

Marius Stangeland

The Curious Case of Sicilian Resilience

A comparative study of plague, climate, and warfare in sixth century Italy and Sicily

Master's thesis in MLHIST
Supervisor: Leif Inge Ree Petersen
November 2022



Unknown. (1607-1635). Plague panel with the triumph of death. Deutsches Historisches Museum Berlin.

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Abstract

The sixth century was a very turbulent time in Italy. It involved two wars: The twenty yearlong conflict between the Ostrogoths and the East Roman Empire and, in the second half of the century, the Lombard invasion of the peninsula. Furthermore, the Justinianic Plague broke out in 541 in Pelusium in Egypt and came in recurring waves to Italy. The transition from Late Antiquity to the Early Middle Ages was also marked by the onset of the Late Antique Little Ice Age in 536 that lasted until c.660. This was marked by great regional variance, but in general, the climate became colder and wetter throughout the Mediterranean and Europe.

The Italian peninsula was markedly poorer at the end of the sixth century compared to the first half. Sicily, on the other hand, was still apparently flourishing at the end of the sixth century and saw a very different development. Why did Sicily develop differently than Italy? This is the research question that guides the thesis; and warfare, plague, climate, and economic structures play an especially important role in the analysis. The central argument of the thesis is that Sicily was a more resilient society than Italy due to political stability, relatively little warfare, and more robust economic structures. Furthermore, a favourable climate in Sicily and its central position in the commercial networks in the Mediterranean meant that the Late Antique structures endured for longer than in the peninsula. The plague was likely a great mortality event in both Italy and Sicily, as argued in the thesis, but Sicily was more resilient due to the aforementioned factors.

Samandrag

500-talet var ei veldig turbulent tid i Italia. Det involverte to krigar: den tjueårslange Gotarkrigen og seinare den lombardske invasjonen av halvøya. I tillegg braut den første dokumenterte pandemien med pest, ofte kalla for den Justinianske Pesten, ut i 541 i Pelusium i Egypt, og spreidde seg seinare til Italia. Der blussa den opp igjen med jamne mellomrom på 500-talet og fram til midten av 700-talet. Overgangen frå seinantikken til tidleg mellomalder var også merka av klimaendringar, ofte kalla for den seinantikke istida som varde frå 536 til omtrent 660. Sjølv om det var store regionale skilnadar, var perioden generelt kaldare og våtare ved Mellomhavet og i Europa.

Den italienske halvøya var tydeleg fattigare på slutten av 500-talet. Sicilia ser derimot ut til å ha vore relativt velståande og utvikla seg svært annleis. Kvifor følgde ikkje Sicilia same utviklingskurve som Italia? Dette er spørsmålet som leiar oppgåva, og krigføring, pest, klima og økonomiske strukturar vil spela ei særleg viktig rolle i analysen. Det sentrale argumentet i oppgåva er at Sicilia var meir motstandsdyktig enn Italia på grunn av politisk stabilitet, relativt lite krigføring på øya og meir robuste økonomiske strukturar. Positive klimatiske forhold og den sentrale posisjonen øya hadde i handelsnettverka i Mellomhavet gjorde at antikke strukturar heldt ut lenger enn på den italienske halvøya. Pest førde sannsynlegvis til store dødstal både i Italia og på Sicilia, men oppgåva vil argumentera for at Sicilia var meir motstandsdyktig på grunn av dei nemnde faktorane.

Acknowledgment

A thesis about disease, war, and climate change feels very relevant to our current times, although the inspiration for this thesis came first and foremost from my interest and curiosity about the Justinianic Plague – a disease that brought havoc to the Antique order – or maybe not. The debate about the plague’s consequences intrigued me, and I wanted to study this in more detail. After many an hour lost in books and articles on the topic, my thesis was born.

The process has been long, arduous, and at times, very frustrating, but also inspiring. This thesis would never have been possible if not for the excellent guidance and feedback by my supervisor Leif Inge Ree Petersen, Associate Professor at NTNU. He gave me sources to work with, suggested paths to follow, and helped me find a suitable focus for the work.

Next, I want to thank the Norwegian Institute in Rome which has provided me with relevant literature, a very fruitful academic environment, and an amazing view of Rome.

I also owe a big thanks to friends and family who has helped me survive this long process. Thank you to all who has read my thesis and given me feedback to improve. I especially want to thank my dad Oddbjørn Stangeland, my good friends Andreas Haraldstad and Kari Fischer, and, of course, my dear *polola* María Laura Santamaría.

To wrap up, I want to thank NTNU and Trondheim for five great years of my life.

Rome, November 2022

Marius Stangeland

Relevance to the Norwegian Curriculum for History

Central themes to this thesis are how humans have been affected by and adapted to a changing climate, how historians debate sources and come to different conclusions, and the general debate on continuity and change in the transition from Late Antiquity to the Early Middle Ages. These are all highly relevant to the current curriculum for the History subject in the Norwegian school system (LK20). For instance, sustainability is an interdisciplinary topic in this curriculum, and it says that: “In the History subject the interdisciplinary topic of sustainability refers to providing pupils with an understanding of the interaction between people and nature. It describes how people have related to nature and managed and utilised resources.” (Kunnskapsdepartementet, 2020, Interdisciplinary topics HIST01-03). This is a central theme in the thesis as it discusses how people in Italy and Sicily in Late Antiquity were affected differently by climate change, and how these societies adapted to these changes. (See chapter 6).

A central theme in the thesis is the historical debate about the consequences of the Justinianic Plague. This shows how historical interpretations of the past is a subject marked by our present understandings of disease. A competence aim after vg3 is that pupils should “reflect on how interpretations of the past are affected by our understanding of the present and expectations for the future” and “compare different accounts of an event and reflect on the fact that historical accounts are influenced by the points of view and context of the author.”

(Kunnskapsdepartementet, 2020, Competence aims after vg3). This is reflected throughout the thesis. (See especially chapter 2.1).

Lastly, I want to highlight the competence aim: “discuss the degree to which developments in different periods have been influenced by upheaval or continuity and consider what makes an event in the past meaningful.” (Kunnskapsdepartementet, 2020, Competence aims after vg3). The transition from Late Antiquity to the Early Middle Ages is ripe with discussion of change and continuity, and this is a very central theme to this thesis. This is discussed in a historiographical part in chapter 2.3 and also in general discussions throughout the thesis.

Sources:

Kunnskapsdepartementet. (2020). *His01-03: Interdisciplinary topics*. Curriculum for history - Common Core Subject in Programmes for General Studies (HIS01-03).

<https://www.udir.no/lk20/his01-03/om-faget/tverrfaglige-temaer?lang=eng> [Retrieved 11.05.2022]

Kunnskapsdepartementet. (2020). *His01-03: Competence aims after vg3*. Curriculum for history - Common Core Subject in Programmes for General Studies (HIS01-03).

<https://www.udir.no/lk20/his01-03/kompetansemaal-og-vurdering/kv85?lang=eng>

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1 Introduction and Historical Context

The Gothic War and the Lombard invasion, drastic climate change from 536, and recurring outbreaks of plague from the 540s onwards; Italy saw a very dramatic sixth century. Already in the fifth century, the fall of the Western Roman Empire and the collapse of the population of Rome had deeply affected the peninsula, but it had been relatively spared from political upheavals and wars. The sixth century was a turning point that substantially changed the political, social, economic, and material structures of Italy. Sicily went through many of the same structural changes as Italy in the fifth century but was much more prosperous throughout the sixth century. What caused this divergence? Let us start by looking at the situation in Italy and Sicily at the start of the sixth century in 520 and compare this to the situation at the end of the century in 590.

In 520, before the plague and wars, Italy had enjoyed decades of political stability and had been ruled by Theodoric and the Ostrogoths for more than twenty years. Although the Goths were politically prominent and owned a lot of land in the central and northern regions, the governmental, administrative, and economic structures remained largely Roman.¹ Of course, the preceding centuries had seen a lot of changes. Italy was no longer the centre of a Mediterranean empire and the region had consequently lost a lot of tax income. Furthermore, the city of Rome, largely due to the Vandal conquest of Africa, experienced a very sharp demographic decline from the 400s onwards. This was a very important structural change for Italy as the demand for Italian products declined as a result.²

In 520, Italy was a different society than it had been at the start of the preceding century. Many of the Late Antique structures were in decline, such as the Antique form of urbanism and the villa economy in the countryside. Furthermore, Italy seems to have been much less densely populated in 520 compared to 200. However, there were many signs of continuity as well. The

¹ Theodoric ruled Italy from Ravenna based on a traditional Roman administration. That is, a mixture of senatorial leaders from Rome and career bureaucrats. Cassiodorus tended to accentuate Theodoric's role as an upholder of Roman values. Wickham. (2009). *The Inheritance of Rome: A History of Europe from 400-1000*. New York: Penguin Books, pp. 89-90.

² Wickham. (2005). *Framing the Early Middle Ages: Europe and the Mediterranean, 400-800*. New York: Oxford University Press, p. 34; the provinces of Italy supplied Rome with foodstuffs such as wine, grain, and meat, as well as other products. Their productivity and wealth were in large part based on Rome, and the city's decline was therefore also reflected in the fate of the Italian provinces. Christie. (2016). *From Constantine to Charlamagne – An Archaeology of Italy, AD 300-800*. London and New York: Routledge, p. 414.

fiscal and administrative systems of Late Antiquity were still functioning in 520. The same landowners dominated politics together with the new Gothic elite in the north.³ Contemporaries, both Procopius and Cassiodorus, describe a stable and even quite prosperous Italy before the Gothic War.⁴ Despite the fall of the Western Roman Empire, Italy showed many signs of continuity in the first quarter of the sixth century.⁵

Italy in 590 was a very different society compared to what it had been in 520, and the events of the sixth century clearly marked a “before” and “after”. In 535, Byzantine troops led by General Belisarius, landed in Sicily, thereby starting a 20 year long war in Italy. Scholars have called this a watershed moment for the region, substantially damaging the fabrics of society.⁶ Later, the Lombard conquest, starting in 568, fragmented the peninsula and thereby aggravated the consequences of the Gothic War. Late sixth century Italy was thus very different from what it had been at the start of the century; it was materially simpler; the villa-economy disappeared; commercial networks broke down; and the monetary economy was drastically simplified.⁷ Italy also seems to have been much less sparsely populated. Wickham suggests a 50 percent reduction in much of the Italian countryside at the end of the sixth century compared to what it had been during the imperial era.⁸ The senatorial elite was also in fast decline, and they were rarely attested in public affairs after the Gothic War.⁹ Consequently, Italy was a very different society in 590 than it had been in 520. It was politically fragmented, less populated, and impoverished.¹⁰ This descending curve would continue in Italy, and most of Europe, until the eighth century.¹¹

This can be contrasted with Sicily, which seemed to be flourishing in the same period. Sicily, in 520, shared many of the same characteristics as mainland Italy. It was under Ostrogothic rule and retained many of its Late Antique administrative and fiscal structures. However, the Ostrogothic presence was much weaker in Sicily than in the northern and central parts of Italy. This is not only reflected in evidence and sources about land settlements, but also from the evidence of

³ Wickham 2009, pp. 89-90.

⁴ Christie 2016, pp. 33-34.

⁵ Wickham 2005, p. 34.

⁶ Christie 2016, p. 5.

⁷ Wickham 2005, p. 205 and pp. 730-31

⁸ Wickham 2005, p. 508.

⁹ Cosentino. (2021). Politics and Society. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 29-67). Leiden: Brill, p. 33.

¹⁰ Wickham 2005, p. 35.

¹¹ Martin. (2021). Rural Economy: Organization, Exploitation and Resources. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 279-299). Leiden and Boston: Brill, p. 295.

Ostrogothic garrisons that were much fewer in Sicily than in the north.¹² This meant that the Ostrogothic conquest and rule of Italy was less impactful in Sicily and likely did not cause great changes to the landowning and settlement patterns there. Consequentially, the senatorial elite continued to own a big part of the land, together with the ever more important Church.¹³

Like in Italy, the Vandal conquest of Africa and the demographic decline of Rome were two structurally important changes that had a great impact on Sicily. Cities showed signs of decline in this period, although this was followed by growth in the countryside and the rising importance of “agrotowns”.¹⁴ Furthermore, the overall structure of imports was altered in the fifth century, but ceramics from Africa continued to arrive in Sicily in 520.¹⁵ Sicily, just as Italy, was different in 520 compared to the preceding century, but there were also many signs of continuity.

This can be contrasted to 590 when Sicily was very different from mainland Italy. The sixth century marked an abrupt end to Late Antiquity in Italy, whereas Sicily had an exceptionally long Late Antiquity, stretching well beyond the sixth century. Sicily in 590 was a central part to the Eastern Empire, directly administered from Constantinople. The island enjoyed a central place in the Mediterranean exchange network, and ceramics continued to arrive from Africa, even into small inland villages. Monetary circulation was flourishing, and the island even got two imperial mints during the end of the sixth and the start of the seventh century. The countryside seems to have been well off too, and even showed some signs of growth. The Church of Rome and the Emperor had strengthened their position on the island with the decline of the senatorial elite.¹⁶ In sum, Sicily was much more prosperous in 590 than Italy.

1.1 Research Question and Chapter Outline

This naturally leads to the question: Why did Sicily develop differently than Italy during the sixth century? The Gothic War, a watershed moment for the rest of Italy, seem to be a plausible explanation, but can Late Antique warfare be that deadly and destructive? A combination of plague outbreaks and warfare could offer a tantalizing explanation for Italy’s dramatic sixth

¹² See chapter 4.1.

¹³ See chapter 4.3.

¹⁴ See chapter 4.2.

¹⁵ Molinari. (2019). Sicily from Late Antiquity to the Early Middle Ages: Resilience and Disruption. In Ontiveros, M.A.C., Florit, C.M. (eds.). *Change and Resilience: The Occupation of Mediterranean Islands in Late Antiquity* (pp. 87-110). Oxford: Oxbow Books, pp. 3-4.

¹⁶ See chapter 4.3.

century. Cosentino writes that the first outbreak of plague was a key reason for the prolongment of the Gothic War and caused a mortality of 20 to 30 percent of all inhabitants of the Eastern Roman Empire.¹⁷ However, one would expect plague to have a similar devastating effect on Sicily, but this is not clear from the evidence. Maybe we should look to other factors to explain the developments seen during this period? This leads to some very big and broad questions: How important was the Gothic War and the Lombard conquest for the transition from the Early Middle Ages to Late Antiquity in Italy? Which other factors were involved in this process? How can we explain regional differences? What was the role of external factors such as plague and climate change?

This transition from Late Antiquity to the Early Middle Ages involved a wide set of factors interacting with each other in a very complex manner. Subsequently, this process will be analysed and discussed based on the following question: Why did Sicily develop differently than mainland Italy during the sixth century? This will be analysed within the time frame of the sixth century, especially focusing on the period from 535 until the end of the century. 535 marks the start of the Gothic War and happened just before the onset of the Late Antique Little Ice Age in 536 and the Justinianic Plague in 541. The end point of c.600 has been chosen as it was after the end of the Gothic War and there was a certain stabilisation of the political situation in Italy after the Lombard incursion. Furthermore, the last certain plague outbreak in Italy during the sixth century happened in the 590s. Italy clearly changed radically during the 500s, and it is therefore suitable to keep the focus of the paper within the sixth century.

A central argument in the thesis is that these changes happened due to a complex interaction of different factors. This period was marked by both continuity and clear change and trying to explain this by referring to only warfare or changes to commercial networks ignores many other potentially important factors. In the following sections, this will be examined further by considering various possible explanations, while keeping in mind the complexity of determining cause and effect, and the complicating factors of a long chronology and the geographical extension involved. This paper will argue that warfare in combination with the recurring outbreaks of plague and their effects on political stability, demography, commercial and economic networks, settlement patterns, and administrative structures was likely the main factor

¹⁷ Cosentino 2021, pp. 30-31.

for the divergence between Italy and Sicily in the sixth century. Climate change will also be considered as a factor, but due to regional differences and the difficulty of precisely determining their effects, it is very difficult to estimate its role in these development and how it interacted with other factors.

Before going into the analysis and discussion, the next section will explain the methodology that will be used to analyse the research question in addition to address some possible problems, such as the fragmented source material. Following, an overview of relevant historiography will be outlined in chapter two, focusing on the plague in section 2.1, the debate between continuity and change from Late Antiquity to the Early Middle Ages in section 2.2, and a brief outline of new studies of the climate in Late Antiquity and Early Middle Ages in section 2.3. Chapter three will be a critical review of the historiography of the spread of plague to Sicily and Italy based on the source material and current evidence. The conclusions from chapter three will form an important framework for the discussions in the subsequent chapters.

Chapter four will analyse warfare, changes to settlement structures and administrative structures in Sicily and Italy and discuss both similarities and differences between the two. In chapter five, the focus will be on exchange networks, material culture, and the monetary situation to argue that Sicily's position in the Mediterranean exchange network was crucial to its differentiation from the peninsula. Chapter six will briefly analyse how climate may have affected Italy and Sicily based on current evidence. Finally, chapter seven will conclude by trying to answer the research question based on the earlier discussions. The ramifications of the findings will be linked to a possible framework for future research, thus contributing to the research on plague, the consequences of the Gothic War, and the general discussion between continuity and change in the transition from Late Antiquity to the Early Middle Ages in Italy and Sicily.

1.2 Methodology, Sources, and Some Problems

This study will be based on the comparative method to try to explain the factors that differentiated Sicily's sixth century from that of Italy. For this to be a relevant research question, these two units must be suitable for a comparison with each other. This is not necessarily unproblematic. First and foremost, Sicily was an island that was geographically separated from

the peninsula and culturally slightly different with much stronger Greek elements.¹⁸ Furthermore, Sicily's administrative structure was different from that of Italy after 537 when the island was ruled directly from Constantinople. The island's extensive links to the East and North Africa also differentiated it from great parts of peninsular Italy. However, there are also strong reasons for considering Sicily within the same sphere as Italy. The geographical proximity to southern Italy would favour such a view as well as the historical importance it has played for the peninsula. Furthermore, the island was closely linked to Rome and Ravenna, both in terms of economy and ecclesiastical matters. During the Gothic War, Sicily was treated as an integral part of the war, and it is evident that the island was closely linked to Italy.

The strongest argument in favour of such an analysis is that it is historically interesting. Both Sicily and Italy were affected by many of the same tendencies until the sixth century such as the end of the western Empire, the disappearance of the villa economy, and the decline of urban structures. A comparative analysis of these two regions can therefore be fruitful when discussing the consequences of the Gothic War and Lombard invasion, plague, and climate change, especially considering the surge in new scholarship on the latter two topics. Therefore, a comparative study of Italy and Sicily can open for new insights into various historically interesting topics in the transition from Late Antiquity to the Early Middle Ages.

To answer the research question of this paper, mainly three types of sources will be used: Written contemporary sources, archaeological surveys, and relevant secondary literature. A critical analysis of the current historiography will underly the analyses of the thesis. Due to new evidence and insights into the Justinianic Plague, it will be impossible to ignore it as a factor in this period. The analysis will therefore begin with the plague to probe whether it spread to Sicily and Italy during the sixth century and, if so, how many times. This will be analysed and discussed based on the literary sources, routes of transmission, likely places of transmission of plague to Sicily, and archaeological and molecular evidence. As the textual evidence is rather weak for Sicily during the period, this section will largely be based on our current knowledge of how *Y. Pestis* was transmitted between regions, the evidence for plague in other regions and the

¹⁸ For a discussion on Greek culture in Sicily and Italy, see: Von Falkenhausen. (2021). Greek and Latin in Byzantine Italy (6th–11th Century). In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 541-581). Leiden and Boston: Brill.

pattern of its spread, and our understanding of exchange networks based on archaeological finds.¹⁹

From this, it will be argued that the plague reached Sicily at least once and likely several times during the sixth century. Why then is there no clear evidence for a sharp demographic decline in Sicily during the sixth century? In other words, how deadly was the Justinianic Plague in Sicily? This is not an easy question to answer, but assuming that the demographic consequences on the island were similar to those reported in the East, it will be assumed that the plague was a consequential mortality event on the island and in Italy.²⁰ This will be central to the subsequent analyses as it can be a key factor for the differentiation that we see in the developments in the sixth century. Sicily might have been more resilient to the consequences of plague than Italy as it was richer, enjoyed a favourable climate, and saw little direct warfare during the century. This is a hypothesis based on the idea that during periods of crisis, societies and ecosystems adapt, change, and learn to live with uncertainty and surprise.²¹ This hypothesis will be considered in the discussions in chapters four, five and six.

After having discussed plague, the paper will critically assess several theories for the differentiation between Sicily and Italy. The analysis will consider external factors, such as the Gothic War and Lombard invasion and climate change, as well as settlement structures, administrative structures, material culture, the monetary situation, and commercial and exchange networks. The source material for this will mainly be the updated secondary literature on Sicily and archaeological surveys, in addition to the updated overview works on Italy. Our understanding of Sicily during this period has improved massively during the last two decades, largely due to advances in the field of archaeology.²² Primary sources will also be considered, among others the works of Procopius for the Gothic War, Gregory of Tours for the plague outbreak in Rome in 590, and the letters of Pope Gregory I for information about Rome and Sicily.²³

¹⁹ See chapter 3 for further discussion and analysis.

²⁰ This is discussed in depth in chapter 3.3.

²¹ Ontiveros & Florit. (2019). Foreword – Islands, Change and Late Antiquity. In Ontiveros & Florit (eds.). *Change and Resilience: The Occupation of Mediterranean Islands in Late Antiquity* (pp. xxi-xxviii). Oxford and Philadelphia: Oxbow Books.

