no substitution. The desire to mark the tomb as sacred in a single universal manner was embraced by commemorators throughout the Roman world. Its presence pervaded the funerary landscape, making it the most recognisable of all formulae in this thesis.

7.1.2 Rome and its local influence

To demonstrate the importance of regional patterns of epigraphy across the empire, Rome's 'local' influence will now be discussed. I will identify groups of formulae and regions that mimicked the epigraphic pattern found at the imperial centre. This discussion establishes a well-founded relationship between Rome and regions that were either geographically or culturally close. As a result, it becomes clear that Rome's epigraphic authority was 'local'. It only extended to nearby regions or its former colonies whose historical links to Rome embedded 'Italian' epigraphic traditions within their society.

Restrictions on the tomb

The results articulated in Chapters 4 and 5 indicate that expressions categorised as 'restrictions on the tomb' (*libertis libertabusque posterisque eorum, hic monumentum heredem non sequetur, and in fronte in agro,*) were local formulae, used mainly in Rome and northern Italy. Although popular in the centre of the empire, these expressions were rarely used in the provinces, supporting the view that Rome's influence only extended to those cities geographically or culturally close to the centre of the empire. The only provincial cities that had a tradition of using these formulae were those that had cultural ties to Rome, as former colonies. Unlike other expressions in this thesis, many of which relate to the deceased, restrictions on the tomb had a very specific purpose, relating to ownership and property, and seemingly had very little to do with the death of an individual. Each

of these expressions placed a ‘restriction’ on who could use the tomb, who owned the tomb or the size of the plot on which the tomb was situated. These commemorative expressions were mainly concentrated in cities close to Rome and, apart from some ports in Hispania Citerior and Gallia Narbonensis, were rarely used in the provinces.

The popularity of these expressions, localised to the region around Rome, requires further explanation. This study indicates that expressions such as *IFIA* were frequently used in those areas where land costs were traditionally high. By using the formula to define the limits of a plot purchased for the tomb, commemorators were not only marking the plot as sacred but also making a clear statement about their land ownership and, by extension, wealth. Edward Champlin and Nadine Brundrett have shown that Rome and those areas considered part of its *suburbium* contained some of the most expensive land in the Roman empire.³⁵⁰ The city and its surroundings attracted the wealthy elite and the resulting pressure for space pushed land values even higher.³⁵¹ Indeed, the price of land across Italy increased in the second century CE after Trajan insisted that candidates for senatorial office should have at least one third of their property based in Italy.³⁵² The resulting increased cost of land and the demand for premium plots resulted in frequent disputes over land ownership.³⁵³ By defining the limits of a parcel of land and by recording its exact dimensions, commemorators were hoping to avoid any future disputes over tenure.

Although used in Rome in large numbers, these expressions are more strongly associated with the epigraphic signatures of cities in northern Italy. This was an unexpected finding since scholars have always associated these legal formulae with Rome’s epigraphy, based simply on their frequency in the city’s epigraphic record.³⁵⁴ However, their popularity in northern Italian cities and

³⁵⁰ Edward J Champlin, ‘The *Suburbium* of Rome’, *American Journal of Ancient History* 7 (1982): 97–117; Brundrett, ‘Roman Tomb Gardens: The Construction of Sacred Commemorative Landscapes’, 62.

³⁵¹ Champlin, ‘The *Suburbium* of Rome’, 102.

³⁵² Pliny, *Epistles* 6, 19.

³⁵³ Boundary disputes were common in the Roman world and referred to by Frontinus in his *De Arte Mensoria*. See: Brian Campbell, *The Writings of the Roman Land Surveyors: Introduction, Text, Translation and Commentary* (London: Society for the Promotion of Roman Studies, 2000).

³⁵⁴ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

some provincial former colonies of Rome can be explained by considering the nature of these settlements.

The use of expressions denoting a restriction on the tomb in Italian cities such as Aquileia and Verona (Venetia and Histria), which were former colonies of Rome in northern Italy, points to the adoption of an epigraphic habit found in Rome. The data presented in Chapter 4 (Section 4.2.4) and Table A1 in the Appendix confirms that these formulae were a significant element of these cities' epigraphic signatures, particularly in those that were founded as colonies in the first century BCE. This indicates that Rome's influence was strongest on those cities with a formal tie to the centre of the empire.

Similarly, the use of restrictions on the tomb (formulae such as *IFIA* and *HMHNS*) in some ports around the Mediterranean can also be attributed to their cultural connection with Rome. As former colonies of Rome, the epigraphic signatures of cities such as Narbo in Gallia Narbonensis were drastically different to the epigraphic habits of the wider region. For instance, despite the limited use of these formulae across the rest of Gaul, commemorations in Narbo demonstrate a high prevalence of *IFIA* and *HMHNS*. Emulating a tradition for legal expressions that were found almost exclusively in Italy, Narbo's use of *IFIA* and *HMHNS* can only be attributed to its status as a former colony. This is a pattern found in other former colonies too. Barcino (Hispania Citerior), a city colonised by Rome in 15-10 BCE, also demonstrated a tradition for the Italian-style restrictions on the tomb. In both cases, the use of legal terms such as *IFIA* and *HMHNS* was in direct contrast to the regional epigraphic signature surrounding them. Instead, their cultural and historical connection to Rome, dictated their epigraphic choice.

Since many former colonies of Rome had been settled by military veterans, who were given a measured plot of land in reward for their service, it suggests that a practice they had experienced in their lifetime was imitated on their commemorations after death.³⁵⁵ Measuring plots

³⁵⁵ For the assignment of plots of land to veterans, see: Lawrence Keppie, *The Making of the Roman Army: From Republic to Empire* (London: Routledge, 1998); Lawrence Keppie, *Colonisation and Veteran Settlement in Italy, 47-14 BC*. (London: British School at Rome, 1983).

of land in this way, either for rewarding military service or for defining the extent of a funerary plot, would have also been a standard method to discourage boundary disputes.³⁵⁶ The prohibition formula *HMHNS* is also present in the epigraphic signatures of these cities, particularly in Verona and Barcino (Hispania Citerior), although its use in these former colonies is not extensive. Since many of these veterans were Italian in origin, this suggests that a tradition familiar in their place of origin was imitated in their commemorations after death. However, further work is required to establish this. The cultural legacy of colonisation is profound and is discussed in greater detail throughout this chapter.

Shape and size of a plot

As we have seen, use of the expression *IFIA* was focussed in Rome, northern Italy, and in former colonies of Rome, demonstrating that Rome's impact did not extend beyond those regions that were culturally and geographically close to the centre. However, despite Rome's influence over where the expression was used, there is very little evidence that Rome had any impact on the measurements the formula recorded. In fact, the variation in measurements recorded by the formula suggests that local conditions determined plot sizes rather than an adherence to a tradition set by Rome. The only effect exerted by Rome in this respect seems to have been that those who planned tombs adopted a system of measurement that conformed to an ideal standard of design.

The wide variety of median sizes and shapes recorded by the formula and illustrated in Table A7 in the Appendix and Chapter 6 (Section 6.3), emphasises that other cities had no desire to emulate the plot sizes and shapes found in Rome. For example, plot sizes in northern Italy were much larger than those in Rome. The largest median plot sizes were found in Patavium, Aquileia, and Altinum (720 *pedes*², 512 *pedes*², and 500 *pedes*² respectively), cities located in Venetia and Histria in northern Italy.³⁵⁷ Plot sizes in Rome, however, were amongst some of the smallest in the

³⁵⁶ For boundary disputes in general, see: Brian Campbell, 'Shaping the Rural Environment: Surveyors in Ancient Rome', *The Journal of Roman Studies* 86, (1996): 74–99; Serafina Cuomo, 'Divide and Rule: Frontinus and Roman Land-Surveying', *Studies in History and Philosophy of Science* 31, no. 2 (2000): 189–202.

³⁵⁷ See Table 5.7 in Chapter 5.

database (median 168 *pedes*²). Measurements as small as 1.5 *pedes* were recorded in some instances, indicating that the formula was likely to be used in association with *columbarium*-style monuments.³⁵⁸ In terms of the shape of a plot, it appears that square shaped plots were popular in Rome whereas rectangles with a ratio of 1:2 were fashionable in Aquileia.

A possible explanation for these results relates to land costs and the management of land distribution in northern Italy. We have already seen that the formula used to define the extent of a plot was particularly associated with locations such as Rome, where land costs were high (see above). Therefore, it is natural that plot sizes would be smaller in those cities where land was at a premium. In cities such as Aquileia, where, in general, measurements along the road were half the length of those back from the road, the implication is that it was cheaper to buy a parcel of land with a shorter frontage, presumably indicating that the cost was primarily determined by the length of land along the road. Since *in fronte* measurements are frequently shorter than *in agro* measurements, this seems to apply to most cities outside Rome. However, a correlation between larger plots and lower land costs in northern Italy has been difficult to establish. At this stage, this remains a possible route for further investigation.

Since plot sizes found elsewhere did not conform to the sizes found in Rome, the results show that there was a cultural preference for shapes and measurements based on architectural ideals. As we saw in Chapter 6 (Section 6.3), Mark Wilson Jones noted that buildings in Rome conformed to certain proportions.³⁵⁹ In his study, Wilson Jones noted that measurements recording multiples of 10, 12 or 16 were associated with many buildings and that units of 50, 60 and 100 were especially popular.³⁶⁰ According to Wilson Jones, this could not stem from chance and must have represented an architect's desire to conform to an ideal standard of design.³⁶¹ My results

³⁵⁸ For example, *O(biit) / C(aius) Licinius / C(ai) l(ibertus) Ianuarius / v(ixit) an(nos) XXII C(aius) Licinius / C(ai) l(ibertus) Antiochus / in fr(onte) p(edes) I s(emis) in agr(o) p(edes) I s(emis)* (CIL 06, 38547).

³⁵⁹ Jones, *Principles of Roman Architecture*.

³⁶⁰ The numbers 10, 12 and 16 all conform to the ideals of Graeco-Roman numerology. In Book III Chapter 1, Vitruvius discusses how certain numbers in the ancient world have a special meaning. He goes on to explain why the numbers 10 and 6 were perfect and why this means that the most perfect number is 16.

³⁶¹ Vitruvius, *De Architectura* Book III, Chapter 1 and Book VI Chapter 2.

confirm that these architectural ideals were also applied in the planning of a funerary plot. Figure 6.3 in Chapter 6 illustrates that the most popular sizes of plot were all multiples of 10, 12, and 16, suggesting that these measurements were particularly favoured by those planning commemorations.

The evidence set out in Chapter 6 demonstrates that although the size and shape of plots diverged from practices at Rome, ideal architectural standards of measurement were often adopted for tomb plots wherever the formula *IFIA* was used. The cost of land in a region would have impacted the overall size of the plot, but the proportions of the shape, adhered to these standards.

Ostia – a port city unlike others

Rome's influence on Italian cities is exemplified by Ostia's epigraphic signature. Although Ostia is discussed later, under the impact of migration and mobility, its epigraphic profile conveys the importance of Rome's 'local' power and influence. While port cities tend to have an epigraphic signature distinct from that of the wider region, Ostia's epigraphic signature demonstrates remarkable consistency with Rome and other cities in Latium and Campania. This is in contrast to other port cities in the Mediterranean where the effect of migration and mobility on epigraphic practice was more marked, creating an epigraphic signature distinct from the wider regional pattern. This demonstrates that Rome's local influence was more powerful than the effects of migration and mobility in Ostia. The remarkable similarity in the epigraphic signatures of Rome and Ostia can only be explained by the evidence that Ostia's proximity to Rome was more significant in determining its epigraphic signature than its status as a port city with a multi-ethnic population.

Discussion

The evidence presented in Chapter 4 and discussed here demonstrates that Rome had a powerful 'local' influence. This influence extended to regions close by, particularly Italy, and to its former colonies. However, outside of this range, the power and influence of Rome was less clear. This is further explored through an analysis of epigraphic patterns in the Iberian and African provinces.

7.1.3 The epigraphic culture of the Iberian and African provinces

The importance of more local traditions for determining patterns of commemoration across the empire is also indicated by the distinct epigraphic habits found in the Iberian and African provinces. Regional epigraphic signatures in these provinces illustrate a marked difference from the patterns found in Rome and other parts of the empire. The Iberian and African provinces therefore established their own epigraphic culture, independent of Rome as language choice and the use of particular formulae will indicate.

Use of traditional vocabulary in the Iberian provinces

During the analysis for Chapter 4, it became apparent that the Iberian provinces had a very different epigraphic profile to other regions in the empire. Commemorations in these provinces not only ended with a form of words intended to be spoken to the deceased (*sit tibi terra levis*) but also included an alternative method of specifying age (*annorum*). This type of commemoration is unique in the context of global patterns and, a review of the language used, reveals a link between use of these two expressions.

Both expressions were used in epitaphs in the first century CE and both had a particular appeal to commemorators in the Iberian provinces. The formula *STTL*, a form of words intended to be read to the deceased was a significant element of the epigraphic signature of the region. According to Francis Sullivan, writing in the 1930s, the expression was first used in Late Republican poetry and became a formula in epitaphs around 50 BCE.³⁶² An early form of expressing age was also used in preference to the more common and later expression *vixit annos*. The analysis in Chapter 4 Section 4.2.2 revealed that although *VA* was widely used in all regions of the empire, commemorators in the Iberian provinces were using the alternative expression

³⁶² Francis A Sullivan, 'Romans and Non-Romans in the Latin Metrical Epitaphs', *Transactions and Proceedings of the American Philological Association* 70 (1939): 508.

annorum.³⁶³ As we saw in Chapter 4, *annorum* was a traditional method of denoting age, which was eventually replaced by *vixit annos* during the second century CE. However, it continued to be used throughout the second century CE in Baetica, although its application had dwindled by the third century CE. The ongoing appeal of these two expressions created a unique epigraphic signature for the region, characterised by early vocabulary.

The continued use of both the traditional *annorum* to denote age and the early expression *STTL*, could relate to a preference for traditional Republican vocabulary in the Iberian provinces. In her discussion of words used to denote ‘nieces’ and ‘nephews’ in inscriptions, Sabine Armani demonstrated that the epigraphy of the Iberian peninsula included words such as *sobrinus* (“nephew”), which had become unpopular in other parts of the empire.³⁶⁴ Armani also cited the use of *aera* in epitaphs to soldiers in the region, an unusual method of recording the number of years served in the army. Due to its early conquest in the Republic, she proposed that the region became a repository of traditional vocabulary, dating back to the time when the region was first subjugated. This traditional vocabulary continued to be used in the region, even after it had become less popular elsewhere. I would argue that continued use of these two expressions is due to this preference for using traditional vocabulary, and denotes a deliberate choice by those responsible for the wording in an epitaph, to create a distinct epigraphic habit. It not only distinguishes Iberian epitaphs from those of Rome, but also from those of the African provinces.

Marking the location of the deceased

The results indicate that *Hic Situs Est* (*HSE*), a formula related to the relationship between the tomb and the physical remains, was used mainly on the peripheries of the empire, in the African and Iberian provinces, and the northern frontiers of the empire. Although it is a high frequency expression in this study, the scarcity of *HSE* in Rome and northern Italy precludes it from being

³⁶³ Having investigated the database for inscriptions that do not include *vixit annos* in this region, it appears that some commemorations contained the alternative *annorum*, followed by a statement of age. There are 4,091 epitaphs in the database using this alternative method to denote age.

³⁶⁴ Sabine Armani, ‘Nieces and Nephews: An Epigraphic Approach’, in *Families in the Roman and Late Antique World*, ed. Mary Harlow and Lena Larsson Lovén (London: Continuum Publishers, 2011), 85–110.

categorised as a global formula. Therefore, while it is used extensively, *HSE* should be considered as a local formula limited to several regions.

The analyses in Chapters 4 and 5 demonstrated that *HSE* was particularly associated with the African and Iberian provinces and with military cities such as Carnuntum (Pannonia Superior). Its use in a military context is considered when the impact of a common military identity is discussed later in this chapter. However, its use in the African and Iberian provinces requires explanation. As *HSE* was localised to regions outside Rome, it is indicative of a ‘local’ and ‘regional’ epigraphic habit.

The popularity of connecting a tomb with the deceased’s remains by using *HSE* was especially prevalent in the Iberian, and to a lesser extent, the African provinces. However, as seen in Chapter 4, the use of *HSE* in the Iberian provinces was most often associated with the expression *Sit Tibi Terra Levis (STTL)*. Its application alongside this expression must have had a particular relevance in commemorations in the region. It is possible that when used together the two expressions served to strengthen the impact of talking to the deceased since a statement to confirm the presence of the remains precedes the words to be spoken.

However, the popularity of *HSE* in the African provinces is less clear. Although the expression was well represented in commemorations throughout the region, its use in Numidia and Africa Proconsularis was concentrated in cities with a military-linked population. The inclusion of *HSE* in these commemorations might account in part for its popularity in the region, although further analysis at a regional level would be needed to establish this. Therefore, the prevalence of an expression that was rare in Rome, in the epigraphic signatures of both the Iberian and North African provinces, indicates the formation of an epigraphic culture independent and distinct from the centre of the empire. By including this expression in their epitaphs, commemorators in these regions were not only emphasising the importance of an individual’s remains but also highlighting their separation from commemorative practices in Rome and Italy.

The exclusion of *HSE* from epigraphic signatures in Italy and Rome is particularly surprising. Its extensive use outside these areas ensures that it would have been a familiar concept to commemorators. Its low incidence in Rome and Italy could be attributed to the conservative nature of the epigraphy of Rome meaning that the commemorative patterns in the city were not open to innovation from outside the centre. This would have been compounded by the tradition in the centre for using only one or two of these formulaic expressions in any one epitaph, a habit that hindered commemorators from including a new formula from the provinces. It indicates a reluctance to amend a well-established and standardised epigraphic signature, especially in those regions where epigraphy was essentially conservative in nature.

Marking a tomb as sacred

The expressions *Dis Manibus* and *Dis Manibus Sacrum* had widespread appeal across the Roman world. Used in over 60,000 epitaphs, these expressions must have been instantly recognisable as a key component of a funerary commemoration. However, as the results at a global level have shown, the way in which these two expressions were used splits the empire into the Western provinces (*Dis Manibus*) and the Iberian and African provinces (*Dis Manibus Sacrum*). There are some notable exceptions at a local level indicated in Chapter 4, particularly in some port cities and the cluster of cities around Cirta in Numidia. However, this global trend suggests that there was a significance in the addition of the word *sacrum* to the standard formula in provinces far from Rome.

To understand the widespread use of *Dis Manibus Sacrum* in the Iberian and African provinces, it is important to assess the distinction in meaning between *DMS* and *DM*. As we saw in Chapter 4, both expressions address the spirits of the dead and warn them that another spirit is about to join them. The addition of *sacrum* would therefore appear to relate to the monument, designating the tomb itself as a sacred site and elevating its status to that of a sacred object.³⁶⁵ However, as discussed in Chapter 4 (Section 4.2.1), tombs were already defined as sacred. They

³⁶⁵ Muñoz, 'Los Dioses *Manes* En La Epigrafía Funeraria Bética', 387.

were legally protected as a *res religiosa*. The addition of *sacrum* was therefore ultimately redundant since a tomb was already ‘sacred’ by law.

Clearly the addition of the word *sacrum* was an important element of the expression in the Iberian and African provinces. Even though the word was legally unnecessary, thousands of commemorations include it at the start of an epitaph. One possible explanation for its use is that it was associated with the emergence of a specific type of monument in north Africa.³⁶⁶ Its use in altar-style monuments served to emphasise the religious nature of the tomb. However, I would argue that the widespread use of *DMS* throughout the African and Iberian provinces makes it unlikely to be associated with only one type of monument, although only further research could confirm this.

