

Living Trophies
Trees, Triumphs, and the Subjugation of Nature in
Early Imperial Rome

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For Brian, Derek, and Geoffery.

ABSTRACT

The aim of this thesis is to examine the cultural significance of trees in Rome and its environs, with a focus on the early Principate. While arboreal studies are prominent in studies of the pre- and post-classical periods, discussion of trees in the Greco-Roman world have been concentrated primarily in a religious context. The thesis exploits the approaches established by post-classical history, geography, and classical studies to explore the role of trees outside of a religious context, focussing primarily on the role of trees as living natural monuments of the city's triumphal past.

Chapter One presents an overview of Roman attitudes to trees in Rome, from the origins of trees and their role in the establishment of civilisation to Roman interactions with them in the city. The second chapter focusses in from the broad overview offered in Chapter One and examines the discussion of trees in Pliny's *Natural History*, and how that discussion is influenced by Pliny's broader narrative purpose. Chapter Three continues the focussed discussion, and considers trees in the context of triumphal Trajanic architecture, which commemorates victories over heavily-forested territories. Chapter Four discusses the role of trees in the triumphal procession, and the use of trees and their constituent parts to communicate messages of conquest, fertility, and piety. The final chapter explores the key challenges of natural monuments, from their vulnerability to human intervention to their changing and mortal nature, and the thesis closes with a discussion of how the death of such a monument is approached in three examples of monumental trees. Through these chapters, this thesis aims to expose a nuanced relationship with trees in the Roman world, and to place this relationship in the context of the politics of victory and empire building that dominated the collapse of the Republic and rise of the Principate.

CONTENTS

INTRODUCTION.....	1
1. SCOPE AND SIGNIFICANCE	1
2. RESEARCH CONTEXT	6
2.1. Utility	6
2.2. Religion	9
2.3. Landscape and Gardens.....	13
2.4. War and Empire	17
2.5. Post-Classical Trees and Monumentality	18
3. RESEARCH QUESTIONS	22
4. METHODOLOGY	24
4.1. The <i>Roman Trees Database</i>	27
4.2. Case-Study Approach.....	33
4.3. Dealing with Religion	34
5. THESIS OUTLINE	36
1. ROME’S TREES.....	40
1.1. ORIGINS	43
1.2. CONTAINMENT	49
1.3. INTERACTION	54
1.3.1. Religious Interactions with the Trees	55
1.3.2. Imperial Interactions with Trees	60
1.3.3. Social Interactions with Trees	66
1.4. CONCLUDING REMARKS	68
2. PLINY’S TREES.....	70
2.1. STRUCTURE.....	72
2.2. USING TREES	77
2.3. ABUSING TREES	81
2.4. PLINY AND ROME’S ANCIENT TREES	87
2.5. THE CYPRESS TREE.....	93
2.6. CONCLUDING REMARKS	99
3. TRAJAN’S TREES.....	102
3.1. IDENTIFICATION	105
3.2. FELLING TREES ON TRAJAN’S COLUMN.....	111
3.3. TRAJAN AND DECEBALUS	117

3.4. CONCLUDING REMARKS	126
4. TRIUMPHAL TREES.....	129
4.1. TRIUMPHAL IMPORTS.....	131
4.2. CROWNS.....	138
4.3. <i>TROPHAEA</i>	150
4.4. CONCLUDING REMARKS	159
5. MORTAL AND MONUMENTAL TREES	162
5.1. VIOLATION.....	164
5.2. REMOVAL.....	168
5.3. DEATH	171
5.4. CONCLUDING REMARKS	179
CONCLUSIONS	182
FUTURE DIRECTIONS	189
APPENDIX 1 – THE <i>ROMAN TREES DATABASE</i>	191
APPENDIX 2 – CATEGORISED LIST OF CONTENTS FOR BOOKS TWELVE TO SEVENTEEN OF PLINY’S <i>NATURAL HISTORY</i>	266
BIBLIOGRAPHY	278

LIST OF FIGURES AND TABLES

Figure 1: Graph showing the frequency of Latin terms in the <i>RTD</i> (as of 25-June-2018).	29
Figure 2: Graph showing the frequency of authors in the <i>RTD</i> (as of 25-June-2018).	31
Figure 3: Graph showing the frequency of topics in the <i>RTD</i> (as of 25-June-2018).	32
Figure 4: A synchronic overview of Rome's trees, superimposed over the similarly synchronic overview proposed by Larmour and Spencer (2007a, fig. 1).	39
Figure 5: Painting from Fronto's house, Pompeii, Reg.V.4.a.	67
Figure 6: Leaf types on Trajan's Column. Source: Stoiculescu (1985) figs 4 and 5.	106
Figure 7: Scenes XV – XVI, Trajan's Column. Source: Cichorius (1896) plates XIII and XIV.	112
Figure 8: The <i>Cbl</i> relief of the Arch of Trajan at Beneventum. Source: Rotili (1972) plate 72.....	114
Figure 9: The <i>Ctr</i> relief of the Arch of Trajan at Beneventum. Source: Rotili (1972) plate 120.....	114
Figure 10: Scene XXIV, Trajan's Column. Source: Cichorius (1896) plate XIX.	118
Figure 11: Scene CXLV, Trajan's Column. Source: Cichorius (1896) plate CVI.	121
Figure 12: Scene CXXXV, Trajan's Column. Source: Cichorius (1896) plate XCIX.	124
Figure 13: Scene CXXXIX, Trajan's Column. Source: Cichorius (1896) plate CII.	124
Figure 14: Scene LII, Trajan's Column. Source: Cichorius (1896) plates XXXVII; XXXVIII.	125
Figure 15: Oil painting of the (now eroded) fresco from Pompeii Regio VII.9.47, House of Mars and Venus. Painting by F.Morelli (1800-30). Image source: http://www.culturaitalia.it/	133
Figure 16: Front view of the compital shrine, Forum Boarium, Rome. Photo taken by Andrew Fox (26-Apr-2016).	142
Figure 17: Detail of oak wreath on compital shrine, Forum Boarium, Rome. Photo taken by Andrew Fox (26-Apr-2016).	142
Figure 18: A laurel wreath, on the head of a soldier directly below Titus on the northern internal frieze of the Arch of Titus (post 81 CE). Photo taken by Andrew Fox (02-May- 2016).	145
Figure 19: Laurel wreath around the base of Trajan's Column. Photo taken by Andrew Fox (27-Apr-2016).	145