²² For a comprehensive overview of antique Sicilian archaeology, see: Malfitana & Cacciaguerra (eds.). (2014). *Archeologia classica in Sicilia e nel Mediterraneo. Didattica e ricerca*. Catania: CNR.

²³ An overview of all the primary sources used can be found in the bibliography at the end.

All the contemporary literary sources will be critically analysed with regards to their genre, attended audience, the discursive logic of the period, and what we know about the authors and context. The accumulative work by earlier historians will be actively used to assess the context and discursive logic of the works. A challenge is that most of the narrative history that has survived from the sixth century is heavily biased towards the East.²⁴ In comparison, most of the surviving western literary sources are either fragmentary or sources with limited information about Italy and Sicily such as chronicles with only brief mentions, letters, church histories, and hagiographies. One exception is Procopius's *Wars* which narrates the Gothic War in Italy in detail.²⁵ The literary bias towards the East is evident when considering the plague. In the East, we often have lengthy and detailed descriptions of both the consequences and spread of plague. In the West, however, much of our evidence for plague comes from brief mentions in chronicles or indirect evidence from epigraphs.²⁶

The highly fragmented material from this period necessitates the use of other sources as well. There have been very important advances in Italian and Sicilian archaeology which has given us a much better picture of the material culture, exchange networks, settlement patterns, and general signs of continuity and change. Archaeological surveys will therefore be an important part of this paper, but the reliance on such material brings its own methodological challenges. Firstly, the archaeology of Late Antiquity and the Early Middle Ages was for a long time relatively underdeveloped, especially in the South. There have been great advances the last two decades, but there is still a lack of extensive regional surveys. Secondly, a lot of the material has been excavated and studied by researchers whose expertise is in other periods or areas, which affects the possibility of extracting general information from the datasets. Thirdly, different methodologies make it difficult to compare results and findings.²⁷

²⁴ One exception is Gregory of Tours's account on plague outbreaks in Frankish Europe. For an overview, see: McCormick. (2021). Gregory of Tours on Sixth-Century Plague and Other Epidemics. *Speculum*, vol. 96(1), pp. 38-96.

²⁵ See book 3 and 4 of Procopius's *Wars* for the Vandalic War and book 5-8 for the Gothic War.

²⁶ For an overview of the literary sources on the Justinianic Plague, see: Little. (2007). Life and Afterlife of the First Plague Pandemic. In Little, L.K. (ed.). *Plague and the End of Antiquity* (pp. 3-32). Cambridge and New York: Cambridge University Press, pp. 7-15.

²⁷ Cosentino & Zanini. (2021). Introduction: Mapping the Memory of Byzantine Italy. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 1-28). Leiden and Boston: Brill. p. 16; Gelichi. (2021). The Venetiae, the Exarchate and the Pentapolis. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 360-386). Leiden and Boston: Brill, pp. 375-76; Zanini. (2010a). Le città dell'Italia bizantina: qualche appunto per un'agenda della

A central element in the analysis is the transition from Late Antiquity to the Early Middle Ages. This necessitates a discussion of these terms and how they will be used in this paper. Late Antiquity is used to show elements of continuity with the past, i.e., Antique structures in the economy, administration, political structures, and society at large. The Early Middle Ages started when these elements were markedly different from its Antique past. This transition started in different periods in different places. For instance, the dramatic end to the Roman administration and Antique structures in England during the fifth century when the Western Roman Empire retreated from the island marked a sharp end to the Antique order and the start of the Early Middle Ages there. In Italy, this started later, but the Gothic War and Lombard invasion during the sixth century seem to have marked a new period. Sicily, however, does not show as clear signs of break, and there seem to be a lot of continuity from Antiquity even until the end of the seventh century. For this reason, the term long Late Antiquity seems adequate when discussing Sicily compared to Italy's sharp break in the sixth century.

The last point which will be discussed in this section is the problem of treating Italy as a uniform block. Italy consisted of heterogenous regions with big differences in landownership, agricultural potential, and links to the Mediterranean exchange networks. Southern Italy was in many ways more similar to Sicily, both due to geographical proximity, but also due to similar patterns in settlement structures, economic factors, and climate. Northern Italy, on the other hand, was much less Mediterranean and more closely linked to Frankish Europe and the Balkans.²⁸ However, one unifying factor was that almost all of Italy experienced drastic changes during the sixth century, from the south all the way to the north, although with regional differences of the degree of the impoverishment and changes. Sicily on the other hand developed very differently, despite sharing many features with the peninsula. Although the following analyses will necessarily ignore much of the regional and local differences, these special cases will likely not invalidate the overall conclusions.²⁹ Furthermore, the finds from this paper can potentially open for interesting regional and local surveys in the future.

ricerca. *Reti Medievali Rivista*, vol. 11(2); for an overview of some of the most recent work done on Sicily in the period, see: Molinari 2019.

²⁸ Cosentino & Zanini 2021, pp. 1-14.

²⁹ This is also discussed by Wickham who writes that "I have, of course, elided much detail, while also trying to respect difference. As a result, my image of Italy may ignore the special case of Tuscany, my image of Tuscany may ignore the special case of Pisa, and so on down, for every one of my regions." Wickham 2005, p. 9.

2 Historiography

There are three critical themes that will be central to this paper when discussing Sicily and Italy. Firstly, the evidence for the Justinianic Plague and the historiographical debate is central when the paper will discuss plague and its possible consequences in Italy and in Sicily. Secondly, the debate on continuity and break in Italy from Late Antiquity to the Early Middle Ages is key to understanding and problematizing Italy's dramatic sixth century with the Gothic War and Lombard conquest compared to Sicily's signs of continuity. Scholars have recently started to question or debate some of these notions, and this will be addressed in chapter 2.2. Thirdly, the new evidence on climatic change and the Late Antique Little Ice Age is an exciting new avenue of research. Climate change was likely a key factor in the transition from Late Antiquity to the Early Middle Ages in various parts of the Mediterranean and Europe. Chapter six will deal exclusively with climate change in Sicily and Italy, and it is therefore important to have some historiographical background information to that discussion.

2.1 The Justinianic Plague

From the literary sources, it seems evident that the plague was a cataclysmic event that spread widely and seemed nearly apocalyptic in its scope and consequences.³⁰ Procopius tells of tens of thousands dying every day in Constantinople during the First Outbreak (542) and that huge mass graves were dug to dispose of the bodies.³¹ This was also a narrative that for a long time was accepted by scholars. But where is the non-literary evidence for these mass graves and rapid demographic shock? One of the first and most influential critical voices of the Justinianic Plague was Jean Durliat who in an article published in 1989 pointed to the lack of non-literary evidence for this event. His main argument was that evidence of the plague was mainly based on written accounts and that archaeology did not support these literary sources.³²

³⁰ The First Pandemic spanned the European continent, Southwest Asia, and North Africa, and would have seemed an all-encompassing event from the Mediterranean-world. The plague would reoccur in "waves" and did not go away until the mid-eighth century. Little 2007, p. 3.

³¹ Procopius, *Wars* 2.23. In Kaldellis (ed.) 2014, pp. 123-24.

³² Durliat. (1989). La peste du VI^e siècle: pour un nouvel examen des sources byzantines. In Abadie-Reynal, Morisson & Lefort (eds.). *Hommes et richesses dans l'Empire byzantine*, pp. 107–19; it should be noted that Durliat was a proponent of the theory of continuism from Late Antiquity to the Early Middle Ages. Furthermore, the non-literary evidence for plague was much scarcer when he wrote his critique compared to what was available later. See: Little 2007, p. 17.

This sparked a polarized debate between critics and proponents of the Justinianic Plague, evident from the choice of words to describe the two sides: plague minimalists and maximalists.³³ The main argument of the maximalists is that the literary sources tell a story of a disease that struck indiscriminately and killed with great vigour. They have highlighted the new evidence for plague coming from a wide arrange of fields such as epigraphic and numismatic data, paleogenomics studies, and archaeological research, and show how these corroborate the literary sources. They have thus concluded that plague played a key part in the transition from Late Antiquity to the Early Middle Ages. The Second Pandemic, the Black Death, is often used by maximalists as a model to better understand the First Pandemic.³⁴

The general argument from the minimalist is that there is not sufficient evidence to convincingly argue for a mass death event or a watershed moment. In their view, the current evidence cannot prove that the plague was a great mortality event that seriously disrupted societies and economies in Late Antiquity and the Early Middle Ages. They argue that the literary sources exaggerate death tolls, the chronology of demographic decline started before or after in many places in Europe and the Mediterranean world, the archaeological evidence is very ambiguous, and direct evidence for plague outside literary sources is very rare to find. The Third Pandemic during the nineteenth century is often used as a model. Although the Third Pandemic certainly killed many, the mortality rate cannot be compared to that of the Second Pandemic.³⁵

This polarized debate played a key part in spiking interest in plague studies, leading to several conferences and new works to understand it at the start of the new millennium. One of the most important overview works from the early 2000s was Stathakopoulos's identification of all the

³³ These terms are often used by the other side as a critique. For instance, "maximalist" was used to describe and critique the view that plague was a substantial mortality event in Eisenberg & Mordechai. (2019). The Justinianic Plague: an interdisciplinary review. *Byzantine and Modern Greek Studies*, vol. 43(2), p. 156-180; likewise, "minimalist" is used by Harper to criticize the other side. Harper. (2017). *The Fate of Rome: Climate, Disease, and the End of an Empire*. Princeton & Oxford: Princeton University Press, p. 343.

³⁴ See for example Harper 2017. It should be noted that there is also an ongoing debate about the consequences and demographic impact of the Second Pandemic. In an article published earlier this year, palaeoecological data was used to argue that there were great regional differences in the demographic consequences of the plague. Some regions saw sharp demographic declines, while others seemed to have been less affected. In the conclusion, they called into question the demographic toll of the Black Death in general. The study was based on pollen-data to study land use in several regions in Europe during the period. Izdebski et al. (2022). Palaeoecological data indicates land-use changes across Europe linked to spatial heterogeneity in mortality during the Black Death pandemic. *Nature*, vol. 6(3).

³⁵ For a Third Pandemic model for the Justinianic Plague, see: Mordechai & Eisenberg. (2019). Rejecting Catastrophe: The Case of the Justinianic Plague. *Past and Present*, vol. 244(1), pp. 39-44.

alleged outbreaks of plague that we know of from 541 to the last one in the mid-eighth century, counting 18 waves of plague in total.³⁶ Another important overview book from this period was the collection of ten articles on the Justinianic Plague in a book edited by Little (2007). In addition to an overview of the primary sources on plague, it included several articles on the plague in different areas from the East and the West.³⁷ It also included an article by Sarris outlining the non-literary sources for the plague, an answer to Durliat's critique.³⁸

There were also critical voices to the plague's consequences in this period. One of the most noteworthy is Wickham who in his impressive overview of the Early Middle Ages disregarded the Justinianic Plague as an important factor in the transition from Late Antiquity to the Early Middle Ages. He preferred to explain these changes through material, economic, and political factors, and states that: "the sixth century plague, however dramatic its local incidences, was a marginal event in the demographic history of our period."³⁹ In a later work in 2009, he reiterated this view, stating that the evidence does not point to a large mortality event.⁴⁰ Other general works on the period, however, do ascribe a great role to the plague, such as Sarris (2011)⁴¹ and Mitchell (2015).⁴²

Although the debate is still ongoing, a lot of new studies have given us a better understanding of the plague, especially in the realm of non-literary material. The most ground-breaking find was likely the bacteria itself. Ancient DNA from the *Y. Pestis* bacterium from the sixth century was

³⁶ Stathakopoulos. (2004). *Famine and Pestilence in the Late Roman and Early Byzantine Empires*. London and New York: Routledge, pp. 177-386.

³⁷ The regions included are Syria, the Byzantine heartland, Gaul, Spain, England, and Ireland. Little (ed.). (2007). *Plague and the End of Antiquity*. Cambridge and New York: Cambridge University Press.

³⁸ Sarris. (2007). Bubonic Plague in Byzantium – 'The Evidence of Non-Literary Sources'. In Little (ed.). *Plague and the End of Antiquity* (pp. 119-132). Cambridge University Press, pp. 119-132.

³⁹ Wickham, 2005. *Framing the Early Middle Ages – Europe and the Mediterranean 400-800*, pp. 548-49.

⁴⁰ "The plague existed, certainly, and killed people too, but neither the archaeology of Syria nor the documents of Egypt support a population collapse in the mid-sixth-century East. As for the West, if there was a population decline in northern France and England, it had already begun in the fifth century, far too early for the plague." Wickham, 2009. *The Inheritance of Rome – A History of Europe from 400 to 1000*, p. 217.

⁴¹ "The plague thus served to alter the social balance of power at the grassroots of Eastern Roman society. It shook the economic foundations of aristocratic control, while curtailing still more sharply the fiscal resources upon which the state depended." Sarris. (2011). *Empire of Faith – The Fall of Rome to the Rise of Islam, 500-700*. New York: Oxford University Press, pp. 158-160.

⁴² "Whatever its [the plague's] longer term demographic consequences, contemporary sources suggest that up to a third of the population may have perished in the period 542–545, and many administrative procedures, including tax collection, will have been brought to a virtual standstill." Mitchell 2015. *A History of the Later Roman Empire*, p. 473.

first found in Bavaria in Germany⁴³, and later also in Spain, France, and England.⁴⁴ There will likely be more finds in the future. As DNA-sequencing technology has become more affordable, the bacterium has been genetically sequenced, which has led to a better understanding of its origin and evolutionary story. This has shown that the strains that caused the Justinianic Plague became extinct, and, although very similar, were different to the strains that caused the Second Pandemic in the fourteenth century.⁴⁵

Similar advances in climate studies, numismatic studies, archaeological data, and papyri-studies have seemingly strengthened the maximalist case. Harper (2017) used this new evidence to make a bold argument for the maximalist case, hypothesising a demographic downturn of 50 % in the First Outbreak and giving it a central role in the development from Late Antiquity to the Early Middle Ages.⁴⁶ However, the book was heavily criticised for overstating the current evidence, especially for explaining the end of Late Antiquity by plague and climate.⁴⁷ Despite new evidence on plague, minimalists still see the evidence as insufficient to argue for a great mortality event. Mordechai et al. (2019) and Mordechai & Eisenberg (2019) made a vocal case for the minimalist view, claiming that the Justinianic Plague did not have any major effects on structural changes and that the demographic consequences have been blown out of proportions. They use the same evidence, but point to, among other things, the scarcity of the finds, the signs of continuity in society, and many historians' uncritical reading of the literary sources to support their argument.⁴⁸

⁴³ The bacterium was found in several skeletons in an Early Medieval graveyard in Aschheim in Bavaria. The finds were published in an article from 2013. See: Harbeck et al. (2013). *Yersinia pestis* DNA from Skeletal Remains from the 6th Century AD Reveals Insights into Justinianic Plague. *PLOS Pathogens*, vol.9(5), e1003349.

⁴⁴ Keller et al. (2019). 'Ancient *Yersinia*' *pestis* genomes from across Western Europe reveal early diversification during the First Pandemic (541–750). *PNAS*, vol 116(25), pp. 12363-12372.

⁴⁵ Demeure et al. (2019). '*Yersinia pestis*' and plague: an updated view on evolution, virulence determinants, immune subversion, vaccination, and diagnostics. *Genes and Immunity*, vol. 20(5), pp. 357-370.

⁴⁶ Harper 2017, *The Fate of Rome*, pp. 244-45.

⁴⁷ See especially the three-part critique: Haldon et al. (2018a) Plagues, climate change, and the end of an empire: A response to Kyle Harper's 'The Fate of Rome' (1): Climate. *History Compass*, vol. 16(12); Haldon et al. (2018b) Haldon, J., Elton, H., Huebner, S.R., Izdebski, A., Mordechai, L. & Newfield, T.P. (2018b). Plagues, climate change, and the end of an empire: A response to Kyle Harper's 'The Fate of Rome' (2): Plagues and a crisis of empire. *History Compass*, vol. 16(12); Haldon et al. (2018c). Plagues, climate change, and the end of an empire: A response to Kyle Harper's 'The Fate of Rome' (3): Disease, agency, and collapse. *History Compass*, vol. 16(12); see also Harper's response: Harper. (2019). Invisible Environmental History: Infectious Disease in Late Antiquity. In Izdebski & Mulryan (eds.). *Environment and Society in the Long Late Antiquity* (pp. 298-313). Leiden: Brill.

⁴⁸ Mordechai et al. (2019). The Justinianic Plague: An inconsequential pandemic?. *PNAS*, vol. 116(51), pp. 25546-25554; Mordechai & Eisenberg 2019.

Their methods and conclusions have been heavily criticised by many. Meier (2020), in a rebuttal article, criticised it for simplifying the academic debate, heavily basing their arguments on a strawman-case of the other side, and disregarding important data. He argued that plague must be given a central place in the transition from Late Antiquity to the Early Middle Ages.⁴⁹ Similarly, Sarris has argued against the minimalist view of the Justinianic Plague, pointing to many of the same weaknesses as Meier, among other things, criticising the attempt to quantify the very fragmented data. Moreover, Sarris has criticised the division of scholarship into “minimalists” and “maximalists”, especially the way in which it has been used by Mordechai et al. (2019) to argue against a “maximalist consensus”.⁵⁰ I agree with Sarris and think that these terms oversimplify the debate and the scholarship on the topic. They have been used in this section to illustrate the polarized debate on the Justinianic Plague, but they will not be used in the analyses and discussions later in this paper.

Most recent scholarship tends to accept that the plague was a big mortality event that likely played a role in several of the developments seen in the period. However, few seem to accept Harper’s demographic decline of 50 %.⁵¹ Most seem to suggest a number between 15 and 30 % for the First Outbreak, with similar, albeit slightly lower figures for subsequent outbreaks. These are, of course, highly speculative estimates that are impossible to prove due to the murky evidence of demographics that we have from the period, but it indicates a serious mortality event that would have deeply affected contemporaries. The consequences of the Justinianic Plague, especially long- and medium-term, are still very much debated.

To get a fuller picture of the plague and its consequences, more interdisciplinary studies are needed. The potential of finding more aDNA from *Y. Pestis* in graves from the period seems especially promising. This does not only hold the potential to illuminate the spread of the plague,

⁴⁹ Meier. (2020). The ‘Justinianic Plague’: An “Inconsequential Pandemic”? A Reply. *Medizinhistorisches Journal*, vol. 55(2), pp. 172-199.

⁵⁰ He criticizes Mordechai et al. 2019’s use of the term “maximalists” to mean anyone that ascribes a mortality rate of more than 25 %. Sarris argues that 50 % is a very different position to 25 % and grouping them together is too simplistic. Furthermore, these figures are highly speculative and at best “guesstimates” in a period with such fragmented source material. He (rightly) points out that even a loss of 15 % in a fiscal state such as the Byzantine empire would have been highly destabilizing, thus problematizing an easy division based on numbers. Sarris. (2022). *New Approaches to the Justinianic Plague, Past and Present*, vol. 254(1), pp. 341-42.

⁵¹ Harper only suggest a 50 % demographic decline for the First Outbreak of plague in 541-c.545.

but it can also give us a better understanding of its evolutionary path during the pandemic.⁵² Archaeological and climatic studies have already yielded many new insights, and this will likely continue into this decade.⁵³ Another field which seems to hold a lot of potential and that has been underexplored is microstudies of the plague. Most studies have focused on long-term trends, but both the most ardent sceptics of the plague and those that think it was a watershed moment between Late Antiquity and the Early Middle Ages point to the need for further, focused research – microstudies. Mordechai et al. (2019) has suggested that: “Further research should analyze plague events at the local level in regions endowed with multiple lines of evidence instead of constructing grand narratives of ‘Roman decline’ and demographic collapse.”⁵⁴

A few such studies with a limited diachronic and geographical scale have been conducted, most of them very recently.⁵⁵ Luelmo-Lautenschlaeger et al. (2021) published an article last year on the possible influence of the plague in shaping the ecosystem around Sierra de Gredos in central Spain in an article that considers the timespan from 400 to 720.⁵⁶ Another such study was the thesis of Batterman published this year which argued that the so-called Ligurian Plague in 565, before the onset of the Lombard conquest, never happened and was merely a literary construction of Paul the Deacon.⁵⁷ Finally, Faure published an article in 2021 which questioned whether the Justinianic Plague actually reached Frankish Europe in 543.⁵⁸ These studies have both contributed to a better understanding of the plague’s role in local contexts and of the plague itself.

⁵² For an overview of aDNA sequencing technology and some predictions of the future potential of this field of research, see: Arning & Wilson. (2020). The past, present and future of ancient bacterial DNA. *Microbial Genomics*, vol. 6(7).

⁵³ Climate studies have for example proven that the Northern Hemisphere saw a cold period with a drop in one degree Celsius in the sixth century called the Late Antique Little Ice Age. It lasted from about 536 to c.660, although some studies extend the period to the eighth century. See chapter 2.3.

⁵⁴ Mordechai, et al. 2019, p. 25553.

⁵⁵ For an older example see: Soltysiak. (2006). The Plague Pandemic and Slavic Expansion in the 6th-8th centuries. *Archeologia Polona*, vol. 44, pp. 339-364; it is debatable whether this is in fact a microstudy as it includes two hundred years of history.

⁵⁶ Although the scope of the study starts before the onset of the plague, it more specifically focuses on the time period of c. 540-545 to analyze the possible impact of plague on local societies and their relation to the surroundings. Luelmo-Lautenschlaeger et al. (2021). Historia paleoambiental de la Sierra de Gredos (Sistema Central Español, Ávila) en época visigoda: incidencia de la plaga de Justiniano (541-543 A.D.). *Arqueologia Iberoamericana*, vol. 47, pp. 78-90.