A more plausible explanation for the addition of *sacrum* is that commemorators in the Iberian and African provinces preferred to emphasize the sacred nature of a funerary monument. The fear of desecration may have been greater in those areas where a knowledge of Roman law amongst the general population was less entrenched. By adding *sacrum* to the expression, commemorators were clearly stating that the monument was sacrosanct and protected under the law. Conversely, this may explain why use of the standard formula *Dis Manibus* was so widespread in those areas closer to Rome and Italy where a knowledge of Roman law and the penalties for desecration would likely have been greater. It might also explain why the more traditional *DM* was used in Cirta and neighbouring cities in Numidia. Cirta had a strong cultural connection to Rome and Italy due to its origin as a *triumviral* colony. The descendants of the original settlers from Rome may have inherited an epigraphic practice based on a tradition used in Rome that was then transferred to neighbouring cities in the region. Thus, these preliminary findings that show a connection between use of *sacrum* and cultural distance from Rome suggest a need to emphasize the sanctity of a funerary monument on the peripheries of the empire.

³⁶⁶ The reference cited by Mednikarova in support of this theory dates to 1888. As far as I am aware, more recent references do not exist. See: Mednikarova, ‘Formulaic Methods of Expression: An Enquiry into the Patterns of Distribution and Use of Latin Funerary Formulae’, 45-6.

Discussion

This discussion of the content of an epitaph indicates that epigraphic patterns were essentially 'local'. By establishing that Rome's power to influence epigraphic patterns was limited to its former colonies and neighbouring regions, this thesis illustrates that the epitaphs of Rome cannot be used to generalise an epigraphic habit for the entire empire. The development of distinct patterns of commemoration in the Iberian and African provinces demonstrates the rich diversity of global epigraphic habits. In the following section, these differences between the centre of the empire and the peripheries, are discussed by considering an epitaph's characteristics.

7.2 Local and global epigraphic signatures

An appreciation of the elements that constitute the characteristics of an epitaph is central to our understanding of variation in commemorative practice across the empire. The message contained within a formula was not the only aspect that created variation. The way in which they were used together or whether they were abbreviated indicates a marked geographic difference. Expressions were used together to create a standardised meaning for the epitaph that would have been accessible through frequent use. They could also be used in an abbreviated or contracted form, creating a graphic representation or 'quasi-pictograph' of the message.³⁶⁷

Building on the previous section, which demonstrated that Rome had a local influence on neighbouring regions, and that the Iberian and African provinces developed independent epitaphic cultures, this section argues that the centre of the empire did not embrace the potential offered by these formulae in conveying a standardised message. This reluctance to use more than one formula and to integrate provincial expressions in their epitaphs resulted in longer inscriptions. This is in contrast to the Iberian and African provinces, where several abbreviated expressions were used together, to create shorter epitaphs.

³⁶⁷ Woolf, 'Monumental Writing and the Expansion of Roman Society in the Early Empire', 28.

7.2.1 Rome and centre

This thesis demonstrates that Rome's power and influence extended beyond Italy to include the Balkan and Danubian provinces in terms of the number of expressions used and how they were combined. A similar pattern is found when we examine abbreviation rates and the length of an epitaph in these regions. This suggests that the local influence exerted by Rome was powerful enough to extend its local reach to include some regions that were geographically more distant.

The results show that there was a reluctance to combine more than one formula in an epitaph in Rome, Italy, and the Balkan and Danubian provinces. Although there is evidence of combining *DM* with *BM* and *BM* with *VA*, overall rates are low, apart from some local exceptions in Misenum (Latium and Campania). The overwhelming tradition is for using one formula only. The epigraphic signatures of Rome and Italy consist of a number of formulae related to the tomb that are unlikely to be combined with other formulae apart from *DM*. These expressions placed a restriction on the tomb and were 'wordy', complex formulae, rarely used outside the centre. The fact that these were infrequently combined with other expressions would have contributed to the overall reluctance of commemorators to use more than one.

This conservative nature and overall reluctance to combine more than one formula had a particular effect on the epigraphy of Rome and its associated regions. It resulted in a disengagement with new expressions so that there was little chance of the epigraphic signature absorbing these new formulae. This in turn meant that commemorators were not exposed to new types of messages popular in the provinces. This is evident in the disinterest with the expression *HSE* in Rome and Italy. Although used widely in the provinces, rates of use throughout Rome and Italy were low. In other regions, *HSE* was a popular choice as a third formula but the reluctance to use more than one or two in Rome and Italy meant that there was little chance of its introduction into the epigraphic signature. Of course, there were occasional uses of the expression and a few local exceptions, such as Brundisium where *HSE* is a significant element of the epigraphic signature, but these rare local uses did not influence the overall epigraphy of the region.

Unlike the African provinces, there was no clear regional tradition in favour of abbreviating formulae in Rome and Italy. In fact, in some cities in the region, such as Capua and Portus, abbreviation rates were particularly low, resulting in longer epitaphs. The decision to abbreviate or not depended on the formula in question (see Chapter 5, Section 5.3). If a formula was unusual in the region, it was less likely to be abbreviated. Therefore, when an expression such as *hic situs est* was used in Rome (a location where it is rare in the epigraphic landscape), it is more likely to be spelled out in full. This likely was a result of unfamiliarity with the wording and message. The abbreviated or contracted version of an unfamiliar expression would have been meaningless to the reader whereas its expanded form would have provided enough information to make its message clear. Additionally, formulae recording personal information, such as *vixit annos* or *bene merenti*, were less likely to be abbreviated than other formulae, although it is unclear if this was related to the significance of a message concerning the deceased rather than the tomb.³⁶⁸

These results for Rome and the centre of the empire indicate that Rome's local tradition for a conservative epigraphy, based on the combined use of only one or two formulae, extended beyond the neighbouring region of Italy to influence the epigraphic signature of the Balkan and Danubian provinces. However, unlike Italy, the epitaphs in these provinces were not reliant on the same formulae as Rome. In contrast to the centre, they show little interest in those expressions recording a restriction on the tomb but, unlike Rome, an increased likelihood of including *HSE*. This suggests that these provinces were able to absorb the characteristics of Rome's epigraphic signature without emulating the actual formulae. This implies that regional conditions might sometimes affect Rome's local influence, creating an amended pattern.

³⁶⁸ In general, those formulae providing information about the tomb, such as *HMHNS* and *LLPQE*, are more likely to be abbreviated than those concerning the deceased, such as *BM* and *VA*. This could suggest that, at least in Rome and Italy, messages relating to an individual were prioritised and their significance was enhanced by the repeated use of their expanded form.

7.2.2 The Iberian and African provinces

The evidence for how many formulae were used and how these were combined and abbreviated, again demonstrates that the Iberian and North African provinces developed a distinct epigraphic practice, different from the one found in Rome. Commemorators in the African provinces and some parts of the Iberian provinces were much more receptive to the idea of combining more than one of these expressions. In the African provinces, only Altava in Mauretania Caesariensis did not conform to the overall tradition for using two or three formulae in any inscription. This unusual epigraphic signature for a city in North Africa could relate to the time period when most epitaphs in the study were set up, suggesting that the use of several formulae had become less popular in the late antique period.³⁶⁹ However, the pattern in the Iberian provinces was less consistent. The tradition for including several formulae was concentrated in the cities in Baetica, specifically Italica (where there was a tradition for three or four) and Corduba (two or three). Those in Emerita (Lusitania), a city close by, are equally split between one, two, and three. These local adaptations represent a mixed epigraphic culture with a rich variation of commemorative design.

Although abbreviations and contractions are used in the rest of the empire, only the African and Iberian provinces demonstrated a consistent tradition for shortening these expressions. Again, as we saw in Rome and Italy, inclusion of an uncommon expression in the region, such as *BM* in Carthage, resulted in use of the expanded formula (see Chapter 5, Sections 5.3.7 and 5.3.8). However, these local exceptions were rare, and the vast majority of formulae were abbreviated.

This openness to the use of more than one expression and the tradition for abbreviated formulae in the Iberian and African provinces influenced their epigraphic signatures in a number of ways. First, it resulted in an epigraphic signature that was not always dominated by a ritual formula. For instance, we see cities in Africa Proconsularis and Numidia excluding *DMS* and

³⁶⁹ Based on their style and language (use of *memoria*, *discessit*) most of these epitaphs appear to be Christian and date to late antiquity. For more on Altava in late antiquity, see: Greg Fisher and Alexander Drost, 'Structures of Power in Late Antique Borderlands: Arabs, Romans and Berbers', in *Globalizing Borderlands: Studies in Europe and North America*, ed. John W. I. Lee and Michael North (London: University of Nebraska Press, 2016), 33–82.

using *VAHSE*. Similarly, cities in the Iberian provinces only used *HSESTTL*. Secondly, high abbreviation rates in these regions, resulted in a more standardised epitaph that could be repeated in thousands of commemorations in a single city. For example, the epigraphic signature of Thugga presented in Chapter 5 (Section 5.5.5) shows an epigraphic landscape consisting of thousands of inscriptions with a very similar format and content. Finally, the use of more than one formula combined with a more standardised and abbreviated epitaph led to the development of a much shorter inscriptions (see Chapter 5, Table 5.7). As Chapter 5 has shown, some of the shortest epitaphs can be found in the African and Iberian provinces, creating an epigraphic landscape dominated by short, abbreviated and standardised epitaphs.

Discussion

The development of epitaphic characteristics in the Iberian and African provinces, distinct from Rome, mirrors the findings set out in the previous section on the content of an epitaph discussed above. It confirms that Rome's local influence did not extend to all regions of the empire. These regions developed styles of commemoration that were not only different to those found at the centre but were also innovative in their use of this standardised language. The epigraphic signatures of the Iberian and African provinces suggest the development of a more 'populist' epigraphic habit than we see elsewhere in the empire. Their higher use of abbreviations, coupled with shorter inscriptions, would have resulted in cheaper inscriptions, making them accessible to a wider population.³⁷⁰ Furthermore, the repeated use of abbreviations and the same expressions would have aided understanding and mass production. Essentially, commemorations in the Iberian and African provinces were more accessible and pragmatic than those found in the centre.

In summary, the evidence suggests the development of a global epigraphic landscape comprising a conservative centre and innovative periphery. The traditional epigraphic signature of

³⁷⁰ According to Richard Duncan-Jones, tombs in Italy were considerably more expensive than those in North Africa, see: Richard Duncan-Jones, *The Economy of the Roman Empire: Quantitative Studies* (Cambridge: CUP, 1982), 79-80. See also: Richard Duncan-Jones, 'Costs, Outlays and *Summae Honorariae* from Roman Africa', *Papers of the British School at Rome* 30 (1962): 90-91. Richard Saller and Brent Shaw have estimated that epitaphs from Cirta only cost 'tens of *sesterces*', see: Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves', 128.

the centre was emulated by those regions to the north and east whereas those to the south demonstrate a more innovative approach to their epitaphs. Not only does this suggest that the epigraphic influence of Rome was limited but it also demonstrates that areas free of this influence were able to evolve their own style of commemorations.

7.3 The impact of globalising forces

The previous sections in this chapter have demonstrated that Rome's power and influence over provincial epigraphic signatures was limited and that two regions developed distinct and independent patterns of commemoration. However, the results presented in Chapters 4 and 5 have highlighted several cities where the epigraphic signature is not what we might have expected. This is evident particularly in port cities, where the epigraphic signatures do not seem to be influenced by the pattern of commemoration of the region in which they are located. In addition, the results have emphasised some cities where a common epigraphic signature shows remarkable consistency, made up of thousands of epitaphs with the same structure. Finally, we have cities with a population connected by a common identity such as an association with the army or navy, which shared aspects of their epigraphic signature. These anomalous results all have the effect of producing epigraphic signatures that are different from the surrounding region. In some cases, they demonstrate a shared consistency amongst a number of cities that are geographically distant from each other.

The analysis of these anomalous patterns suggests that a number of 'globalising forces' were affecting commemorative patterns to create epigraphic signatures that diverged from the established pattern in a region. In this study, globalising forces are defined as external influences that exerted pressure on the expected epitaphic profile, resulting in an amendment to the commemorative pattern. The globalising forces influencing epigraphic signatures in this thesis are identified as migration and mobility; trade (stonemasonry); and group identity in populations associated with the military. This section begins with a discussion of the historiography to provide a context. It then argues that these three forces had a significant impact on commemorative

patterns at a local level across all regions, despite Rome's local influence in the centre of the empire and the development of distinct patterns of commemoration in the Iberian and African provinces.

Globalising forces in context

As Martin Pitts has observed, globalisation does not result in 'cultural homogenisation'; rather, it creates 'local adaptations' within a global practice.³⁷¹ In this thesis, global practice is the epigraphic habit of inscribing memorials in Latin. The 'local adaptations' to this global practice are part of an empire-wide epigraphic culture that was both heterogenous and homogenised and have been illustrated in the results presented in Chapters 4 and 5. These local adaptations are represented in the study by cities that do not conform to the regional pattern and are the result of globalising forces adapting an established regional pattern and disseminating the amended pattern across space.

When we consider the literature for ancient globalisation, two papers are helpful for understanding these local adaptations in the context of formulae use and epigraphic signatures. The first is the contribution by Ray Laurence and Francesco Trifilò in the volume on globalization in the Roman world edited by Martin Pitts and Miguel Versluys.³⁷² Laurence and Trifilò discuss the global-local relationship with reference to the distribution of age in epitaphs. Their study indicates that the inclusion of age in epitaphs was not a result of geographical connectivity, rather it was a practice disseminated at a local level as a result of a connection with the Roman army.³⁷³ However, they noted that patterns in Italy were very different and that there was a need to identify other factors for this region. This thesis has also identified a relationship between commemorative patterns and the military. However, this thesis considers an association with the military as only

³⁷¹ Martin Pitts, 'Globalizing the Local in Roman Britain: An Anthropological Approach to Social Change', *Journal of Anthropological Archaeology* 27, no. 4 (2008): 494.

³⁷² Laurence and Trifilò, 'The Global and the Local in the Roman Empire: Connectivity and Mobility from an Urban Perspective'.

³⁷³ *Ibid*, 105.

one of three globalising forces. It therefore acknowledges that variation in patterns of commemoration cannot be explained as a result of a single force or factor.

The second paper of relevance to these global-local results is that by David Van Alten published in 2017.³⁷⁴ In this paper, Van Alten used the conceptual framework of glocalization to understand the analysis of religious material culture in the Roman empire. According to the sociologist Roland Robertson, ‘glocalization’ is explained as ‘the tailoring and advertising of goods and services on a global or near-global basis to increasingly differentiated local and particular markets.’³⁷⁵ In effect, it seeks to understand why a global form might appear dissimilar in different parts of the world. In his study, Van Alten used the concept of glocalization to understand variation in material culture and demonstrated that globalization does not equate to homogenisation. He concluded that local and global cultural expression created new forms of religious communication and that local and global contexts should not be studied in isolation.

Although ‘glocalization’ is a compelling concept for understanding the results of this thesis, it does not encompass the variety of forms and patterns revealed. It implies a single product that is disseminated globally and then interpreted or ‘tailored’ at a local level. However, my results indicate that patterns of commemoration did not comprise a single product, nor can the epitaphs of the provinces be considered as simple adaptations of those found in the centre. The analysis in this thesis indicates a complex pattern of epigraphy across the empire in which some regions were evolving new styles of epigraphy. The key to understanding ‘glocalization’ in the context of this thesis is to understand the forces that created these differences, tailoring them to local conditions.

In order to demonstrate the fact that local differences were created by ‘globalising forces’, this section discusses each of the globalising forces in turn. It first considers the impact of

³⁷⁴ David Van Alten, ‘Glocalization and Religious Communication in the Roman Empire: Two Case Studies to Reconsider the Local and the Global in Religious Material Culture’, *Religions* 8, no. 140 (2017): 1–20. For a full discussion of glocalization and its relationship with theories of globalisation, see: Richard Giulianotti and Roland Robertson, ‘Forms of Glocalization: Globalization and the Migration Strategies of Scottish Football Fans in North America’, *Sociology* 41, no. 1 (2007): 133–52; Roland Robertson, ‘Globalisation or Glocalisation?’, *Journal of International Communication* 18, no. 2 (2012): 191–208.

³⁷⁵ Robertson, ‘Globalisation or Glocalisation?’, 194.

migration and mobility in the context of port cities. It then examines the evidence for the influence of stonemasons to determine epitaphic patterns using Thugga as a case study. Finally, it examines how a common identity in populations linked to the military could create a shared pattern that transcended political and geographical boundaries.

7.3.1 Migration and mobility

The analysis of formulae and how they are used has shown that evidence for migration and mobility is strongest in ports. Whilst there might have been a few epitaphs in each location that include a formula from outside the region, these are rare, and had little overall impact on the epigraphic signature (see Chapter 6 Section 6.1). However, throughout the analysis, ports have been highlighted as having patterns of epigraphy different to those found in the region where they are located. Although there are a number of factors that could be responsible, the impact of migration on the epigraphic culture of a port remains key to understanding these patterns. Before examining ports in detail, it is important to understand how epigraphic evidence for migration has been discussed in scholarship and how migration in general might affect an epigraphic signature.

Epitaphs are a valuable source of evidence for studies in migration and population movement in the Roman world.³⁷⁶ Although more recent studies have utilised scientific analyses, such as isotope analysis, to identify migrants in the archaeological record, scholars still recognise the importance of epitaphs.³⁷⁷ A number of elements of an epitaph have proved useful in studies of migration and mobility. For instance, some scholars have used the name, particularly the *cognomen* of an individual, to determine their ethnic origin.³⁷⁸ Others have used formulaic

³⁷⁶ Lattimore, *Themes in Greek and Latin Epitaphs*; Noy, *Foreigners at Rome: Citizens and Strangers*; Noy, 'Epigraphic Evidence for Immigrants at Rome and in Roman Britain'; Handley, *Dying on Foreign Shores: Travel and Mobility in the Late-Antique West*; Greg Woolf, 'Movers and Stayers', in *Migration and Mobility in the Early Roman Empire*, ed. Luuk De Ligt and Laurens E. Tacoma (Leiden: Brill, 2016), 438–61.

³⁷⁷ Whilst recognising their value, the authors note that inscriptions are not evenly spread across the Roman world: Hella Eckardt, Gundula Müldner, and Mary Lewis, 'People on the Move in Roman Britain', *World Archaeology* 46, no. 4 (2014): 534–50.

³⁷⁸ Olli Salomies, 'Observations on Some Names of Sailors Serving in the Fleets at Misenum and Ravenna', *Acta Philologica Fennica* 30 (1996); Daniel Dzino, 'Aspects of Identity-Construction and Cultural Mimicry among Dalmatian Sailors in the Roman Navy', *Antichthon* 44, no. 4 (2010): 96–110; Rada Varga, 'The Military *Peregrini* of Dacia: Onomastical and Statistical Considerations', *Seria Istorie – Serie nouă* 1, no. 4

language associated with particular ethnic groups to identify place of origin.³⁷⁹ For example, David Noy identified the origin of a Bithynian from a formulaic curse mainly associated with Nicaea, contained in his epitaph.³⁸⁰

As we saw in Chapter 6 Section 6.1, Maureen Carroll suggested that the inclusion of regional specific formulae, such as *STTL* or *HMHNS*, in an area outside their normal place of use, could be considered evidence of birth overseas.³⁸¹ However, her evidence only consists of one or two examples from the Rhineland. Having analysed the data in this thesis, I have been unable to find supporting evidence to suggest that formulae can be interpreted in this way. Although ports on the Mediterranean have different epigraphic signatures from the region in which they are located, an analysis of the evidence for place of birth across the whole dataset, using phrases such as *civis domo* and *natione* indicate that most of the deceased from overseas are commemorated using established local patterns (see Chapter 6 Section 6.1). This is particularly true in Ostia where evidence for formulae associated with either North Africa or the Iberian provinces are either absent or rare in the epigraphic signature for the city, despite an ethnically mixed population (see Chapter 5, Section 5.5.2).