Figure 20: The fruit of the <i>Laurus nobilis</i> , Isola Sacra, Portus. Photo taken by Andrew Fox (12-May-2016).....	146
Figure 21: Fragment of frieze with laurel branches. Augustan Age (First Century BCE - First Century CE). Church of Santa Maria Antiqua, atrium. Photo taken by Andrew Fox (16-May-2016).....	146
Figure 22: Frieze-architrave belonging to the <i>cella</i> of the Temple of Apollo Sosianus. Musei Capitolini Montemartini. MC2776. Photo taken by Andrew Fox (20-May-2016).....	151
Figure 23: <i>Trophaea</i> on Trajan's Column, Scene LXXVIII. Source: Cichorius (1896) plate LVII.....	151
Figure 24: Attic red figure <i>krater</i> , 5th Century BCE, housed in the Louvré, Paris (G 496). 152	
Figure 25: Military Trophy. Augustan period. Musei Capitolini Montemartini. MC0042. Photo taken by Andrew Fox (20-May-2016).....	154
Figure 26: The Lupercal relief from the western facade of the Ara Pacis. Source: Rossini (2006) 35.....	175
Figure 27: The Scroll of Fire, Martyr's Forest, Israel. Photo by Andrew Fox (25-Feb-2018).	183
Figure 28: The reverse of the Scroll of Fire, Martyr's Forest, Israel. Photo by Andrew Fox (25-Feb-2018).	183
Table 1: Brief summary of the content of Books 12-17 of Pliny's <i>Natural History</i>	73
Table 2: The ancient trees catalogued by Pliny the Elder in <i>Natural History</i> 16.234-40.....	88
Table 3: The trees on the Arch of Trajan at Beneventum.....	108
Table 4: The trees on the Great Trajanic Frieze.	108

Introduction

1. Scope and Significance

Several years before Rome was founded, two infant twins were washed up on the banks of the Tiber, into the waiting roots of a fig tree. This tree then played the part of protector to the twins as they suckled at the she-wolf, before they were rescued by the shepherd Faustulus and raised to found Rome. The tree remained a fixture of the Lupercal, a remnant of the scene and a monument of the rescue, and was known as the *ficus Ruminalis*. Centuries after the founding of Rome, the tree was moved, and Pliny tells us of its new location:

A fig tree in the Forum itself, in the Comitium at Rome, is cared for like it is sacred, from the lightning-struck things buried there, and more still because of the memory of that tree under which the nurse to Romulus and Remus first protected the founders of the empire in the Lupercal. The tree has been called the Ruminal, since under it, the infants were found suckling the *rumis* of the wolf (which we now call the *mamma*) – a miracle depicted in bronze nearby, as if it had crossed the forum of its own accord while Navius took the omens. And it is not without some ill-omen that the tree withers, and is then, by the care of the priests, replanted.¹

This account, from the *Natural History*, is among the last references to the tree that sheltered Rome's founders in Latin literature, and is our most detailed account of a tree which was used as a part of Rome's monumental cityscape throughout the city's lifetime. The tree of Rome is treated as a monument to the city's founding, and its surroundings bore a similar association: the Ogulnii brothers set up a statue of the she-wolf and the founders of the city at the *ficus Ruminalis* (*ad ficum Ruminalem*) in 296 BCE.² The tree lives alongside the city, and its mortality is treated as a consequence of the city's ebbs and flows in fortune.

Trees in the early Roman empire were undergoing a transformation. Prior to Lucullus' war in Pontus (73-67 BCE), they had been treated as items in the landscape. Greek attention to trees, as identified by Meiggs (1982), had been primarily practical, and Roman engagement with trees in the early Republic appeared to take a similar approach, from the broad scope of Cato's *De agricultura* to Sisenna's specific account of a large *ilex* tree, noted for its broad coverage.³ This all changed when Lucullus imported the cherry tree, or *cerasus*, from Pontus, and

¹ Plin. *HN* 15.77. All translations of Greek and Latin are my own.

² Livy 10.23.12.

³ Sisenna, *FRHist* F8.

displayed it on his estate alongside his spoils from the war. After Lucullus' import of the cherry, trees became a commodity of conquest in the Roman empire.⁴ Trees, once imported and exhibited, are likely to have been displayed and incorporated into the Roman cityscape like foreign statues. As they grew alongside the artwork, in manubial projects designed to house *spolia*, such as the Templum Pacis and the Porticus Pompeiana, the trees became a part of Rome's cosmopolis, and advertised the extent of the empire in a multi-cultural city.