⁵⁷ Batterman (2022). *The Plague that Didn't Happen: 'Yersinia Pestis' and the Lombard Conquest of Italy* [Master's Thesis]. Georgetown University, pp. 565-572.

⁵⁸ Faure. (2021). Did the Justinianic Plague Truly Reach Frankish Europe around 543 AD?. *Vox Patrum*, vol.78, pp. 427-466.

This thesis will be a contribution to this new trend in the study of the Justinianic Plague. The plague's presence in Sicily during the sixth century will be critically assessed, something that, to my knowledge, has not been done before. In the historiography, it is often assumed that the plague reached Sicily, but the evidence for its spread to the island is based on very little evidence. Furthermore, if the plague reached Sicily, why are the demographic consequences not more visible in the evidence? In mainland Italy, it seems to be much easier to detect or at least assume the plague's presence. This will be important for further discussions.⁵⁹

2.2 Continuity or Change?

The historiography of the Justinianic Plague is closely linked to the debate between continuity and change from Late Antiquity to the Early Middle Ages. There are big geographical differences in how this process happened. England, for instance, saw a very abrupt end to the Late Antique order in the fifth century when it was abandoned by the Western Empire.⁶⁰ Italy showed many signs of continuity under Gothic rule in the fifth century but changed radically during the sixth century. Other regions had a much longer Late Antiquity, such as Sicily which was relatively prosperous throughout the sixth century and even all the way to the end of the seventh century.⁶¹ In this section, a brief overview of the historical and archaeological evidence and debates on change and continuity from Late Antiquity to the Early Middle Ages in Italy will be considered.

Edward Gibbon's *Decline and Fall of the Roman Empire* had a great impact on this debate, offering a very dramatic interpretation of this process, focusing on barbaric invasions and catastrophes to explain the transition from Antiquity to the Early Middle Ages.⁶² This view has later been much modified. Montanari was one of the first to counter the idea of "the dark" Early Middle Ages in the Italian context with a book from 1979⁶³ where he discussed diet, food, and sustenance during the period. This was followed up by two other works with a similar focus in

⁵⁹ See chapter 3.

⁶⁰ Wickham 2009, p. 151.

⁶¹ Arcifa. (2021). Byzantine Sicily. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 472-495). Leiden: Brill, pp. 472-78.

⁶² For an analysis of the work of Gibbon in this regard, see: Pocock. (1989). *'Edward Gibbon in History: Aspects of the Text in': The History of the Decline and Fall of the Roman Empire* [Paper from presentation]. Tanner Lectures on Human Values, Yale University, 291-384; Jongman. (2007). Gibbon was right: The decline and fall of the roman economy. In Hekster, O., de Kleijn, G. & Slootjes, D. (eds.). *Crises and the Roman Empire* (pp. 183-199). Leiden and Boston: Brill.

⁶³ Montanari. (1979). *L'alimentazione contadina nell'alto Medioevo*. Napoli: Liguori.

1988⁶⁴ and 1994.⁶⁵ He demonstrated that peasants in northern Italy in fact ate more and better during the Early Middle Ages compared to the Roman era. The diet of people in the Early Middle Ages was more varied and consisted of vegetables, meat, and fish, a much more varied diet than the grain dominated Roman diet.⁶⁶ This seriously challenged the view that the Early Middle Ages was a dark period marked by catastrophes and decline.

Others have followed up on this. Wickham has shown that the end of the Roman Empire meant a shrinkage of the tax burden and greater freedom for peasants due to the weakening of the aristocracy.⁶⁷ The archaeology of the period also challenges a simplistic picture of a desolate rural and urban landscape in Italy during the sixth century. In fact, many settlements and cities seem to continue to exist and function throughout the sixth century.⁶⁸ This is even true for some of the regions that were most devastated by the Gothic War. Archaeological evidence has shown that in Liguria, many settlements remained in areas that once were thought to have been abandoned.⁶⁹ Giovanni (2001) goes as far as to suggest that the Early Middle Ages was a society with comparatively low infant mortality and low fertility based on the evidence from the diet and presumed late marriage and prolonged breastfeeding.⁷⁰ The fall in population numbers would then not be explained by catastrophes, but simply by changes in marriage customs and diet.

Even one of the most recognized devastating events in Italy during the sixth century, the Gothic War, has been scrutinized. Zanini has criticised the use of the Gothic War to explain every aspect of a very complex and multifaceted period of transformations during the sixth century. The war's destruction has been consolidated in the historiography and has been used to explain a wide range of phenomena, from something grand like the collapse of a region's economy to even something as small as the destruction of single buildings. The war led to destructions in many

⁶⁴ Montanari. (1988). *Alimentazione e cultura nel medioevo*. Bari: Laterza.

⁶⁵ Montanari. (1994). *The Culture of Food*. Oxford/Cambridge: Blackwell.

⁶⁶ Montanari also demonstrated that peasants during this period in northern Italy ate better and more than peasants all up to the nineteenth century.

⁶⁷ Wickham 2005, pp. 825-831.

⁶⁸ Christie 2016, Chapter 3: Urban Evolutions & Chapter 5: Rural Settlement and Patterns of Change.

⁶⁹ Brown & Christie. (1989). Was There a Byzantine Model of Settlement in Italy. *Mélanges de l'école française de Rome*, vol. 101(2), pp. 392-94.

⁷⁰ Giovanni. (2001). *Natalità, mortalità e demografia dell'Italia medievale sulla base di dati archeologici*. Oxford: B.A.R.

regions, but Zanini has highlighted the fact that it might paradoxically have been a positive element for many others as it opened their economy to the Eastern Empire.⁷¹

However, even though recent historiography has problematized some of the earlier interpretations and assumptions about the Early Middle Ages in Italy, the historiography still agrees on the overall picture; Italy was drastically changed during the sixth century. Even the authors whose work has led to reinterpretations of the simplistic “crisis picture” of the period, generally agree that Italy was radically different and impoverished at the end of the sixth century. The fact is that elements of continuity could be seen in conjunction with those of radical change. Even Wickham (2005), cautious of using external factors such as war to explain the development from Late Antiquity to the Early Middle Ages, admits that Italy had been deeply changed by the Gothic War and Lombard invasion: “Nowhere else in Europe and the Mediterranean was brought down so fast by war (in this case in the mid- to late sixth century), from considerable regional-level prosperity and economic integration to a series of isolated, sometimes very simple, microregional economies/societies.”⁷² Christie (2016) also highlights this.⁷³

In sum, the Early Middle Ages was neither a Dark Age nor a Golden Age for the Italian population.⁷⁴ It was marked by both signs of continuity and radical changes, some very disruptive. It should be recognized that studies in this period are based on a highly fragmented material, but the archaeological evidence clearly shows a “before and after” for Italy during the sixth century. This is not evident in Sicily.⁷⁵ This paper will be a contribution to this debate on continuity and change, especially by securitizing Sicily’s sixth century and problematize simple notions of “crisis” or “flourishing”.

⁷¹ Zanini 2010a, *Le città dell’Italia bizantina*, pp. 431-458.

⁷² Wickham 2005, p. 36.

⁷³ “This continuity is threatened most, it appears, in the course of the sixth century, most notably in the Byzantine–Gothic Wars (with concurrent plague) and in portions of the Byzantine–Lombard conflicts: surveys and excavations alike reveal a significant loss of sites and vitality by the 550s.” Christie 2016, p. 492.

⁷⁴ Barbiera & Dalla-Zuanna. (2009). Population Dynamics in Italy in the Middle Ages: New Insights from Archaeological Findings. *Population and Development Review*, vol. 35(2), p.384.

⁷⁵ See chapter 4 and chapter 5.

2.3 New Studies on Climate

The study of historical climate is a relatively young field of study that has garnered a lot of attention recently.⁷⁶ Technological innovations and new methods to study the environment of the past have been important to this development. Dendroclimatology, analysis of sedimentary content, study of ice sheets, and pollen data have all been used in innovative ways to give us a better picture of agriculture, land use, climate, and human societies in the past. The growth of this field of study is linked to our own time's climate change and the realization of how it is shaping our modern world.

Due to a change in focus and technological innovations, most studies on the climate of Late Antiquity and the Early Middle Ages are very recent. Wickham's *Framing the Early Middle Ages* from 2005 effectively ignores the natural environment as an active force, preferring to explain changes by economic structures and material conditions. This likely comes from his materialistic focus inspired by a Marxist-analysis of history.⁷⁷ With our new knowledge of climate change during this period, omitting any mention of the environment, as Wickham did in 2005, would not have been possible when writing about the Early Middle Ages today. One example is our new understanding of the Dust Veil event in 536, reported by several contemporaries, that caused dramatic cooling that year and in the subsequent decades.⁷⁸ By analysing ice cores in Greenland and by studying tree rings across Europe and the Mediterranean world, this event was convincingly linked to a major volcanic eruption near the equator, causing a cooling event in the Northern Hemisphere.⁷⁹

⁷⁶ For one of the first environmental histories of Antiquity, see: Hughes. (1993). *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans*. Baltimore and London: The Johns Hopkins University Press.

⁷⁷ Wickham's position was already distinctive in 2005, but the amount of data and studies on climate was also much smaller compared to today. Whittow. (2019). 'The Environmental Turn': Roll over Chris Wickham?. In Izdebski & Mulryan (eds.). *Environment and Society in the Long Late Antiquity*. Leiden and Boston: Brill, pp. 361-62.

⁷⁸ See the description by Cassiodorus: "How strange it is, I ask you, to see the principal star [the sun], and not its usual brightness; to gaze on the moon, glory of the night, at its full, but shorn of its natural splendour? All of us are still observing, as it were, a blue-coloured sun; we marvel at bodies which cast no mid-day shadow, and at that strength of intensest heat reaching extreme and dull tepidity. And this has not happened in the momentary loss of an eclipse, but has assuredly been going on equally through almost the entire year." Cassiodorus, *Variae* XII 25.2. In Barnish (ed.) 1992, p.179. See also: Procopius, *Wars* 4.14.5. In Kaldellis (ed.) 2014, pp. 220-21.

⁷⁹ Larsen et al. (2008). New ice core evidence for a volcanic cause of the A.D. 536 dust veil. *Geophysical Research Letters*, vol. 35; for a discussion of the historiography of this event, see: Newfield. (2018). Mysterious and Mortiferous Clouds: The Climate Cooling and Disease Burden of Late Antiquity. In Izdebski, A. & Mulryan, M. (eds.). *Environment and Society in the Long Late Antiquity* (pp. 271–297). Leiden and Boston: Brill, pp. 276-79.

The Dust Veil event of 536 caused an exceptionally cold summer that was 1.6 to 2.5 degrees colder than the 30-year previous average in Europe. A second major volcanic eruption in 539 or 540 caused a new exceptionally cold summer with temperature 1.4 to 2.7 below the normal in 541. Cold temperatures would persist in the Northern Hemisphere until 550 with two of the coldest decades within the last 2500 years.⁸⁰ These cooling events marked the start of the so-called Late Antique Little Ice Age which lasted from 536 to c.660.⁸¹ These cooling events have also been linked to societal crisis in several parts of northern Europe and were likely one of the main factors in starting the Justinianic Plague by disrupting and destabilizing plague foci.⁸²

Harper's innovative book *The Fate of Rome* from 2017 used this new knowledge about climate as a major explanatory factor for the transition from Late Antiquity to the Early Middle Ages. For instance, he linked the rise of the Roman Empire to the so-called Roman Climate Optimum and gave the Late Antique Little Ice Age and the Justinianic Plague a major role in the transition from Late Antiquity to the Early Middle Ages.⁸³ As mentioned earlier, Harper has been criticised for overstating the evidence in his arguments, and this includes his use of historical climatic data. Among the criticism is that he has not sufficiently considered how climate change is manifested differently at local and regional levels and that he simplifies the climatic evidence in a term such as "Roman Climate Optimum". Furthermore, he has been criticised for being too deterministic in his analysis.⁸⁴

This leads to a very important recognition; climate change interacts with human societies in a very complex way. The same cooling event will have very different outcomes in northern Europe compared to a warmer climate in the Levant. In one place, it might cause major famines and a societal crisis, while in the other it can lead to bigger harvests and economic booms.⁸⁵

⁸⁰ Sigl et al. (2015). Timing and climate forcing of volcanic eruptions for the past 2,500 years. *Nature*, vol. 523, pp. 543-49.

⁸¹ Büntgen et al. (2016). Cooling and societal change during the Late Antique Little Ice Age from 536 to around 660 AD. *Nature Geoscience*, vol. 9, pp. 231-37.

⁸² Toohey et al. (2016). Climatic and societal impacts of a volcanic double event at the dawn of the Middle Ages. *Climate Change*, vol.136, pp. 401-412; Newfield 2018, pp. 271–297.

⁸³ Harper 2017, *The Fate of Rome*.

⁸⁴ Haldon et al. 2018a, Plagues, climate change, and the end of an empire: A response to Kyle Harper's 'The Fate of Rome' (1): Climate.

⁸⁵ In Scandinavia, this cooling event likely had a great impact on local societies. One indication of this is the crisis in the small settlement of Vik in central Norway (Ørland). This small settlement interestingly showed signs of gradual decline already from 350, but the abrupt end to the settlement very close to 536 would mean that an already weakened settlement could not adapt to the colder climate. A drop of about 1.6 to 2.5 degrees would be much more

Furthermore, explaining historical events, such as the rise of the Arabs, by using monocausal arguments linked to climate or plague is extremely problematic. Firstly, the consequences of climate change in the period are not adequately understood; secondly, the long chronologies of climate change and the difficulty of precise dating makes it very hard to link it to specific historical events; thirdly, these changes happen due to a complex interaction of various factors, discrediting any monocausal explanation.

Nonetheless, analysing societal change in the period requires us to look at climate and environment as a factor.⁸⁶ This, of course, needs to be discussed in conjunction with other factors and should also be linked to how human societies change and adapt, a major theme of this paper. This thesis will not be a study of historical climate change as it often requires interdisciplinary collaboration of archaeologists, historians, and the natural sciences.⁸⁷ However, climate will be discussed as a factor for change that could be a part of the explanation for why Sicily developed differently than Italy during the sixth century.

disruptive in the cold climate of Norway compared to the Mediterranean. Ystgaard. (2019). Fimbulvinteren på Vik på Ørlandet: Et samfunn går under. *Spor*, vol. 2, pp. 28-33.

⁸⁶ For an innovative study of how climate change might have influenced local societies in the Early Middle Ages in northern and central Italy, see: Zanchetta et al. (2021). Beyond one-way determinism: San Frediano's miracle and climate change in Central and Northern Italy in late antiquity. *Climate Change*, vol. 165(25).

⁸⁷ For some thoughts about the future of historical environmental studies on Late Antiquity, see: Izdebski. (2019). 'Setting the Scene for an Environmental History of Late Antiquity'. In Izdebski & Mulryan (eds.). *Environment and Society in the Long Late Antiquity*. Leiden and Boston: Brill, pp. 3-13.

3 Plague in Sicily?

In 541, an outbreak of plague erupted in the Egyptian port city of Pelusium. It rapidly spread to the north of Egypt and to one of the largest commercial hubs of the Mediterranean, Alexandria. From Egypt, the plague moved eastwards through Palestine, Syria, Turkey and all the way to Constantinople. Afterwards, it went westwards to Illyricum, Italy, France, Spain, and might even have reached all the way to Ireland.⁸⁸ Contemporaries were baffled and terrified by this new and incomprehensible phenomenon. They tell of whole villages being wiped out, of an empty countryside, and of tens of thousands dying every day.⁸⁹ This first outbreak was followed by a recurring pattern of plague outbreaks, returning with new vigour every 15 or so years.⁹⁰

This was likely the first instance of a pandemic caused by the plague bacterium *Y. Pestis*, often referred to as the Justinianic Plague.⁹¹ The plague bacterium was very deadly and contagious, leading to a sharp demographic decline in the short term, and demographic stalemate in the long term.⁹² Plague came in “waves” or “events of amplification”, never really disappearing. This pattern lasted from the initial outbreak in 541 to the middle of the eighth century, causing epidemic outbreaks in large parts of the Mediterranean and Europe.⁹³ The first outbreak of plague happened in the crossroad between Late Antiquity and the Early Middle Ages, and many historians have ascribed a key role to the plague in this process.⁹⁴

The recent evidence of plague makes it impossible to ignore it as a factor of change during the period. *Y. Pestis* has been found in human remains from the sixth century in remote places in

⁸⁸ For the spread and chronology of the Justinianic Plague, see Stathakopoulos 2004, pp. 113-124; for the possible spread of plague to Ireland, see Dooley. (2007). *The Plague and Its Consequences in Ireland*. In Little, L.K. (ed). (2007). *Plague and the End of Antiquity* (pp. 215-228). Cambridge and New York: Cambridge University Press, pp. 215-228.

⁸⁹ See for example the accounts by Procopius, John of Ephesus, Evagrius Scholasticus, and Gregory of Tours. Little 2007, pp. 7-15.

⁹⁰ Evagrius tells us of the disease returning about every 15 years. Evagrius Scholasticus, *Ecclesiastical History* IV.29. In Whitby (ed.) 2000, pp. 229-232.

⁹¹ From the contemporary descriptions of the disease, it is likely that the culprit was the *Y. Pestis* bacterium. The recurrent mentioning of “bubones”, swellings so characteristic of the plague, makes this likely. Furthermore, aDNA of the plague bacterium has been found in bodies for Late Antiquity and the Early Middle Ages, confirming that it was present in Europe and the Mediterranean during the period. For a discussion, see chapter 3.

⁹² The evidence for the demographic consequences of the plague bacteria is clear during the Black Death. The evidence is murkier for the demographic consequences of the plague during the Justinianic Plague. See chapter 3.

⁹³ The most prominent writers of the mid-sixth century has caused a historical bias towards the East and Constantinople when it comes to the initial outbreak of plague, but other literary sources confirm that the plague also went westwards. The western sources generally described the event with far less detail than we get in the East. See the discussion in chapter 3.

⁹⁴ See chapter 2.1 for a historiographical overview.

France, Spain, England, and Germany. Furthermore, recent studies have shown its presence in legislative material and possibly artistic representations.⁹⁵ Due to this plethora of scientific and literary evidence, plague is such an important consideration for further analysis of change and continuity in both Sicily and Italy that it will be considered first. The evidence we have for plague in Sicily and Italy will be analysed followed by a discussion about the possible consequences of it.

Before analysing the evidence for plague in Sicily, a short clinical description is needed to understand possible ways of transmission. *Y. Pestis* is a bacteria that most often spread zoonotically from fleas on rodents, mostly rats, to humans. Plague often appears in populations of wild rodents in so-called endemic foci. It is rare that plague becomes pandemic, and both in the case of the First Pandemic (the Justinianic Plague) and Second Pandemic (the Black Death), it was likely linked to considerable cooling events.⁹⁶ The disease mainly develops in three clinical forms: bubonic, septicaemic, and pneumonic plague. Bubonic plague is the most common and the most easily recognizable in the sources due to its characteristic buboes. This form is solely zootic and cannot spread between humans. The lethality of this form of plague is about 50 to 60 percent. The pneumonic form of plague spreads by droplets, meaning that transmission is also possible between humans. This form of plague has a mortality rate of close to a 100 percent and the time from the onset of symptoms to death can happen in hours.⁹⁷ Both forms seem to have been attested in the outbreaks of the Justinianic Plague, but the main form of transmission seems to have been through vectors (mainly fleas) carrying the bacteria on rodents.⁹⁸ Septicaemic is a very rare form of transmission and will therefore not be considered.⁹⁹

Let us now move on to the direct evidence for plague in Sicily. There is only one direct mention of plague in Sicily during the sixth century. Pseudo-Zachariah Rhetor mentions that plague,

⁹⁵ See: Sarris 2022.

⁹⁶ The Late Antique Little Ice Age (536-c-660) and the Medieval Little Ice Age (fourteenth to nineteenth century).

⁹⁷ Stathakopoulos 2004, pp. 129-130; Harper 2017, pp. 206-214.

⁹⁸ Harper 2017, pp. 210-12; Barbieri, Drancourt & Raoult. (2021). The role of louse-transmitted diseases in historical plague pandemics. *Review*, vol. 21(2).

⁹⁹ Septicaemic plague occurs when the plague bacteria multiply in the bloodstream. Most scholars ascribe a small role to this form of plague during the Justinianic Plague. Septicaemic plague seems to mostly be secondary after transmission through the lymph nodes. For a further discussion on primary septicaemic plague, see: Sebbane et al. (2006). Role of the 'Yersinia pestis' plasminogen activator in the incidence of distinct septicemic and bubonic forms of flea-borne plague. *PNAS*, vol. 103(14).

among many other places, spread to Sicily.¹⁰⁰ The outbreak in Sicily is not described further. Otherwise, a plague outbreak is again described in the eighth century, and this one with greater detail. The lack of literary sources necessitates a consideration of indirect evidence for plague and possible routes of how it may have spread to the island. If a plague outbreak can be attested in several regions with which Sicily had abundant contact, it is probable that Sicily would have been affected too. We know from the Second Pandemic that plague was transmitted by trade routes by sea, and this is also commented by contemporaries in the sixth century.¹⁰¹

It is, however, important to avoid overgeneralizing. An endemic model of plague would suggest that plague had taken root in the Mediterranean causing periodical epidemics. Agathias's description supports such a model: "from the fifteenth year of the reign of the Emperor Justinian [c.542] when the plague first spread to our part of the world it had never really stopped, but had simply moved on from one place to another, giving in this way something of a respite to those who had survived its ravages."¹⁰² This would mean that plague could erupt in a region or an area, but would not necessarily disseminate to the whole Mediterranean and beyond. Thus, a mention of plague in one place is not enough to prove its general presence elsewhere.¹⁰³ This is important to keep in mind when assessing the likelihood of outbreaks of plague in Sicily during the sixth century.