Since the evidence suggests that only a few individuals dying away from home were commemorated with formulae from their place of birth, there still remains a question concerning the creation of unusual patterns of commemoration in Mediterranean ports, many of which resembled patterns of commemoration found in Rome. The following section argues that the resemblance to patterns of commemoration in Rome was due to the composition of the population in these cities and the consequential impact of other globalising forces, rather than a deliberate attempt to emulate patterns in Rome.

(2010): 108–16; Benet Salway, ‘What’s in a Name? A Survey of Roman Onomastic Practice from c. 700 B.C. to A.D. 700’, *Journal of Roman Studies* 84, (1994): 124–45; Schörlle, Wilson, and Rice, ‘Roman Ports and Mediterranean Connectivity’.

³⁷⁹ Noy, *Foreigners at Rome: Citizens and Strangers*.

³⁸⁰ *Ibid*, 195.

³⁸¹ The combination of formulae described here consists of *pia in suis* (s/he looked after her/his own) together with the more frequent *HSE* and *STTL*. See: Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*, 134.

Port cities and a mobile population

The results of Chapters 4 and 5 have indicated that most ports in the analysis have an epigraphic signature that is different to that of the surrounding region. This was illustrated in the case studies for Narbo and Misenum in Chapter 5. The epigraphic signatures of most of these ports include at least one feature that either emulated patterns found in Rome or enhanced their use. For instance, in Narbo the epigraphic signature included formulae such as *IFIA* and *HMHNS*, common in Italy but rare in the rest of Gallia Narbonensis. In Misenum, not only were the epitaphs much longer than the rest of Latium and Campania, they also included the expression *BM* in much higher proportions than those found at Rome. These patterns are repeated in other port cities. In Tarraco (Hispania Citerior) and Caesarea (Mauretania Caesariensis), epitaphs include the ritual *DM* rather than the regional *DMS*, commonly used in the Iberian and African provinces. Before considering the reasons for these anomalies, I will consider some of the characteristics, ports have in common.

To understand why these cities developed such unique epigraphic signatures, we need to consider what makes the population of a port different to any other city. Ports were cosmopolitan trading sites characterised by an ethnically diverse and mobile population and connected by shared interests in trade and commerce.³⁸² They had strong connections by land and sea, which led Horden and Purcell to describe them as ‘gateway settlements through which goods and people are funnelled’.³⁸³ These shared interests and connections led to the creation of social networks, supported by regular and sustained contact with overseas communities. For example, the Piazzale delle Corporazioni at Ostia is evidence of links between the port of Rome and other ports throughout North Africa, Gaul, and Sardinia.³⁸⁴ At Puteoli, we have epigraphic evidence of a

³⁸² Candace Rice, ‘Port Economies and Maritime Trade in the Roman Mediterranean, 166BC to AD300’ (PhD Thesis, Oxford University, 2012), 116.

³⁸³ Peregrine Horden and Nicholas Purcell, *The Corrupting Sea: A Study of Mediterranean History* (Oxford: Blackwell, 2000), 133.

³⁸⁴ The following regions and cities have *stationes* in the Piazzale delle Corporazioni at Ostia. Where relevant the number of epitaphs included in the current study for each of these cities is indicated: Carthage and surrounding cities (Carthage n=1,935); Colonia Iulia Curubis (not included in current study); Sabratha (n=24); Turrus Libisonis, Sardinia (n=90); Carales, Sardinia (n=260); Narbo Martius, Narbonensis (n=295); traders from Mauretania Caesariensis (cities in province n=2,048) and Alexandria (not included in current study)

group of Tyrians who had difficulty paying for their *statio* in the second century CE.³⁸⁵ The evidence points to a network of overseas trading communities that supported and maintained mutually beneficial cultural and social ties.

Connectivity between these ‘coastal enclaves’ was effectively strengthened by social and commercial ties resulting in the syphoning of people and goods throughout the Roman world.³⁸⁶ This connectivity created links both with other ports overseas and with nearby inland cities. Since it is clear that these ports’ epigraphic signatures were, for the most part, different to those of the inland cities they were linked to, we can conclude that a port’s epigraphic culture was determined or shaped, in part, by these global mobile populations.

Having established that the ethnically diverse populations were responsible for shaping the epigraphic signature of a port, we now need to understand why commemorators included elements derived from Rome and the centre. In some ports, such as Narbo in Gallia Narbonensis, which were former colonies of Rome, the inclusion of *IFIA* and *HMHNS* would have been related to the existing traditions of formalising land ownership, established when the colony was founded. However, in Misenum, on the Bay of Naples, the use of *BM* was related to the city’s position as the home of the imperial fleet. Other ports with a connection to the fleet, such as Ravenna and Salona, also included this expression in their commemorations. Presumably, this formula had particular relevance to sailors in relation to their service in the fleet. The inclusion of *DM* in the epigraphic signatures of Tarraco in Hispania Citerior and Caesarea in Mauretania Caesariensis is less easy to explain. A more detailed analysis of the inscriptions may provide additional insights.

The epigraphic signatures of these ports also include a lower percentage of abbreviated formulae. Use of an abbreviated or contracted version of an expression required the reader not only to recognise the abbreviated form but also to have the knowledge and experience to link it to the original formula. It is possible that these mobile populations, although familiar with Latin and

³⁸⁵ Schörle, Wilson, and Rice, ‘Roman Ports and Mediterranean Connectivity’, 374.

³⁸⁶ David Abulafia has noted that port cities aid the transmission of ideas and culture. See: David Abulafia, ‘Mediterranean History as Global History’, *History and Theory* 50, no. May (2011): 220–28. See also: Horden and Purcell, *The Corrupting Sea: A Study of Mediterranean History*.

the epigraphic habit, did not have the skills to be able to read and understand the message in its abbreviated form. As a consequence, these expressions were more likely to be written in full here than in other places. The use of unabbreviated unusual formulae in these cities is very likely the result of a local population who may not have readily understood the meaning behind a particular expression. For example, Tarraco in Hispania Citerior had a much higher rate of expanding formulae than the rest of the region. Obviously, this could be evidence of a mixed population unfamiliar with the messages conveyed by these expressions or simply the introduction of new formulae from elsewhere. The abbreviated form would only be used once commemorators were familiar with the message it conveyed.

Although the patterns described here apply to most Mediterranean ports, the port of Ostia developed an epigraphic signature almost identical to that of Rome rather than developing a pattern that differed from the immediate region. This could suggest that epigraphic patterns here were dominated by Rome. Despite an ethnically mixed population, Rome's influence was stronger than that of a mobile population. It is possible, therefore, that Ostian commemorators duplicated the pattern of commemoration in Rome entirely, rather than emulating one or two features from the centre. They thus avoided the creation of a local epigraphic signature.

However, the differences in the epigraphic signatures noted between Ostia and Portus in Chapter 5, while interesting, are not easy to explain. In line with other ports, epitaphs in Portus were longer and had a lower abbreviation rate than Ostia and Rome. One suggestion is that these differences relate to inscriptions located in Isola Sacra. This may be evidence of a single cemetery that affected the epigraphic signature of the city. However, a detailed analysis of the epigraphy of an individual city is beyond the scope of this thesis but could be the subject of future research.

7.3.2 Trade (Stonemasonry)

Stonemasons played a crucial role in the production of an epitaph from carving any images required to selecting and laying out the words to be carved. The globalising force of trade relates specifically to the agency of the stonemason to shape epigraphic culture. There is some evidence

that stonemasons were peripatetic, based on the style of monuments found in the provinces. For example, the production of carvings in Pannonia with Italian influences led Mócsy to suggest that these were either evidence of peripatetic stonemasons from northern Italy or local masons working under northern Italians.³⁸⁷ The instances of repeated wording and similar images on tombstones in the same cemetery suggest the mass production of pre-carved stones ready for the addition of the deceased's personal details.

To understand the role played by stonemasons in the shaping of epigraphic culture, it is necessary to assess the part they had in the final choice of wording. Frequently repeated patterns, as indicated in the thesis, suggest that the ultimate wording of an epitaph was not a straightforward choice of expressions by the commemorator, as some scholars have proposed.³⁸⁸ The results of this thesis indicate that regional and local practice must have limited the choice of formulae, how they should be combined, and whether they should be abbreviated. However, the way in which this local practice might have been informed and controlled to produce such a consistent epigraphic landscape remains unclear in scholarship. This next section examines these results and proposes an explanation.

The results in Chapter 6 Section 6.2 highlight areas where there is remarkable consistency in the epigraphy. For instance, 48% of epitaphs from Misenum include exactly the same combination of the formulae *DMBMVA*. An examination of these epitaphs indicates that their contents only vary according to the personal information they contain. We see a similar pattern of consistency in cities in Africa Proconsularis. At Thugga and Uchi Maius, 65% and 68% of epitaphs respectively, share the same pattern.³⁸⁹

There are two possible explanations for why consistency is a key feature of some epigraphic landscapes. Some scholars have speculated that commemorators had control of the

³⁸⁷ András Mócsy, *Pannonia and Upper Moesia: A History of the Middle Danube Provinces of the Roman Empire: Translation*, ed. S. Frere (London: Routledge, 1974).

³⁸⁸ Campbell, *The Tombs of Pompeii: Organization, Space, and Society*.

³⁸⁹ Consistency in epitaphs was also noted by Maureen Carroll (see Chapter 6 Section 6.2).

content and, in some cases, took a pre-drafted script to the stonemason.³⁹⁰ We know that it was possible for commemorators to dictate or write out commemorations themselves from a letter by Sidonius Apollinaris.³⁹¹ A commemorator may have had significant input in an epitaph in Rome and Italy where the overall rates of consistency in epitaphs is lower. However, these were likely to be rare occurrences and the vast majority of individuals commissioning an inscription were unlikely to have gone to such elaborate lengths.³⁹²

The second explanation is that that stonemasons had overall control of the content through their copybooks or manuals and through the sale of pre-carved monuments.³⁹³ Although there is no direct evidence of their existence, copybooks are inferred from the repeated use of phrases in commemorations in the same cemetery. Carroll and Cooley prefer this explanation, although Cooley states that the evidence for copy books possibly relates to Late Antiquity only.³⁹⁴ The evidence most cited by scholars to support their existence is an inscription from Annaba in North Africa *hic iacet corpus pueri nominandi*. This is translated by most scholars as ‘here lies the body of the boy... insert name.’³⁹⁵ It is viewed as an example of a stonemason carving the instructions from the manual rather than adding the name. However, when Peter Kruschwitz re-examined the inscription, he pointed out that, in the context of the inscription, the actual translation of *nominandi* should be ‘noteworthy.’³⁹⁶ He was critical of other scholars for not reviewing the full text and for simply recycling the translation proposed by Robert Ireland. Therefore, in the absence of any

³⁹⁰ Campbell, *The Tombs of Pompeii: Organization, Space, and Society*; Edmondson, ‘Inscribing Roman Texts. *Officinae*, Layout, and Carving Techniques’, 117.

³⁹¹ This is based on a letter by Sidonius Apollinaris which states that he will send the text of a verse epitaph for a renovated tomb: *Epist* 3, 12. See also: Edmondson, ‘Inscribing Roman Texts. *Officinae*, Layout, and Carving Techniques’.

³⁹² Christos Tsagalis discusses this in relation to the production of Greek Attic funerary epigrams: Christos Tsagalis, *Inscribing Sorrow: Fourth-Century Attic Funerary Epigrams* (Walter de Gruyter, 2008), 53ff.

³⁹³ Susini, *The Roman Stonecutter: An Introduction to Latin Epigraphy*.

³⁹⁴ Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*; Cooley, *The Cambridge Manual of Latin Epigraphy*.

³⁹⁵ *AE* 1931:112. See also: Robert Ireland, ‘Epigraphy’, in *A Handbook of Roman Art*, ed. Martin Henig (Oxford: OUP, 1983), 220–33; Carroll, *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*; Cooley, *The Cambridge Manual of Latin Epigraphy*.

³⁹⁶ Peter Kruschwitz, ‘Here Lies (Insert Name Here), or: Why Reading beyond a Quotation Is a Really Good Idea’, *The Petrified Muse*, 2015, <https://thepetrifiedmuse.blog/2015/03/28/here-lies-insert-name-here-or-why-reading-beyond-a-quotation-is-a-really-good-idea/>.

direct evidence, we can only infer the existence of copybooks, from the large numbers of inscriptions with a very similar or near identical wording found in the same cemetery.

Although my results do not provide direct evidence of how this consistency was achieved, we can draw some conclusions about its creation from the nature of the patterns. It seems unlikely that this consistency is the result of a commemorator's personal choice. If personal choice was the key factor in determining an epitaph's content, then there would likely have been less regularity. The consistent and widespread nature of these patterns suggest they were the result of an established process. There is archaeological evidence of a stonemason's workshop in Ostia, where fragments of inscriptions have been found and a block of stone where the stonecutters practiced their letter carving.³⁹⁷ Pre-carved memorials with only the first line of text completed (E.g. *Dis Manibus*) together with a space left for the addition of the name of the deceased, have also been found.³⁹⁸ This suggests that these workshops sold ready-made memorials, with wording added, after discussions with the commemorators. This mass production of memorials would have facilitated the diffusion of the same patterns, particularly if certain formulae were pre-cut on to the stone. This is particularly relevant to the epigraphic signature of cities such as Thugga, where the epitaphs differ only in the name of the commemorated. However, the use of pre-cut inscriptions in these areas can only be determined by an examination of the stones to assess for similarities in wording and monument.

These preliminary findings have important implications for how we view the creation of an epitaph. By quantifying the evidence for consistency in local patterns, my results support the conclusions reached by others that stonemasons performed a critical role in the production of epitaphs.³⁹⁹ This thesis provides an indicator of where the evidence for this exists and where a useful starting point for further study might be.

³⁹⁷ Buonopane, 'Un'officina Epigrafica e Una 'Minuta' Nel Laboratorio Di Un Marmorarius a Ostia'. Other examples of stonecutters practicing their letter carving include the following inscription from Rome: *Div(i) Titi T(itus) Vespasianus / senatus populusque Romanus / ABCDEFGHIKLMNOP / QRSTVX // Ro/ma capu<t=S> / mundi* (CIL 06, 29849a).

³⁹⁸ CIL VI 7393a – ash chest from the *columbarium* of the Volusii Saturnini, Via Appia

³⁹⁹ Susini, *The Roman Stonecutter: An Introduction to Latin Epigraphy*.

7.3.3 Group identity in military-linked populations

A theme that permeates the analyses in Chapters 4 and 5 is that cities with a population associated with the military have a similar profile. The epigraphic signatures of these cities display a remarkable and consistent level of homogenisation. This standardisation transcends political boundaries and links cities located in all regions of the empire. This shared pattern is found in ports such as Misenum and Ravenna in Italy where there is a close relationship with the imperial fleet and in cities on the frontiers of the empire such as Carnuntum (Pannonia Superior) and Ammaedara (Africa Proconsularis). Although there are variations in some elements of the epigraphic signature, it is clear that a common cultural background influenced the development of these shared features.

This collective background linked those communities where similar patterns of commemoration were shared by soldiers and civilians. The epigraphy of these communities indicates that their populations did not exclusively comprise soldiers but also consisted of dependants and those providing services.⁴⁰⁰ An alignment of military and civilian commemorations has also been noted in relation to the styles of monuments used to commemorate soldiers and civilians as well as the addition of *origo* (origin) in commemorations for civilians in military settlements.⁴⁰¹ Therefore, patterns of commemorations that may have originated with the military would have also applied, not only to soldiers and veterans, also to those civilians who lived and died within the same settlements.

The evidence for a shared pattern of commemoration across cities with a military-linked population is particularly strong in two of the case studies in Chapter 5. The case study for Carnuntum compares the results for cities with a military-linked population in the Danubian

⁴⁰⁰ Rob Collins, 'Identity in the Frontier: Theory and Multiple Community Interfacing', in *TRAC 2007: Proceedings of the Seventeenth Annual Theoretical Archaeology Conference, London 2007* edited by C. Fenwick *et al.*, 45–52. Oxford, Oxbow Books, 2008.

⁴⁰¹ For style of monuments, see: Maureen Carroll, 'Commemorating Military and Civilian Families on the Danube *Limes*', in *Limes XXII: Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012*, ed. L. Vagalinski and N. Shankarov (Sofia, Bulgaria: Bulgarian Academy of Sciences, 2012), 502. For the addition of *origo*, see: Mattingly, *An Imperial Possession: Britain in the Roman Empire 54 BC - AD 409*.

provinces with those in north Africa (see Chapter 5, section 5.5.4). Although the variant of *Dis Manibus* they included was determined by local practice, they all shared a tradition for abbreviations, longer inscriptions, and the use of *hic situs est* to indicate the location of the remains. Similarly, when we consider Misenum, it is evident that ports with a strong relationship to the imperial fleet, such as Misenum, Ravenna, and Salona, had a tradition of longer inscriptions and a high abbreviation rate (See Chapter 5, section 5.5.3). However, unlike other cities with a military-linked population, they do not share the tradition for using *hic situs est*. Instead, they opt for *bene merenti*, which is generally much rarer in military cities.

The explanation for why an epitaph located in one of these cities might be longer than others in the region could be due to a tradition for including detailed information about the deceased in a military epitaph. For instance, *origo* (noted above) and the age of the deceased were both common features associated with military epitaphs and could readily be adopted in civilian commemorations.⁴⁰² In addition, Saller and Shaw have noted that epitaphs in Lambaesis set up to commemorate senior officers were longer and included more family members.⁴⁰³ The addition of these features, together with specific formulae, may have contributed to the longer inscriptions found in these settlements.

Cities with a military-linked population also had a tradition for abbreviated formulae.⁴⁰⁴ There are two explanations that could account for this. The first relates to the general population of the city being familiar with the expressions. We have already seen that abbreviation rates were lower when unusual formulae were used but higher when an expression was used in multiple epitaphs. The message conveyed by these expressions must have been so familiar to the population that an abbreviated version was not unusual. The second explanation concerns the presence of stonemasons in these settlements and the mass production of epitaphs. They provided an essential

⁴⁰² For the association of statements of age by the military, see: Laurence and Trifilò, 'The Global and the Local in the Roman Empire: Connectivity and Mobility from an Urban Perspective'.

⁴⁰³ Saller and Shaw, 'Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves', 140.

⁴⁰⁴ In other cities, such as Portus (see Chapter 5 Section 5.5.2), we have seen that longer inscriptions are often associated with expanded rather than abbreviated formulae. Their extended length must therefore result from their tradition of adding extra information in the inscription.

service to military populations, in an environment where the requirement for epitaphs would have been high.⁴⁰⁵ Mass production in these settlements would have been facilitated by the production of pre-carved stones, which are likely to have been cheaper when abbreviations were used.