The use of trees as *spolia*, which continued into the Principate after Lucullus' import, and had a role in triumphal processions following Pompey's display of the ebony, works within a tradition of using nature as a commodity in war and peace across Europe, and as an element that exists to be subdued. Pliny identifies a Germanic tradition of presenting grass to conquerors as a sign of total surrender.⁵ Similarly, the horticultural activities of Eastern rulers act as a metaphor for their rule, and are evident in a coded message sent from Thrasybalus to Periander, and reported by Herodotus.⁶ In Herodotus' account, Thrasybalus responds to an emissary from Periander by removing the tallest ears of corn in his field, and Periander understands this to be a direction to execute the foremost men in his city. This story, which is adapted for Tarquinius Superbus in the accounts of Livy and Dionysius, suggests a long-standing representative relationship between the natural world and power.⁷

Trees had a number of uses throughout the city. In some contexts, trees are used to represent a conquered land, although how long they remain a foreign, triumphal import is unclear. In other contexts, trees functioned as landmarks, memorials of events on the site, as in the case of the *figus Ruminalis*, or meeting points, geographical placeholders. In these functions, trees formed a part of a subjugated natural world and were manipulated to communicate particular messages. This subjugation and control of nature was a key part of Roman engagement with the world around them, as the empire sought to control not just the people within it, but also the land itself.

The exertion of control and the process of subjugating the world began on the Roman estate, and is found clearly expressed by Statius, in the *Silvae*:

Nature has favoured these places, in others she has ceded, conquered by her worshipper (*victa colenti*), and she is softened (*mansuevit*) into unfamiliar, docile

⁴ Östenberg (2009) 186-8.

⁵ Plin. *HN* 22.8.

⁶ Totelin (2012); Hdt. 5.92.

⁷ Livy 1.54; Dion. Hal. *Ant. Rom.* 4.56.1-3. Dionysius cites Periander and Thrasybalus as direct influences on Superbus' actions in the poppy field.

ways. Here, there was a mountain, where now you see plains; and here was alight with sun, where now you enter a building; where now you see groves on slopes, there was not even earth: the owner has tamed it (*domuit possessor*), and the ground rejoices as he shapes the rocks and expels them, following his lead. Now, look to the cliffs, submitting to the yoke (*iugum discentia*), the buildings as they grow, and the mountain, ordered to retreat. Now, let the hand of Methymna's prophet, the lyre of Thebes, and the glory of the Getic plectrum embolden you: and may you move rocks too, and may lofty forests follow you.⁸

This passage describes the villa of Pollius Felix, a friend of the poet, at Surrentum, and is notable for its use of language indicative of conquest and taming, even in the context of creating groves, and bringing life to a seemingly barren landscape. Roman relationships with nature are typically aggressive, and Statius' account of Pollius' conquest of his surroundings builds upon a Hesiodic tradition of land management and farming as a noble form of warfare, which had been adapted for Rome by Vergil, in the *Georgics*.⁹ Gale explores the idea of the farmer as a general, with the land acting as both his ally and his enemy.¹⁰ A further Greek precedent, this time from Homer, is proposed by Gale. She draws a comparison between the farmer of the *Georgics* and Achilles at the height of his rage, following the death of Patroclus, as he battles the Scamander river.¹¹ The use of warfare imagery in descriptions of agriculture is also common in horticulture, and the gardens of eastern kings are compared to their kingdoms by Theophrastus, among others. These gardens are considered metaphors for the kingdoms of their owners, and their control over it. Totelin (2012) argues that if a garden is left neglected, as Attalus III's is, it can be read as a shorthand for the wholesale neglect of his kingdom, while the control of Cyrus the Younger's garden, epitomised by the well-ordered trees, similar to the avenues of plane trees in the much later Porticus Pompeiana, is symptomatic of a well-ordered kingdom.¹²

Now we have established a Greek precedent to the relationship between gardens and kingdoms, I will move to explore Roman moral discourses on gardening, beginning with Seneca. In his *Controversiae*, Seneca challenges the levelling of forests and the alteration of nature in

⁸ Stat. *Silv.* 2.2.52-62.

⁹ See Bradley (1969) for further on the Augustan links between farming and warfare, alongside the links to Hesiodic tradition. Also see Hardie (1994, 192), Horsfall (1971, 112), and Dickie (1985, 189-90).

¹⁰ Gale (2000) 252-9. Gale focusses on Verg. *G.* 1.95-105 in this section of her monograph.

¹¹ Gale (2000) 253-4, citing Hom. *Il.* 21.257-62.

¹² Just. *Epit.* 36.4.3; cf. Xen. *Oec.* 4.21-2.

general.¹³ In this passage, he advises that it is the hallmark not only of a tyrant, but also of luxury, the traditional chief evil of Seneca's philosophy. While the Stoic philosopher addresses the exploitation of nature in the creation of objects, he also comments on the imitation of nature by rich men, an imitation found in Pollius' country estate: 'They [rich men] even imitate mountains and woods in their decaying homes and in the gloom and the smoke they hide green fields, seas and rivers.'¹⁴ Seneca goes on, in the same section, to describe the 'scorn of nature' (*fastidio rerum naturae*) shown by the wealthy and makes it clear that the artifice of nature created by the wealthy is an abhorrence.¹⁵

Outside of the moralising of philosophers, the subjugation of nature in the Roman world is laudable and the difficulty of the conquered terrain corresponds to the distinction of the conquest. In Velleius Paterculus' description of the early portion of the wars in Ilyria, the territory of Dalmatia is highlighted for 'the nature of the *situs* and its numerous rivers'.¹⁶ Velleius' use of a topographical description, highlighted by the use of *situs*, is considered by Woodman to indicate the alienness and the difficulty of the terrain, aspects which are commonly used to suggest a more noble conquest.¹⁷ In Lucan's *Bellum civile*, to use Woodman's example, the Phocaean soldiers at Massilia offer to join Caesar, but only if he is seeking triumphs in 'unknown lands'.¹⁸ As both Newlands (in her note on the Statius passage above) and Woodman observe, this is a typical feature of panegyric poetry, and both point to examples of such panegyric in Greek and Latin literature.¹⁹