This also means that there were likely many epidemics that are not attested in the source material. Thus, epidemics could have erupted in Sicily without it surviving in the fragmented literary material. For instance, the plague outbreak in the mid-eighth century had its origin in Sicily and southern Italy, spreading from there to Greece, Constantinople, and Rome.¹⁰⁴ A later plague-focus might have been established on the island, but we cannot rule out the possibility

¹⁰⁰ See chapter 3.1.

¹⁰¹ Procopius is one of the first to comment this: "This disease always spread out from the coasts and worked its way up into the interior." Procopius, *Wars* 2.22.9. In Kaldellis (ed.) 2014, p. 121.

¹⁰² Agathias, *Histories* V.10.1-2. In Frendo (ed.) 1975, p. 145; also, see the discussion in: Batterman 2022, p. 75.

¹⁰³ This is not the only theory of how the plague spreads and reignites. For the Second Pandemic, a reintroduction theory has been suggested, indicating that plague came to Europe in recurring waves from plague-foci outside the continent, possibly in Central Asia. Schmid et al. (2015). Climate-driven Introduction of the Black Death and Successive Plague Reintroductions into Europe. *Proceedings of the National Academy of Sciences*, vol.112(10), pp. 3020-25.

¹⁰⁴ Teophanes tells of an outbreak of plague in 745 that "sprang from Sicily and Calabria and, spreading like fire, came to Monemvasia, Greece, and the islands which lie off it." Later it also spread to Constantinople. Teophanes, *Annus Mundi* 6238. In Turtledove (ed.) 1982, pp. 112-113. Pope Zacharias relates of the depopulation of Rome because of an extraordinary calamity in the same year that, due to the chronology, was likely the same outbreak of plague. Stathakopoulos 2004, pp. 382-84.

that Sicily was the origin of earlier outbreaks or experienced local or regional epidemics. The eighth century outbreak is also concrete evidence that plague could spread with trading routes by sea from Sicily, meaning that it could likely also go the other way, for instance from Rome or the East to Sicily.

Continuing, this paper will assess the evidence and likelihood of the dissemination of plague in Sicily and Italy. The First Outbreak will be assessed separately as the literary evidence for it is more abundant. Following, other outbreaks during the sixth century will be assessed briefly. The evidence of plague in Italy is much clearer than the evidence for plague in Sicily, and this will be discussed further as a potential point of differentiation between them.

3.1 The Year 543

The First Outbreak is described vividly by authors such as Procopius, Evagrius, and John of Ephesus. From these descriptions, we know that the plague was likely a very deadly disease, that struck indiscriminately, and that spread widely. Procopius writes:

For it did not afflict a specific part of the earth only or one group of people, nor did it strike during one season of the year [...] instead, it embraced the entire earth and wrecked the lives of all people, even when those lives were as different from each other in quality as can be imagined, nor did it respect either sex or age.¹⁰⁵

Procopius descriptions of the plague is at times hyperbolic, but this is likely to stress the scope of its reach and how deadly it was. He tells us that the plague originated in Pelusium, Egypt, from whence it spread in two directions: one towards Alexandria and the rest of Egypt and the other towards Palestine. From there it spread to the whole world, according to Procopius.¹⁰⁶ This is corroborated by other contemporary writers.¹⁰⁷ These sources are heavily biased towards the East, but we do have some indications that plague spread westwards. Victor of Tunnuna, residing in what is today Tunisia, wrote in 542 about an epidemic that killed “the better part of the people” and that it caused a “blow of the groins” which can be interpreted to mean a swelling.¹⁰⁸

¹⁰⁵ Procopius, *Wars* 2.22.3. In Kaldellis (ed.) 2014, p. 120.

¹⁰⁶ Procopius *Wars* 2.22.6. In Kaldellis (ed.) 2014, p. 120.

¹⁰⁷ See Stathakopoulos 2004, pp. 113-116.

¹⁰⁸ “Horum exordia malorum generalis orbis terrarium mortalitas sequitur et inguinum percussione melior pars populorum voratur.” Victor of Tunnuna, *Chronica Minora* Post consulatum Basili v.c. anno secundo. In Mommsen (ed.) 1894, p.201; see discussion in Stathakopoulos 2004, p. 290.

Although not an explicit reference to plague, the chronology and the language used seems to indicate that it was a case of bubonic plague.¹⁰⁹

From Italy, we have a short mention in the continuation of Marcellinus's *Chronicle*: "A great pestilence [*mortalitas magna*] ravaged the land of Italy, and also the Orient and Illyricum which had been already similarly affected."¹¹⁰ The continuation was possibly compiled in the 550s, but mentions after 548 have not survived. The author is unknown, but likely wrote from Constantinople, which is reflected in his perspective on the war in Italy. He was likely not close to the events as he frequently misdated them and was not always able to follow an accurate chronology. The notes are brief, straightforward, and informative, with little detail.¹¹¹ From his brief note, we know that the *mortalitas magna*, likely a reference to plague, reached the Orient and Illyricum, before coming to Italy. Stathakopoulos notes that this might indicate that plague spread to Italy by troop movements from Illyricum.¹¹² However, the mention of the plague's spread to Illyricum and Italy could just as well be due to the focus of the chronicler as he tends to report events in these specific regions. There is no evident reason to disregard the information in the chronicle, but it is very brief and does not give any information about its dissemination.

The plague's spread to Italy and possibly to North Africa would give us two possible routes for transmission to Sicily. This comes in addition to a possible introduction directly from the East. Furthermore, we have a mention of plague in Sicily which makes it rather unlikely that the island was spared from the First Outbreak. Pseudo-Zachariah writes:

As it is said in Ezekiel, the prophet, in Syriac, that 'every knee will gush water', and in Greek it is written, 'Every upper back thigh will be defiled with pus. He says this on account of the spots of plague, and this plague of purulent tumors with swellings in the groin, [and] of spots of plague in the thighs and the armpits of human beings, Spread out from Kush that is on the border of Egypt, and from Alexandria, Libya, Palestine, Phoenicia, Arabia, Byzantium, Italy, Africa, **Sicily** [my emphasis], and Gaul, and arrived

¹⁰⁹ Epigraphic material from Sufetula in Tunisia from 543 show that four children, probably siblings, died within a period of 20 days. The most probable cause of death was a disease. This could indicate an outbreak of plague in North Africa due to its chronology but is likewise not conclusive evidence for its presence in North Africa. Stathakopoulos 2004, pp. 292-93. For a critique, see: Mordechai & Eisenberg 2019, p. 25.

¹¹⁰ "Mortalitas magna Italiae solum devastat, Orientem iam et Illyricum peraeque attritos." Marcellinus Comes, *Chronica* 6th indiction 3rd year after the consulship of Basil. In Croke (ed.) 1995, p. 50.

¹¹¹ Croke. (1995). Introduction. In Croke, B. (ed.). *The Chronicle of Marcellinus* (pp. xix-xxvii). Sydney: Australian Association for Byzantine Studies, p. xxv.

¹¹² Stathakopoulos 2004, pp. 291-92.

in Galatia, Cappadocia, Armenia, Antioch, Osroene, Mesopotamia, and eventually the territory of the Persians, and the nations of the North east, devastating them.¹¹³

This seemingly offers strong evidence for the spread of plague to Sicily as it is explicitly mentioned. The mentioning of “swellings in the groin” and “thighs and the armpits” are strong indications that this was indeed an instance of bubonic plague. The mention of the prophet Ezekiel and the use of biblical language attests to the importance that the author ascribed to the event. However, this is not a very specific nor detailed account. It mentions a lot of regions in addition to Sicily, from the East and the West. This could of course be evidence for a very wide dissemination of the First Outbreak, but it could also be used hyperbolically for rhetoric reasons. We therefore need to assess the author and the context further.

The work was compiled in 568/9 by Pseudo-Zacharia who included the work of Zacharia Scholasticus in his compilation. Very little is known of Pseudo-Zacharia, but it is assumed that he was a monk of Amida, modern day Diyarbakır. The work was written in Syriac, but it was based on a wide variety of texts in different languages. In fact, it is assumed that Pseudo-Zacharia wrote very little of the work himself, but rather collected and compiled various sources.¹¹⁴ We would therefore expect him to be more informed about the East, although it is evident that he had access to good sources. Based on his commentaries on language use and source usage, it is very likely that he knew Greek.¹¹⁵ His source for the section on plague and indeed the whole of book ten and book eight and nine was likely the same author. We know little of the author, but he was acquainted with the Italian Dominic who fled Theoderic’s Italy.¹¹⁶ Furthermore, he recounts various events from the Gothic War in Italy in book nine, which shows that he was aware of events taking place in Italy during the period.¹¹⁷

Pseudo-Zacharia’s good access to sources, his knowledge of the Greek speaking world, and the presumed author of book eight to ten’s knowledge of Italian affairs make it likely that both the author of the source and Pseudo-Zacharia himself would be informed about a plague outbreak in

¹¹³ Pseudo-Zachariah Rhetor, *Chronicle* 10.9. In Greatrex (ed.) 2011, pp. 414-15; It is a bit misleading to say that Pseudo-Zachariah writes this passages. Recent scholarship on the work has suggested that he compiled other works into a collection. What genre this is has also been disputed, but chronicle, church history and miscellaneous history have all been suggested. Greatrex, Brock & Witakowski. (2011). Introduction. In Greatrex, G. (ed.). *The Chronicle of Pseudo-Zachariah Rhetor* (pp. 1-94). Liverpool: Liverpool University Press, pp. 33-34.

¹¹⁴ Greatrex, Brock & Witakowski 2011, pp. 32-33.

¹¹⁵ Greatrex, Brock & Witakowski 2011, p. 39.

¹¹⁶ Greatrex, Brock & Witakowski 2011, pp. 55-56.

¹¹⁷ Pseudo-Zachariah Rhetor, *Chronicle* 9.18. In Greatrex (ed.) 2011, pp. 364-67.

Italy, Sicily, and great parts of the Mediterranean world. A counter point to this is the lack of specific details and geographical precision in the section on plague, as well as the religious bias of the work. Many contemporaries of Pseudo-Zacharia expected an imminent end to the world, reflected for instances in the millennial language used in book twelve.¹¹⁸ The author could therefore have exaggerated the geographical dissemination of plague to show how this crisis affected “the whole world” as a sign of crisis before the presumed Armageddon. Thus, despite Sicily being mentioned, this is not conclusive evidence for its spread to the island. Nonetheless, it does suggest a very wide dissemination of the plague, and the author’s familiarity with Italy would suggest that he would know of a plague outbreak there and in Sicily.

We have one last indication that Sicily was affected by plague in the mid-sixth century. A funerary inscription from Mazara in Sicily records the death of three young boys on December 27. Their death likely came in close succession, which might indicate plague. Palaeographic criteria would indicate that it happened in 512, 527, 542, 557, 572, or 587.¹¹⁹ Mordechai & Eisenberg (2019) have criticised the use of this inscription to prove the existence of plague in Sicily. Firstly, the inscription does not name plague specifically and just records the death of three boys. Secondly, there are six possible times of death during the sixth century, two of which were before the First Outbreak.¹²⁰ Nevertheless, two of the dates, 542 and 572 do seem to fit well with outbreaks of plague reported in Italy.¹²¹ This is certainly an interesting find, but we know too little of the context of their deaths to use this as conclusive evidence that plague spread to Sicily.

3.2 Other outbreaks of Plague during the Sixth Century

Italy was visited by plague several times after the First Outbreak, notably in 571 and 590/91. Paul the Deacon recounts an outbreak of plague in Italy in 565, but this was likely the same instance of plague that was recounted by contemporaries in 571.¹²² Paul wrote his *Historia Langobardorum* over 200 years after the outbreak and could easily have confounded the dates.¹²³

¹¹⁸ Greatrex, Brock & Witakowski 2011, p. 66.

¹¹⁹ Stathakopoulos 2004, pp.290-91.

¹²⁰ Mordechai & Eisenberg 2019, pp. 24-25.

¹²¹ If the three boys died due to plague, 557 could also be a possibility as plague was reported in the East around this time. However, 542 and 572 are more likely as plague outbreaks are reported in Italy and the West around these years. Stathakopoulos 2004, pp. 290-91.

¹²² Stathakopoulos 2004, pp. 310-311.

¹²³ For an extensive analysis, see: Batterman 2022.

In 571, Marius of Avenches recounts a disease which seems to have been bubonic plague due to the language used: “In this year, an unspeakable disease of the groin [*infanda infirmitas atque glandula*] called the pox [*pustula*] ravaged countless people in the above-mentioned districts.”¹²⁴ “Glandula” and the name given for the disease, “pustula”, would indicate bubonic plague. The regions that Marius refers to are Italy and Gallia. Gregory of Tours also mentions this plague outbreak in Gaul and describes it as a horrific disease.¹²⁵ This outbreak of plague later spread to Constantinople as well.¹²⁶

In 590, an outbreak of plague is reported in Rome by various sources. Gregory of Tours recounts how heavy rainfall in Rome made the Tiber flow over. This was followed by an epidemic of the groin which killed Pope Pelagius II.¹²⁷ The *Liber Pontificalis* also recounts this event, although without providing a date and without mentioning plague specifically.¹²⁸ Pope Gregory I also recounted the event in his *Dialogues* and named a victim of the plague, the monk Mellitus at the monastery in Ostia, and describes how it caused “a terrible loss of life”.¹²⁹ Later in his *Dialogues* he reiterates this point and says that the recent plague “carried off a large part of the population of this city...”¹³⁰

The following year, it also spread to Narni and Umbria according to Pope Gregory I.¹³¹ Paul the Deacon tells of how a “plague of the groin” (bubonic plague) struck Ravenna, Grado, and Istria in 591 or 592: “In this year the inguinal plague was again at Ravenna, Gradus (Grado) and Istria, and was very grievous as it had also been thirty years before.”¹³² Although Paul the Deacon is not the most reliable source of events in the sixth century, Gregory’s mention of nearby regions

¹²⁴ Marius of Avenches, *Chronica* Fifth year of the consulship of Augustus Justin II, indiction IV. In Murray (ed.) 2008, p. 107; “Hoc anno infanda infirmitas atque glandula, cujus nomen est pustula, in supra dictis regionibus innumerabilem populum devastavit”. Marius of Avenches, *Chronica* Anno V cons. Justinii jun. Aug. ind. IV. In Mommsen (ed.) 1894, p. 238.

¹²⁵ Stathakopoulos 2004, p. 314; McCormick 2021, pp. 75-79.

¹²⁶ Stathakopoulos 2004, pp. 315-16.

¹²⁷ Stathakopoulos 2004, p. 320.

¹²⁸ “Eodem tempore tantae pluviae fuerunt ut omnes dicerent quia aquae diluvii superinundaverunt; et talis cladis fuit qualis a seculo nullus meminit fuisse.” *Liber Pontificalis*, Pope Pelagius II. In Fonte Storiche:

<https://fontistoriche.org/papa-pelagio-ii/> (retrieved 10.25.2022). See also: *The Book of the Pontiffs* Pelagius II. In Davis (ed.) 1989, p. 59.

¹²⁹ “During the plague which devastated Rome three years ago with terrible loss of life, there was a monk by the name of Mellitus in the monastery at Ostia. He was still a young man, but had acquired a remarkable degree of simplicity and humility. When his appointed hour came, he contracted the plague.” Pope Gregory I, *Dialogues*, IV.27. In Zimmerman (ed.) 1959, p. 221.

¹³⁰ Pope Gregory I, *Dialogues*, IV.40. In Zimmerman (ed.) 1959, p. 244.

¹³¹ Pope Gregory I, *Epistles* II.2. In Norberg (ed.) 1982a, pp. 90-91; Stathakopoulos 2004, p. 118.

¹³² Paul the Deacon, *History of the Lombards* IV.IV. In Peters (ed.) 2003, pp. 152-53.

would support plague spreading along the Adriatic, and it is therefore plausible and even likely that plague would spread to Ravenna, Gradus and Istria. Plague is also reported by Evagrius in Antioch in 591-92 which would indicate an eastward dissemination of the same outbreak.¹³³

We can say with certainty that plague occurred at least in parts of Italy in the 570s and 590s. However, there is no conclusive evidence that it spread to Sicily. Pope Gregory I wrote many letters to Sicily, but never spoke of the plague there. He did mention plague in Rome in 590 in his *Dialogues*. He might possibly have mentioned an outbreak of plague later too. In 599 or 600, he sent a letter to Venantius and his wife Italica who resided in Sicily where he might have written about a plague outbreak in Rome. The designation for the disease is general, but he mentions that the disease caused great mortality in Rome, Africa, and the East. The letter's chronological proximity to an identified outbreak in Constantinople and the East would suggest that it was plague.¹³⁴ We have to keep in mind that Pope Gregory focused on Rome in his correspondence. An omission of mentioning a plague outbreak in Sicily is therefore far from evidence for the absence of plague.

3.3 Some Concluding Remarks

Plague outbreaks were certainly noted by contemporaries in Italy in the sixth century, although the descriptions are often terse with few details. The outbreak in Rome in 590 is an exception to this, but otherwise, plague is just mentioned, sometimes with a short description of its consequences. The only literary evidence for an outbreak in Sicily is the mention by Pseudo-Zachariah who was a Syriac-speaking person writing from the East. This evidence is weakened by the fact that Sicily was mentioned with a lot of other regions throughout the Mediterranean world and beyond. Could this mean that Sicily was spared from plague in the sixth century? The most likely reason for this silence is that there are simply fewer sources on Sicily from this period, although Pope Gregory I, who sent some 200 letters to Sicily, never mentioned plague there, despite speaking about the Roman outbreak.

Mordechai & Eisenberg (2019) have argued that if plague was a cataclysmic event, contemporaries would have paid closer attention.¹³⁵ Contemporaries wrote more about other subjects than they did about the plague. This is an unconvincing argument. The literary sources

¹³³ Stathakopoulos 2004, pp. 323-24.

¹³⁴ Pope Gregory I, *Epistles* IX.CXXIII. In Norberg (ed.) 1982b, pp. 71-72; Stathakopoulos 2004, pp. 332-33.

¹³⁵ Mordechai & Eisenberg 2019, pp. 8-9.

we have for the sixth century are extremely fragmented, especially for the West. As argued before, the lack of evidence is not evidence for the lack of plague. We cannot simply quantify the material to argue against plague.¹³⁶ What has survived from the sixth century is only a fraction of the literary production from the period, and this little fraction is likely not representative of the whole.¹³⁷

It is noticeable that none of the sources that mentions plague discussed in this paper try to trivialize the consequences of the outbreaks. Even in chronicles with very brief descriptions, the disease is said to have killed a lot of people. Furthermore, the fact that contemporaries used biblical references when describing the plague show that they understood it as a very important event. This argument is strengthened by the fact that plague is described in similar terms by authors from a wide range of cultures living in different parts of Europe, Asia, and Africa. Descriptions of the plague as a highly deadly disease is also consistent over time, reflected in literary sources all the way from the First Outbreak until the mid-eighth century. This illustrates how people living far apart in time and space were similarly affected by plague.¹³⁸

As mentioned before, the best literary evidence for plague is in the East, and there were certainly plague outbreaks there. However, the scope of the event has been questioned. For instance, Mordechai & Eisenberg (2019) point to archaeological evidence in parts of Syria and Palestine that seem to indicate prosperity, rural expansion, and even urban growth in the sixth to seventh century to argue against the plague's impact.¹³⁹ This could mean that Sicily was affected by plague, but that it had a minor impact. Alternatively, it might show how these societies were more resilient to the demographic effects of plague.¹⁴⁰ However, it should be noted that it is difficult to accurately determine settlement patterns and demographics provided by surveys due to different and, at times, conflicting pottery chronologies in the Near East.¹⁴¹ Kennedy (2007) offers an alternative and more pessimistic readings of the Syrian evidence of settlement patterns

¹³⁶ Sarris 2022, pp. 327-28.

¹³⁷ Meier 2020, p.177.

¹³⁸ See the articles on how plague affected different societies in Europe and the Mediterranean world in: Little (ed.) 2007.

¹³⁹ Mordechai & Eisenberg 2019, p. 26.

¹⁴⁰ Sett the discussion in chapter four, five and six.