In terms of the expressions used in cities with a military-linked population, the results indicate a tradition for certain formulae. The case study for Carnuntum showed that commemorators in settlements on the Danubian frontier and those in the African provinces used *hic situs est* in high percentages. This expression, which referred to the location of the remains, would have had a particular poignancy to most soldiers. To die in battle would have meant no personalised commemoration and possible interment in a mass grave.⁴⁰⁶ By making a statement about the location of their remains, they were emphasising the importance of a personalised commemoration and the status that this brought. In a world where recovery of the dead in battle might have been almost impossible, this would have brought particular comfort to those serving in the military.⁴⁰⁷

Additionally, the case study for Misenum indicates that commemorations in cities associated with the imperial fleet frequently included *bene merenti*. As we saw in Chapter 4, this formula is associated with military epitaphs and used in a military context to imply an individual who deserved recognition. However, the results of this thesis suggest that we can be more specific with this military association by connecting use of the expression to epitaphs commemorating members of the fleet due to its prominence in the epigraphic signatures of Misenum and Ravenna, where the imperial fleet was based. Its use in other port cities in the Mediterranean, such as Barcino (Hispania Citerior), Carales (Sardinia), and Salona (Dalmatia), may also be due to an

⁴⁰⁵ Mócsy, *Pannonia and Upper Moesia: A History of the Middle Danube Provinces of the Roman Empire: Translation*; Maureen Carroll, 'Ethnicity and Gender in Roman Funerary Commemoration: Case Studies from the Empire's Frontiers', in *The Oxford Handbook of the Archaeology of Death and Burial*, ed. Sarah Tarlow and Liv Nilsson Stutz (Oxford: OUP, 2013), 559–79.

⁴⁰⁶ Valerie M. Hope, 'Trophies and Tombstones: Commemorating the Roman Soldier', *World Archaeology* 35, no. 1 (April 2003): 87.

⁴⁰⁷ Popov, 'Military Epitaphs in Mogontiacum and Carnuntum in the First and Early Second Centuries CE', 239.

association with the imperial fleet. However, a full study of these epitaphs is needed to establish the accuracy of this hypothesis.

Throughout this chapter, I have argued that Rome had a local influence on epigraphic patterns and that provinces on the peripheries of the empire developed distinct epigraphic habits. However, I have also demonstrated that mobility, stonemasonry, and a common identity also influenced patterns at a local level. These globalising forces had a powerful effect in determining a region's epigraphy.

7.4 Identifying centres of influence

One of the key results of this thesis is that it illustrates the extent to which one location could impact the epigraphic signature of another. Interpreted as the 'power' or 'influence' of one place over another, it is particularly relevant when we are considering Rome's impact on the epigraphy of the provinces. The results have demonstrated that Rome's power and influence was localised to regions near the centre and to cities with which it had a cultural and historic connection, such as its former colonies. Thus, Narbo's epigraphic signature, discussed in Chapter 5 Section 5, 5.6, showed that the epigraphic signature of some former colonies was influenced by patterns of epigraphy found in Rome and Italy. It shows that there was a convergence of some elements of their profile that was directly related to patterns of epigraphy found at the centre of the empire.

However, the results presented in Chapters 4 and 5 also demonstrated that more than one centre of influence existed within the empire. Regional or provincial centres were also responsible for the convergence of patterns. These provincial centres of influence created a pattern of epigraphy, distinct from the wider region, that was shared with neighbouring cities. These results show that the power and influence to produce patterns of commemoration was not limited to Rome and the centre of the empire, as traditional narratives of Romanisation might suggest.⁴⁰⁸ The

⁴⁰⁸ For a discussion of debates in romanisation, see: Revell, *Roman Imperialism and Local Identities*, 5-7. For a critique of romanisation debates in terms of theories of globalisation, see: Pitts and Versluys, 'Globalisation and the Roman World: Perspectives and Opportunities'.

development of distinct regional patterns, such as those found in the Iberian and African provinces, and distinct local patterns within a region, such as those found in Cirta in Numidia, point to the development of centres of influence in a provincial context and are indicative of the existence of a multi-centric empire.

This section argues that the existence of provincial centres of influence point to the development of a polycentric empire within global patterns of commemoration. Having already demonstrated that Rome's sphere of influence was limited, it shows that other centres of control had the power to influence patterns of commemoration. In order to demonstrate that patterns of commemoration were influenced by the development of a polycentric empire, I first discuss the evidence for provincial centres of influence, and follow this with a discussion of the power and influence exerted by Cirta over neighbouring cities. I conclude with how the existence of these multiple centres of influence, serve to decentre Rome.

Evidence for provincial centres of influence

Traditional debates of Romanisation characterise the empire as one with an imperialistic top down perspective.⁴⁰⁹ Essentially, Rome's power and influence determined the culture of the peripheries. However, the evidence presented in this thesis indicates, in terms of funerary commemoration, that the idea of a central imperial influence can only be detected in those regions close to Rome, and in those cities established as former colonies. These traditional debates on Romanisation are in contrast to more recent discussions, which focus on 'globalisation' and, as a result, have 'decentred' Rome, and limited its role in the process of cultural exchange.⁴¹⁰ For example, in discussing material culture, John Miguel Versluys explains that Rome should not be considered as a single centre. He describes the exchange of material culture as 'quintessentially polycentric'.⁴¹¹

⁴⁰⁹ Van Alten, 'Glocalization and Religious Communication in the Roman Empire: Two Case Studies to Reconsider the Local and the Global in Religious Material Culture', 2.

⁴¹⁰ Pieterse, 'Ancient Rome and Globalisation: Decentring Rome'.

⁴¹¹ Versluys, 'Understanding Objects in Motion. An Archaeological Dialogue on Romanization', 16. See also: Martin Pitts, 'Globalisation, Circulation and Mass Consumption in the Roman World', in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, ed. Martin Pitts and Miguel John Versluys (Cambridge: CUP, 2015), 80.

When we examine global patterns of funerary commemoration, it is this multicentric world that we see. There is no single centre producing patterns to be emulated by all other locations; rather, there are many centres producing patterns and disseminating these to other cities within their influence.

The evidence for a polycentric empire can be found throughout the thesis. In the same way that Rome influenced cities in Italy, and those cities that were its former colonies, these other centres of influence created patterns of commemoration that were shared with the wider region or with cities close by.

At a regional level, we can see that the African and Iberian provinces operated as separate centres of influence. Cities in the African provinces shared a tradition for using formulae such as *Dis Manibus Sacrum* and *his situs est*, which were unpopular in the centre. This suggests the development of a region-wide centre of influence, independent of Rome, with the authority to shape patterns of commemoration. A similar region-wide centre of influence can be detected in the Iberian provinces where the style of commemorations was also not influenced by Rome. Commemorators created memorials characterised by the continued use of traditional vocabulary and an emphasis on the bond between the living and the dead through the expression *STTL*. The style of these epitaphs was repeated throughout cities in the region, giving them a uniquely Iberian character and setting them apart from those in the centre.

Similarly, at a more local level, we have seen how a distinct pattern of commemoration evolved in Cirta in Numidia. This was shared with satellite towns close by, pointing to the development of a local centre of power and influence. The results of Chapter 4 (5.5.1) clearly illustrate that there were a group of cities under Cirta's administrative control, where the epigraphic signature included some features that were rare in the wider region. For instance, the use of *DM* in these cities, rather than the traditional African form of *DMS*, was a sign that these cities had developed an alternative style of epitaph. There is also evidence that some features of Cirta's epigraphic signature, particularly the use of *OTBQ*, rare in the wider region, were shared with three other cities, all founded as colonies at the same time as Cirta. Overall, this homogenisation of

patterns at a local level, indicates that some cities were able to reject the alternative form developed by the region and create their own style, independent of the region and the centre.

The evidence for a polycentric empire presented here, describes an empire where local power structures had the authority to influence commemorative patterns. Furthermore, it demonstrates that Rome's power and influence had little impact on the patterns at the peripheries of the empire. This polycentric empire, which lacked a single point of influence, encouraged the development of a funerary culture that was, at the same time, both similar and different.

7.5 Conclusions

This chapter has shown that we can only truly understand patterns of commemoration in the Roman world by carrying out a quantitative spatial analysis. The content of epitaphs in Rome and Italy exemplify a 'local' epitaphic culture that should never be seen as representing styles across the empire. They indicate a centre where the epitaphic culture was characterised by the formula *Dis Manibus*, a formalised relationship with the deceased and the size or status of the tomb. This created a style of epitaph that appeared less standardised and lacked the capacity to adapt to new styles of commemoration developed in the provinces. This is in direct contrast to the Iberian and African provinces on the peripheries of the empire. As epigraphic innovators, these provinces were dominated by homogenised epigraphic landscapes, where the epitaphs were shorter and more abbreviated than those in Rome, and contained standardised language to maintain a connection with the deceased and their remains, rather than the tomb.

Other influences modified this epitaphic culture that was created at a regional level. I have argued for the existence of 'globalising forces' such as migration, stonemasonry, and a collective identity in the military. These forces impacted commemorative patterns to create local adaptations, resulting in epigraphic signatures that were divergent in ports and but also convergent in military cities. These local adaptations also generated a shared consistency in the funerary landscapes of

some cities. This implies the existence of local epitaphic cultures that were flexible and, unlike at Rome, these were able to adapt their funerary culture according to external influences.

I have also suggested the existence of a 'polycentric empire', in which Rome is 'decentred' as the focus of the Roman world. This describes an empire not dominated by a single centre but one characterised by the development of several centres of influence. The evidence indicated distinct regional patterns in the African and Iberian provinces, and the very local pattern in cities close to Cirta in Numidia. Other local patterns uncovered during the analysis could also be considered centres of influence. These include Carthage and the cities associated with Thugga, and Emerita and neighbouring cities in Lusitania and Baetica. However, the evidence for these as centres of influence needs further analysis.

To reiterate, the variation in styles of commemoration suggests a global epigraphic landscape comprising a conservative centre and innovative periphery. The conventional epigraphic signature of the centre was emulated by those regions to the north and east whereas those to the south demonstrate an innovative approach to their commemorations. This inventive content and method of use suggests the development of a more sophisticated epigraphy that was meant to be read and understood.

Chapter 8 – Conclusion

Introduction

In his seminal work on the epigraphic habit, published in 1982, Ramsey MacMullen stated ‘other than the entire epigraphic habit itself’ the recording of age was the only aspect of an inscription that could be described statistically.⁴¹² This assumption was a product of the limited computing resources available at the time, and a lack of imagination in the potential provided by epigraphic data. Thirty-eight years later, the epigraphic research community now has access to online databases containing thousands of Roman inscriptions, and mapping software to investigate and visualise them. This thesis, which has analysed thousands of inscriptions, demonstrates the transformative effect a quantitative spatial analysis can have on the way epigraphic studies are conducted.

The purpose of this study was twofold. Firstly, it set out to explain how a quantitative analysis of frequently-used formulae in inscriptions might provide new insights into spatial variation in epitaphic patterns of commemoration. Secondly, it was designed to understand the role of Rome in the creation of these spatial patterns. By analysing where different epitaphic expressions were used, and how common they were, it has shown how funerary commemorations were characterised by particular content and features that typified their geographic origin. Furthermore, it has also demonstrated how local epitaphic patterns could be directly shaped by external forces, generating patterns of commemoration that were distinct from the wider region.

My original contribution to knowledge in this thesis is that I have established the extent of Rome’s power and influence and demonstrated the existence of multiple centres of influence in the provinces. By considering how similar and different these patterns of commemoration were, the study revealed that Rome’s influence was limited, and only extended to neighbouring regions and to its former colonies. Finally, the analysis of local epitaphic patterns uncovered evidence, in some regions, for provincial centres of influence, suggesting the existence of a polycentric empire which

⁴¹² MacMullen, ‘The Epigraphic Habit in the Roman Empire’, 238.

was composed of multiple interdependent nodes. Therefore, the results illustrate a Roman world dominated by a conservative core, centred on Rome and Italy, with an innovative periphery in the Iberian and African provinces.

This chapter details the main conclusions of the thesis, according to the original research questions presented in the introduction. These research questions were designed to understand regional variation in the use of common formulae and how this could be investigated to create epigraphic signatures for different regions and cities. The role of Rome in determining provincial patterns of commemoration and the evidence for a polycentric empire were also explored and overall conclusions for these topics are presented here. I also consider further research opportunities arising from the thesis and discuss some practical applications for the results.

8.1 Epitaphic formulae as evidence

This study has shown that the use of common formulae can be measured and mapped to visualise commemorative patterns. The use of standardised expressions was a universal characteristic of the epigraphic habit, making them an ideal subject for a study of this nature. Their treatment in the literature prior to this study is characterised by generalisations in terms of both their frequency and their geographic reach.⁴¹³ Their mass appeal and repeated use has often been seen as an indication that they have little value in epigraphic research. However, their use across the empire and their repetition in thousands of epitaphs made them an ideal subject for the quantitative analysis presented in this study.

Unlike previous studies based on frequencies or totals, the current study is predicated on the prevalence of an expression in a city or region as a percentage of the total number of epitaphs in that city or region. This has produced more robust results since it neutralises the impact of variations in the surviving numbers of inscriptions and demonstrates how significant an expression

⁴¹³ Toynbee, *Death and Burial in the Roman World*, 75.

was in the epitaphic record of any region or city. The study has shown that some expressions, although frequently included in the inscriptions of a city, were rare when set in the context of all surviving epitaphs. For instance, in Rome, there are 695 epitaphs that include *HSE* giving the impression that this was a frequently used formula in the city. However, these inscriptions only account for 2% of all surviving epitaphs from Rome, indicating that although it was used many times, it was not a significant element of the epigraphic signature. Thus, I have shown that some of those patterns that were previously thought to be significant, are simply reflections of a local epigraphic habit when viewed in a broader context.

Epitaphic formulae have never been subjected to a large-scale analysis such as this. The results have shown that only ritual formulae such as *Dis Manibus/Dis Manibus Sacrum* and an expression of age, such as *vixit annos*, were global concepts in an epitaph and used throughout all regions of the empire. The use of all other expressions in the study, despite their frequency in the epitaphic record, displays strong regional variation. In general, the results showed that certain regions had a tradition of using particular types of expressions. Regions close to Rome emphasised the importance of the tomb by using expressions such as *in fronte in agro* and *libertis libertabusque posterisque eorum*, whereas the Iberian and African provinces used expressions such as *sit tibi terra levis* and *vixit annos* to highlight and commemorate the deceased.

The results have also shown that some expressions transcend political boundaries and were associated with commemorations set up in a military context. For instance, *hic situs est*, which recorded the presence of the remains, appeared mainly in memorials associated with military burials in the provinces and was rarely used in epitaphs in Rome. Also, the epithet *bene merenti*, long associated with Rome in the scholarly literature, was in fact most popular in cities associated with the Roman fleet, such as Misenum and Ravenna.⁴¹⁴

Spatial variation in the use of these expressions also helps us to consider how a commemorator selected the text of an epitaph. There is a common assumption in the existing

⁴¹⁴ Nielsen, 'Interpreting Epithets in Roman Epitaphs'.

literature that all formulae were available for use regardless of the geographic location of the inscription.⁴¹⁵ However, by illustrating the significance of regional variation, this study has revealed how the selection of text for an epitaph would have been determined by local and regional traditions. Each region and city had a set pattern to their funerary commemorations that included a specific group of formulae. These patterns were likely controlled by stonemasons and their use of copybooks containing the expressions popular in the local area. This suggests that commemorators would only be aware of expressions common in their own area.

These results have underlined the need for a thorough appreciation of the geographic distribution of these expressions. Not only does this analysis reveal significant geographic differences in commemorative habits, but it also means that we are no longer reliant on the generalised data used in previous studies.

8.2 Analysing epigraphic signatures

The current study has established epigraphic signatures for regions and cities in order to compare commemorative patterns. Many previous epigraphic studies have been based on individual regions, provinces, or cities, making it difficult to examine the epigraphic habit of one place in the context of another. These earlier studies focussed only on a subset of the data that might reveal local patterns, but, because they are regionally based, excluded patterns that transcended political or city boundaries. They also do not easily enable an evaluation of significant patterns and differences between places. In contrast, the epigraphic signatures described in this study provide a fixed representation of commemorative habits that were used to compare one region or city with another. These comparisons enabled me to identify differences and similarities between, and within, different regions of the Roman world, and facilitated a discussion of the underlying reasons that account for variation in commemorative patterns.

⁴¹⁵ Campbell, *The Tombs of Pompeii: Organization, Space, and Society*, 63.

By assigning epigraphic signatures to regions, I have been able to assess the impact of Rome's commemorative practices on those of the other regions and cities. The results have shown that there was no single homogenised commemorative pattern across the empire, and that only Italy shared the same epigraphic signature as Rome. In fact, there was a division between those regions to the north and north-east of Rome and Italy (currently northern and central Europe) which shared some elements with Rome, and the Iberian and African provinces, where distinctive epigraphic cultures dominated the epigraphic record. The creation of epigraphic signatures for some cities has also indicated that Rome's influence impacted the development of commemorative patterns in its former colonies in northern Italy, Gaul and Hispania Citerior. Overall, the results have shown that the power and influence of Rome was limited, and that it only extended to neighbouring regions and to its former colonies.

These epigraphic signatures have also revealed that the Iberian and African provinces were able to develop their own epigraphic habits independent to those of Rome. These regions developed styles of commemoration that were not only different to those found at the centre but were also innovative in their use of this standardised language. They used different types of formulae, made more use of abbreviations and produced shorter epitaphs. Commemorations in the Iberian and African provinces were more accessible and pragmatic than those found in the centre. The differences highlighted here are an important reminder not to underestimate the role of these provincial commemorative patterns in the global funerary landscape.

This comparative analysis and the quantitative approach used in this study also revealed the impact of 'globalising forces' such as migration; trade, in terms of stonemasonry; and group identity in the army, to create local adaptations of a regional profile. These globalising forces operated across regions, amending or sharing commemorative patterns. In many cases, these globalising forces are responsible for the anomalies detected in local patterns during the analysis. For instance, they were probably responsible for the anomalous pattern detected at Misenum where the epigraphic signature is at odds with other cities in Latium and Campania. These globalising forces had a powerful effect in determining an epigraphic signature at a regional and local level.

Detection of these forces and the effect they had on epigraphic trends is a consequence of using a methodology ideally suited to discovering patterns across a large dataset. These trends would have been missed in previous studies, many of which have been based solely on individual regions or samples of data.

Three forces have been identified as having a significant impact in this study: migration and mobility; stonemasonry; and group identity in military-linked populations. In the case of migration, the effect is felt most strongly in port cities although this is complicated by the additional impact of the influence of Rome on its former colonies, many of which were also port cities. The role of the stonemason as a key player in the creation of an epitaph has also been identified as a force that amended local patterns. The consistent style that these stonemasons created in many cemeteries, particularly in those cities close to Thugga, was a direct result of the control they exercised over the production of epitaphs. Finally, a group identity in the military encouraged the production of a pattern of commemoration that was shared by military-linked populations. Sometimes these patterns were cross-regional, for example in the case of military cities in the Danubian and African provinces. In other examples, cities were geographically closer together such as Misenum and Ravenna in Italy, both of which had an association with the imperial fleet. The local adaptations resulting from these forces are an important feature of the analysis, since they provide evidence for how regional patterns were not always implemented in a single rigid style. They also demonstrate that the sharing of commemorative patterns could result in a convergence of patterns in cities geographically distant from each other.

8.3 Decentring Rome

A key finding of this thesis has been the discovery of evidence for an empire with numerous centres of influence across all of its constituent parts. Analysing a large dataset of inscriptions has revealed that there was no single centre, producing patterns to be emulated by all other places, rather, there were many centres, creating and disseminating patterns to other cities within their sphere of influence. By considering the evidence for trends that diverged from the regional pattern,

I have been able to identify autonomous centres of influence, where alternative epigraphic signatures were developed and disseminated to neighbouring cities. In effect, Rome as a state is represented as a spatially distributed power and cultural network, with citizens based not at one point of origin, but in many points.