The scale of Pollius' conquest is comparable to that of a military conqueror's, and while mountains fall before Trajan as he tames the foreign landscape of Dacia in Pliny's *Panegyricus*, so too does Statius have Pollius level a mountain to create plains and grow trees where there had not even been earth before.²⁰ Nature, in this context, is able to be manipulated, and here the dual metaphor of the farmer-general comes into play once more. In order for the farmer-general to have nature as both a functioning ally and an enemy, nature itself must be able to be

¹³ Sen. *Controv.* 2.1.12-13.

¹⁴ Sen. *Controv.* 2.1.13.

¹⁵ Purcell (1987, 190-5) discusses this passage, and the negative opinions of Roman philosophers when they consider the adaptation of the landscape, drawing on negative *exempla* from Xerxes to Pliny the Younger. Nisbet and Hubbard (1970, 303) also examine the arrogance of the rich man who moves the sea with his lictors, in the context of Hor. *Carm.* 2.18.21.

¹⁶ Vell. Pat. 2.96.3.

¹⁷ Woodman (1977) 107.

¹⁸ Luc. *Bell. civ.* 3.310.

¹⁹ Woodman (1977) 107; Newlands (2011) 134.

²⁰ Plin. *Pan.* 16.5.

taught to obey.²¹ In this respect, again, the ostensibly public and private acts of conquest and estate management are combined. This is unsurprising for Newlands, who suggests that ‘estate management provides a blueprint for self-governance’ and is in line with recent discussion regarding the fluidity of any clear definitions of public and private spaces in Rome.²²

While trees operate in both public and private spaces, this thesis will address their role primarily in Rome’s public spaces in the late Republic and the early Principate, a period chosen to frame the two incidents of triumphal displays of trees recorded by Pliny (of Pompey in 61 BCE and Vespasian and Titus in 71 CE),²³ and to provide some room to contextualise the first import, and consider the continued legacy of arboreal imports. Evidence from multiple periods will be placed against each other to demonstrate the similarities and the differences between approaches, taking examples from historians of the late Republic and early Principate, discussing the usage of trees in Rome’s mytho-historical past, and comparing it to contemporary depictions of similar motifs. Through placing different pieces of evidence against each other, I aim to provide a continuity to treatments of trees that would not be offered if a narrower data-set was used, whether in terms of media or era.

As discussed above, trees within the period this thesis is concerned with had recently started to be exploited in the role as *spolia*, and as representations of places or events. In public spaces, these trees are semi-permanent fixtures in a time when Rome’s space was at a premium, and when Augustus, through his building projects, was adapting Rome’s cityscape. In this adaptation some monuments were re-distributed or removed, and the *figus Ruminalis*, now a decaying totem on the Palatine, found itself renewed and remodelled in the Comitium, and new positioning brought with it a new, invigorated status. For other trees, however, their position was preserved, and the plane trees that lined the Porticus Pompeiana remained, offering shade to Martial almost two centuries after the complex was first conceived. While examining the role of these trees in the public spaces of the Principate, this thesis will also explore how the trees came to Rome, whether they arrived as a commodity of conquest, displayed as *spolia* or an object of intrigue in the estates and complexes of triumphant generals, or if they acquired a status in the collective memory of the city following particular events.²⁴

²¹ Gale (2000) 255-7. Keith (2000, 36-64) explores the gender dynamics of the subjugation of nature, with the male exerting control over the female. This, Keith argues, then seeps outside of the natural world, and into Roman politics.

²² Newlands (2011) 134; Russell (2016) 8-12.

²³ Plin. *HN* 12.111.

²⁴ In this way, they would act in a similar fashion to the *lieux de mémoire* described by Nora (1989).

Trees occupy a special place in several cultures. Their lifespan is beyond that of a human, and they outlast human memory. They act as a visible, rooted point of reference in a changing landscape, often as tall as a building, and taller than a human for the majority of its life. The branches, which offer shade and sustaining fruit, spread over a set area, and protect the space underneath from the sun and the rain. Under the ground, the roots of a tree balance the protection of the branches with the potential for destruction, pushing through the earth, sometimes breaking the surface, disrupting buildings, and establishing the tree's large sphere of influence in the world, visible and invisible. Throughout its life, a tree provides a variety of produce, most commonly timber and fruit, and its long life encourages the appropriation of it as a symbol, religious or otherwise, in the landscape.

2. Research Context

This thesis crosses a number of areas within modern scholarship that address the natural world, and draws upon some key influences from non-classical scholarship to build an approach to the trees of the Roman world that explores their role as landmarks in the city. Prior to this thesis, engagement with the natural world, and the arboreal elements within it, have comprised focussed discussions of utility, religion, landscape and gardens, and war and empire. These discussions are supplemented by studies of trees in post-medieval England, and this thesis will draw on a cross-disciplinary methodology, approaching the social and cultural functions of trees as key aspects of this thesis. To do this effectively, I will assess earlier scholarship engaging with trees, starting with the theme of 'utility', the most obvious context for the relationship between trees and humanity.