¹⁴¹ Mitchell 2015, p. 484.

and urban life.¹⁴² From the primary sources, it seems like the plague had a substantial demographic effect in large parts of the East. Although the consequences of plague in the East are controversial and highly debated, several experts have argued that the plague was likely a substantial mortality event there as well.¹⁴³

Although there are few detailed descriptions on plague in the West, the one provided by Gregory of Tours describes the scope of the event in similar terms as his eastern counterparts. Mordechai & Eisenberg (2019) have argued that Gregory used the plague as a literary device to justify his ideological stance. The authors from the East are accused of doing the same.¹⁴⁴ This is a too simple argument to reject all the attention Gregory pays to the plague and its consequences. Contemporaries understood the event according to their worldview and understanding of disease. It is impossible to remove the author and the text from the discursive logic of its time. McCormick convincingly argues that Gregory of Tour's description of the plague in addition to other literary and non-literary sources show that the event was perceived as catastrophic by contemporaries.¹⁴⁵

Even if we believe the accounts of contemporaries, we still lack solid literary evidence for the plague's presence in Sicily. Could this explain Sicily's long Late Antiquity? No, most likely not, and there are several reasons for this. Firstly, we know from the evidence that the plague was a highly contagious disease. It was able to spread from Egypt to the Persian Empire in the east, Britain in the north,¹⁴⁶ Spain in the west, and possibly sub-Saharan Africa in the south. White & Mordechai (2020) have cast doubt on the wide dissemination and deadliness of the disease by an attempt to model its spread.¹⁴⁷ However, their models are based on highly speculative numbers, and we do not have enough reliable data to accurately model the transmission of the Justinianic Plague. Primary sources across time and space in addition to aDNA do attest to a wide dissemination. Secondly, the one mention in the written sources and the epigraph in Mazara that

¹⁴² Kennedy. (2007). Justinianic Plague in Syria and the Archaeological Evidence. In Little (ed.). *Plague and the End of Antiquity* (pp. 87-95). Cambridge and New York: Cambridge University Press, pp. 87-95.

¹⁴³ For a fuller debate on the historiographical debate on the consequences of plague, see chapter 2.1.

¹⁴⁴ Mordechai & Eisenberg 2019, pp. 11-15; the validity of Gregory's description of a plague outbreak in 543 in Gallia has been questioned in a recent article. See Faure 2021, *Did the Justinianic Plague Truly Reach Frankish Europe around 543 AD?*.

¹⁴⁵ McCormick 2021.

¹⁴⁶ We do not have literary sources for plague spreading to Britain, but the excavation of Edex Hill clearly show that plague spread there. See the discussion below.

¹⁴⁷ White & Mordechai. (2020). Modeling the Justinianic Plague: Comparing hypothesized transmission routes. *PLOS One*, vol. 15(4).

attest to the plague's presence in Sicily during the sixth century, although not conclusive evidence, is more literary evidence than we get from places where we know the plague was present during the sixth century.¹⁴⁸

Thirdly, the plague spread to places close to Sicily and to places with which Sicily had extensive commercial contact. Plague is attested at least three times in Italy during the sixth century, possibly in North Africa, and definitively in various cities and places in the East. The plague spread in large part by commercial routes, often by sea.¹⁴⁹ Sicily's position in the Mediterranean¹⁵⁰ exchange network would mean that plague almost certainly came to the island. The island was vital in the Byzantine connectivity in the West, especially as a link between North Africa, Italy (especially Rome) and the East. Its three main harbours were Palermo in the north, Lilybaeum in the west, Syracuse in the south-west, and Catania in the East. The Church of Palermo even had its own fleet.¹⁵¹ Archaeological evidence has confirmed that the island was connected to larger Mediterranean trade networks, both along the route managed by Carthage and the one coming from the East and Alexandria. Furthermore, it was an important point of cabotage in the trade network to Rome, meaning that a lot of the trade coming to and from Rome passed through Sicily.¹⁵² We know that plague spread to Rome, the East, and North Africa, and we know that the commercial networks were important to the dissemination of plague. Followingly, it is reasonable to assume that plague also spread to Sicily.

This brings us to the next point. If the Justinianic plague could spread to small and very peripheral places in Germany, England, France, and Spain, far less connected to the Mediterranean exchange network and the origin of the plague, then it must have spread to Sicily.

¹⁴⁸ There is no literary evidence for plague outbreaks in Bavaria or Britain in the sixth century, but aDNA of the plague bacteria clearly shows that there were outbreaks there dated to that century.

¹⁴⁹ Maddicott. (2007). Plague in Seventh-Century England. In Little, L.K. (ed.). *Plague and the End of Antiquity* (pp. 171-214). Cambridge University Press, pp. 184-85; Börner & Severgnini. (2021). Measuring and Comparing Economic Interaction Based on the Paths and Speed of Infections: The Case Study of the Spread of the Justinianic Plague and Black Death. In Verboven, K. (ed.). *Complexity Economics*. Cham: Palgrave Macmillan.

¹⁵⁰ We must keep in mind that the word "Mediterranean" in this period is far from univocal. In the post Roman world, the Mediterranean is no longer a closed sea, but a meeting point between different political entities and increasingly, different cultures. The Justinianic conquest of North Africa and Italy meant a restructuring of this Mediterranean system, but not a return to the old order. Zanini. (2012). Introduzione: le ragioni di un seminario, le ragioni di un libro. In Michaelides, D., Pergola, P. & Zanini E. (eds.). *The Insular System of the Early Byzantine Mediterranean: Archaeology and History* (pp. 1-6). Oxford: BAR Publishing, p. 1.

¹⁵¹ Sami. (2021). The Network of Interregional Roads and Harbours. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 255-278). Leiden and Boston: Brill, p. 269.

¹⁵² Arcifa 2021, p. 473; Molinari 2019, p. 89. See chapter 5 for a more thorough overview.

The aDNA from *Y. Pestis* from the 45 or so skeletons provide a small, but highly interesting sample, showing an extensive dissemination among western countries, even in the periphery.¹⁵³ However, a counterpoint to this is that the finds are relatively few; that they cannot prove the existence of plague elsewhere; and that they cannot be used to prove a demographic collapse.¹⁵⁴ This argument, however, ignores the possibility of finding more aDNA from skeletons in other regions in the future as well as the difficulty that such material will be preserved in a good enough state.¹⁵⁵ In conjunction with other evidence, both direct and indirect, this clearly proves that plague spread far and wide, and would definitively have spread to a very connected place like Sicily, as it did in Italy.

Although we cannot be sure about the demographic consequences of the plague, everything would suggest that it was a substantial mortality event and not an “inconsequential” pandemic. Literary sources, aDNA finds, our knowledge of the disease, epigraphs, Justinian’s legislation, numismatics, and to a certain degree, archaeology seem to indicate a big mortality event, although it is impossible to estimate with any accuracy the magnitude of this event.¹⁵⁶ Wickham (2009) argues that plague cannot sufficiently explain this as the chronology of demographic decline does not seem to fit in all regions. In England and France, the demographic drop started already in the fifth century. In Italy too, there was a demographic drop prior to the outbreak of plague. In other places, a demographic drop is first clearly noticeable later in the seventh century.¹⁵⁷ However, this would assume that plague was the only reason for demographic decline. Many factors could be involved in this process: political, economic, and administrative.

The Justinianic Plague seems to have played a key role in keeping the population down in Italy. According to the demographic estimates by Lo Cascio and Malanima (2005), the Italian population reached a high point of 15.5 million during the early Empire. This dropped to 9 million from 100 to 300, before it increased again to 11 million in 500. Interestingly, the population seems to have stagnated the three following centuries until about 800.¹⁵⁸ This fits well

¹⁵³ See: Keller et al. 2019.

¹⁵⁴ Mordechai et al. 2019, pp. 2551-52; Mordechai & Eisenberg 2019, pp. 26-32.

¹⁵⁵ For an overview of recent breakthroughs in ancient pathogen genomics, see: Spyrou et al. (2019). Ancient pathogen genomics as an emerging tool for infectious disease research. *Nature Reviews Genetics*, vol. 20.

¹⁵⁶ Sarris 2022; Meier 2020; Harper 2017, pp.199-245.

¹⁵⁷ Wickham 2009, p. 217.

¹⁵⁸ Lo Cascio & Malanima. (2005). Cycles and Stability. Italian Population before the Demographic Transition (225 B.C. - A.D. 1900). *Revista di storica economica*, vol. 21(3).

with the onset and the end to the plague outbreaks. Pre-industrial societies were marked by very high mortality rates in general, which meant that even in good years, population growth would not exceed about 0.12 % yearly growth. Early Medieval Italy was marked by demographic stagnation, likely due to a start-stop pattern caused by the plague. Interestingly, the population was stagnant despite evidence that people in Early Medieval Italy ate more and better which could suggest plague induced demographic crises to hold the population down, despite excess resources.¹⁵⁹ The improved diet in Early Medieval Italy could also have been a consequence of demographic decline caused by plague outbreaks.

The evidence is murky for this period, making it very difficult to accurately estimate demographics. All these numbers should therefore be taken with great caution, but the macrotrend during Early Medieval Italy seems to have been demographic stagnation. Wickham (2005) links this to the “peasant mode of production” where the aristocracy is weaker, peasant autonomy greater, and specialization and output smaller. For this mode to survive, peasants must restrict the population size by, for example, late marriages and birth control. Thus, according to Wickham, the demographic decline and stalemate was a result of the peasants’ choice to restrict births to ward off economic pressure, in addition to political crises.¹⁶⁰ This argument is based on an ideal type “the peasant mode of production” which Wickham admits did not exist in its purest form and is only attested in a spotted-pattern in the countryside in the West. To a certain degree, political and socio-economic factors certainly affected demographics, but due to the prolonged stalemate and the chronology, plague is a more probable explanation.¹⁶¹

Plague, with all likelihood, was a big mortality event that certainly came to Italy and Sicily during this period. It was likely one of the main reasons for the demographic stalemate in Italy from the sixth until the eighth or ninth century. Hence, we need to take plague into consideration when assessing Sicily and Italy during the sixth century. This extra factor will be important in analysing and understanding changes and developments in this period. To get back to the research question: Why did Sicily develop differently than Italy during the sixth century? It was

¹⁵⁹ Barbiera & Dalla-Zuanna 2009.

¹⁶⁰ Wickham 2005, pp. 535-550.

¹⁶¹ Plague would also be a better explanation for the start-stop pattern of demographic dynamic with high fertility in combination with intermittent mortality crises for which Barbiera & Dalla-Zuanna have found evidence. Barbiera & Dalla-Zuanna 2009, p. 379.

not because plague only came to Italy, but it might have to do with how plague interacted with other important internal structures and external factors of the two regions.

One baffling question remains to be considered: why is there no clear evidence for a sharp demographic decline in Sicily during the sixth century? If plague was a contagious and deadly disease, we would expect to see clearer signs of a demographic decline there as well. There are several potential answers. The plague might not have been a big mortality event, which is unlikely, but certainly a possibility. Alternatively, Sicily might not have been affected by more than one outbreak of plague during the sixth century.¹⁶² This could mean that the medium-term effects of plague would be minimal as the population would recover relatively quickly. However, as discussed, this is unlikely due to Sicily's links to the Mediterranean exchange networks and the proven outbreaks in Italy during the sixth century. Another explanation could be that the demographic downturn was overshadowed by signs of continuity, particularly in commerce and settlement patterns. These signs of continuity are key to understand why Sicily developed differently to Italy during the sixth century.

This leads to the following hypothesis: Sicily was a resilient society that managed to prosper relative to Italy, despite large and recurring mortality events caused by the plague. In fact, evidence from the Second Pandemic show that post-medieval renewed growth was possible despite sustained medieval depopulation of about 45 % in England in the centuries after the first outbreak of plague in the fourteenth century.¹⁶³ This clearly shows how severe depopulation can be masked by signs of growth. It also shows that growth can be accompanied by severe depopulation due to plague. A similar scenario is possible for Sicily during the sixth century. Italy, on the other hand, might have been less resilient to the demographic effects of the plague and therefore developed very differently during the sixth century.

¹⁶² Likely the First Outbreak due to the literary mention from that period in addition to the epigraphs that could be dated to December 542.

¹⁶³ Lewis. (2016). Disaster recovery: new archaeological evidence for the long-term impact of the 'calamitous' fourteenth century. *Antiquity*, Vol. 90(351).

4 War, Settlements, and Administration

The development from Late Antiquity to the Early Middle Ages was a very complex process that cannot be explained by referring to only one factor, not even one so potentially disruptive as a major pandemic. To better understand the disruptive sixth century of Italy compared to the seemingly prosperous sixth century of Sicily, one needs to consider the major external and internal processes that could lead to this discrepancy. In this chapter, the effects of the Gothic War and Lombard conquest, settlement patterns, and administrative structures will be scrutinized in Italy and Sicily. A central argument is that Sicily was more stable than Italy due to being less affected by warfare. This was important for maintaining settlement structures and the larger estates which both seem to have been relatively flourishing in the period. Although Sicily was likely affected by a demographic decline and stalemate due to plague, the settlement structure was likely more robust than in Italy and economic incentives were maintained. This was likely reinforced by the administrative structures that linked the island to Italy (especially the Church of Rome) and Constantinople.

4.1 The Gothic War and Lombard Conquest

The Gothic War has been called a watershed moment in Italy – a clear marker between Late Antiquity and the Early Middle Ages. The Lombard conquest would again fragment Italy, but this time for a much longer time, likely aggravating many problems. Sicily was largely spared from this, at least most of the direct consequences of war. However, can Late Antique warfare alone be enough to explain the different trajectories of Italy and Sicily? We must keep in mind that Late Antique warfare was limited in scale, largely based on skirmishes, small-scale battles, raids, and sieges, at least when considering the Gothic War.¹⁶⁴ What should also be kept in mind is that the East Roman forces at the start of the war likely did not number more than about 10 000 in total. The Goths would have had more troops, perhaps slightly more than 20 000. Neither of these numbers are certain, but they both attest to quite limited troop numbers.¹⁶⁵

¹⁶⁴ Large set-piece battles were rare but seem to have been crucial for the East Roman victory at the end of the war. The Battle of Taginae (Busta Gallorum) in 551 was key to the East Roman victory. Christie 2016, p. 353.

¹⁶⁵ Whitby 2021, pp. 210-11.

We do not have a clear picture of the consequences of the war in Italy, and it is therefore difficult to estimate its impact.¹⁶⁶ Its destructive and disruptive potential was likely due to its longevity, especially considering that the Lombard invasion started just about a decade afterwards. Nonetheless, war itself is not sufficient to explain Italy's dramatic change compared to Sicily, but it was likely one of the main reasons for this discrepancy, possibly in combination with plague. The consequences of plague would likely have been more disruptive to a society marked by the instability of war, compared to a relatively stable society such as Sicily. Let us take a closer look at this argument by examining the wars and especially their impact in Sicily compared to the peninsula.

Sicily was, as the rest of Italy, a part of the Ostrogothic kingdom before the start of the Gothic War, but the Ostrogothic elite was largely based in central and northern Italy. This is not only reflected in evidence and sources about land settlement, but also from the evidence of Ostrogothic garrisons that were much fewer in southern Italy and Sicily than further north.¹⁶⁷ The Ostrogothic conquest and rule of Italy was therefore less influential in Sicily and would likely not have caused great changes to landowning and settlement patterns there.¹⁶⁸ In the war, the Ostrogothic defence mirrored their settlement patterns, which can also explain why Sicily did not see a lot of fighting. Archaeological evidence supports this as Gothic defensive measures prior to the war were much stronger in the north.¹⁶⁹

We know from Procopius's account of the war that the conquest of Sicily was swift and met with little resistance. The local population was seemingly supportive, although this might have been exaggerated for propaganda reasons.¹⁷⁰ The only city to be besieged was Palermo, but it was taken within the first year of the war, and by December 535, the whole island was under East

¹⁶⁶ "...how much warring took place, where and when – has evaded scholars. Moreover, the real economic impact of the war is also dark to us, both at the scale of the microeconomy of single settlements and regions afflicted by war, as well as at the macroeconomic scale of the whole of Italy and the Mediterranean." Zanini. (2021). *Non-Agricultural Items: Local Production, Importation and Redistribution*. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (p. 300-327). Leiden and Boston: Brill, p. 301.

¹⁶⁷ Heather. (1995). Theoderic, king of the Goths. *Early Medieval Europe*, vol. 4(2), pp. 156-57.

¹⁶⁸ For a comprehensive overview of the settlement patterns of the Goths, see: Bierbrauer. (1975). *Die ostgotischen Grab- und Schatzfunde in Italien*. Spoleto: Fondazione Centro italiano di studi sull'alto medioevo, pp. 29-64.

¹⁶⁹ Christie 2016, pp. 363-64.

¹⁷⁰ "But the Sicilians, seeing the fleet [of the Empire], did not report this to the Goths, did not shut themselves into their strongholds, did not decide to oppose our adversaries in any way, but opening the gates of their cities with all eagerness received the army of the enemy with open arms...". Procopius, *Wars* 7.16.19. In Kaldellis (ed.) 2014, p. 412.

Roman control.¹⁷¹ Although the island was mostly not involved in the fighting, it still played a vital role in providing provisions to Rome and other Italian regions during the war.¹⁷² Towards the end of the Gothic War, Totila and his Gothic troops went southwards and managed to take Sicily in 550. Although the Goths, according to Procopius, plundered practically the whole island, the conquest did not last for long and would likely have meant that the medium- and long-term direct consequences of the war were limited.¹⁷³

This leads us to the assumption that Sicily was largely spared from the destruction of the war. There was hardly any direct military action on the island, and it was only directly involved at the start of the war in 535 and in 550 with Totila's raid of the island. The war might even have been profitable to Sicily as the troops and cities in the peninsula needed provisions. Furthermore, many regions would likely have needed to import more grain due to a fall in production as a result of the war.¹⁷⁴ In addition, Sicily received a more direct link to the eastern Empire and the newly conquered North Africa which likely benefitted the island's trade.

The peninsula, especially the central and northern regions, were much more affected by the war. For instance, the letter by Pelagius I, written in 560/61 to Boethius the Praetorian Prefect of Africa, gives us an indication of how the destruction was felt by the Church of Rome:

The Church of Rome, over which we preside on the authority of God, has suffered twenty-five years and more from the devastation of the regions of Italy by war, and it has still hardly gone away at all. It receives no money from the clergy and the poor from anywhere else than from remote islands and areas – and this is small and not sufficient.¹⁷⁵

When Pelagius here writes “remote islands”, he is likely referring to Sardinia, Corsica, and, of course, Sicily. What we can infer from this is that, firstly, the destruction of the war was still felt 6-7 years after the official end of the war. Secondly, the remote islands and areas could still send money to the Church of Rome. Although not sufficient according to Pelagius, this could be evidence that Sicily was in a much better state than the rest of the Italian regions as it could still provide the Church with money. However, we must keep in mind that Pelagius wrote a letter to

¹⁷¹ Procopius, *Wars* 5.5. In Kaldellis (ed.) 2014, pp. 262-63.

¹⁷² We hear of provisions being brought from Sicily to Italy several times during the war. See for example Demetrios's attempt to bring provisions from Sicily to the hard-pressed Naples during a siege. Procopius, *Wars* 7.6.14-16. In Kaldellis (ed.) 2014, p. 394.

¹⁷³ Procopius, *Wars* 7.39. In Kaldellis (ed.) 2014, pp. 457-59.

¹⁷⁴ See chapter 6 for a discussion of the fall of agricultural production in northern and central Italy during the war.

¹⁷⁵ Pope Pelagius I, Letter 85. In Haarer (ed.) 2022, p. 171.

ask for help. He would likely be interested in exaggerating the destruction. Pelagius is not the only source that can attest to the destructions of the war. The Pragmatic Sanction, issued by Justinian in 554, attempted to resolve the economic and social instability caused by the war, focusing particularly on property and tax.¹⁷⁶ Tax exemptions and economic restructuring attest to a substantial need for relief due to the war.

Procopius also describes the horrors of the wars, although it is difficult to estimate medium- and long-term effects from his text alone. One of the most famous examples is the massacre and destruction of Milan where, according to Procopius, the Goths “kill[ed] all the males of every age to the number of not fewer than three hundred thousand and reduc[ed] the women to slavery.”¹⁷⁷ The various sieges, instances of famine, and the destruction caused by the troop movements are also described in *Wars*.¹⁷⁸ Most of the action in the war took place in the central and northern regions where the Ostrogothic presence was strongest.¹⁷⁹ This is also attested by the discontinuation of some rural sites, mainly in northern and central Italy such as Monte Gelato and Peveragno. However, many others persisted and continued until the end of the sixth century or even beyond.¹⁸⁰ This suggests that the war had very limited consequences on the abandonment of settlements.¹⁸¹

Although the north and central part of Italy saw most of the fighting, the war involved far larger areas than only those directly affected by the war.¹⁸² Trade networks, for instance, were likely seriously disrupted many places, thereby affecting many regions. For instance, the various sieges of Rome would have seriously disrupted the city’s links with other regions, possibly rupturing

¹⁷⁶ Haarer. (2022). *Justinian – Empire and Society in the Sixth Century*. Edinburgh: Edinburgh University Press, p. 67.

¹⁷⁷ The numbers are exaggerated, but it does convey the high mortality caused by the disease. Procopius, *Wars* 6.21.39. In Kaldellis (ed.) 2014, p. 362.

¹⁷⁸ The numerous sieges of Rome and the destruction it brought to the city is a good example. For example, see the overview of the first siege in: Whitby 2021, pp. 215-227; for an overview of siege warfare in Late Antiquity, see: Petersen. (2013). *Siege Warfare and Military Organization in the Successor States (400-800 ad)*. Leiden and Boston: Brill, chapter 5 and chapter 6.

¹⁷⁹ Arthur. (2021). Byzantine Apulia. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 453-471). Leiden and Boston: Brill, p. 456.

¹⁸⁰ Christie 2016, p. 367.

¹⁸¹ There is actually a surprising amount of continuity in the settlement structures in Italy, although they do seem poorer and less connected than before. See the discussion in chapter 4.2.