In terms of epigraphy, Rome has always been seen as the ‘centre’ of the empire.⁴¹⁶ Based simply on the huge number of surviving inscriptions from the city, it has been described as the ‘cradle’ of epigraphy.⁴¹⁷ Whilst not disputing the importance of this vast body of evidence from Rome, there has been a tendency in the past to over-value its use in research, creating a scholarly literature dominated by evidence from one city, that ignores the vast numbers of inscriptions from other parts of the empire.⁴¹⁸ This over-reliance on inscriptions from Rome means that the city has always been seen as the ‘centre’ of Roman epigraphy, and the only source of the epigraphic habit. However, these results have shown that Rome was only one of several centres of epigraphic influence, where epigraphic signatures were created and disseminated.

A polycentric empire is also evident in the distinct regional patterns in the African and Iberian provinces, and the very local pattern in cities close to Cirta in Numidia. This suggests the development of centres of influence in a provincial context where the regional epigraphic signature was rejected, and a new style was created, independent of the region and the centre. Other local patterns uncovered during the analysis could also be considered centres of influence. However, studying all of these local patterns was beyond the scope of this thesis, and therefore requires further analysis in the future.

These results point towards a wider polycentricism of empire, thus providing novel insights into our understanding of the Roman empire, and perhaps even the concept of empire more

⁴¹⁶ The potential for inscriptions from Rome to skew an analysis was recognised by Ray Laurence when he excluded epitaphs from the city in his study of age in epitaphs. See: Laurence and Trifilò, “‘*Vixit Plus Minus*’” Commemorating the Age of the Dead: Towards a Familial Roman Life Course?”, 25.

⁴¹⁷ Rosanna Friggeri, *Epigraphic Collection of the Museo Nazionale Romano at the Baths of Diocletian* (Milan: Electa, 2004), 9.

⁴¹⁸ Epitaphs from Rome and Italy account for only 51% of the total epitaphs in this thesis so half of all the inscriptions come from outside the centre of the empire.

broadly. The evidence presented in this thesis does not support the binary ‘core-periphery’ model for understanding the operation of pre-modern empires. In fact, it necessitates the decentring of Rome, and encourages us to view the centre of the empire alongside other cities where independent epigraphic signatures were developed and dispersed to other communities in the location.

The evidence for a polycentric empire is a significant result because it presents a different view of the Roman world. It highlights how the power and influence to produce patterns of commemoration was not limited to Rome and the centre of the empire, as traditional narratives of Romanisation suggest. It points to a world where the power and influence of Rome was limited to Italy and neighbouring regions, and therefore encourages us to shift the focus of our analysis of empire away from the metropole and towards the provinces.

8.4 Decolonising ancient history

The results of this thesis also contribute to recent debates that seek to ‘decolonise’ the study of ancient history.⁴¹⁹ In April 2019, Zena Kamash, underlined the narrow focus of Roman archaeology in her plenary address to the 2019 Theoretical Roman Archaeology Conference (TRAC) in Canterbury.⁴²⁰ Her analysis of papers from previous conferences, demonstrated a massive bias towards research on Britain and Italy.⁴²¹ Kamash also highlighted a bias towards ‘traditional’ topics, such as material culture and religion, rather than those, such as migration and ethnicity, where there would be more scope for a decolonising agenda. The results of this thesis have much in common with her analysis. Just as she appealed for a change in emphasis, this thesis has refocussed attention away from the epigraphy of Rome and the centre, instead emphasising the evidence for an independent epigraphic habit in the Iberian and African provinces. Although

⁴¹⁹ Emily Hanscam and Jonathan Quiery, ‘From TRAC to TRAJ: Widening Debates in Roman Archaeology’, *Theoretical Roman Archaeology Journal*, 1 (2018): 9.

⁴²⁰ The slides from Zena Kamash’s plenary address were tweeted here: <https://twitter.com/ZenaKamash/status/1117378424950149122?s=20>, accessed 6 February 2020.

⁴²¹ Of 2,080 papers, 46% were focussed on research on Britain and Italy. This was reflected in open sessions, of which 42% were on Britain and Italy.

Kamash did not mention epigraphy in her address, the results of this thesis illustrate that even a traditional topic, such as epigraphy, can be used to provide new perspectives on ancient history.

8.5 Methodological issues

A quantitative spatial methodology is rarely employed in epigraphic research. Despite this, the results of the current study have illustrated its potential to manage and analyse epigraphic data to reveal significant results. By analysing thousands of epitaphs, I have been able to identify globalising forces and evidence for a polycentric empire. However, as the analysis progressed it became clear that there were a number of issues associated with the methodology that should be addressed in future studies.

Temporal analysis

Since none of the inscriptions in the database are dated, I was unable to conduct a detailed analysis of change over time.⁴²² This would have been a useful addition to many of the analyses, particularly when I was investigating the data for evidence of consistency. For example, it would have highlighted whether those epitaphs in Thugga (Africa Proconsularis) were set up at the same time and therefore strengthened the argument for the use of copybooks by stonemasons. Current practice for dating epitaphs in online databases remains questionable. As pointed out in Chapter 3, the practice of dating an epitaph according to the inclusion of common formulae is unreliable. It is possible in some places to give a broad date to cemeteries, but these dates would not provide adequate detail for a temporal analysis of formulae use. Unfortunately, there is no solution to the problem of dating inscriptions for large datasets at present.

Monumental context

Since the database does not record monumental context, I have been unable to assess how far the type of monument might have influenced the choice of formulae. However, this has important

⁴²² The problems associated with dating the epitaphs were discussed in Chapter 3 and need not be repeated here.

implications for how we interpret the results of the current study. In particular, the study has shown that some formulae are rare or absent in the epigraphic record of a particular place. How far this might be due to a regional preference for a particular style of monument is unclear in the results. For example, the absence of *HMHNS* in Numidia may have been due to a preference for individual commemorations rather than the communal hereditary tombs we find in Rome. This could be addressed in a smaller scale study based on a subset of the data.

Social Context

Previous studies have shown that social status, gender or age of the deceased can also impact the content of an epitaph. Although the current study has been unable to examine the relationship of these factors with the choice of formulae, this could be examined in smaller scale studies in the future,

8.6 Further research

A major advantage of the methodology used in this study is that it has highlighted a number of areas requiring further research. The analysis of thousands of epitaphs has meant that I have been able to investigate the data with a top-down approach to look for any significant trends rather than basing it on a predefined set of topics. For example, I could have used the data to provide a detailed analysis of evidence for patterns associated with military communities. This would have investigated formulae use in military settlements and would have provided more detail on the spread of particular commemorative patterns. However, this approach would not have highlighted evidence for a polycentric empire nor would it have revealed anomalous patterns in ports. The ‘macro’ approach I have used has produced a series of results many of which are ideal topics for further investigation.

A significant result of this study was the identification of multiple centres of influence. Future research could extend this analysis in two ways. Firstly, in order to strengthen the argument for a polycentric empire, it would help to have evidence of other centres of influence. This could be done by identifying other centres where a local pattern is shared amongst a group of

neighbouring cities. To confirm their status as a centre of influence, and therefore part of a polycentric empire, these centres would need to display a local power structure similar to that in evidence at Cirta. Secondly, a more detailed spatial analysis would allow us to detect the extent and limits of the power and influence these centres exerted. We have already seen that the influence of Cirta over neighbouring cities declined as distance from Cirta increased. A similar result for other centres would provide evidence of a relationship between connectivity and the strength of influence one place could exert over another.

The extra analysis required to identify other centres of influence might also shed light on the role of the stonemason in managing and maintaining patterns of commemoration. I highlighted Thugga (*Africa Proconsularis*) and nearby cities as evidence of the involvement of stonemasons, but there are likely to be other examples in the data. We need to identify neighbouring cities with a structure to their epitaphs that are identical or almost identical. The physical appearance of the stones themselves should also be examined for similarities in lettering and imagery. This could establish if stones were produced in the same workshop.

The study identified that ports associated with the imperial fleet such as Misenum and Ravenna had similar epigraphic signatures. A more detailed analysis of funerary commemorations in ports would be able to confirm if this signature, or some elements of it, was shared by other Mediterranean ports. A detailed analysis of the epitaphs would reveal if the commemorations contributing to this epigraphic signature were members of the imperial fleet. This would provide valuable information on how a shared identity could influence commemorations beyond the expected range of cities.

Despite the absence of an overall temporal analysis in the study, one result points to the need for a closer examination of how epigraphic signatures might change over time. We saw in Chapter 5 that Altava in *Mauretania Caesariensis* had a tradition of using one or two formulae and, therefore, did not conform to the overall regional tradition for two or three. This was unusual for a city in North Africa, and I argued in Chapter 7, that this might relate to the later date of these epitaphs. This would suggest that the practice of including several formulae in a single epitaph in

the African provinces declined over time. However, this preliminary observation requires further analysis. The collection of epitaphs from Altava would need to be analysed in detail, and dates assigned to each. This might confirm the possibility of a relationship between date of an epitaph and the number of formulae used, although only a detailed temporal analysis across a wider selection of epitaphs could confirm this.

8.7 Practical applications

The research presented here has shown how a quantitative and spatial analysis of thousands of epitaphs can reveal new insights into patterns of commemoration. However, there are some benefits arising from the research that have a more practical application that could be of use outside the research community.

The results have important implications for how we present common epigraphic formulae in epigraphic manuals. Firstly, it is important in any discussion of inscriptions that we are clear what we mean when we refer to a formula as ‘common’. I am not suggesting that we give statistics for each expression, but it is important, at least, to distinguish between a universal formula such as *DM*, used in thousands of epitaphs and *HMHNS*, used only in hundreds. Secondly, it is important that expressions are always recorded alongside an indication of whether they are truly universal or are mainly found in certain regions. Since this study has shown that the vast majority of expressions have a limited reach, it is essential that they are discussed in terms of the regions where they were mainly used. This will produce epigraphic manuals based on recent research rather than relying on commonly held assumptions.

The results also have important implications for how we teach epigraphy. Since these standardised expressions are a common feature in Roman epigraphy, they form an important part of any syllabus. Students are taught a list of frequently used expressions together with their common contractions or abbreviations. However, they are always presented as ‘common’, regardless of how frequent they actually were or where they were most often used. Students are rarely taught that

some are more frequent than others, and most likely, they will come away with the impression that there is an equal chance of seeing any of these expressions, in any set of inscriptions, regardless of provenance. If we add to this the likelihood that teaching materials will be heavily biased towards epitaphs from Rome, it is obvious that students are learning epigraphy based on a very imbalanced sample that is not truly representative of the breadth and scope of epitaphic styles. The results of this study could be used to produce a teaching collection that characterises the diverse epitaphic styles found throughout the empire, ensuring that students are taught a representative sample of epitaphic formulae.

Finally, these results have important implications for how museums attribute origin to an inscription without an archaeological context. By considering the overall style of an epitaph and comparing it to the regional epigraphic signatures included in this study, it may be possible to give a broad geographic origin for the inscription. The use of formulae has already been used to good effect, to identify an accurate origin for an inscription in Canterbury Museum.⁴²³

Final thoughts

A recurring theme throughout this thesis has been the tension between the local and global in epigraphic patterns of commemoration. This conflict was responsible for the different styles of commemoration that characterised the funerary landscape of the Roman world. We have seen how patterns of commemorations in regions on the peripheries of the empire were significantly different to those in Rome and Italy and how regional patterns could be amended by globalising forces to create a unique epigraphic signature for a city. This conflict between the local and the global can only be detected by analysing and quantifying the characteristics of thousands of epitaphs and visualising them in maps and statistical charts. As such, this thesis has made a significant step in

⁴²³ Goessens, “‘*Titulum Non Repperi*’”: The Identification of an *Alienum* in Canterbury with a Missing Inscription from Mérida (RIB 2328* = CIL II 585)’.

understanding how the epigraphic habit described by MacMullen in 1982, differed both between regions, and within a region, to create a local and global pattern of commemoration.

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Appendix

(Entries are listed alphabetically by province and then place-name)

Table A1 – Prevalence of formulae as a percentage of city total

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Ravenna	Aemilia	241	51%	0%	29%	60%	2%	0%	5%	1%	1%	0%	0%	0%	0%	5%
Ammaedara	Africa P.	473	4%	50%	0%	91%	53%	1%	0%	0%	0%	0%	0%	0%	0%	1%
Bulla Regia	Africa P.	175	2%	73%	0%	89%	61%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Calama	Africa P.	150	3%	55%	3%	95%	39%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Carthago	Africa P.	1,935	5%	54%	1%	83%	48%	1%	0%	0%	0%	0%	0%	2%	0%	1%
Djebel Djelloud	Africa P.	151	3%	80%	0%	85%	21%	0%	0%	0%	0%	0%	0%	1%	0%	1%
Hadrumetum	Africa P.	121	37%	35%	4%	83%	40%	0%	0%	0%	0%	0%	0%	0%	0%	7%
Limisa	Africa P.	137	1%	81%	0%	72%	46%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mactaris	Africa P.	425	1%	45%	0%	81%	39%	1%	0%	0%	0%	0%	0%	0%	0%	1%
Madauros	Africa P.	628	4%	73%	0%	89%	62%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Nattabutes	Africa P.	177	1%	24%	0%	98%	80%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Sicca Veneria	Africa P.	622	0%	60%	0%	91%	63%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Simitthus	Africa P.	133	0%	62%	1%	89%	53%	7%	0%	0%	0%	0%	0%	10%	0%	2%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Talah	Africa P.	177	3%	59%	0%	89%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thaenae	Africa P.	114	25%	63%	1%	93%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thibursicum Bure	Africa P.	188	1%	87%	0%	79%	62%	3%	0%	0%	0%	0%	0%	2%	0%	1%
Thurnica	Africa P.	149	3%	40%	1%	91%	75%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Thubursicu Numidarum	Africa P.	626	1%	61%	0%	95%	69%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Thugga	Africa P.	1567	0%	76%	0%	83%	69%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Uchi Maius	Africa P.	280	1%	74%	0%	68%	63%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Aeclanum	Apulia et Calabria Regio II	134	56%	2%	43%	40%	3%	0%	7%	0%	1%	0%	0%	0%	0%	12%
Beneventum	Apulia et Calabria Regio II	282	42%	5%	32%	49%	5%	0%	15%	0%	4%	0%	0%	0%	0%	1%
Brundisium	Apulia et Calabria Regio II	443	24%	1%	7%	80%	71%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Luceria	Apulia et Calabria Regio II	125	64%	3%	45%	37%	6%	0%	12%	0%	0%	0%	0%	0%	0%	1%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Venusia	Apulia et Calabria Regio II	198	26%	2%	36%	21%	12%	1%	30%	1%	1%	0%	0%	0%	0%	1%
Avaricum	Aquitania	173	98%	1%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Burdigala	Aquitania	206	98%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%
Corduba	Baetica	262	2%	39%	2%	20%	69%	58%	0%	0%	2%	0%	0%	0%	0%	4%
Gades	Baetica	481	4%	13%	1%	2%	75%	71%	0%	0%	0%	0%	0%	0%	0%	0%
Hispalis	Baetica	100	6%	53%	2%	38%	54%	54%	2%	0%	1%	0%	2%	0%	0%	8%
Italica	Baetica	144	6%	70%	5%	50%	60%	61%	1%	0%	1%	0%	1%	0%	0%	8%
Augusta Treverorum	Belgica	232	18%	0%	0%	80%	1%	0%	0%	0%	0%	0%	0%	0%	0%	7%
Divodurum	Belgica	217	97%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Durocortorum	Belgica	137	100%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Andematunum	Belgica Germania superior	149	95%	0%	1%	1%	1%	0%	0%	0%	4%	0%	0%	0%	0%	0%
Apulum	Dacia	171	70%	0%	26%	68%	7%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Sarmizegetusa	Dacia	104	87%	0%	16%	66%	4%	1%	0%	0%	2%	0%	0%	0%	0%	0%
Salona	Dalmatia	1,363	66%	1%	35%	21%	3%	0%	4%	0%	2%	0%	0%	0%	0%	4%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Clusium	Etruria Regio VII	113	55%	3%	35%	42%	7%	0%	4%	2%	0%	0%	2%	0%	0%	2%
Tarquinius	Etruria Regio VII	198	10%	0%	11%	93%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%
Volsinii	Etruria Regio VII	139	62%	1%	32%	33%	1%	0%	4%	1%	0%	0%	0%	0%	0%	2%
Arelate	Gallia Narbonensis	248	69%	0%	2%	34%	2%	0%	1%	1%	1%	0%	0%	0%	2%	8%
Narbo	Gallia Narbonensis	295	24%	1%	2%	7%	13%	0%	51%	0%	9%	0%	2%	0%	0%	3%
Nemausus	Gallia Narbonensis	641	98%	0%	1%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vienna	Gallia Narbonensis	164	51%	0%	0%	46%	1%	1%	0%	0%	0%	1%	0%	0%	12%	16%
Colonia Claudia Ara Agrippinensium	Germania inferior	136	54%	3%	5%	26%	14%	4%	1%	0%	1%	0%	0%	0%	0%	1%
Mogontiacum	Germania superior	304	23%	0%	2%	15%	64%	3%	0%	0%	0%	0%	0%	0%	0%	0%
Barcino	Hispania Citerior	123	63%	6%	35%	6%	6%	2%	0%	0%	20%	0%	6%	0%	0%	0%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Hinojosa de Duero	Hispania Citerior	114	26%	34%	1%	0%	58%	31%	0%	0%	0%	0%	0%	0%	0%	0%
Tarraco	Hispania Citerior	360	64%	4%	29%	29%	9%	3%	0%	0%	2%	0%	0%	0%	0%	2%
Albanum	Latium et Campania	148	49%	1%	57%	68%	1%	1%	1%	0%	0%	1%	0%	1%	0%	0%
Capua	Latium et Campania	417	14%	27%	18%	39%	31%	0%	6%	4%	5%	0%	0%	0%	0%	5%
Misenum	Latium et Campania	379	81%	3%	66%	72%	0%	0%	0%	0%	2%	3%	0%	0%	0%	1%
Neapolis	Latium et Campania	102	30%	1%	39%	69%	1%	0%	1%	1%	1%	1%	0%	0%	0%	15%
Ostia Antica	Latium et Campania	1,966	70%	2%	26%	36%	1%	0%	13%	0%	1%	10%	0%	0%	0%	0%
Pompei	Latium et Campania	109	1%	0%	6%	81%	6%	2%	2%	0%	0%	0%	7%	0%	0%	0%
Portus	Latium et Campania	463	75%	3%	24%	32%	1%	0%	8%	0%	8%	18%	0%	0%	0%	1%
Puteoli	Latium et Campania	1221	73%	7%	42%	55%	2%	0%	1%	0%	1%	3%	0%	0%	0%	1%
Salernum	Latium et Campania	160	59%	4%	29%	61%	2%	1%	2%	0%	0%	3%	0%	0%	0%	1%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Viminacium	Moesia superior	110	62%	1%	38%	68%	12%	0%	0%	1%	3%	0%	0%	0%	0%	0%
Ain Kerma	Numidia	107	80%	6%	0%	95%	34%	1%	0%	0%	0%	0%	0%	5%	0%	0%
Caldis	Numidia	110	44%	1%	0%	92%	42%	0%	0%	0%	0%	0%	0%	5%	0%	0%
Castellum Arsalitanum	Numidia	289	42%	1%	0%	91%	43%	0%	0%	0%	0%	0%	0%	8%	0%	0%
Castellum Elefantum	Numidia	639	49%	4%	0%	94%	63%	0%	0%	0%	0%	0%	0%	7%	0%	0%
Castellum Phuensium	Numidia	174	74%	6%	0%	80%	55%	0%	0%	0%	0%	0%	0%	21%	0%	0%
Castellum Tidditanorum	Numidia	540	45%	1%	0%	91%	45%	0%	0%	0%	0%	0%	0%	13%	0%	0%
Cirta	Numidia	1,126	50%	5%	0%	91%	54%	1%	0%	0%	0%	0%	0%	11%	0%	0%
Civitas Celtianensis	Numidia	1,254	11%	69%	0%	96%	68%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Cuicul	Numidia	180	23%	51%	2%	72%	22%	1%	0%	1%	0%	0%	0%	3%	0%	1%
Lambaesis	Numidia	1,496	30%	64%	8%	85%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Milev	Numidia	167	42%	17%	0%	85%	53%	1%	0%	0%	0%	0%	0%	16%	0%	0%
Rusicade	Numidia	290	17%	37%	1%	93%	67%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Saddar	Numidia	120	36%	4%	0%	90%	38%	0%	0%	0%	0%	0%	0%	36%	0%	0%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Sigus	Numidia	329	17%	30%	1%	98%	52%	0%	0%	0%	0%	0%	0%	31%	0%	1%
Sila	Numidia	282	41%	19%	0%	91%	39%	1%	0%	0%	0%	0%	0%	2%	0%	0%
Thamugadi	Numidia	200	19%	69%	1%	77%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Theveste	Numidia	446	3%	72%	1%	91%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thibilis	Numidia	1,322	6%	33%	0%	90%	70%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Zarai	Numidia	106	9%	86%	3%	92%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aquincum	Pannonia inferior	283	64%	1%	6%	36%	25%	3%	0%	0%	0%	0%	0%	0%	0%	0%
Brigetio	Pannonia superior	104	81%	0%	9%	51%	6%	4%	0%	0%	0%	0%	0%	0%	0%	1%
Carnuntum	Pannonia superior	279	25%	1%	3%	8%	73%	3%	0%	0%	0%	0%	0%	0%	0%	0%
Roma	Roma	35,003	49%	3%	36%	51%	2%	0%	6%	0%	1%	5%	0%	0%	0%	2%
Carales	Sardinia	260	57%	1%	35%	78%	3%	0%	0%	0%	0%	0%	0%	0%	0%	21%
Catina	Sicilia	110	22%	52%	9%	73%	1%	0%	0%	1%	0%	0%	0%	0%	0%	2%
Comum	Transpadana Regio XI	132	76%	1%	6%	23%	0%	0%	2%	0%	3%	0%	0%	0%	0%	3%
Mediolanum	Transpadana Regio XI	227	33%	1%	10%	46%	1%	0%	23%	2%	5%	0%	0%	0%	0%	8%