2.1. Utility

In the highly influential *Environmental Problems of the Greek and Roman World* (rev. edn 2014), Hughes takes the approach that the modern western world inherited an 'impoverished environment' and attempted to flourish in it.²⁵ While Hughes' thrust is to discuss a negative human impact on the environment in the ancient world, he does not blame industrial progress for deforestation in the Roman period, preferring to focus exclusively on the impact of agricultural advancement on the environment.²⁶ This assertion follows one made by Meiggs, in *Trees and Timber in the Ancient Mediterranean World* (1982), that 'where plains were restricted it was natural for agriculture to move into the hills.' To illustrate this point, Meiggs

²⁵ Hughes (2014) 235.

²⁶ Hughes (2014) 226-8.

directs his readers to a passage of Lucretius, which states much the same thing.²⁷ However, Meiggs takes a more pragmatic approach than Hughes, and examines the total cost that agriculture is likely to have had in ancient deforestation, coming to the conclusion that it would be minimal. By placing the discussion of deforestation within a monograph on the timber trade, he invites us to consider a potential other cause of deforestation – the utility of trees, and their timber.

Meiggs approaches the trees of the ancient world as a commodity. They were exploited for their timber, and this forms the basis of his monograph. He takes on a number of disparate topics, from a number of regions and eras, building upon his own broad experience of the ancient world.²⁸ This broad approach to evidence gathering in arboreal studies has remained consistent in modern approaches, and this is apparent in Rich's recent work (2017) on cedar forests and the use of cedar in ship-building, which employs material from a range of genres and regions, as well as expanding discussion to different eras. Throughout Meiggs' monograph, the breadth of his evidence is clear from the first chapter, which provides a survey of how widely dispersed the source material is, and of potential conflicts that arise, particularly when dealing with multiple languages, and authors who may not have been experts in the fields they wrote about. While the monograph lacks a continuous argument – Meiggs intended each chapter to be read as self-contained pieces, but with some inter-dependency – there remains a continuity in his approach.²⁹ As has been stated already, the trees are examined as a resource, and their social and cultural value is rarely exploited, their financial value being taken as more important. This provides a useful basis for the appreciation of trees in the Roman world, displaying to a reader the number of uses to which a tree could be put, and reminding any reader that the writers of the ancient world will have been aware of the benefits of particular types of timber. However, Meiggs is careful to remind his readers of other associations, and in his chapter on farms, parks, and gardens, he presents the use of a garden that is most relevant to his practical focus: its potential for income, before turning to discuss more luxurious, less practical gardens, which came to be used as leisure spaces with formulaic, impractical designs. Here, he draws on a variety of evidence to assess that the pine tree Vergil identifies as being

²⁷ Meiggs (1982) 372, citing Lucr. 5.1370-1. Later, at 374, Meiggs also reminds his readers of Tertullian's comment that 'woods have given way to the plough' (Tert. *De anim.* 30.3).

²⁸ Meiggs (1982) 1-3. Meiggs memorably recounts his journey to trees in the opening pages of his monograph, and reflects on the movement away from 'the mainstream of Roman history' (he had already produced works on Roman Ostia (1960) and the Athenian empire (1972)) so as to 'luxuriate in a comparatively untrodden field', specifically the timber trade.

²⁹ Meiggs (1982) 4.

fairest in the garden is the *Pinus pinea*, and it is only through the combination of approaches, and the consultation of multiple sources that Meiggs is able to make this judgement, not based on the practical, but on the aesthetic value of the tree, and its role in poetry.³⁰

In the opening chapter of his monograph, Meiggs identifies the range of evidence that he intends to draw on to answer questions surrounding the timber of the ancient world. This evidence, he tells us, comes from a wide variety of sources, and it is only through the combination of these sources that a complete picture can be seen. He uses the expected agricultural manuals of Columella, Cato, and Varro, alongside Pliny's *Natural History* and Theophrastus' *History of Plants*, but combines these with records of timber purchases from Eleusis, Delphi, Delos, and Epidauros.³¹ One detailed example of timber use is found in a tablet that details the structure of the arsenal of the Piraeus in Athens, examined by Dinsmoor, and translated in full by Meiggs.³² This combination of evidence, however, does not tend to draw on Latin poets, and Meiggs directs his readers to a number of passages from Vergil and Horace to elucidate their lack of accuracy in the presentation of arboreal landscapes.³³ The most famous of these is the opening of Vergil's *Eclogues*, where the poet describes a shepherd underneath a *fagus*, or beech tree.³⁴ This is a well-known intertextual echo of Theocritus' *Idyll* 12, in which a traveller hurries to a φηγός, or oak tree.³⁵ Vergil, for Meiggs' purpose, is too whimsical in his identification of the tree under which Tityrus rests as a beech, and is 'more interested in the sound than the substance; he certainly did not believe that *fagus* was an oak.'³⁶ Meiggs advises caution in extrapolating practical information from the poets, although he does indicate that 'useful information' regarding trees is present in the majority of Greek and Latin sources, an observation proposed by later scholarship on the utility of wood.³⁷

In a more recent chapter about raw materials in the Roman economy, Wilson briefly addresses timber, and distances the economic value and the utility of trees from their religious associations with the example of the *dendrophoroi*, or 'tree-carriers', who formed *collegia* and

³⁰ Meiggs (1982) 27-8, citing Verg. *Ecl.* 7.65-6, Mart. 3.58.1-5 and 12.50.1-2, with comparison to landscape painters, who use the tree for its ornamental appearance.

³¹ Meiggs (1982) 15.

³² Dinsmoor (1950) 241; Meiggs (1982) 213.

³³ Meiggs (1982) 32-4. Meiggs precedes his critique of the Latin poets with praise of Homer and Hesiod, who provide better evidence for his purpose. This intertextuality is briefly noted by Coleman (1977, 71), and more thoroughly treated by Jones (2011, 29-32), who also explores the prevalence of beech trees in Vergil's *Eclogues*.