¹⁸² See: Zanini. (2014). *Economia dell’Italia bizantina e indicatori archeologici. Qualche ulteriore riflessione. Cahiers de recherches médiévales et humanistes*, vol. 28.

commercial networks in Italy.¹⁸³ Many regions would likely have become impoverished due to this. Furthermore, the war led to the destruction of production structures and infrastructure.¹⁸⁴

Notwithstanding, not all the Italian regions were affected in the same way by the war. The south was generally more shielded from the war than further north but was still drastically changed and impoverished at the end of the sixth century. Apulia, which had been a relatively prospering region until the war, was seriously impoverished at the end of the sixth century.¹⁸⁵ Was the war the sole culprit for Apulia's drastic change in the sixth century? In combination with the Lombard invasion, this could certainly be a possibility, especially if plague was an extra factor that led to a serious demographic decline.¹⁸⁶ However, if plague was the main culprit, we would expect to see similarities in the development between South Italy and Sicily.¹⁸⁷ Therefore, as for the rest of Italy, war combined with plague could be an explanation for this development, but it is slightly less convincing for South Italy as it was generally less affected by direct fighting. Another explanation could be that disruptions to trading networks caused great changes to the regional economies in the South.

Although the Gothic War caused great destruction in the short-term and disrupted the elites and economic networks in the medium-term, the long-term effects would have been limited if not for the Lombard invasion that started in 568. The Lombards caused serious instability and in the peninsula, and Italy would from then on be fragmented until the nineteenth century. This likely caused some deep changes to the Italian regions. The old senatorial elite was largely gone from politics at the end of the sixth century, and they were replaced by a militarized elite and the Church.¹⁸⁸ There might also be signs of militarization of the countryside seen in the growing prevalence of the *castrum*, residential fortifications, during the Gothic War and beyond.¹⁸⁹ The

¹⁸³ For an overview of Rome's link to other Italian regions during Late Antiquity and the Early Middle Ages, see: Barnish. (1987). Pigs, Plebeians and Potentes: Rome's Economic Hinterland, C. 350-600A.D. *Papers of the British School at Rome*, vol. 55.

¹⁸⁴ Zanini 1998, p. 114. For an overview of the interregional road and harbour network in Italy during the period, see: Sami 2021.

¹⁸⁵ Arthur 2021, p. 456.

¹⁸⁶ By 571, the Lombards had reached Benevento and thus established a duchy deep into southern Italy. Arthur 2021, p. 456.

¹⁸⁷ A thorough comparative analysis is needed to examine what these differences were and what might explain them.

¹⁸⁸ During the sixth century, the Italian aristocracy became increasingly militarized and ecclesiastical. The importance of the old senatorial families was much diminished and largely gone at the end of the sixth century. Wickham 2005, pp. 159-162; Cosentino 2021, p. 33.

¹⁸⁹ Zanini 1998, pp. 117-18.

political fragmentation of Italy after the Lombard invasion meant that many regions became frontiers, suddenly bordering “the enemy”.¹⁹⁰

We do not see the same defensive phase in Sicily during the sixth century as we see in mainland Italy. The society was less militarized and fortified. Arcifa links this to the rapid recapture of the island in 535 which was not substantially challenged later.¹⁹¹ Furthermore, the fact that Sicily is an island made it less vulnerable during the Gothic War as the East Roman Empire generally enjoyed naval supremacy over the Goths. Only at the end of the war, when Totila raided Sicily, would the Ostrogoths challenge this supremacy. The East Romans had an even stronger naval advantage against the Lombards who did not have any operational naval capacity when entering Italy.¹⁹² This meant that the island was far less vulnerable to the invasion and was therefore less militarized during the sixth century.

Sicily was largely spared from the destructions of the war and subsequent famines from the troop movements. This is reflected in the narrative of Procopius and from papal correspondence, which shows how important the estates of Sicily were for the Church.¹⁹³ It is also reflected in the fact that Sicily was still relatively flourishing at the end of the sixth century. The Gothic War and the Lombard invasion are likely two of the main reasons for the differentiation between mainland Italy and Sicily. The longevity of both conflicts, the decline of the old elite, the militarization of society, and the political fragmentation of the peninsula had a great impact on commercial networks, economic production, and settlement structures. However, we should be careful to only point to warfare when explaining these changes. Political events have often been used to explain the transition from Late Antiquity to the Early Middle Ages: The Gothic War and the Lombard conquest in Italy; the Franks in Gallia; and the Saxons in Britain. However, excavations only rarely show signs of violent destructions. Also, why did not commerce, the economy, and population recover quickly after the end of the war?¹⁹⁴ Warfare likely accelerated some of the trends already seen, but is it sufficient to explain the longevity of these changes?

¹⁹⁰ Marazzi. (2021). Byzantines and Lombards. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 169-199). Leiden and Boston: Brill, p. 169.

¹⁹¹ Arcifa 2021, p. 479.

¹⁹² Marazzi 2021, p. 176.

¹⁹³ Whitby 2021, p. 254.

¹⁹⁴ Cheyette. (2008). The disappearance of the ancient landscape and the climatic anomaly of the early Middle Ages: a question to be pursued. *Early Medieval Europe*, vol. 16(2), p. 155.

The sharp decline in the sixth century happened within twenty years in Italy during the Gothic War. This aligns nicely with the First Outbreak of plague which makes war and plague a tantalizing explanation for the rapid changes seen in Italy during the sixth century. Later plague events together with the Lombard conquest would likely also have had a great impact and could also explain how these changes endured. The Lombard invasion made the political fragmentation of Italy a permanent reality, disrupting old structures, whereas recurrent plague outbreaks would hold the population down. This is a plausible explanation, but the complexity of the development cautions against too straightforward conclusions.

4.2 The Settlement Structure

Changes in settlement structures can potentially give us a lot of information about crises, demography, and economic structures, while also problematizing the notions of “crisis” in Italy and “flourishing” in Sicily. The evidence from Sicily is complex and hard to interpret. Did the countryside flourish or are the signs of growth accompanied by crisis? This ambiguity is important to understand when discussing continuity and change in general, and when comparing the island to Italy. What can be seen from the Italian settlement structures is, surprisingly, a lot of continuity of villages and cities, although their structures and material culture go through a drastic simplification, and they seem to be less populated.¹⁹⁵ In this section, the settlement structures of Sicily will be analysed and compared to the general situation in Italy.

This analysis will especially focus on whether the settlement structure of Sicily potentially made it more resilient to demographic decline and the potential economic consequences of plague. First, we need to understand the general trends of the period. From surveys, two macro-phenomena can be observed in Sicily. Firstly, many urban centres seem to erode from the fifth century onwards. Secondly, and closely linked to the first one, both chronologically and consequently, large agglomerates, often called “agrotowns” in the literature¹⁹⁶, became an important feature on the island.¹⁹⁷

Let us start by examining the decline of the urban centres. Towns in Sicily were largely coastal and were based on two principal urban clusters: Syracuse, Catania, and Messina linked by their connection to the Strait of Messina and the second one consisting of Palermo, Termini, Carini

¹⁹⁵ Wickham 2005, pp. 480-81.

¹⁹⁶ It is important to stress that the term “agrotown” was not used by contemporaries.

¹⁹⁷ Arcifa 2021, p. 474.

and Lilibeo in a south-western triangle. Even in Roman times, the northern and southern zones were not very urbanised, but the western triangle was very dynamic.¹⁹⁸ By the end of the fifth century, we can observe a progressive simplification of the urban centres marked by the defunctionalisation of public spaces, the abandonment of several quarters that were turned into cemeteries, and the loss of several residential characteristics in houses with the insertion of productive activities. The available space for living seems to have been reduced. This was accompanied by a drastic impoverishment of building techniques.¹⁹⁹ The Roman urban structures seem to decline, but many retained their role as an important hub for their surrounding territory.²⁰⁰ This is also evident from the growth of dioceses in the period.²⁰¹

Although this seems very drastic, it does not necessarily indicate a crisis. The process happened at roughly the same time as the Vandal conquest of Africa and the subsequent raids and conquest, which must have brought havoc locally, and can also have made it harder to defend coastal cities. However, most of the recent literature seems to agree that these developments were likely due to changes in exchange networks and economic factors and were more gradual than a sudden crisis would suggest. The longevity of the restructuring seems to indicate that deeper structural changes were in play, and many of them survived well into the seventh century or even beyond. A short-term crisis during the fifth century does, however, seem to have accelerated these processes.²⁰²

¹⁹⁸ Prigent. (2013). Palermo in the Eastern Roman Empire (Translated by Thom, M.). In Nef, A. (ed.). *A Companion to Medieval Palermo: The History of a Mediterranean City from 600 to 1500* (pp. 11-38). Leiden and Boston: Brill, p. 17.

¹⁹⁹ Sfameni. (2016). Edilizia residenziale tardoantica in Sicilia tra continuità e discontinuità: riflessioni a partire da contributi recenti. In Giuffrida, C. & Cassia, M. (eds.). *Silenziose rivoluzioni. La Sicilia dalla tarda antichità al primo medioevo* (pp. 273-305). Catania and Rome: Edizioni del Prisma, p. 300.

²⁰⁰ Cacciaguerra, Facella & Zambito. (2015). Continuity and Discontinuity in Seventh-Century Sicily: Rural Settlement and Economy. In Gnasso, A., Intagliata, E.E., MacMaster, T.J. & Morris, B.N. *The Long Seventh Century – Continuity and Discontinuity in an Age of Transition* (pp. 199-233). Bern: Peter Lang AG, p. 200.

²⁰¹ For the dioceses Carini and Triocala which was created at the end of the sixth century, see: De Fino. (2009). Diocesi rurali nella Sicilia tardoantica: i casi di Carini e Triocala. *Vetera Christianorum*, vol. 46(1). For a full overview of all the dioceses in Italy from their origin and to the start of the seventh century, see: Lanzoni. (1927). *Le diocesi d'Italia dalle origini al principio del VII*. Faenza: Biblioteca Apostolica Vaticana.

²⁰² The abandonment of several sites, some places very abruptly, and the reuse of preexisting sites, seem to indicate that the typical landscape of Late Antiquity in Sicily was in crisis during the second half of the fifth into the sixth century. Barba. (2015). Alcune considerazioni e problematiche sulle dinamiche degli insediamenti rurali in Sicilia tra V e VIII secolo. In Arthur, P. & Imperiale, M.L. (eds.). VII Congresso Nazionale di Archeologia Medievale (pp. 383-386). Firenze: Edizioni All'Insegna del Giglio, pp. 384-85; however, the vitality of the countryside to the end of the seventh century seems to caution against an interpretation of a long crisis from the fifth century onwards. Crisis is likely accompanied by restructuring and the creation of a resilient system that showed signs of vitality when nearby regions showed signs of deep crisis and impoverishment. Sfameni 2016, pp. 278-79.

This brings us to the second macroprocess. The decline of urban centres was accompanied by growth in the countryside, seen by the rise of the agrotowns. The most likely explanation seems to be that the Vandal conquest of Africa and raids of Italy seriously disrupted the important North Africa-Rome axis, leading to a substantial restructuring of the Sicilian economy and settlement structures. The longevity of the new structures and the relative flourishing of the economy indicate a remarkable resilience following the crisis of the mid-fifth century.²⁰³ Let us look more closely at the structures and patterns that dominated the Sicilian countryside during the sixth century. “Agrotowns” and landed estates (*massae fondorum*) will be considered followingly.

The agrotowns were large agglomerations which consisted of extensive settlements (several hectares), located mostly in plains or on low hills along main roads with connections to trans-regional networks of exchange. Other features were their relatively low levels of craftsmanship and the lack of a precise administrative role. They were like villages, and are often called villages in the literature, but the dimensions and importance of these structures has led to the creation of the term “agrotown”. They were mostly inhabited by peasants and endured during the sixth and seventh centuries, although with a substantial decline in the overall number in many areas, but also some growth on new sites.²⁰⁴ Sofiana near Piazza Armerina and Casale San Pietro near Castranovo are examples of agrotowns that have been extensively survived, but similar structures have been found in almost every area that has undergone a surface survey.²⁰⁵ These agrotowns seem to have grown from the restructuring of the settlement structure in Sicily in the fifth century, and it was a very resilient system; many of them survived even until the Norman conquest in the eleventh century and into the twelfth centuries.²⁰⁶

²⁰³ Arcifa. (2017). Dinamiche insediative e grande proprietà nella Sicilia bizantina – Uno sguardo archeologico. In Martin, J.-M., Peters-Custot, A. & Prigent, V. (eds.). *L'héritage byzantin en Italie (VIIIe-XIIIe siècle)*. IV. *Habitat et structure agraire* (pp. 237-267). Roma: Ecole Française de Rome.

²⁰⁴ Molinari 2019, p. 91; Molinari. (2012). Sicily between the 5th and the 10th century: villae, villages, towns and beyond. Stability, expansion or recession?. In Michaelides, D., Pergola, P. & Zanini E. (eds.). *The Insular System of the Early Byzantine Mediterranean: Archaeology and History* (p. 97-114). Oxford: BAR Publishing, pp. 99-100.

²⁰⁵ Molinari 2019, pp. 100-101. For a more extensive treatment of Sofiana and Casale San Pietros, see: Vaccaro. (2013). Re-evaluating a forgotten town using intra-site surveys and the GIS analysis of surface ce-ramics: Philosophiana-Sofiana (Sicily) in the longue durée. In Johnson, P. & Millett, M. (eds). *Archaeological Survey and the City* (pp. 107-145). Oxford: Oxbow Books; Carver et al. (2017). Ricerche 2016 a Castronovo di Sicilia Sicily in Transition (Progetto ERC advanced grant 2016-693600). *Notiziario Archeologico Soprintendenza Palermo*, vol. 23.

²⁰⁶ Molinari 2019, p. 104.

The settlement structures of Sicily marked by extensive villages, agrotowns, were closely linked to the importance of the landed estates (*massae fundorum*).²⁰⁷ The *massae* appeared in the landscape due to a process of concentration of landed estates of different types into large agglomerations. The *massae* were divided into the basic unit of land: *fundi* (farmsteads).²⁰⁸ The fifth century likely accelerated and consolidated the trend towards the creation of *massae*, and their dominance in the sixth century Sicilian agrarian landscape was accompanied by the decline of the urban spaces and villa-economy. No new grand villa, such as the one in Piazza Armerina or Tellaro, was built in this period. Furthermore, some villages grew from villa sites, whereas other villas took on a more productive role.²⁰⁹ The growing role of the *massae* seems to have been facilitated by the concentration of cities along the coast of Sicily, a fair distance from the hinterland. Unlike in the agrotowns, the *massae* acquired an active role in civil and fiscal organization of nearby areas, and they were important for the organization of large portions of their hinterlands.²¹⁰

The *massae* were not unique to Sicily. They seem to have been the result of a complex transformation of the Italian agrarian system that started already at the end of the second century or at the start of the third. Their origin seems to come from the rationalisation of the processes of expansion of property together with decentralisation of production linked to the decline of the villa-economy.²¹¹ Although the *massae* were not peculiar for Sicily, they were much larger on the island than the rest of Italy, and the average Sicilian estate was about 2.7 times larger compared to the Italian counterpart. This discrepancy is also evident in the size of the *fundi* in Italy and Sicily.²¹² Larger estates might have been less vulnerable to crises, especially when considering the political stability of Sicily. The restructuring after the fifth century crisis might have created some structures that were better at handling the subsequent assumed demographic

²⁰⁷ Arcifa 2021, p. 476.

²⁰⁸ Hanlon. (2015). Gregory the Great and Sicily: An Example of Continuity and Change in the Late Sixth Century. In Dunn, G.D. (ed.). *The Bishop of Rome in Late Antiquity* (pp. 197-215). London and New York: Routledge, p. 213.

²⁰⁹ Tools for production dated to the period have been found in the Villa del Casale near Piazza Armerina which suggests that the role of the villas were changing in Sicily just as in peninsular Italy. Molinari 2019; Pensabene Perez. (2010). Villa del Casale e il territorio di Piazza Armerina tra tardoantico e medioevo: le nuove ricerche 2004-2009. In Pensabene Perez, P. (ed.). *Piazza Armerina: Villa del Casale e la Sicilia tra tardoantico e medioevo* (pp. 1-32). Rome: "L'Erma di Bretschneider.

²¹⁰ Arcifa 2021, p. 476.

²¹¹ Vera. (1999). 'Massa fundorum'. Forme della grande proprietà e poteri della città in Italia fra Costantino e Gregorio Magno. *Mélanges de l'école française de Rome*, vol. 111(2).

²¹² Prigent 2017; Vera 1999, pp. 999-1002.

decline by plague.²¹³ The longevity and resilience of the agrotowns might be a testimony to this. Scholars have assumed that this might be due to a strong peasant social cohesion which likely made these society more resilient to crises.²¹⁴

The decline of the urban centres and the end to the villa-economy were not unique for Sicily. In Italy, these two same macroprocesses can be observed, although with a certain degree of chronological differences. There was a general decline in the urban structures across the peninsula and a trend towards ruralisation. One of the key differences seems to be that the Sicilian countryside was relatively prosperous and even showed some signs of growth in the overall number of settlements.²¹⁵ Additionally, there seems to have been a substantial growth in many places in the countryside in Sicily during the fifth century and into the sixth, with the expansion of villages into agrotowns. The settlement pattern after the crisis of the fifth century seems to have been very stable, although with a possible decline in population.²¹⁶ Settlements in the countryside in Italy, on the other hand, were generally smaller at the end of the sixth century, although many of them endured.²¹⁷

Compared to Sicily, the Italian territories were marginal, poorer, and the estates smaller. The Church of Rome, the Church of Ravenna, and the Emperor owned land especially in South Italy and around the larger cities, but the estates were much smaller than in Sicily.²¹⁸ Furthermore, the end of the villa-economy was in many places replaced by much simpler structures and settlement hierarchies were weakened. There are also clear signs of material impoverishment. In urban Italy, there was a decline in building activity, the occupied space shrank, and consumption centres became much smaller.²¹⁹ This is similar to what happened to the Sicilian cities, but whereas there seems to have been a restructuring and even growth in the countryside of Sicily, this seems to have been replaced by drastically simpler patterns of settlement and land

²¹³ Although outside the scope of this thesis, this point should be discussed and compared to other places within the empire that were dominated by very large estates.

²¹⁴ Molinari 2019, p.101-102.

²¹⁵ Arcifa 2021, p. 473.

²¹⁶ Cacciaguerra, Facella & Zambito 2015, p. 202.

²¹⁷ For a comprehensive overview of the Italian countryside in Late Antiquity and the Early Middle Ages, see: Christie 2016, pp. 401-496.

²¹⁸ Martin 2021, pp. 281-83.

²¹⁹ Squatriti. (2016). Barbarizing the 'Bel Paese': Environmental History in Ostrogothic Italy. In Anrold, J.J., Bjornlie, M.S. & Sessa, K. (eds.). *A Companion to Ostrogothic Italy* (pp. 390-421). Leiden and Boston: Brill, p. 395.

exploitation in Italy, especially in the north.²²⁰ However, it is at times hard to pin down the chronology of these changes with precision. Nonetheless, the overall picture of the Italian countryside is a trend towards depopulation and impoverishment in the sixth century.²²¹

What we generally see in Italy is a gradual development towards extensive rather than intensive exploitation of the environment due to the demographic decline. This kind of exploitation leaves behind a thinner footprint on the environment which can give a false impression of impoverishment. Instead, we should understand this as a process where resources became more abundant, consequentially removing incentives for intensive practices in favour of less labour-intensive work. One example of this is the rise of the chestnut tree which provided fuel, food, and forage without demanding intensive work in return. Skeleton remains from the period do suggest that people ate more, were healthier, and were taller than their Roman ancestors.²²² This can be contrasted to Sicily where there seems to be, if anything, a growth of intensive agricultural practices in the period, evidenced by the growth of agrotowns, their links to interregional commercial networks, and the size of the *massae*.²²³ This suggests that there were more people in Sicily than in Italy, but it might also have to do with economic incentives which favoured intensive agricultural practices, despite a possible demographic decline or stalemate.²²⁴

4.3 Administration

Next, we need to consider the administrative structures of the island. The importance of Sicily for the empire in the mid-sixth century is evident from Justinian's novella 75 *Sicily: appeals* and novel 104 *Concerning the praetor of Sicily* from 537 that linked the island directly to the Empire and introduced the office of the *praetor*, in charge of first and foremost civil affairs. He was directly appointed from Constantinople.²²⁵ A clear goal of this novella seems to have been to

²²⁰ Wickham 2005, pp. 480-82.

²²¹ Squatriti 2016, pp. 395-96.

²²² Squatriti 2016, pp. 400-415.

²²³ Pollen data suggests that intensive agricultural practices were upheld in Sicily in the period. See chapter 6 for a discussion.

²²⁴ See chapter 5.

²²⁵ Prigent. (2021). Mints, Coin Production and Circulation. In Cosentino, S. (ed.). *A Companion to Byzantine Italy* (pp. 328-359). Leiden and Boston: Brill, p. 151. Novel 75 and Novel 104 are identical except for the names. "Your excellency, as having been put at the head of the work of the quaestorship, and made a member of our council, is aware that, in conformity with the ancient model, we have put a praetor over the province of Sicily, for all private affairs to be under his administration, and for military supply to be provided; because the contributions of that province to the public treasury were, by ancient custom, entrusted to the most excellent Count of the Sacred Patrimonium in Italy, for both the collection and delivery to be conducted under his authority." Justinian, *Novel 75* and *Novel 104*. In Miller, D.J.D. & Sarris, P. (eds.) 2018, pp. 533-534 and p. 685.

separate civil, military, and fiscal power on the island.²²⁶ Initially, the office of the *praetor* was very powerful and he had near unlimited power. The *praetor* administered the island with the help of two financial officers called *quaestores*, one based in Syracuse in the East and one in Lilybaeum in the West. They collected ten percent of the annual harvest in taxes.²²⁷ The *praetor* would later lose much of his power with the enactment of *novella* 149 in 569. From then on, he was elected by the local elite, and thus lost much of his role as the local representative of Constantinople.²²⁸ Nonetheless, the island, also after the Lombard invasion of peninsular Italy, was directly ruled from Constantinople.