Place Name	Province	Number of epitaphs (city)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Altinum	Venetia et Histria Regio X	144	17%	1%	6%	8%	0%	0%	76%	0%	1%	1%	27%	0%	0%	1%
Aquileia	Venetia et Histria Regio X	1,238	17%	2%	7%	26%	3%	0%	43%	0%	3%	3%	36%	0%	0%	3%
Ateste	Venetia et Histria Regio X	123	9%	2%	5%	5%	3%	0%	75%	0%	2%	0%	23%	0%	0%	0%
Brixia	Venetia et Histria Regio X	179	38%	0%	15%	30%	1%	0%	34%	0%	1%	0%	5%	0%	0%	2%
Patavium	Venetia et Histria Regio X	109	31%	1%	13%	9%	3%	0%	53%	0%	5%	1%	18%	0%	0%	0%
Pola	Venetia et Histria Regio X	220	46%	1%	12%	13%	1%	0%	39%	0%	4%	0%	5%	0%	0%	0%
Verona	Venetia et Histria Regio X	179	45%	1%	25%	20%	2%	0%	23%	0%	13%	0%	2%	0%	0%	1%

Table A2 – Regional prevalence of formulae as a percentage of region total

Regions	Number of epitaphs (region)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Balkan and Danubian	6,723	61%	4%	22%	37%	17%	1%	2%	0%	1%	0%	0%	0%	0%	1%
Eastern	919	41%	9%	17%	51%	22%	0%	3%	0%	2%	0%	0%	0%	0%	0%
Iberian	7,665	18%	27%	4%	11%	60%	43%	2%	0%	1%	0%	0%	0%	0%	2%
Italy	18,482	47%	6%	26%	42%	5%	0%	16%	0%	2%	2%	4%	0%	0%	2%
Med Islands	1,026	52%	9%	27%	74%	4%	0%	1%	1%	0%	0%	0%	0%	0%	9%
North African	26,961	16%	51%	2%	87%	46%	2%	0%	0%	0%	0%	0%	4%	0%	1%
North Western	7,088	75%	1%	2%	19%	7%	0%	3%	0%	1%	0%	0%	0%	6%	1%
<i>Provincia incerta</i>	140	66%	6%	34%	42%	10%	3%	2%	1%	0%	4%	0%	0%	0%	0%
Rome	35,003	49%	3%	36%	51%	2%	0%	6%	0%	1%	5%	0%	0%	0%	2%

Table A3 – Number of formulae in a single epitaph as a percentage of city total

Place name	Province	Number of epitaphs (city)	One	Two	Three	Four	Five	Six
Ravenna	Aemilia	190	54%	34%	11%	1%	0%	0%
Ammaedara	Africa P.	387	35%	20%	44%	1%	0%	0%
Bulla Regia	Africa P.	141	9%	38%	52%	1%	0%	0%
Calama	Africa P.	130	20%	57%	22%	0%	1%	0%
Carthago	Africa P.	1,376	29%	23%	45%	2%	1%	0%
Djebel Djelloud	Africa P.	129	18%	67%	15%	0%	0%	0%
Hadrumetum	Africa P.	103	21%	42%	36%	1%	0%	0%
Mactaris	Africa P.	349	40%	45%	15%	0%	0%	0%
Madauros	Africa P.	521	14%	28%	56%	2%	0%	0%
Sicca Veneria	Africa P.	531	15%	47%	38%	0%	0%	0%
Simitthus	Africa P.	115	15%	48%	32%	2%	3%	0%
Talah	Africa P.	156	19%	53%	28%	0%	0%	0%
Thaenae	Africa P.	106	14%	82%	4%	0%	0%	0%
Thibursicum Bure	Africa P.	156	10%	30%	56%	3%	1%	0%
Thurnica	Africa P.	128	16%	49%	34%	1%	0%	0%
Thubursicu Numidarum	Africa P.	572	9%	48%	42%	1%	0%	0%

Place name	Province	Number of epitaphs (city)	One	Two	Three	Four	Five	Six
Thugga	Africa P.	1,139	10%	24%	66%	0%	0%	0%
Uchi Maius	Africa P.	168	12%	19%	69%	0%	0%	0%
Aeclanum	Apulia et Calabria Regio II	121	40%	52%	8%	0%	0%	0%
Beneventum	Apulia et Calabria Regio II	243	52%	37%	11%	0%	0%	0%
Brundisium	Apulia et Calabria Regio II	373	26%	54%	18%	2%	0%	0%
Luceria	Apulia et Calabria Regio II	103	38%	46%	16%	1%	0%	0%
Venusia	Apulia et Calabria Regio II	148	70%	23%	7%	0%	0%	0%
Avaricum	Aquitania	145	100%	0%	0%	0%	0%	0%
Burdigala	Aquitania	177	96%	3%	1%	0%	0%	0%
Corduba	Baetica	198	27%	40%	30%	4%	0%	0%
Gades	Baetica	368	33%	57%	9%	1%	0%	0%
Italica	Baetica	105	16%	13%	33%	30%	8%	0%
Augusta Treverorum	Belgica	179	94%	6%	0%	0%	0%	0%
Divodurum	Belgica	190	98%	2%	0%	0%	0%	0%
Durocortorum	Belgica	108	95%	5%	0%	0%	0%	0%
Andematunum	Belgica Germania superior	137	98%	2%	0%	0%	0%	0%
Salona	Dalmatia	918	58%	37%	5%	0%	0%	0%
Clusium	Etruria Regio VII	100	56%	32%	12%	0%	0%	0%

Place name	Province	Number of epitaphs (city)	One	Two	Three	Four	Five	Six
Tarquinius	Etruria Regio VII	123	89%	7%	3%	1%	0%	0%
Volsinii	Etruria Regio VII	101	58%	38%	4%	0%	0%	0%
Arelate	Gallia Narbonensis	218	79%	20%	1%	0%	0%	0%
Narbo	Gallia Narbonensis	213	88%	12%	0%	0%	0%	0%
Nemausus	Gallia Narbonensis	559	96%	4%	0%	0%	0%	0%
Vienna	Gallia Narbonensis	131	75%	23%	2%	0%	0%	0%
Mogontiacum	Germania superior	246	93%	7%	0%	0%	0%	0%
Tarraco	Hispania Citerior	262	58%	28%	13%	1%	0%	0%
Albanum	Latium et Campania	124	33%	45%	20%	2%	0%	0%
Capua	Latium et Campania	369	59%	30%	10%	1%	0%	0%
Misenum	Latium et Campania	345	16%	33%	50%	1%	0%	0%
Ostia Antica	Latium et Campania	1,535	45%	42%	12%	1%	0%	0%
Pompei	Latium et Campania	106	95%	5%	0%	0%	0%	0%
Portus	Latium et Campania	377	43%	39%	14%	3%	1%	0%
Puteoli	Latium et Campania	1,106	36%	42%	22%	1%	0%	0%
Salernum	Latium et Campania	144	49%	39%	12%	0%	0%	0%
Tibur	Latium et Campania	119	44%	42%	13%	2%	0%	0%
Augustodunum	Lugdunensis	123	99%	1%	0%	0%	0%	0%

Place name	Province	Number of epitaphs (city)	One	Two	Three	Four	Five	Six
Lugudunum	Lugudunensis	470	39%	36%	24%	1%	0%	0%
Emerita	Lusitania	381	32%	31%	31%	5%	0%	0%
Altava	Mauretania Caesariensis	242	55%	42%	3%	0%	0%	0%
Auzia	Mauretania Caesariensis	149	19%	75%	6%	0%	0%	0%
Caesarea	Mauretania Caesariensis	412	35%	36%	22%	7%	0%	0%
Sitifis	Mauretania Caesariensis	273	24%	52%	24%	0%	0%	0%
Tabusuctu	Mauretania Caesariensis	146	8%	27%	64%	2%	0%	0%
Volubilis	Mauretania Caesariensis	154	32%	60%	6%	2%	0%	0%
Castellum Arsacalitanum	Numidia	243	29%	51%	20%	1%	0%	0%
Castellum Elefantum	Numidia	563	11%	53%	34%	1%	0%	0%
Castellum Phuensium	Numidia	123	11%	33%	37%	20%	0%	0%
Castellum Tidditanorum	Numidia	411	20%	54%	21%	5%	0%	0%
Celtianis	Numidia	1,113	8%	39%	52%	1%	0%	0%
Cirta	Numidia	991	18%	45%	34%	3%	0%	0%
Civitas Celtianensis	Numidia	111	5%	30%	65%	0%	0%	0%
Cuicul	Numidia	125	28%	52%	18%	2%	1%	0%
Lambaesis	Numidia	1,404	15%	70%	15%	1%	0%	0%
Milev	Numidia	131	18%	42%	31%	9%	0%	0%

Place name	Province	Number of epitaphs (city)	One	Two	Three	Four	Five	Six
Rusicade	Numidia	269	11%	56%	31%	1%	0%	0%
Sigus	Numidia	299	14%	46%	30%	10%	0%	0%
Sila	Numidia	251	26%	51%	23%	1%	0%	0%
Thamugadi	Numidia	173	20%	53%	28%	0%	0%	0%
Theveste	Numidia	393	18%	46%	36%	0%	0%	0%
Thibilis	Numidia	994	13%	61%	25%	0%	0%	0%
Aquincum	Pannonia inferior	193	58%	36%	6%	0%	0%	0%
Carnuntum	Pannonia superior	174	89%	10%	1%	0%	0%	0%
Roma	Roma	28,834	50%	37%	12%	1%	0%	0%
Carales	Sardinia	215	24%	45%	29%	1%	0%	0%
Sardinia	Sardinia	532	28%	43%	29%	1%	0%	0%
Comum	Transpadana Regio XI	114	88%	12%	0%	0%	0%	0%
Mediolanum	Transpadana Regio XI	181	74%	21%	5%	0%	0%	0%
Aquileia	Venetia et Histria Regio X	911	56%	40%	2%	1%	0%	0%
Brixia	Venetia et Histria Regio X	154	74%	25%	1%	0%	0%	0%
Pola	Venetia et Histria Regio X	157	76%	21%	2%	1%	0%	0%
Verona	Venetia et Histria Regio X	150	71%	25%	3%	0%	0%	0%

Table A4 – Use of combinations of formulae as a percentage of city total

Place	Province	No. of epitaphs (city)	<i>DMVA</i>	<i>DMSVA</i>	<i>DMVAHSE</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>DMBM</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>DMSHSESTTL</i>	<i>HSESTTL</i>
Ravenna	Aemilia	190	15%	0%	0%	0%	1%	7%	10%	0%	0%	0%
Ammaedara	Africa P.	387	1%	9%	3%	41%	8%	0%	0%	0%	0%	0%
Bulla Regia	Africa P.	141	1%	25%	1%	52%	10%	0%	0%	0%	0%	0%
Calama	Africa P.	130	3%	33%	0%	21%	20%	0%	0%	1%	0%	0%
Carthago	Africa P.	1,376	1%	12%	1%	42%	8%	0%	0%	0%	0%	0%
Djebel Djelloud	Africa P.	129	2%	58%	0%	13%	5%	0%	0%	0%	0%	0%
Hadrumentum	Africa P.	103	8%	20%	22%	11%	1%	1%	0%	1%	0%	0%
Mactaris	Africa P.	349	1%	21%	1%	13%	21%	0%	0%	0%	0%	0%
Madauros	Africa P.	521	1%	17%	2%	54%	8%	0%	0%	0%	0%	0%
Nattabutes	Africa P.	147	1%	5%	0%	22%	61%	0%	0%	0%	0%	0%
Sicca Veneria	Africa P.	531	0%	19%	0%	38%	26%	0%	0%	0%	0%	0%
Simitthus	Africa P.	115	0%	23%	0%	27%	23%	0%	0%	0%	0%	0%
Talah	Africa P.	156	1%	28%	1%	27%	24%	0%	0%	0%	0%	0%
Thaenae	Africa P.	106	24%	58%	0%	3%	0%	0%	0%	1%	0%	0%
Thibursicum Bure	Africa P.	156	0%	20%	1%	54%	5%	0%	0%	0%	0%	0%
Thurnica	Africa P.	128	0%	8%	2%	32%	40%	0%	0%	0%	0%	0%
Thubursicu Numidarum	Africa P.	572	0%	19%	0%	41%	28%	0%	0%	0%	0%	0%
Thugga	Africa P.	1,139	0%	13%	0%	65%	9%	0%	0%	0%	0%	0%

Place	Province	No. of epitaphs (city)	<i>DMVA</i>	<i>DMSVA</i>	<i>DMVAHSE</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>DMBM</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>DMSHSESTTL</i>	<i>HSESTTL</i>
Andematunum	Belgica Germania superior	137	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Salona	Dalmatia	918	6%	1%	0%	0%	0%	24%	2%	0%	0%	0%
Clusium	Etruria Regio VII	100	6%	2%	1%	0%	2%	15%	10%	0%	0%	0%
Tarquinius	Etruria Regio VII	187	4%	0%	0%	0%	0%	2%	3%	0%	0%	0%
Volsinii	Etruria Regio VII	101	5%	0%	0%	0%	1%	25%	4%	0%	0%	0%
Arelate	Gallia Narbonensis	218	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Narbo	Gallia Narbonensis	213	2%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Nemausus	Gallia Narbonensis	559	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vienna	Gallia Narbonensis	131	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mogontiacum	Germania superior	246	4%	0%	0%	0%	0%	0%	0%	0%	0%	2%
Tarraco	Hispania Citerior	262	6%	1%	0%	0%	0%	14%	9%	2%	0%	0%
Albanum	Latium et Campania	124	15%	0%	0%	0%	0%	9%	19%	0%	0%	0%
Capua	Latium et Campania	369	4%	7%	0%	0%	2%	3%	2%	5%	0%	0%

Place	Province	No. of epitaphs (city)	<i>DMVA</i>	<i>DMSVA</i>	<i>DMVAHSE</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>DMBM</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>DMSHSESTTL</i>	<i>HSESTTL</i>
Misenum	Latium et Campania	345	13%	1%	0%	0%	0%	12%	48%	1%	0%	0%
Ostia Antica	Latium et Campania	1,535	20%	1%	0%	0%	0%	14%	8%	0%	0%	0%
Pompei	Latium et Campania	106	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Portus	Latium et Campania	377	14%	1%	0%	0%	0%	11%	6%	0%	0%	0%
Puteoli	Latium et Campania	1,106	19%	2%	0%	0%	0%	15%	20%	1%	0%	0%
Salernum	Latium et Campania	144	17%	1%	0%	0%	2%	10%	11%	0%	0%	0%
Tibur	Latium et Campania	119	18%	1%	0%	0%	1%	18%	12%	0%	0%	0%
Augustodunum	Lugdunensis	123	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Lugdunum	Lugdunensis	470	6%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Emerita	Lusitania	381	0%	2%	0%	0%	0%	0%	0%	0%	27%	21%
Altava	Mauretania Caesariensis	242	5%	28%	0%	0%	0%	0%	0%	1%	0%	0%
Auzia	Mauretania Caesariensis	149	4%	70%	0%	1%	0%	0%	1%	1%	0%	0%
Caesarea	Mauretania Caesariensis	412	12%	7%	2%	2%	7%	1%	4%	1%	0%	3%
Sitifis	Mauretania Caesariensis	273	9%	35%	7%	15%	3%	0%	1%	1%	0%	0%

Place	Province	No. of epitaphs (city)	<i>DMVA</i>	<i>DMSVA</i>	<i>DMVAHSE</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>DMBM</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>DMSHSESTTL</i>	<i>HSESTTL</i>
Tubusuctu	Mauretania Caesariensis	146	11%	9%	25%	38%	4%	0%	0%	0%	0%	0%
Volubilis	Mauretania Caesariensis	154	7%	45%	0%	1%	1%	0%	0%	3%	0%	1%
Castellum Arsalitanum	Numidia	243	23%	0%	15%	0%	24%	0%	0%	0%	0%	0%
Castellum Elefantum	Numidia	563	19%	2%	27%	2%	31%	0%	0%	0%	0%	0%
Castellum Phuensium	Numidia	123	21%	4%	33%	2%	6%	0%	0%	0%	0%	0%
Castellum Tidditanorum	Numidia	411	27%	0%	13%	0%	24%	0%	0%	0%	0%	0%
Cirta	Numidia	991	20%	2%	25%	2%	21%	0%	0%	0%	0%	0%
Civitas Celtianensis	Numidia	1,224	4%	20%	6%	46%	13%	0%	0%	0%	0%	0%
Cuicul	Numidia	125	11%	34%	3%	13%	5%	0%	0%	0%	0%	0%
Lambaesis	Numidia	1,404	20%	48%	3%	5%	0%	0%	3%	4%	0%	0%
Milev	Numidia	131	14%	4%	17%	8%	23%	0%	0%	0%	0%	0%
Rusicade	Numidia	269	7%	11%	8%	22%	36%	0%	0%	0%	0%	0%
Sigus	Numidia	299	7%	13%	6%	6%	22%	0%	0%	1%	0%	0%
Sila	Numidia	251	22%	10%	16%	6%	17%	0%	0%	0%	0%	0%
Thamugadi	Numidia	173	7%	37%	7%	21%	4%	0%	0%	0%	0%	0%
Theveste	Numidia	393	2%	35%	1%	35%	8%	0%	0%	1%	0%	0%
Thibilis	Numidia	994	1%	7%	4%	21%	53%	0%	0%	0%	0%	0%