³⁴ Verg. *Ecl.* 1.1-2.

³⁵ Theoc. *Id.* 12.8.

³⁶ Meiggs (1982) 34.

³⁷ Meiggs (1982) 32. Also see Ulrich (2007) 3.

were listed alongside the less contentious trades, such as shippers and woodworkers.³⁸ The *dendrophoroi* were lumberjacks, and Wilson notes that they were primarily involved in ship-building rather than other forms of the timber trade – he uses the absence of any *collegia* in Mauretania, the source of wood used for furniture, as evidence for this. The exploitation of raw materials is, for Wilson, evidence of a well-established awareness of the value in natural resources, and of an economic system driven not just by availability, but also an awareness of transport, as the majority of the *collegia* are situated in coastal regions. Typically studies of the utility of trees are focussed, either on a specific application, a specific wood, or a specific region, even in Meiggs' chapters (see his 'Cedars of Lebanon' chapter). This is often to the exclusion of other aspects of the tree, and their role in the cultural practices of the time, such as religious activities.

2.2. Religion

Prior to Meiggs' monograph, trees had primarily been considered in a religious capacity, with scholarship focussed on the motif of a sacred tree in Roman culture, and the mysticism of the grove. In the mid nineteenth century, Barlow wrote that 'most nations, if not all, would appear... to have had a sacred tree.'³⁹ This statement follows a section specifically focussed on sacred trees, which has addressed the ash (focussing on Yggdrasil – the Viking world tree), the oak (Druids and Germans), mistletoe (the Golden branch borne by Aeneas to the underworld), and the Christmas tree, and then proceeds to discuss groves as an entity. The section then moves to bushes, and to sacred trees in the eastern world, particularly in Zoroaster's *Nackas*, in an attempt to validate Barlow's earlier statement that sacred trees are near universal in their coverage.

The perceived universality of sacred trees has led to a jumble of elements, roughly joined together in an attempt at harmony with little apparent link between them, and this is evident in Tylor's typically swift discussion, which moves from demons inhabiting trees in Africa, to the Dodonan oak, to tree nymphs, before finishing with peasant folklore in Europe surrounding fairies in trees in five pages.⁴⁰ Through providing these comparative case studies, Barlow and Tylor helped shape the growth of arboreal scholarship in the early twentieth century. Their framing of the trees (especially in Tylor's case) as being animated by a divine power was

³⁸ Wilson (2012) 139-40. The brevity of Wilson's engagement, which does introduce a new source, is replicated in the essays in *Ownership and Exploitation of Land and Natural Resources* (Erdkamp, Verboven and Zuiderhoek 2015), where woodlands are only briefly mentioned, and timber not at all, despite being identified as 'crucial' in a chapter on villa production (Marzano 2015, 187-8).

³⁹ Barlow (1866) 97.

⁴⁰ Tylor (1871) 197-201

particularly influential, and placed trees in the animistic tradition, which ‘invested trees with that mystic or sacred character whereby they were regarded with a superstitious fear which found expression in sundry acts of sacrifice and worship.’⁴¹

At the start of the twentieth century, Baddeley claimed that it was ‘ordinary knowledge’ that the worship of trees was a form of early religion, and compares the Roman relationship with the oak tree to that of the Khonds, a tribal community in India, with the ‘cotton-tree’.⁴² The influence of this comparativist tradition, which had attempted to establish a foundation for religion, is keenly felt in Baddeley’s article on Rome’s sacred trees. However, it is in the word *numen* (a word which Lewis and Short defines as ‘divine majesty’ among several other meanings, and means a number of different things to an equally large number of ancient and modern authors) that early writers on Roman religion found the strongest evidence for an animistic tradition. Rose and Wagenvoort both identify *numen* as being central to Roman religion, and both do so by comparing it to the Melanesians, the inhabitants of a group of islands to the north east of Australia.⁴³ Baddeley, perhaps influenced by the same tradition, points to hamadryads, a variety of woodland spirit that inhabit trees in mythology and exist for the lifetime of the tree, as evidence of the *numen* within the tree, and proclaims that tree-worship is ‘unsurprising’.⁴⁴

Numen as a word appears in two passages which are commonly cited by early scholars of Roman religion:

There was a grove beneath the Aventine, oaks draped in black shadow,
Where you may cry ‘There is a *numen* there!’⁴⁵

These trees were temples of *numen*, and even now simple country-folk dedicate a pre-eminent tree to a god with ancient rites. We adore the statues of shining gold and ebony no more than we do the grove in its silence. Varieties of trees are kept permanently dedicated to their own *numen*, for Jove the oak, Apollo the laurel, Minerva the olive, Venus the myrtle, Hercules the poplar. We even believe that

⁴¹ Thiselton-Dyer (1889) 1-2. This is only one example of nineteenth-century ideas about the animism of trees, which pre-dates Tylor’s influential study. See Philpot (1897) 1; Jennings (1890) 2; Barlow (1866) 84; and Boetticher (1856) 313.

⁴² Baddeley (1905) 101, 103.

⁴³ Rose (1948) 13; Wagenvoort (1947) 75.

⁴⁴ Baddeley (1905) 101.

⁴⁵ Ov. *Fast.* 3.295-6.