Italy on the other side retained much of its traditional administrative structure after the Gothic War. Sources continue to talk about a Praetorian Prefect and civil councils, and the fiscal apparatus continued to function. However, the Lombard invasion required new administrative structures to deal with the defence of the territories with limited troops. This led to the creation of the exarchate where Byzantine Italy was ruled from Ravenna by an exarch appointed by the emperor. The first mention of an exarch dates from 584.²²⁹ The Lombard threat meant that the defensive organization had to be altered which led to the gradual militarization of the administrative structures. Territorial districts led by *duces* or *magistri militum* were created in the 580s to deal with the new threat.²³⁰ Sicily was never a part of the exarchate or the prefectural system but was directly linked to Constantinople and therefore had a more direct access to the emperor. The island was also militarized much later, and this likely contributed to stability and better functioning of the civil administration.²³¹

When it comes to landownership, the *massae* in Sicily could be imperial, ecclesiastical, or private.²³² Before the Gothic War, the senatorial elite owned much of the land in Sicily, but this changed during the sixth century. Between the fifth and sixth centuries, there was a great transfer of lands from the lay aristocracy to religious institutions such as the Church of Rome, but also

²²⁶ Caliri. (2006). Città e campagna nella Sicilia tardoantica: massa fundorum ed istituto civico. In *Mediterraneo Antico: economie, società, culture: IX, 1* (pp. 51-69). Pisa and Rome: Fabrizio Serra Editore, p. 65.

²²⁷ Hanlon 2015, p. 202. Pope Gregory I mentions a deputy of the *praetor* in one of his letters concerning the examination of the crimes of Boniface. Pope Gregory I, *Letters* 3.49. In Martyn, J.R.C. 2004a, p. 268.

²²⁸ Arcifa 2021, pp. 151-52.

²²⁹ Prigent 2021, pp. 141-42.

²³⁰ Marazzi 2021, p. 181.

²³¹ Prigent, 2021, p. 150.

²³² Caliri 2006, p. 57; Prigent 2017.

the churches of Ravenna and Milan, and to the imperial domain.²³³ These changes seem to be connected to the loss of importance of the *villae*, the decline of the senatorial class, and to the rise of importance of the *massae fondorum*. The settlements were extensive, often consisting of villages and agrotowns where the peasants and *conductores* lived. The landowning class was often not based in Sicily.²³⁴

Landowning in Sicily was dominated by two large institutions: the imperial office and the Church of Rome, and much of the production was geared towards exportation. Due to Pope Gregory I's letters, we know more about the administration of the Roman Church's estates, and this will therefore be analysed followingly. From the *Liber Pontificalis* and the letters of Pope Gregory I, we know that the Church of Rome owned a lot of land in Sicily. Sicily was important economically to the Church, evident from the 217 letters of Pope Gregory (c.25% of all his letters) on Sicilian affairs, and also his knowledge of the economy and topography of the island.²³⁵ Also, the Church of Rome, in addition to possessing a large portion of Sicily's cultivable land, managed its own estates, levied taxes, and appointed the *conductores* on them.²³⁶ In fact, the estates of the Church of Rome were so considerable that they almost formed a state within a state.²³⁷ The 400 or so *massae* in the ownership of the Church of Rome covered about one nineteenth part of the island's area according to recent estimations.²³⁸

Pope Gregory I's letters has made it possible to reconstruct the administration of the *massae* of the Church of Rome in Sicily. They were administered locally by *rectores* and centrally by Sub-deacon Peter from 590-92 and later split into two offices with one in Palermo and one in Syracuse. Overseers, *conductores*, lived on the individual home farms (*condumae*), and they collected rents and passed them on to the agents of the Church.²³⁹ The farms themselves were mostly worked by tenant farmers who were tied to the land and whose standard of living was quite low. This is evidenced by a letter from Pope Gregory I which instructs Fantinus to save

²³³ Molinari 2019, p. 101.

²³⁴ Molinari 2019, p. 102.

²³⁵ Mammino. (2004). *Gregorio Magno e la riforma della Chiesa in Sicilia, Analisi del Registrum epistularum*. Catania: Studio Teologico San Paolo; Martyn. (2004a). Introduction. In Martyn, J.R.C. (ed.). *The letters of Gregory the Great, Vol. 1: Books 1-4* (pp. 1-116). Toronto: PIMS, p. 24.

²³⁶ Prigent 2017; Van Nuffelen. (2010). Episcopal Succession in sixth century Sicily. In Engels, D. (ed.). *Zwischen Ideal und Wirklichkeit - Herrschaft auf Sizilien von der Antike bis zur Frühen Neuzeit* (pp. 175-190). Stuttgart: Tagung am Historischen Institut der RWTH Aachen, p. 177; Molinari 2019, p. 102.

²³⁷ Martyn 2004a, p. 24.

²³⁸ Hanlon 2015, p. 211.

²³⁹ Hanlon 2015, pp. 210-15.

enough food for the sustenance of his tenant farmers: “And whatever income is made from their work [on the farms], your Excellency should keep enough of it for the sustenance of those slaves...”.²⁴⁰ The administration of the estates was geared towards boosting production, taxation, and export.

According to Wickham, aristocratic control and economic incentives are necessary for economic and material complexity.²⁴¹ From the letters of Pope Gregory I, we know that the Church of Rome had great estates and economic interests in Sicily, and the island was one of the economic cornerstones of the Papacy. This would mean that there were incentives for aristocratic intervention to boost agricultural output, an important motor for the economy of the island. This was likely an important structural factor for why Sicily seemed to be flourishing more than Italy in this period. These economic incentives could also have made the island more resistant to demographic crises as the big institutions and aristocratic control would incentivise production, giving a false picture of demographic expansion. For instance, this economic flourishing did not necessarily benefit the tenant farmers who seems to have lived on the edge of starvation. This likely means that much of the produce was exported.

In Italy, the situation was much more variegated, with different agricultural potential and degree of land exploitation in the regions. In general, the estates were larger in the south than in the north of the peninsula, but they were much smaller than those in Sicily. Also, warfare and instability meant that the old senatorial elite who owned land across Italy and the West in general lost much of their land. This led to a more localized aristocracy. However, the Church and the empire also owned land in Italy, but the Byzantine regions were small and localized in enclaves around cities. Although this is a very general outline, what can be seen from this is that there would likely have been fewer incentives for intense agricultural exploitation, leading to material simplification.²⁴² Warfare and plague would likely have dramatically accelerated this in Italy, whereas political stability, administrative structures, and the island’s link to trade networks would have better preserved incentives for intensive land exploitation in Sicily.

²⁴⁰ Pope Gregory I, *Letters* 9.10. In Martyn, J.R.C. (ed.) 2004b, pp. 551-52.

²⁴¹ Wickham 2005, pp. 825-831.

²⁴² Wickham 2005, pp. 549-553.

5 Economy and Trade

The economic transformation between Late Antiquity to the Early Middle Ages was marked by a gradual decline in the interregional and international networks in the Mediterranean. The economic periphery, such as the interior parts of Gaul, Spain, the Balkans, and northern Italy were already largely disconnected from the larger networks in the second half of the sixth century. Political disruption and the Lombard conquest of great parts of the peninsula accelerated this process in many parts of Italy, leading to a sharp decline in commerce and subsequently an impoverishment of the material culture.²⁴³ For large-scale specialization to be possible, interregional commerce of bulk wares is essential. This necessitates a reliable market and stability, and the disintegration of this system seems to have been one of the major factors for the decline of the Roman population starting in the fifth century, and material simplification in the sixth century in large parts of Italy.²⁴⁴

Trade in Italy was dominated by Rome, a city that relied on imports from beyond its region. The decline of the population of the city was therefore very important to the general interregional commerce in the peninsula. However, ceramic finds confirm that Rome was still connected to a wider Mediterranean network throughout the sixth century, and Sicily's position in this network was vital for its position in the interregional commercial network in the Mediterranean. This was a network linking Rome, North Africa, and the East together, and much of this trade passed through Sicily.²⁴⁵ Furthermore, Sicily enjoyed a privileged position between the West and the East in the Mediterranean which meant that commercial activity continued to reach the island when it had stopped in many other places in Italy. The relative well-being of Sicily went into the seventh century and even beyond, which confirms this picture.²⁴⁶ In chapter 5.1 and 5.2 this will be discussed further as a major reason for why Sicily developed differently than Italy during the sixth century.

²⁴³ Cosentino. (2012). *Mentality, Technology and Commerce: Shipping amongst the Mediterranean Islands in Late Antiquity and Beyond*. In Michaelides, D., Pergola, P. & Zanini E. (eds.). *The Insular System of the Early Byzantine Mediterranean: Archaeology and History* (pp. 65-76). Oxford: BAR Publishing, p. 72; Zanini 2014.

²⁴⁴ Wickham 2005, pp. 698-700.

²⁴⁵ See further discussions in chapter 5.1 and 5.2.

²⁴⁶ Cosentino 2012, p. 72.

5.1 Commerce, Exchange Networks, and Production

Sicily enjoyed a central position in the Mediterranean exchange network during the sixth century, and it had close trading network with Rome, North Africa, and the East. Unlike in many parts of Italy, the importation of African Red Slip continued throughout the sixth century, even to small inland villages. Whereas production and trade became heavily regionalized and simplified during this period in Italy, Sicily continued to import wares from the East and Africa. In this section, we will look closer at how Sicily's position in the commercial network made it more prosperous and likely more resilient than the peninsula.

One important consideration is that Sicily enjoyed much more political stability during the sixth century than Italy. It was not only spared from the Gothic War but might even have benefitted from it. The East Roman reconquest of Italy and North Africa meant new economic opportunities for the island as part of the empire. This could have meant more stable trading opportunities, especially as North Africa and Rome were both within the same empire. This would mean that the island was still linked to these commercial networks going East to West and West to East. From the archaeological and numismatic evidence, we can be quite sure that Sicily played a central role in the overall system of Mediterranean exchange.²⁴⁷ It provided food and goods for Rome, Ravenna, and Constantinople, and was an integral part of the East Roman Empire.²⁴⁸ The opening to the empire likely benefitted Sicily more than Italy in general.

Going back to the Mediterranean commercial networks, we should note that the link between Sicily and North Africa seems to have been very strong. This is attested by the presence of African amphora in both the western and eastern parts of the island, and even in small inland rural sites. This did not cease during the sixth century but continued well into the seventh. For instance, African Red-Slip-Wares continued to arrive uninterrupted all the way to the end of the seventh century.²⁴⁹ Much of this trade seems to be linked the island's role in the redistribution system of African artifacts to Rome and Italy.²⁵⁰

²⁴⁷ Molinari 2012, p. 97.

²⁴⁸ Molinari 2019, pp. 89-90.

²⁴⁹ Among the finds are Keay 61 and 62, late *spatheia*, Sidi Jidi 1 and 2, Hammamet 3, *Castrum Perti*, Keay 8A, and Keay 34. Among African Red-Slip-Wares, some of the most common finds have been Hayes 91D, 99C, 105, 107 and 109. Cacciaguerra, Facella & Zambito 2015, pp. 209-212.

²⁵⁰ Zanini 2021, p. 317.

Rome seems to have played an especially important role for the economic and social life on the island. Despite population decline and the decline of the Rome-Africa axis in the fifth century, African ceramics continued to reach Rome throughout the sixth century, and this was likely important to the commercial ties between Sicily, North Africa, and Rome. Although much of Sicily's export to Rome was grain, it also exported other products. Wine produced in eastern Sicily reached the city, even throughout the seventh century.²⁵¹ However, the production of wine likely decreased with the increasing importance of grain exports as finds are rarer after the fifth century, with some regional differences.²⁵² Sicily also imported some amphora from the eastern Mediterranean, although to a lesser degree than North Africa.²⁵³ What is interesting to note is that Sicily's prosperity seems to have outlived that of Rome, indicating that the island was not totally dependent upon the city for its relative flourishing.²⁵⁴ This could be due to the island's link to the East and the Mediterranean at large.

A recent book edited by Michaelides, Pergola and Zanini, *The Insular System of the Early Byzantine Mediterranean*, postulates the existence of an early Byzantine insular system where the Mediterranean islands, big and small, were a key component of the sixth century navigational infrastructure, linking different parts of the Mediterranean together. In the book, this is called the Early Byzantine Insular System which describes the central part that the islands had as a connective medium among different regions in the Mediterranean exchange system.²⁵⁵ Their role was especially important due to the decline of the Roman road network during the fifth and sixth centuries. The larger islands in this system were characterised by relatively favourable economic conditions during Late Antiquity and the Early Middle Ages.²⁵⁶ This seems to be attested in Sicily's very long Late Antiquity.

²⁵¹ Molinari 2019.

²⁵² Cacciaguerra, Facella & Zambito 2015, p. 218.

²⁵³ Molinari 2012, p. 99.

²⁵⁴ One reason for this was that Sicily became a key supplier of wheat to Constantinople after the Muslim conquest of Egypt in the mid-seventh century. This meant that the city became more dependent upon wheat from other places, especially Sicily. Consequently, Sicily became much more important to the Empire, and that was likely key to the continuation of commerce to the island. Arcifa 2021, pp. 477-78.

²⁵⁵ Michaelides, Pergola & Zanini (eds.). (2012). *The Insular System of the Early Byzantine Mediterranean: Archaeology and History*. Oxford: BAR Publishing.

²⁵⁶ See especially the articles by: Zanini 2012; Pergola. (2012). 'Le monde insulaire en Méditerranée: approche archéologique diachronique des espaces et des sociétés' : les raisons d'un Groupement de Recherche Européen au C.N.R.S. – Au-delà du G.D.R.E., quel futur? *The Insular System of the Early Byzantine Mediterranean: Archaeology and History* (pp. 7-13). Oxford: BAR Publishing; Cosentino 2012.

However, not all the evidence from Sicily points towards continuity. Pantellerian Ware was the leading cooking ware in Late Antique Sicily, but this was gradually joined by other Mediterranean and eastern Sicilian wares during the sixth century in central and western Sicily. In eastern Sicily, local wares seemed to replace Pantellerian Ware already during the end of the fifth century. A tendency towards self-sufficiency existed alongside signs of continuity.²⁵⁷ Malfitana et al. (2014) links this to the changes in production and commercial networks caused by the Vandal conquest of North Africa. This should not necessarily be interpreted as a trend towards impoverishment as the local produce that took over had similar morphological characteristics as the Pantellerian Ware it replaced, being fully compatible with the culinary uses in the area.²⁵⁸ This shows that local societies were able to respond to changes in imports and replace them, which could be a sign of a resilient society. Local products were also exported to other regions in Italy.²⁵⁹

Malfitana et al. (2014) sums up the material culture of the Early Middle Ages in Sicily as: “Indeed, there were undoubtedly elements of continuity that must be considered together with the clear signs of rupture with the Roman past”²⁶⁰ Sicily is therefore a very interesting case to study when it comes to the debate between continuity and change between Late Antiquity and the Early Middle Ages; there are many indications of continuity in Sicily, but the island was definitively showing signs of change as well during the sixth century.²⁶¹ Although Sicily seemed more prosperous than much of Italy, this does not mean that the island showed uniform signs of continuity, evidenced by regional and geographical differences in production and commercial activity within Sicily. Many of these changes were likely linked to greater structural changes to the Mediterranean exchange network and the decline in interregional connectivity. However, Sicily was without doubt much more connected to this system than Italy, which was likely a key reason for its relative prosperity.

²⁵⁷ Cacciaguerra, Facella & Zambito 2015, p. 214.

²⁵⁸ Malfitana et al. (2014). Archeologia della Sicilia romana, tardoantica e medievale: focus e prospettive di ricerca su documenti, cultura materiale e paesaggi. In Malfitana, D. & Cacciaguerra, G. (eds.). *Archeologia classica in Sicilia e nel Mediterraneo. Didattica e ricerca nell'esperienza mista CNR e Università. Il contributo delle giovani generazioni. Un triennio di ricerche e di tesi universitarie* (pp. 287-301). Catania: Ricerche di archeologia classica e post-classica in Sicilia, pp. 297-98.

²⁵⁹ Arcifa. (2010). Nuove ipotesi a partire dalla rilettura dei dati archeologici: la Sicilia orientale. In Prigent, N. (ed.). *La Sicile de Byzance à l'Islam* (pp. 15-49). Paris: De Boccard.

²⁶⁰ “Esistono, infatti, indubbiamente degli elementi di continuità che vanno considerati insieme ai chiari segni di rottura con il passato romano.” Malfitana et al. 2014, p. 301.

²⁶¹ Nef & Prigent. (2006). Per una nuova storia dell'alto medioevo siciliano. *Storica*, nr. 35-36, pp. 16-17.

In Italy, the situation seems to have been marked by great regional differences, especially linked to the political map. The complexity of the economy of Byzantine Italy between the sixth and seventh centuries, as seen from the perspective of its archaeological markers, appears to be much greater than its Lombard counterpart. The alpine and sub-alpine regions, the regions furthest from the Mediterranean, were the first regions that experienced radical changes in commercial activity, and they were materially much simpler in the sixth and into the seventh century. Imported goods ceased and were replaced by rough local products.²⁶² This can be contrasted to Sicily where imported goods continued to arrive well into the seventh century, and where the local products were relatively high quality replicas that were even exported to parts of Italy.

It is important to recognize signs of continuity as well. This is especially evident in many of the larger cities and their hinterland still under Byzantine control in the sixth century. For instance, wares from the East and from North Africa continued to enter large parts of the peninsula, although to a lesser degree than before.²⁶³ This is apparent in Naples²⁶⁴ as well as in Rome.²⁶⁵ This indicates that some commercial networks were still functioning at the end of the sixth century in Italy, which would indicate some restoration after the Gothic War.²⁶⁶ Of course, these differences make it hard to generalize for all of Italy, but what we can say with relative certainty is that Italy was poorer and that there was less commercial activity than in Sicily. However, the continued flow of wares to Rome, and by extension to Sicily, was likely one key factor for the strong economic position of the island throughout the sixth century.

From the material evidence, there is no apparent sign of a sharp decline and demographic crisis in Sicily. The island maintained close relations to the Mediterranean exchange network with links to Italy, especially Rome, North Africa, Constantinople, and other parts of the empire. If

²⁶² Zanini 2021, p. 320.

²⁶³ Zanini 2010a, p. 49; Zanini. (2010b). Forma delle anfore e forme del commercio tardoantico: spunti per una riflessione. In Menchelli, S., Santoro, S., Pasquinucci, M. & Guiducci, G. (eds.). *LRCW3 Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and archaeometry. Comparison between western and eastern Mediterranean. Volume I* (pp. 139-148). Oxford: Archaeopress.; for an extensive overview, see: Zanini. (2003). *La ceramica bizantina in Italia tra VI e VIII secolo. Un sistema informativo territoriale per lo studio della distribuzione e del consumo* [Conference paper]. VIIe Congrès International sur la Céramique Médiévale en Méditerranée, Thessaloniki, pp. 381-394.

²⁶⁴ Arthur. (1998). Pottery in Naples and Northern Campania in the 6th and 7th Centuries. In Sagui, L. (ed.). *Ceramica in Italia: VI – VII secolo* (pp. 491-510). Firenze: Edizioni All’Insegna del Giglio.

²⁶⁵ Sagui. (1998). Il deposito della Crypta Balbi, una testimonianza imprevedibile sulla Roma del VII secolo. In Sagui, L. (ed.). *Ceramica in Italia: VI-VII secolo* (pp. 303-333). Rome: Edizioni All’Insegna del Giglio.

²⁶⁶ For a fuller discussion, see: Zanini 2010a, pp. 50-52.

anything, Sicily seemed to be flourishing compared to most of the regions in Italy. Sicily's central position in the Mediterranean exchange network and its link to Rome meant that the material culture was richer and that it had more opportunities to export and import goods. This could also mean that a big mortality event, the plague, would have been less visible in the economy.

Italy shows a much more variegated picture. Evidence suggests a differentiation between the commercial situation of Lombard Italy and Byzantine Italy, as well as a difference between the centres of power and the periphery. It is very likely that the commercial activity was one of the most important factors differentiating Sicily from great parts of Italy and indeed the West in general. The commercial activity was of course dependent on other factors such as the wider Mediterranean exchange network, political stability, and its links to Italy, Rome and the East. The plague was likely another factor that led to less commerce due to fewer people, which would likely mean that the overall amount of goods being transported declined. Following will be a brief consideration of the monetary situation to corroborate this overall picture.

5.2 The Monetary Situation

From Procopius, we know that Byzantine money came to Sicily already at the start of the conquest. For instance, Procopius writes that Belisarius entered Syracuse throwing money to the ecstatic crowd December 31, 535, the last day of his consulship.²⁶⁷ In fact, from coin finds, we can see a spike in 537. These likely arrived with the East Roman troops during the Gothic War and not from commerce. The number of coins that came to Sicily with the eastern troops might even be slightly underestimated due to the difficulties of determining with precision when a coin arrived in Sicily. A large number of the coins bearing the names of Anastasius I and Justin I, likely arrived with the troops of Justinian.²⁶⁸

It seems like the first phase of monetary supply was closely linked to the costs of war. The coins in Sicily from this period came from a wide range of places, although predominantly from the mint in Constantinople, but also, although to a far lesser degree, from other mints in the empire

²⁶⁷ Procopius, *Wars* 5.5.18. In Kaldellis (ed.) 2014, p. 263.