Place	Province	No. of epitaphs (city)	<i>DMVA</i>	<i>DMSVA</i>	<i>DMVAHSE</i>	<i>DMSVAHSE</i>	<i>VAHSE</i>	<i>DMBM</i>	<i>DMBMVA</i>	<i>DMSBMVA</i>	<i>DMSHSESTTL</i>	<i>HSESTTL</i>
Aquincum	Pannonia inferior	193	25%	1%	2%	0%	1%	1%	2%	0%	0%	0%
Carnuntum	Pannonia superior	174	2%	0%	0%	1%	1%	1%	0%	0%	0%	3%
Roma	Roma	28,834	12%	1%	0%	0%	0%	12%	8%	1%	0%	0%
Carales	Sardinia	215	15%	0%	0%	0%	0%	5%	28%	1%	0%	0%
Comum	Transpadana Regio XI	114	9%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Mediolanum	Transpadana Regio XI	181	9%	0%	0%	0%	0%	1%	2%	0%	0%	0%
Aquileia	Venetia et Histria Regio X	911	3%	0%	0%	0%	0%	1%	1%	0%	0%	0%
Ateste	Venetia et Histria Regio X	111	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Brixia	Venetia et Histria Regio X	154	7%	0%	0%	0%	0%	5%	0%	0%	0%	0%
Pola	Venetia et Histria Regio X	157	4%	0%	0%	0%	1%	7%	1%	0%	0%	0%
Verona	Venetia et Histria Regio X	150	6%	1%	0%	0%	0%	12%	3%	0%	0%	0%

Table A5 – Use of expanded formulae as a percentage of city total

Place Name	Province	No. of epitaphs (city)	Formulae in full													
			<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Ravenna	Aemilia	241	3%	0%	14%	10%	20%	0%	8%	100%	0%	0%	0%	0%	0%	9%
Ammaedara	Africa P.	473	24%	0%	0%	20%	2%	100%	0%	0%	0%	0%	0%	0%	0%	17%
Bulla Regia	Africa P.	175	0%	0%	0%	25%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Calama	Africa P.	150	20%	0%	25%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Carthago	Africa P.	1.935	20%	4%	52%	18%	3%	0%	0%	0%	0%	0%	0%	0%	0%	11%
Djebel Djelloud	Africa P.	151	0%	0%	0%	12%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Hadrumetum	Africa P.	121	64%	0%	60%	23%	15%	0%	0%	0%	0%	0%	0%	0%	0%	11%
Limisa	Africa P.	137	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mactaris	Africa P.	425	17%	0%	0%	19%	3%	25%	0%	0%	0%	0%	0%	0%	0%	0%
Madauros	Africa P.	628	42%	0%	0%	20%	1%	33%	0%	0%	0%	0%	0%	0%	0%	0%
Nattabutes	Africa P.	177	0%	0%	0%	3%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sicca Veneria	Africa P.	622	0%	0%	0%	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Simitthus	Africa P.	133	0%	2%	0%	35%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Talah	Africa P.	177	50%	0%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thaenae	Africa P.	114	21%	0%	0%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thibursicum Bure	Africa P.	188	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thuburnica	Africa P.	149	25%	0%	100%	14%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thubursicu Numidarum	Africa P.	626	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Thugga	Africa P.	1,567	33%	0%	50%	3%	1%	0%	0%	0%	0%	0%	0%	10%	0%	0%

Table A6 – Epitaph length by city (average and median character count)

Place	Province	Number of epitaphs (city)	Character count	
			Average (Mean)	Median
Ravenna	Aemilia	190	75	71
Ammaedara	Africa P.	387	67	60
Bulla Regia	Africa P.	141	38	36
Calama	Africa P.	130	49	42
Carthago	Africa P.	1,376	48	41
Djebel Djelloud	Africa P.	129	32	32
Hadrumentum	Africa P.	103	53	52
Mactaris	Africa P.	349	45	36
Madauros	Africa P.	521	58	48
Nattabutes	Africa P.	147	40	30
Sicca Veneria	Africa P.	531	38	33
Simitthus	Africa P.	115	54	43
Talah	Africa P.	156	31	28
Thaenae	Africa P.	106	34	31
Thibursicum Bure	Africa P.	156	31	29
Thuburnica	Africa P.	128	38	33
Thubursicu Numidarum	Africa P.	572	44	37
Thugga	Africa P.	1,139	31	28
Uchi Maius	Africa P.	168	33	33
Aeclanum	Apulia et Calabria Regio II	121	63	49
Beneventum	Apulia et Calabria Regio II	243	70	65
Brundisium	Apulia et Calabria Regio II	373	34	26
Luceria	Apulia et Calabria Regio II	103	59	55

Place	Province	Number of epitaphs (city)	Character count	
			Average (Mean)	Median
Venusia	Apulia et Calabria Regio II	148	51	49
Avaricum	Aquitania	145	13	10
Burdigala	Aquitania	177	42	39
Corduba	Baetica	198	54	48
Gades	Baetica	368	29	25
Italica	Baetica	105	45	40
Augusta Treverorum	Belgica	179	76	73
Divodurum	Belgica	190	25	20
Durocotorum	Belgica	108	21	14
Andematunum	Belgica Germania superior	137	25	22
Salona	Dalmatia	918	60	51
Clusium	Etruria Regio VII	100	62	54
Tarquinius	Etruria Regio VII	187	29	21
Volsinii	Etruria Regio VII	101	52	45
Arelate	Gallia Narbonensis	218	80	69
Narbo	Gallia Narbonensis	213	50	47
Nemausus	Gallia Narbonensis	559	46	42
Vienna	Gallia Narbonensis	131	84	83
Mogontiacum	Germania superior	246	69	62
Tarraco	Hispania Citerior	262	71	63
Albanum	Latium et Campania	124	68	61
Capua	Latium et Campania	369	63	56
Misenum	Latium et Campania	345	86	85
Ostia Antica	Latium et Campania	1,535	74	61
Pompei	Latium et Campania	106	33	22

Place	Province	Number of epitaphs (city)	Character count	
			Average (Mean)	Median
Portus	Latium et Campania	377	84	71
Puteoli	Latium et Campania	1,106	64	58
Salernum	Latium et Campania	144	69	58
Tibur	Latium et Campania	119	73	63
Augustodunum	Lugdunensis	123	15	9
Lugdunum	Lugdunensis	470	128	115
Emerita	Lusitania	381	61	56
Altava	Mauretania Caesariensis	242	63	61
Auzia	Mauretania Caesariensis	149	85	79
Caesarea	Mauretania Caesariensis	412	59	52
Sitifis	Mauretania Caesariensis	273	54	46
Tubusuctu	Mauretania Caesariensis	146	39	33
Volubilis	Mauretania Caesariensis	154	45	42
Castellum Arsacalitanum	Numidia	243	26	24
Castellum Elefantum	Numidia	563	26	25
Castellum Phuensium	Numidia	123	32	28
Castellum Tidditanorum	Numidia	411	25	23
Cirta	Numidia	991	30	25
Civitas Celtianensis	Numidia	1,224	26	25
Cuicul	Numidia	125	42	34
Lambaesis	Numidia	1,404	57	53
Milev	Numidia	131	32	27
Rusicade	Numidia	269	29	26
Sigus	Numidia	299	41	31
Sila	Numidia	251	27	25

Place	Province	Number of epitaphs (city)	Character count	
			Average (Mean)	Median
Thamugadi	Numidia	173	48	38
Theveste	Numidia	393	52	47
Thibilis	Numidia	994	31	27
Aquincum	Pannonia inferior	193	84	83
Carnuntum	Pannonia superior	174	65	62
Roma	Roma	28,834	69	60
Carales	Sardinia	215	70	64
Comum	Transpadana Regio XI	114	47	39
Mediolanum	Transpadana Regio XI	181	88	76
Aquileia	Venetia et Histria Regio X	911	51	38
Ateste	Venetia et Histria Regio X	111	36	25
Brixia	Venetia et Histria Regio X	154	58	52
Pola	Venetia et Histria Regio X	157	52	46
Verona	Venetia et Histria Regio X	150	71	66

Table A7 – Median and average *in fronte* and *in agro* measurements and plot areas for each city

Place	Province	No. of epitaphs (city)	Median (<i>pedes</i>)			Average - Mean (<i>pedes</i>)		
			<i>in fronte</i>	<i>in agro</i>	Area (<i>pedes</i> ²)	<i>in fronte</i>	<i>in agro</i>	Area (<i>pedes</i> ²)
Mutina	Aemilia / Regio VIII	45	12	14	168	15	16	247
Beneventum	Apulia et Calabria Regio II	24	12	12	144	13	13	186
Venusia	Apulia et Calabria Regio II	45	12	12	144	12	12	154
Salona	Dalmatia	28	15	20	300	19	22	507
Narbo	Gallia Narbonensis	37	15	15	225	19	20	679
Aquinum	Latium et Campania	29	12	15	180	18	16	449
Ostia Antica	Latium et Campania	154	20	23	434	21	24	548
Portus	Latium et Campania	27	15	21	355	28	26	1,514
Venafrum	Latium et Campania	35	12	12	144	13	13	195
Roma	Roma	1,607	12	12	168	14	15	453
Mediolanum	Transpadana Regio XI	40	19	20	441	21	24	571
Altinum	Venetia et Histria Regio X	73	20	30	500	25	31	957
Aquileia	Venetia et Histria Regio X	370	16	32	512	23	36	1,046
Ateste	Venetia et Histria Regio X	31	20	20	408	31	25	1,509
Brixia	Venetia et Histria Regio X	30	20	20	348	27	29	1,692
Patavium	Venetia et Histria Regio X	46	23	30	720	26	31	846
Pola	Venetia et Histria Regio X	45	13	20	275	17	21	425
Verona	Venetia et Histria Regio X	26	15	20	313	24	26	834

Table A8 – City coordinates

City	EDCS Label	Province	Latitude	Longitude
Alexandria	Al Iskandariyah / Alexandria	Aegyptus	31.20855	29.91918
Ariminum	Rimini / Ariminum	Aemilia	44.05897	12.56319
Bononia	Bologna / Bononia	Aemilia	44.49452	11.34927
Mutina	Modena / Mutina	Aemilia	44.64706	10.92522
Parma	Parma	Aemilia	44.8	10.3333
Ravenna	Ravenna	Aemilia	44.4175	12.2011
Ammaedara	Haidra / Ammaedara	Africa P.	35.5333	8.4167
Aradi	Sidi Jdidi / Bu Aradah / Aradi	Africa P.	36.35	9.6167
Bulla Regia	Hammam Derradji / Bulla Regia	Africa P.	36.55561	8.750548
Calama	Guelma / Calama	Africa P.	36.4833	7.4167
Carthago	Carthago	Africa P.	36.85	10.3333
Djebel Djelloud	Djebel Djelloud	Africa P.	36.7764	10.205
Hadrumentum	Sousse / Hadrumentum	Africa P.	35.8333	10.6333
Hippo Regius	Annaba / Bone / Hippo Regius	Africa P.	36.90252	7.765907
Limisa	Ksar Limsa / Qasr Limsa / Limisa	Africa P.	36.03602	9.692731
Mactaris	Makthar / Maktar / Mactar / Mactaris	Africa P.	35.86114	9.204625
Madauros	M'Daourouch / Mdaourouch / Madauros	Africa P.	36.07694	7.817781
Masculula	Guergour / Qurqur, Hanshir / Hammam Guergour / Masculula	Africa P.	36.3	8.516667
Mididi	Midid / Mididi	Africa P.	35.80627	9.057096
Musti	Mist / Oust, Henchir el / Ain Gueliane / Musti	Africa P.	36.33333	9.15
Nattabutes	Guelaa Bou Atfane / Nattabutes	Africa P.	36.07114	7.38711
Sicca Veneria	Le Kef / Sicca Veneria	Africa P.	36.18309	8.71173
Simitthus	Shimtu / Chemtou / Simitthus	Africa P.	36.48343	8.58329
Sufetula	Sbeitla / Sufetula	Africa P.	35.229	9.118

City	EDCS Label	Province	Latitude	Longitude
Talah	Thala / Talah	Africa P.	35.57618	8.661947
Thabraca	Tabarka / Thabraca	Africa P.	36.9167	8.75
Thaenae	Thina / Tina / Thaenae	Africa P.	34.67051	10.70023
Thibursicum Bure	Tabursuq / Thibursicum Bure	Africa P.	36.45311	9.244295
Thigibba	Hammam Zouakra / Thigibba	Africa P.	35.9	9.083333
Thignica	Ain Tounga / Thignica	Africa P.	36.51987	9.34721
Thuburnica	Sidi Ali Belkacem / Sidi Ali Ben Kassem / Thuburnica	Africa P.	36.52667	8.470278
Thubursicu Numidarum	Khamissa / Thubursicu Numidarum	Africa P.	36.60884	10.16936
Thugga	Dougga / Thugga	Africa P.	36.4167	9.2167
Uchi Maius	Dawamis, Hanshir ad / Uchi Maius	Africa P.	36.4	9.0833
Aeclanum	Aeclanum	Apulia et Calabria Regio II	41.0425	14.9942
Beneventum	Benevento / Beneventum	Apulia et Calabria Regio II	41.1333	14.75
Brundisium	Brindisi / Brundisium	Apulia et Calabria Regio II	40.6333	17.9333
Canusium	Canosa di Puglia / Canusium	Apulia et Calabria Regio II	41.2225	16.066
Luceria	Lucera / Luceria	Apulia et Calabria Regio II	41.50923	15.33588
Tarentum	Taranto / Tarentum	Apulia et Calabria Regio II	40.46923	17.24005
Venusia	Venosa / Venusia	Apulia et Calabria Regio II	40.96105	15.81832
Avaricum	Bourges / Avaricum	Aquitania	47.08286	2.396563
Burdigala	Bordeaux / Burdigala	Aquitania	44.83721	-0.57653
Astigi	Ecija / Astigi	Baetica	37.54257	-5.08248
Baelo	Bolonia / Baelo	Baetica	36.08843	-5.77552
Celti	Penaflo / Celti	Baetica	37.70729	-5.34643
Corduba	Cordoba / Corduba	Baetica	37.88468	-4.77917
Gades	Cadiz / Gades	Baetica	36.52973	-6.29246
Hispalis	Sevilla / Hispalis	Baetica	37.38267	-5.99629
Italica	Italica	Baetica	37.4439	-6.0468
Augusta Treverorum	Trier / Augusta Treverorum	Belgica	49.75498	6.644989

City	EDCS Label	Province	Latitude	Longitude
Divodurum	Metz / Sablon / Divodurum	Belgica	49.11967	6.173736
Durocortorum	Reims / Durocortorum	Belgica	49.24327	4.040342
Andematunum	Langres / Andematunum	Belgica Germania superior	47.86741	5.332634
Divio	Dijon / Divio	Belgica Germania superior	47.32111	5.038749
Deva	Chester / Deva	Britannia	53.19439	-2.89338
Atina	Atina	Bruttium et Lucania Regio II	41.62092	13.80118
Apulum	Alba Iulia / Apulum	Dacia	46.0667	23.55
Sarmizegetusa	Sarmizegetusa	Dacia	45.51667	22.78333
Iader	Zadar / Iader	Dalmatia	44.1155	15.22378
Narona	Vid / Narona	Dalmatia	43.04639	17.59861
Salona	Solin / Salona	Dalmatia	43.53956	16.48343
Blera	Civitavecchia / Centumcellae / Blera	Etruria Regio VII	42.1	11.8
Capena	Capena	Etruria Regio VII	42.1342	12.54172
Clusium	Chiusi / Clusium	Etruria Regio VII	43.017	11.94835
Florentia	Firenze / Florentia	Etruria Regio VII	43.7667	11.25
Pisae	Pisa / Pisae	Etruria Regio VII	43.71617	10.39661
Tarquinii	Corneto / Tarquinii	Etruria Regio VII	42.25445	11.75803
Volsinii	Bolsena / Volsinii	Etruria Regio VII	42.64485	11.98611
Arelate	Arles / Arelate	Gallia Narbonensis	43.67762	4.630799
Dea Augusta Vocontiorum	Die / Dea Augusta Vocontiorum	Gallia Narbonensis	44.75511	5.370092
Massilia	Marseille / Massilia	Gallia Narbonensis	43.29685	5.382499
Narbo	Narbonne / Narbo	Gallia Narbonensis	43.18359	3.004308
Nemausus	Nimes / Nemausus	Gallia Narbonensis	43.83488	4.360278
Vasio	Vaison-la-Romaine / Vasio	Gallia Narbonensis	44.23963	5.074307
Vienna	Vienne / Vienna	Gallia Narbonensis	45.52482	4.878717
Colonia Claudia Ara Agrippinensium	Koln / Colonia Claudia Ara Agrippinensium	Germania inferior	50.94066	6.959907
Mogontiacum	Mainz / Mogontiacum	Germania superior	49.99412	8.264372

City	EDCS Label	Province	Latitude	Longitude
Tabernae	Saverne / Tabernae	Germania superior	48.74034	7.359657
Asturica	Astorga / Asturica	Hispania Citerior	42.4589	-6.06349
Barcino	Barcelona / Barcino	Hispania Citerior	41.38791	2.169911
Carthago Nova	Cartagena / Carthago Nova	Hispania Citerior	37.60568	-0.99139
Hinojosa de Duero	Hinojosa de Duero	Hispania Citerior	40.9865	-6.79539
Legio	Leon / Legio	Hispania Citerior	42.59871	-5.56701
Saguntum	Sagunt / Sagunto / Saguntum	Hispania Citerior	39.67867	-0.27585
Segobriga	Saelices / Segobriga	Hispania Citerior	39.88532	-2.81302
Tarraco	Tarragona / Tarraco	Hispania Citerior	41.11459	1.258617
Valentia	Valencia / Valentia	Hispania Citerior	39.47037	-0.37681
Albanum	Albano Laziale / Albanum	Latium et Campania	41.72874	12.65998
Antium	Antium	Latium et Campania	41.44795	12.62905
Aquinum	Aquino / Aquinum	Latium et Campania	41.49221	13.70563
Capua	Capua	Latium et Campania	41.1	14.2
Casinum	Cassino / Casinum	Latium et Campania	41.49291	13.83058
Castrimoenium	Marino / Castrimoenium	Latium et Campania	41.76981	12.65852
Formiae	Formia / Formiae	Latium et Campania	41.25642	13.606
Misenum	Misenum	Latium et Campania	40.78628	14.08488
Neapolis	Napoli / Neapolis	Latium et Campania	40.8333	14.25
Nola	Nola	Latium et Campania	40.94073	14.52504
Ostia Antica	Ostia Antica	Latium et Campania	41.75	12.3
Pompei	Pompei	Latium et Campania	40.75	14.4833
Portus	Fiumicino / Portus	Latium et Campania	41.77972	12.25797
Praeneste	Palestrina / Praeneste	Latium et Campania	41.8399	12.89255
Puteoli	Pozzuoli / Puteoli	Latium et Campania	40.8167	14.1167
Salernum	Salerno / Salernum	Latium et Campania	40.6833	14.7833
Surrentum	Sorrento / Surrentum	Latium et Campania	40.6167	14.3667