Silvanus and the fauns, and the various goddesses and their *numina* are given to the woods by the heavens.⁴⁶

These two passages shape the early response to trees and their place in the ancient world, and are found quoted as examples of early animism throughout nineteenth and early twentieth-century studies.⁴⁷ It was in these approaches to Roman religion, and religion more generally, that the idea of the Roman sacred tree became a fundamental part of early scholarship, and this led to confusion in approaching trees which did not conform to the rules, as in the case of the *figus Ruminalis*. Bailey relegates this tree to a cursory addition at the end of a paragraph, following the (significantly less well attested) Capitoline oak, around which the ultimate spoils (the *spolia opima*) were dedicated to the deity Jupiter Feretrius, for whom there was a temple on the Capitoline hill. This tree, Bailey claims ‘was also no doubt a sacred tree, but there is no trace of any worship of itself or its indwelling spirit.’⁴⁸

This confusion, which is derived from a conflict within strictly regimented rules by comparativists is a result of a lack of nuance in understanding trees in the Roman world, sacred and otherwise, and the continued association of trees with spirits, or *numen*, by the nineteenth- and early twentieth-century scholars may have encouraged the decline of considerations of the Roman sacred tree, which is brushed aside by scholarship in the following century.⁴⁹ It certainly seems that way to Hunt, who produced the first major work exclusively on trees in the Roman world in the past twenty years.⁵⁰ Early in her monograph, Hunt quotes Ferguson’s full discussion, which she calls ‘unthinking’ and ‘dismissive’:

Trees were sacred: Pliny the elder has a long section on the subject. There was a sacred fig tree on the Palatine. Augustus put a palm shoot among his household gods; the emperors had a grove of laurels at Veii, plucking a branch to carry in triumph and replanting it; the Flavians had their own oak. Groves were especially sacred; witness Vergil or Ovid or Lucan.

In this grove on this hill with its leafy summit

⁴⁶ Plin. *HN* 12.3.

⁴⁷ For the Ovid passage, see Granger (1895) 95; Bailey (1932) 41; Rose (1935) 237 among others. For the Pliny passage in the period concerned, see Granger (1895) 96; Pfister (1937) 1280.

⁴⁸ Bailey (1932) 44. This tree will be discussed in Chapter Four.

⁴⁹ Dowden (2000, 66-78; 108) produced the most sustained discussion of sacred trees in the intervening years, although the influence of the comparativists is evident – trees are ‘appreciated’, and are given rights, as well as the death of trees being universally condemned. Beard (1998) makes no mention of trees, and neither does Rüpke (2012).

⁵⁰ Hunt (2016) 62-3.

Some god lives – though I do not know who it is.⁵¹

From the outset of *Reviving Roman Religion* (2016), Hunt makes clear that her aim is to provide nuance to the issue of the sacred tree in the Roman world, and to draw the sacred tree out of a pigeonholed view of something obscure from a distant and unusual past. This is made apparent by the immediate answer she gives to the question ‘What is a sacred tree?’ Hunt warns that the answer she is going to give will only offer a ‘loose definition which has little to do with the sacred tree in the popular imagination’. Instead, she directs us to the complex meaning of ‘sacred’ in the English language, and challenges legalistic models of the Latin *sacer* on the same basis, arguing that the word is likely to have had multiple connotations. In doing this, she disputes the ‘one-size-fits-all model of Roman sacrality’ which offers a ‘broad-brushstroke approach’ to sacred trees in Rome, and proposes that a sacred tree should be understood as a tree with some religious capital, though not necessarily consecrated, and certainly not every tree.⁵² *Numen* is treated cautiously, partially following Warde-Fowler’s observation in the early twentieth century that the term is so important it requires careful definition.⁵³ Hunt confronts this immediately, and proposes that any translation of *numen* is fundamentally impossible, and it is easier to determine what modern scholars mean by their usage of the term.⁵⁴ The difficulty of understanding this word when applied to trees is compounded by the verb *colo*, used to indicate both practical and religious care. This word, which Hunt discusses in relation to actions made toward the *figus Ruminalis*, is deemed to be capable of dual meanings, and in the passage Hunt discusses is used to indicate both physical and religious concern.⁵⁵

Hunt’s nuanced understanding of the sacred tree, influenced by a wide range of evidence like Meiggs’ earlier approach, indicates a seismic shift from a wholesale approach in earlier examinations of trees in religious settings. Contrary to these approaches, trees should be dealt with on a case by case basis, explored and examined in relation to their individual presentation in the source material as opposed to being treated as a homogenous group, a nuance which will

⁵¹ Ferguson (1970) 66. Cited by Hunt (2016) 16. The passage is identified by Hunt as being from Verg. *Aen.* 8.351-2, although it is unreferenced by Ferguson.

⁵² Hunt (2016) 1-9. The broad approach to sacred trees in the Roman world is found in Bodet (2009, 24), who argues for the auto-consecration of natural settings and phenomena, as well as Turcan (2000, 39), who proposes a ‘frisson of the supernatural’ in any forest. Other broad strokes include Rives’ assertion (2012, 178) that ‘the grove was simply perceived as sacred’, regardless of any formal consecration. Hunt’s opening chapter offers a detailed survey of the academic environment that preceded her, and sets herself apart from this environment (2016, 29-71).

⁵³ Warde-Fowler (1911) 118.

⁵⁴ Hunt (2016) 178.

⁵⁵ Hunt (2016) 116-7. Hunt extends this discussion to other trees from the foundation of Rome, including Romulus’ spear. For more on both these trees, see the final chapter of this thesis.

be applied here – contrary to Ferguson’s understanding, not all trees were sacred, and the trees examined in this thesis include both those which are clearly sacred and those which are clearly not.