²⁶⁸ Prigent. (2012). La circulation monétaire en Sicile (VI^e-VII^e siècle). In Michaelides, D., Pergola, P. & Zanini E. (Ed.). *The Insular System of the Early Byzantine Mediterranean: Archaeology and History* (pp. 139-160). Oxford: BAR Publishing, pp. 142-44.

such as Tessalonica, Nicomedia, Antiochia, and Cizico.²⁶⁹ After the end of the Gothic War, bronze coins from Ravenna and Rome started to reach the island as the mints were reopened.²⁷⁰ Later, a more articulate monetary system linked to fiscal and economic priorities of the empire, was set in place. For instance, several mints were opened in Sicily during the third quarter of the sixth century.²⁷¹ The first one to open was the one in Catania in 582/3, and later one in Syracuse as well which would be very active in the seventh century and even into the ninth.²⁷² The monetary circulation in Sicily during this century would indicate a strong economy with many active trading relations as coins from the mints have been found in large parts of central and southern Italy and the Mediterranean world.

In Italy, the situation right after the Gothic War shows that there was first and foremost monetary visibility close to places of power. There is a strong documentation for monetary circulation in Ravenna and Rome, for instance, where there were active mints in the period.²⁷³ This division of monetary visibility was made even more pronounced with the Lombard invasion where it seemed to have followed political borders. There were also big differences between the Byzantine territories which would suggest that commercial activity was largely regionalized.²⁷⁴ Whereas commercial activity in Lombard Italy and northern regions seem to have declined drastically, others maintained a monetary circulation. In the exarchate, there was a stable ratio between gold and copper, which suggests a close integration between local demand and the purchasing power of the elite.²⁷⁵

Although monetary circulation in Italy seems to have been more variegated than in Sicily, we must also keep in mind that fewer people needed fewer coins. A decline in coin finds in many parts of Italy is therefore not necessarily evidence of economic decline in itself. Nonetheless, it

²⁶⁹ Guzzetta. (2010). La moneta nella Sicilia bizantina. In Congiu, M., Modeo, S. & Arnone, M. (eds.). *La Sicilia bizantina: storia, città e territorio* (pp. 169-188). Rome: Salvatore Sciascia Editore, p. 181.

²⁷⁰ Guzzetta 2010, p. 169-172; After 650, as the Byzantine Empire enters a phase of economic crisis, Sicily seems to become an autonomous monetary zone, using first and foremost locally minted coins. Prigent 2012, p. 139.

²⁷¹ Prigent 2012, pp. 142-44.

²⁷² Coins minted in Syracuse arrived in large parts of Italy, Croatia, Malta, Sardinia, the Balearic Islands, Greece, Crete, and Cherson between the seventh and ninth centuries. Morrisson. (1998). La Sicile byzantine: une lueur dans les siècles obscurs. *Quaderni di Numismatica e di Antichità Classiche*, vol. 27, pp. 310-315; Guzzetta 2010, p. 172.

²⁷³ Prigent 2021, pp. 331-32.

²⁷⁴ Arslan. (2008). Cultura monetaria e circolazione tra v e viii secolo in Italia. In Secondo, T. (ed.). *Atti delle settimane LVI – Città e campagna nei secoli altomedievali* (pp. 975-1005). Spoleto: Fondazione Centro italiano di studi sull'alto medioevo, pp. 993-94.

²⁷⁵ Tedesco. (2016). Exploring the Economy of Byzantine Italy. *The Journal of European Economic History*, vol. 45(2), p. 182.

seems likely that the decline in coins in the period happened due to the wars as political stability was vital for monetary circulation. This circulation was also important for fiscal structures. A great deal of coin circulation, about 50 % in the Byzantine empire, happened through the fiscal cycle.²⁷⁶ Less coin circulation therefore indicates a reduction of the fiscal system and economic activity in Italy. Sicily, due to its political stability, saw more monetary circulation than most parts of Italy during the period, and this would have positively reinforced commerce on the island. In Italy, on the other hand, the Gothic War and the Lombard invasion likely demonetized a great part of the peninsula, and in conjunction with the material evidence, it seems clear that there was a general decline in commercial activity.

²⁷⁶ Prigent 2021, pp. 346-47.

6 Climate

The sixth century saw dramatic climate change with the onset of the Late Antique Little Ice Age in 536, leading to a substantial drop in temperatures across the Northern Hemisphere and, on average, a wetter climate. This section will examine how climate change in the sixth century interacted with Sicily and Italy. Treating Italy as a uniform block when it comes to climate is too simplistic. Italy is a geographically varied region with major climatic differences; South Italy's climate is more similar to Sicily than it is to North Italy.²⁷⁷ Another problem is that the historic climate of Italy and Sicily is a young field that is ever expanding and changing. Therefore, three factors will mainly be considered in this section; firstly, the climatic tendencies of Sicily; secondly, the trend towards heightened precipitation in northern and central Italy and some primary sources that might give us some insight into how climate change might have exacerbated famines there during the Gothic War; thirdly, a general discussion of how we should understand the relation between climate and a changing society. We will start by examining Sicily.

An article from 2016 by Sadori et al. has studied the Lake Pergusa, close to Enna, in central Sicily. Two humid periods were found the last 2000 years, ca.450-750 AD and ca.1400-1800 AD. They link these two periods to intense agricultural use of the landscape and to “the impressive demographic and economic expansion visible during these periods.”²⁷⁸ I would argue against the view that we see an “impressive demographic and economic expansion” during fifth to eighth century Sicily. The evidence is more ambiguous and less straight forward with signs of continuity and prosperity, but also change and stagnation.²⁷⁹ Sicily is undoubtedly richer than the other Italian regions, but this does not automatically mean a demographic expansion.

Nevertheless, the data is interesting. The humid period coincides with a spike in cereal production in the area starting from the fifth century and lasting until c.720, evidenced from the pollen data from the lake with increased values of several Cerealia-types and rye. Rye has not

²⁷⁷ For a classification of Italy's climate zones, see: Fratianni & Acquavotta. (2017). The Climate of Italy. In Soldati, M. & Marchetti, M. (eds.). *Landscapes and Landforms of Italy* (pp. 29-38). Springer.

²⁷⁸ I suspect that the authors have equated intensive agricultural practices, found from the data, with a rise in population. This could, however, also be linked to a rise in exports. Sadori et al. (2016). A review of the environmental, historical and archaeological evidence. *Quaternary Science Reviews*, vol. 136, p. 173; Sicily is not the only place that is wetter during this period. Records from the Apuan Alps and northern Tuscany also show signs of a prominent wetter period during the sixth century. In fact, this might have been a trend in large parts of the Mediterranean. Giovanni et al. (2022). Insight into summer drought in southern Italy: palaeohydrological evolution of Lake Pergusa (Sicily) in the last 6700 years. *Journal of Quaternary Science*, vol. 37(7), p. 1290.

²⁷⁹ See chapter 4.2.

been found prior to this period around the lake, indicating that poorer soils were cultivated with this grain. Rye is resilient and can grow in less fertile lands and might have been used in the Late Antique period to increase cultivation due to the increase in demand for Sicilian grain. The favourable climate made this possible.²⁸⁰

Lake Pergusa is not the only site that shows evidence of an increase in cultivation in Sicily during Late Antiquity. The shrub vegetation in Gorgo Basso decreased in favour of an increase in cereal cultivation after 500. Similarly, an increase in cereal cultivation can be observed at Urio Quattrocchi starting around 400-500 and continuing beyond. The period 450-720 was also characterized by relatively high values for weed and ruderal plants in Sicily.²⁸¹ Weed and ruderal plants flourish in disturbed land, in this case likely a result of agriculture. High values for these weeds are therefore an indication of an increase in agricultural activity. This would indicate that the favourable climatic conditions could not only be found in central Sicily near Enna (the data from Lake Pergusa) but was widespread throughout the island.²⁸²

The climatic conditions, a moderately wetter climate from 450 to 700, was likely key to the spike in pollen data from cereal cultivation in this period. The fact that we do not see a clearer trend towards demographic expansion might consequentially be due to the offsetting effects of plague. This could also explain why Sicily showed clearer sign of resilience and even flourishing, despite demographic decline. Its connection to the Mediterranean exchange network, demand for Sicilian grain, and a favourable climate could all have contributed to a relatively prospering economy.²⁸³ However, one should be cautious before drawing such clear conclusions. These finds are interesting, but the chronologies involved are long, the data is limited, and the interaction between society and climate is not sufficiently understood.

²⁸⁰ Sadori et al. 2016, pp. 180-81.

²⁸¹ Sadori et al. 2016, pp. 180-81.

²⁸² The term “favourable climate” is of course not unproblematic. It is used here mainly to describe a favourable climate for cereal cultivation. When generalizing for the whole of Sicily, we also need to take account of topographic and regional differences. Nonetheless, the data does seem to indicate a favourable climate for cultivation in great parts of Sicily, thereby justifying this generalization.

²⁸³ This could also explain why the plague of the eighth century is described as especially devastating. Eighth century Sicily was likely much more vulnerable to demographic decline than its sixth century counterpart, especially when taking into consideration the end of the wet period in c.700. This period is followed by a less favourable and drier period. The pollen data also shows a decline in cereal cultivation in this period. All this, of course, should be understood in light of the Islamic conquest, changing Mediterranean exchange networks, and the demographic decline and material impoverishment of the period, and is worthy of a full thesis of its own. See Sadori et al. 2016, pp. 182-83; Arcifa 2021.

Sicily was not the only region that saw a wet period during the transition from Late Antiquity to the Early Middle Ages. Speleothem data from Central Italy (Apuan Alps) show a very wet period for the sixth century, likely linked to the North Atlantic Oscillation. The literary evidence from the period seem to support this with several flooding episodes and descriptions of “water miracles” in hagiographical accounts.²⁸⁴ In fact, the flooding of the Tiber might have been connected to the plague outbreak in the city in the subsequent year.²⁸⁵ These increased flood instances created local damage, but we should be careful of a catastrophic reading. There were also considerable flooding events during the imperial times, without this causing widespread societal changes.²⁸⁶ Nonetheless, the wetter climate clearly had a very different effect in central and northern Italy compared to Sicily and would likely not have created the same opportunities for agricultural expansion. Climate change certainly affected Italy, but it is very difficult to determine to what degree.

We do have some indications that the rapid cooling in 536 and the subsequent decades might have caused famines in central and northern Italy. In Tuscany and Emilia in 538, we hear of famines due to smaller harvests and no one to reap it. This could be a consequence of climatic conditions, but Procopius explains it as a result of war as people had not been able to plough the land.²⁸⁷ Food shortage across Liguria and Venetia is also reported in Cassiodorus letters 12.26.²⁸⁸ Another example is the Franks’ attempt to invade northern Italy in 539. Although the Franks defeated both the Goths and the Romans, the lack of provisions forced them to retreat. Procopius described that the land was empty of people, and that there was not enough food for the large number of troops. According to the account, at least one-third of the Franks perished.²⁸⁹ This happened before the onset of the plague, and we would therefore not expect to see a dramatic depopulation of the Italian countryside in these first years of the war.

²⁸⁴ Zanchetta et al. 2021.

²⁸⁵ See chapter 3.2.

²⁸⁶ Squatriti 2016, p. 400. There seems to have been a flood dominated regime in 100 BC to AD 200 and again in AD 450-700. Luterbacher et al. (2012). A Review of 2000 Years of Paleoclimatic Evidence in the Mediterranean. In Lionello, P. (ed.). *The Climate of the Mediterranean Region* (pp. 87-185). Elsevier, p. 110.

²⁸⁷ Procopius, *Wars* 6.20.15-19. In Kaldellis (ed.) 2014, p. 359.

²⁸⁸ “Now the venerable [bishop] Augustine, a man distinguished by both his name and his way of life, has come, and has made a lamentable report to me of the needs of the Veneti. Neither wine, nor com, nor millet has been produced among them; and he declares that the fortunes of the provincials have reached such a state of penury that they can hardly endure the risks of life unless the royal pity should take thought for them with its usual humanity.” Cassiodorus, *Variae* XII.26, In Barnish (ed.) 1992, p. 181.

²⁸⁹ Procopius, *Wars* 6.25.16-18. In Kaldellis (ed.) 2014, p. 370.

This might indicate that the war had a very disrupting effect on the northern and central countryside of Italy, severely disrupting harvests. Whether this was aggravated by climatic factors is very difficult to determine, but it seems likely with what we know about the onset of the Late Antique Little Ice Age and the Dust Veil event in 536.²⁹⁰ Furthermore, if we look at Stathakopoulos's quantification of the material for famines in the Mediterranean world, we see a spike in recorded famines (37) in the sixth century, possibly linked to the Late Antique Little Ice Age. However, this is only two more than the 35 that were recorded in the fifth, but considerably more than the 19 and 12 recorded in the subsequent two centuries.²⁹¹ These numbers should be treated with caution. As discussed earlier, the evidence from this period is very fragmented and quantifying it will seldom give a representative result. Fewer subsistence crises after the sixth century might simply be due to them not having been recorded.

Although we know that large parts of Europe and the Mediterranean world saw relatively dramatic climate change in the sixth century with a drop in temperatures and a rise in precipitation, it is difficult to precisely determine how this affected societies and economies. From the evidence and discussions in this section, a general conclusion is that the climate seems to have given rise to agricultural opportunities and even expansion in Sicily. In central and northern Italy, it is more difficult to determine, but the rise in rye and instances of famine might indicate a less favourable climate, although the societies seem to have adapted relatively well. Southern Italy would have been affected similarly to Sicily, illustrating that climate change alone cannot explain these changes. However, it was likely a factor that positively reinforced agricultural output in Sicily, in combination with economic incentives and political stability.

²⁹⁰ See the parts about the Late Antique Little Ice Age and Dust Veil event in chapter 2.3.

²⁹¹ Stathakopoulos 2004, pp. 23-24.

7 Conclusion

Let us go back to the research question that has guided this thesis: Why did Sicily develop differently to Italy during the sixth century? This is a very complex question that involves a relatively long time period, geographically diverse regions, and many potential factors. The traditional explanation for Italy's drastic change is warfare due to the Gothic War and Lombard invasion. They were substantial political events that seriously disrupted many structures in Italy, but it is difficult to pin down with precision their consequences on the peninsula. Contemporaries acknowledged their devastating effects, and historians also argue that they were substantial events.²⁹² This thesis, based on a historiographical analysis, updated secondary literature, and primary sources, has argued that the transition from Late Antiquity to the Early Middle Ages was marked by very many factors working in conjunction with each other. This has problematized some of the aspects of the traditional view.

Let us start by considering the wars in Italy. As discussed in chapter 4.1, they caused political instability that likely disrupted commercial links and monetary circulation, ultimately leading to weaker economic incentives and material simplification. The political fragmentation with the Lombard invasion meant that a great part of Italy, most notably the Lombard parts, was largely cut off from the Mediterranean exchange network, leading to less interregional commerce. This happened first and most drastically in the northern regions furthest from the Mediterranean.²⁹³ Furthermore, direct consequences of the war were important, evidenced by the instances of famine during the war.²⁹⁴ Warfare also led to the destruction of several large cities, most notably Rome, weakening demands for Italian products.

Sicily was clearly much less affected by the Gothic War and was spared from the Lombard invasion. That meant more continuity in administrative structures and more stability that made possible the continuation of commerce and fiscal structures.²⁹⁵ In fact, the wars might even have benefitted the island due to its integration into the Eastern Empire and export possibilities due to the war, although changes to commercial networks would also have affected Sicily. Furthermore, the island was spared from the direct consequences of the war linked to troop movements,

²⁹² See chapter 2.2.

²⁹³ See chapter 5.

²⁹⁴ See the discussion in chapter 6.

²⁹⁵ See chapter 4.3 and chapter 5.

instances of famine, and destructions of buildings and towns.²⁹⁶ Warfare was therefore likely one of the main reasons that Italy saw a more abrupt end to Late Antiquity than Sicily.

However, warfare was likely not the only reason for the differentiation between Sicily and Italy, and there are several points to consider. Firstly, ancient warfare was limited in scale and there is surprisingly a lot of evidence for continuity in settlement structures in Italy from the period.²⁹⁷ Secondly, we would expect commercial networks to have been restored after the end of the war, but this did not happen, which could suggest larger structural changes in the Mediterranean exchange network and Italy's position in that network. Thirdly, the consequences of war interacted with other factors as well. For example, the instances of famine in central and northern Italy registered in 537, 538 and 539 might have been aggravated by the changing climate. A colder and wetter climate, clearly evidences from the historic data, could have negatively affected crops those years.²⁹⁸

Warfare alone cannot sufficiently explain what happened in Italy during the sixth century. A complex interaction of several factors eventually led to negative feed-back loops. The end of the western empire, the decline of Rome, and changes to exchange networks had already drastically changed both Sicily and Italy during the fifth century, but these affected both places and cannot explain their differentiation. In the sixth century, there were three new important developments: warfare, climate change (the Late Antique Little Ice Age), and the onset of the plague. These did not affect Italy and Sicily in the same way. Climate change affected very large portions of the Northern Hemisphere, but with big regional differences, likely being a positive element for Sicily and South Italy, whereas it possibly led to famine and floods in central and northern Italy and aggravated some of the consequences of warfare.

Why did Sicily develop differently than Italy? The most important factors seem to be that it was richer, it had a higher agricultural potential, it had better access to the Mediterranean exchange network, and it maintained administrative and landowning structures that favoured exportation.²⁹⁹ This likely created economic incentives, but these were also reliant on external factors linked to the Mediterranean exchange network. Sicily's position in an insular system in

²⁹⁶ See chapter 4.1.

²⁹⁷ See the discussion in chapter 4.2.

²⁹⁸ See chapter 6.

²⁹⁹ See discussion in chapter 4, 5, and 6.

the Mediterranean exchange network made the island more prosperous during the sixth century and beyond, even when other regions showed signs of decline.³⁰⁰ The evidence for growth in the countryside can likely also be attributed to these economic factors.³⁰¹ It is difficult to say with accuracy what role the climate had in all this, but it seems to have been favourable in Sicily, creating opportunities for agricultural expansion.³⁰² Political stability meant that economic incentives endured throughout the sixth century.

In chapter three, the spread and consequences of the Justinianic Plague were discussed. From the literary sources, demographic estimates in Italy in the period, what we know about the plague in other places, and aDNA finds in various places in Europe, we can infer that the plague likely had a wide dissemination and was a great mortality event. The extent of it and its consequences are very difficult to estimate, but it seems to have been an epoch defining event that disrupted Early Medieval societies and forced population numbers down for centuries. Archaeological evidence from the Mediterranean is ambiguous, but several recent studies have given us a better understanding of its possible consequences.³⁰³

We know that it came to Italy and that it likely came to Sicily too. This paper is, to my knowledge, the first to scrutinize the evidence for the dissemination of plague to Sicily during the sixth century. Based on the analysis of Pseudo-Zacharia, the evidence from epigraphs, the pattern of dissemination of plague, Sicily's link in the commerce networks of the Mediterranean, and the spread to nearby regions, this paper has argued that the plague came to Sicily various times during the sixth century.³⁰⁴ Furthermore, plague likely affected demographics in both Italy and Sicily, but it had a much more destabilising effect on the peninsula as it likely aggravated many of the consequences of warfare. Recurrent outbreaks of plague would also have been disruptive to Sicily, but the island was likely more resilient to the demographic decline than Italy.

The central argument of this thesis is that political instability caused by warfare in combination with large death tolls due to the plague was one of the main reasons for Italy's decline in the sixth century. Economic incentives were weakened due to less people which led to less demand.

³⁰⁰ See chapter 5.1.

³⁰¹ See chapter 4.2.

³⁰² See chapter 6.

³⁰³ See chapter 2.1.

³⁰⁴ See chapter 3.

Furthermore, the plague spread widely, which meant that regions in the Mediterranean and Europe would see similar demographic decline. This would likely have led to changes to Mediterranean commercial networks with a decline in overall trade. Plague in combination with warfare is a tantalizing explanation for why the disruptive effects of the Gothic War and Lombard invasion became so pronounced and enduring. Sicily was less affected by the plague due to economic and administrative structures, and political stability, making it more resilient to the demographic decline caused by plague.

There are several possibilities for further research. Firstly, these conclusions are based on generalizations, especially when considering Italy. It is necessary to get a fuller picture of the regional and local differences and an analysis considering three or four regions would likely lead to further insights into these very complex processes. Secondly, this analysis assumes that the plague outbreak was a substantial mortality event, which is grounded in the current evidence, but it is very difficult to determine geographical dissemination and the demographic consequences of the plague. Future research and insights into this aspect will likely give us a fuller picture of how it might have interacted with other factors. I would suggest that a comparative analysis in the East would be highly interesting, looking at why some regions in Syria seem to have been flourishing. This could lead to a better understanding of why there was no apparent demographic decline in these regions, although the literary evidence for plague outbreaks is very strong there. Thirdly, the research and evidence on climate is likely the field that will develop the most in the near future based on current research trends. Climate has only been given a limited role in this thesis, and I would not be surprised if it deserves much more attention.

The findings of this paper can be a framework for future comparative analyses in Italy, especially by looking at these same factors but including more detailed analyses of other Italian regions too. A better understanding of economic changes, recent studies on climate change, and new evidence on plague has led to many research opportunities to better understand regional variances. This can also potentially lead to a better understanding of how plague, climate, and warfare affected different regions in the transition from Late Antiquity to the Early Middle Ages. The findings from this thesis suggests that the link between warfare and plague offers an especially exciting avenue for further research on sixth century Italy.

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