City	EDCS Label	Province	Latitude	Longitude
Tarracina	Terracina / Tarracina	Latium et Campania	41.29117	13.24885
Tibur	Tivoli / Tibur	Latium et Campania	41.9667	12.8
Tusculum	Tusculum	Latium et Campania	41.8	12.7
Velitrae	Velletri / Velitrae	Latium et Campania	41.69135	12.77792
Venafrum	Venafrum / Venafrum	Latium et Campania	41.48449	14.04607
Augustodunum	Autun / Augustodunum	Lugdunensis	46.94724	4.299178
Lugdunum	Lyon / Lugdunum	Lugdunensis	45.76527	4.828592
Norba	Caceres / Norba	Lusitania	39.47618	-6.37076
Caesarobriga	Talavera de la Reina / Caesarobriga	Lusitania	39.95945	-4.83458
Civitas Igaeditanorum	Idanha-a-Velha / Civitas Igaeditanorum	Lusitania	39.99606	-7.14554
Conimbriga	Condeixa-a-Velha / Conimbriga	Lusitania	40.19413	-8.40844
Emerita	Merida / Emerita	Lusitania	38.9167	-6.3333
Myrtilis	Mertola / Myrtilis	Lusitania	37.6389	-7.66216
Olisipo	Lisboa / Olisipo	Lusitania	38.70717	-9.13551
Pax Iulia	Beja / Pax Iulia	Lusitania	38.0156	-7.86523
Turgalium	Trujillo / Turgalium	Lusitania	39.4667	-5.8833
Yecla de Yeltes	Yecla de Yeltes	Lusitania	41.03939	-6.2784
Dyrrachium	Durres / Dyrrachium	Macedonia	41.31634	19.44736
Philippi	Philippi	Macedonia	41.01306	24.28639
Albulae	Ain Temouchent / Albulae	Mauretania Caesariensis	35.3	-1.13333
Altava	Ouled Mimoun / Altava	Mauretania Caesariensis	34.9028	-1.0364
Auzia	Sour el Ghozlane / Auzia	Mauretania Caesariensis	36.1667	3.6833
Caesarea	Cherchell / Caesarea	Mauretania Caesariensis	36.6	2.1833
Pomaria	Tlemcen / Pomaria	Mauretania Caesariensis	34.8792	-1.31529
Saldae	Bejaia / Saldae	Mauretania Caesariensis	36.74021	5.057834
Satafis	Ain el Kebira / Satafis	Mauretania Caesariensis	36.36254	5.50252
Sitifis	Setif / Sitifis	Mauretania Caesariensis	36.15	5.4333

City	EDCS Label	Province	Latitude	Longitude
Tubusuctu	Tiklat / Tubusuctu	Mauretania Caesariensis	36.66174	4.836816
Volubilis	Volubilis	Mauretania Caesariensis	34.0667	-5.55
Tomi	Constanta / Tomi	Moesia inferior	44.2	28.6667
Timacum Minus	Ravna / Timacum Minus	Moesia superior	43.63361	22.24444
Viminacium	Kostolac / Viminacium	Moesia superior	44.735	21.19556
Ain Kerma	Ain Kerma	Numidia	36.58333	8.2
Caldis	Mechta Nahar / Caldis	Numidia	36.48842	6.464885
Castellum Arsacalitanum	Mechtet 'Ain Hallouf / Castellum Arsacalitanum	Numidia	36.30615	6.45677
Castellum Elefantum	Ebn Ziad / Castellum Elefantum	Numidia	36.37889	6.474222
Castellum Phuensium	Bou Foua / Castellum Phuensium	Numidia	36.31535	6.392407
Castellum Tidditanorum	El-Kheneg / Castellum Tidditanorum	Numidia	36.46182	6.478255
Cirta	Constantine / Cirta	Numidia	36.3667	6.6167
Civitas Celtianensis	Beni Welban / Civitas Celtianensis	Numidia	36.83834	6.588689
Cuicul	Djemila / Cuicul	Numidia	36.4167	5.7333
Ksar Mahidjiba	Ksar Mahidjiba	Numidia	36.28383	6.832552
Lambaesis	Lambaesis	Numidia	35.5167	6.25
Milev	Mila / Milev	Numidia	36.45028	6.264444
Rusicade	Skikda / Ras Skikda / Philippeville / Rusicade	Numidia	36.86832	6.898813
Saddar	Ain El Bey / Saddar	Numidia	35.48622	8.319338
Sigus	Bou Hadjar / Sigus	Numidia	36.11667	6.783333
Sila	Bordj el Ksar / Sila	Numidia	36.1217	6.688692
Tenelium	Dar el Ghoula, Argoub / Tenelium	Numidia	36.79111	8.863333
Thamugadi	Timgad / Thamugadi	Numidia	35.4833	6.4667
Theveste	Tebessa / Theveste	Numidia	35.40711	8.120848
Thibilis	Announa / El Announa / Thibilis	Numidia	36.38333	7.25
Ucubi	Gaoussat / Kaussat / Gousset / Pont-Raomein / Pont Romain / Ucubi	Numidia	36.23889	8.893889

City	EDCS Label	Province	Latitude	Longitude
Uzelis	Uzelis	Numidia	36.3806530 00000002	6.360226
Zarai	Zraia / Zarai	Numidia	35.78609	5.695089
Zugal	Mechta Bou Charef / Zugal	Numidia	36.35	6.1333
Aquincum	Budapest / Aquincum	Pannonia inferior	47.5	19.05
Intercisa	Dunaujvaros / Intercisa	Pannonia inferior	47	18.9167
Brigetio	Komarom / Komorn / Brigetio	Pannonia superior	47.73102	18.17204
Carnuntum	Petronell-Carnuntum / Carnuntum	Pannonia superior	48.10977	16.85946
Emona	Ljubljana / Labacum / Emona	Pannonia superior	46.05742	14.5036
Poetovio	Ptuj / Poetovio	Pannonia superior	46.45	15.85
Roma	Roma	Roma	41.89174	12.48617
Aesernia	Isernia / Aesernia	Samnium Regio IV	41.59433	14.23083
Alba Fucens	Alba Fucens	Samnium Regio IV	42.0667	13.4
Corfinium	Corfinio / Pentima / Corfinium	Samnium Regio IV	42.12193	13.84043
Forum Novum	Vescovio / Forum Novum	Samnium Regio IV	41.93426	12.51237
Histonium	Vasto / Histonium	Samnium Regio IV	42.11272	14.70962
Larinum	Larino / Larinum	Samnium Regio IV	41.80713	14.91923
Marruvium	San Benedetto dei Marsi / Marruvium	Samnium Regio IV	42.00824	13.62873
Reate	Reate	Samnium Regio IV	42.40307	12.86118
Carales	Cagliari / Carales	Sardinia	39.21489	9.109522
Turrus Libisonis	Porto Torres / Turrus Libisonis	Sardinia	40.83457	8.410012
Catana	Catania / Catina	Sicilia	37.50248	15.08783
Thermae Himeraeae	Termini Imerese / Thermae Himeraeae	Sicilia	37.98395	13.69626
Augusta Taurinorum	Torino / Augusta Taurinorum	Transpadana Regio XI	45.07056	7.686619
Comum	Como / Comum	Transpadana Regio XI	45.7833	9.0833
Mediolanum	Milano / Mediolanum	Transpadana Regio XI	45.4667	9.2
Ameria	Amelia / Ameria	Umbria Regio IV	42.55724	12.41347
Asisium	Assisi / Asisium	Umbria Regio IV	43.0667	12.6167

City	EDCS Label	Province	Latitude	Longitude
Fanum Fortunae	Fano / Fanum Fortunae	Umbria Regio IV	43.8333	13.0167
Iguvium	Gubbio / Iguvium	Umbria Regio IV	43.35	12.5833
Interamna Nahars	Terni / Interamna Nahars	Umbria Regio IV	42.56022	12.64678
Pisaurum	Pesaro / Pisaurum	Umbria Regio IV	43.9	12.9167
Sassina	Sarsina / Sassina	Umbria Regio IV	43.9194	12.14215
Spoletium	Spoletto / Spoletium	Umbria Regio IV	42.74533	12.73843
Altinum	Altino / Altinum	Venetia et Histria Regio X	45.57873	12.37284
Aquileia	Aquileia	Venetia et Histria Regio X	45.7703	13.3683
Ateste	Ateste	Venetia et Histria Regio X	45.22774	11.65662
Brixia	Brescia / Brixia	Venetia et Histria Regio X	45.55	10.25
Concordia	Concordia	Venetia et Histria Regio X	45.76442	12.84338
Patavium	Padova / Patavium	Venetia et Histria Regio X	45.4167	11.8833
Pola	Pula / Pola	Venetia et Histria Regio X	44.86972	13.84141
Tergeste	Trieste / Tergeste	Venetia et Histria Regio X	45.64915	13.7717
Verona	Verona	Venetia et Histria Regio X	45.43833	10.99176

Table A9 – Count of city formulae use

Place Name	Province	No. of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPOE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Ravenna	Aemilia	241	123	0	71	144	5	1	12	2	2	0	0	0	0	11
Ammaedara	Africa P.	473	21	237	0	431	251	3	0	1	0	0	0	0	0	6
Bulla Regia	Africa P.	175	4	127	0	155	107	1	0	0	0	0	0	2	0	0
Calama	Africa P.	150	5	82	4	143	59	2	0	0	0	0	0	0	0	0
Carthago	Africa P.	1,935	90	1,044	27	1,612	927	24	0	0	1	0	0	30	0	18
Djebel Djelloud	Africa P.	151	5	121	0	128	32	0	0	0	0	0	0	1	0	2
Hadrumentum	Africa P.	121	45	42	5	101	48	0	0	0	0	0	0	0	0	9
Limisa	Africa P.	137	1	111	0	98	63	0	0	0	0	0	0	0	0	0
Mactaris	Africa P.	425	6	192	0	345	166	4	0	0	0	0	0	1	0	4
Madauros	Africa P.	628	26	457	0	559	389	3	0	0	0	0	0	7	0	0
Nattabutes	Africa P.	177	2	43	0	173	141	0	0	0	0	0	0	1	0	0
Sicca Veneria	Africa P.	622	3	374	0	566	393	2	0	0	0	0	0	1	0	0
Simitthus	Africa P.	133	0	83	1	119	70	9	0	0	0	0	0	13	0	3
Talah	Africa P.	177	6	105	0	157	92	0	0	0	0	0	0	0	0	0
Thaenae	Africa P.	114	29	72	1	106	3	0	0	0	0	0	0	0	0	0
Thibursicum Bure	Africa P.	188	1	163	0	148	117	6	0	0	0	0	0	3	0	1
Thurnica	Africa P.	149	4	60	1	135	112	1	0	0	0	0	0	1	0	0
Thubursicu Numidarum	Africa P.	626	6	381	0	595	434	4	0	0	0	0	0	8	0	0
Thugga	Africa P.	1,567	6	1,195	2	1,304	1,084	11	0	0	0	0	0	10	0	7
Uchi Maius	Africa P.	280	3	208	0	189	176	0	0	0	0	0	0	0	0	2
Aeclanum	Apulia et Calabria Regio II	134	75	3	58	53	4	0	10	0	1	0	0	0	0	16

Place Name	Province	No. of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPOE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Beneventum	Apulia et Calabria Regio II	282	119	15	91	139	13	0	43	0	10	0	1	0	0	3
Brundisium	Apulia et Calabria Regio II	443	107	4	30	354	315	0	9	0	0	0	0	0	0	1
Luceria	Apulia et Calabria Regio II	125	80	4	56	46	7	0	15	0	0	0	0	0	0	1
Venusia	Apulia et Calabria Regio II	198	52	3	72	41	24	1	60	1	1	0	0	0	0	2
Avaricum	Aquitania	173	169	1	0	2	1	0	0	0	0	0	0	0	0	0
Burdigala	Aquitania	206	202	0	0	7	0	0	0	0	0	0	0	0	3	3
Corduba	Baetica	262	4	103	4	52	182	151	1	0	4	0	0	0	0	10
Gades	Baetica	481	17	64	6	11	363	340	0	0	1	0	1	0	0	0
Hispalis	Baetica	100	6	53	2	38	54	54	2	0	1	0	2	0	0	8
Italica	Baetica	144	8	101	7	72	87	88	1	0	1	0	1	0	0	11
Augusta Treverorum	Belgica	232	41	0	1	186	3	0	0	1	0	0	0	0	0	17
Divodurum	Belgica	217	210	0	0	8	0	0	0	0	0	0	0	0	0	2
Durocortorum	Belgica	137	137	0	0	6	0	0	0	0	0	0	0	0	0	0
Andematunum	Belgica Germania superior	149	142	0	1	2	1	0	0	0	6	0	0	0	0	0
Apulum	Dacia	171	119	0	44	117	12	1	1	0	0	0	0	0	0	0
Sarmizegetusa	Dacia	104	90	0	17	69	4	1	0	0	2	0	0	0	0	0
Salona	Dalmatia	1,363	893	18	473	281	43	6	59	6	27	4	0	0	0	60
Clusium	Etruria Regio VII	113	62	3	40	47	8	0	5	2	0	0	2	0	0	2
Tarquinius	Etruria Regio VII	198	19	0	22	184	0	0	0	0	0	1	0	0	0	2
Volsinii	Etruria Regio VII	139	86	2	45	46	1	0	6	1	0	0	0	0	0	3
Arelate	Gallia Narbonensis	248	172	1	5	85	4	1	3	2	2	0	0	0	5	19
Narbo	Gallia Narbonensis	295	70	4	5	22	39	0	151	0	28	0	6	0	0	8

Place Name	Province	No. of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPOE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Lugdunum	Lugdunensis	554	432	1	17	222	1	1	0	0	4	0	0	0	29 7	2
Emerita	Lusitania	486	16	200	24	73	348	268	28	0	5	0	0	0	0	4
Olisipo	Lusitania	111	40	6	2	2	76	8	1	0	0	0	0	0	0	0
Turgalium	Lusitania	213	3	18	0	1	192	141	0	0	0	0	0	0	0	0
Altava	Mauretania Caesariensis	276	13	87	3	266	1	0	0	0	0	0	0	0	0	32
Auzia	Mauretania Caesariensis	167	10	136	4	144	2	0	0	0	0	0	0	2	0	3
Caesarea	Mauretania Caesariensis	551	187	90	69	337	200	136	0	0	0	0	0	1	0	5
Satafis	Mauretania Caesariensis	120	28	38	0	108	35	0	0	1	0	0	0	24	0	3
Sitifis	Mauretania Caesariensis	327	55	176	9	291	87	1	0	1	0	0	0	1	0	6
Tubusuctu	Mauretania Caesariensis	181	71	84	1	155	117	3	0	0	0	0	0	0	0	0
Volubilis	Mauretania Caesariensis	194	25	139	8	131	13	10	0	0	0	0	0	0	0	4
Viminacium	Moesia superior	110	68	1	42	75	13	0	0	1	3	0	0	0	0	0
Ain Kerma	Numidia	107	86	6	0	102	36	1	0	0	0	0	0	5	0	0
Caldis	Numidia	110	48	1	0	101	46	0	0	0	0	0	0	6	0	0
Castellum Arsacalitanum	Numidia	289	121	4	1	264	124	0	0	0	0	0	0	22	0	0
Castellum Elefantum	Numidia	639	316	28	0	601	405	2	0	0	0	0	0	43	0	0
Castellum Phuensium	Numidia	174	128	10	0	139	95	0	0	0	0	0	0	36	0	0
Castellum Tidditanorum	Numidia	540	241	8	0	492	244	0	0	0	0	0	0	71	0	0
Cirta	Numidia	1,126	566	58	0	1030	609	9	0	2	0	0	0	12 4	0	1

Place Name	Province	No. of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPOE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Civitas Celtianensis	Numidia	1,254	134	860	0	1201	855	0	0	0	0	0	0	22	0	0
Cuicul	Numidia	180	41	91	3	130	40	2	0	1	0	0	0	6	0	1
Lambaesis	Numidia	1,496	456	962	123	1265	140	17	0	2	0	0	0	7	0	5
Milev	Numidia	167	70	28	0	142	89	1	0	0	0	0	0	27	0	0
Rusicade	Numidia	290	48	106	2	270	193	1	0	0	0	0	0	7	0	1
Saddar	Numidia	120	43	5	0	108	46	0	0	0	0	0	0	43	0	0
Sigus	Numidia	329	56	100	2	322	172	0	0	0	0	0	0	10 3	0	2
Sila	Numidia	282	115	53	1	257	109	2	0	0	0	0	1	5	0	0
Thamugadi	Numidia	200	37	137	1	153	65	0	0	0	0	0	0	0	0	0
Theveste	Numidia	446	15	322	3	405	191	0	0	1	0	0	0	0	0	1
Thibilis	Numidia	1,322	74	432	0	1,184	927	0	0	0	0	0	0	9	0	0
Zarai	Numidia	106	10	91	3	98	3	0	0	0	0	0	0	0	0	0
Aquincum	Pannonia inferior	283	181	3	18	103	70	8	1	0	0	0	0	0	0	0
Brigetio	Pannonia superior	104	84	0	9	53	6	4	0	0	0	0	0	0	0	1
Carnuntum	Pannonia superior	279	70	2	8	21	205	8	0	1	0	0	0	0	0	0
Roma	Roma	35,003	1,7306	1,192	1,2489	1,7939	695	114	2,075	136	291	1,901	16	14	0	80 8
Carales	Sardinia	260	147	3	90	204	8	0	0	1	0	0	0	0	0	54
Catina	Sicilia	110	24	57	10	80	1	0	0	1	0	0	0	0	0	2
Comum	Transpadana Regio XI	132	100	1	8	30	0	0	3	0	4	0	0	0	0	4
Mediolanum	Transpadana Regio XI	227	74	2	22	104	3	0	52	4	12	0	0	0	0	19
Altinum	Venetia et Histria Regio X	144	25	2	9	11	0	0	109	0	1	1	39	0	0	1

Place Name	Province	No. of epitaphs	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPOE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Aquileia	Venetia et Histria Regio X	1,238	211	21	84	326	37	0	533	2	33	38	44 7	0	0	38
Ateste	Venetia et Histria Regio X	123	11	2	6	6	4	0	92	0	2	0	28	0	0	0
Brixia	Venetia et Histria Regio X	179	68	0	27	54	1	0	61	0	1	0	9	0	0	4
Patavium	Venetia et Histria Regio X	109	34	1	14	10	3	0	58	0	5	1	20	0	0	0
Pola	Venetia et Histria Regio X	220	102	2	26	29	3	0	86	0	9	1	12	0	0	0
Verona	Venetia et Histria Regio X	179	80	2	44	35	3	0	42	0	23	0	3	0	0	1

Table A10 – Count of formulae use by region

Regions	No. of epitaphs (region)	<i>DM</i>	<i>DMS</i>	<i>BM</i>	<i>VA</i>	<i>HSE</i>	<i>STTL</i>	<i>IFIA</i>	<i>HPE</i>	<i>HMHNS</i>	<i>LLPQE</i>	<i>LM</i>	<i>OTBQ</i>	<i>SAD</i>	<i>PM</i>
Balkan and Danubian	6,723	4,102	252	1,483	2,487	1,170	69	136	10	99	8	25	0	3	94
Eastern	919	380	81	160	471	198	4	27	4	16	0	2	1	0	2
Iberian	7,665	1,399	2,050	308	825	4,579	3,298	117	2	74	0	16	0	2	126
Italy	18,482	8,709	1,186	4,825	7,697	970	80	2,911	58	386	458	671	4	1	350
Med Islands	1,026	538	90	278	758	45	2	9	6	2	4	1	0	0	90
North African	26,961	4,295	13,661	419	23,393	12,342	460	0	15	2	0	1	1,034	1	244
North Western	7,088	5,318	67	116	1,334	480	29	221	4	73	4	18	0	454	91
Provincia incerta	140	93	9	47	59	14	4	3	1	0	6	0	0	0	0
Rome	35,003	17,306	1,192	12,489	17,939	695	114	2,075	136	291	1,901	16	14	0	808