2.3. Landscape and Gardens

A challenge in discussing trees is placing them in the natural land and cityscapes in which they sit. Studies of landscape offer a bigger picture of trees in the ancient world than the focussed studies of Hunt and Meiggs, on religion and utility respectively – Meiggs’ rapid pacing across the Mediterranean belies the scale of his topic, and Hunt sometimes overlooks issues such as lifespan (the fig tree, no matter Pliny’s evidence, is not extremely short-lived, and can survive in the right climate for hundreds of years).⁵⁶ The link between landscapes and religion is well founded, and the role of the city of Rome in Roman religion is examined by Beard, North, and Price.⁵⁷ They direct attention to a speech made by Camillus in Livy’s *Ab urbe condita*, also highlighted by Edwards, in *Writing Rome*.⁵⁸ In this speech, which reminds Romans of their ties to Rome, and convinces a beleaguered people to remain in the place, rather than move to Veii, Camillus draws upon the significance of the site of Rome, and compares the location to the days of the year, permanently fixed.⁵⁹

Religion and memory are often intrinsically linked in the Roman world, and many religious rites have precedents in myth. An example of this can be found in Edwards’ discussion of the hut of Romulus, which was cared for and maintained by priests, and may have been a venue for religious activities.⁶⁰ This, like the *figus Ruminalis*, combined sacredness with a memory of a rustic Rome, and its humble beginnings with a thatched hut that once housed Romulus and Remus themselves. Memory, Dupont informs us, is an aspect of the Roman world which is not inextricably tied to a text. Instead, it finds its footing elsewhere:

Roman memory, lacking any anchorage in the inspired works of ancient poets, was rooted in the sacred ground of the city. To walk around Rome was to travel through its memory, past Romulus’ cabin, Cacus’ rock and Egeria’s wood. What had happened in these places in former times was not precisely known: there were plenty of stories about them but they differed enormously from one version to the

⁵⁶ Hunt (2016) 100, citing Plin. *HN* 16.241, 130; and 17.155. This is replicated in an earlier contribution to an edited volume by Hunt (2012, 112).

⁵⁷ Beard (1996) 167-210.

⁵⁸ Edwards (1996) 45-7.

⁵⁹ Livy 5.52.2.

⁶⁰ For discussion of this, see Edwards (1996) 33-42.

next. What mattered was that these places were sacred, the reasons were less important.⁶¹

Later, Dupont uses the tree group at the Lacus Curtius, a fig, an olive, and a vine, to give an example of her approach. The Lacus Curtius was a problematic area for any coherent origin, with three separate myths associated with it. However, there was one consistent element, and that is the tree group.⁶² For Dupont, it does not matter whether Curtius himself was a Roman or a Sabine, hero or enemy respectively. Instead, she points to the one thing that was known with certainty, and reminds her readers that ‘it was essential that each year without fail this and every other sacred site received its due of offerings and prayers.’⁶³ Bypassing the problematic leap to sacrality – there is no evidence that the Lacus Curtius group was treated as sacred, or of any ritual activity focussed on it – we find that the nostalgic association of the site, itself a *lieu de mémoire* by Nora’s definition, is more important than the literary accounts of its origin. Memory in the city of Rome has been a popular topic in recent years,⁶⁴ and this was the focus for Edwards in *Writing Rome* (1996), who uses Freud’s *Civilisation and its Discontents* as her starting point. Here, Freud compares the human mind to Rome, and imagines a city without the constraints of time:

Let us, by a flight of the imagination, suppose that Rome is not a human habitation but a physical entity with a similarly long and copious past – an entity, that is to say, in which nothing that has come into existence will have passed away and all the earlier phases of development exist alongside the later ones.⁶⁵

A consequence of this is that the cityscape is a construct of memory as much as it is of the physical, and Edwards describes Freud’s Rome as ‘time made visible’.⁶⁶ This Rome, she explains, is closer to the ancient understanding of the city, and she points to the compressed description of Rome in the *Aeneid*, in which the golden Capitoline is presented alongside Evander’s wooded home.⁶⁷ This site is multi-layered in the Roman imagination, and the contemporary and archaic sites of Rome co-exist in the poem. For Larmour and Spencer, this

⁶¹ Dupont (1989) 74.

⁶² This tree group is unusually not mapped by Carandini (2017), although he usually includes the trees of Rome on the maps in the atlas.

⁶³ Dupont (1989) 74.

⁶⁴ For some examples of the recent study of memory in Rome, see, among others, Bommas (2011); Bommas, Harrison and Roy (2012); Dasen and Spath (2010); Heller (2001); and Larmour and Spencer (2007a).

⁶⁵ Freud (1985) 257.

⁶⁶ Edwards (1996) 28.

⁶⁷ Edwards (1996) 30-2, citing Verg. *Aen.* 8.347-8. For the physical possibility of Evander’s tour through Rome, and the overlap of isovists in the poem, see Spencer (2010) 49-56.

remembered city is evidence of Rome functioning as a continual site of reception, adapting at key moments in the city's history.⁶⁸

In discussing Rome's trees, the idea of memory, and of a city connected with its remembered past as intrinsically as Rome was (and is) is crucial. The landscape changes and alters, is built upon, burnt, and re-structured in the flashpoints that demand the city become a reception of itself, and there are casualties in this process. By the early Principate, the period which this thesis focusses on, Rome was no longer the wooded land that Aeneas, who never saw Rome, was shown around by Evander. However, in the description of the *Aeneid*, it is clear that Romans still thought of their golden city as intrinsically linked to that rustic past.

Outside of the mythologised landscape of Rome, a popular landscape in scholarship is the manufactured one of Pompey's Porticus, constructed in the late Republic, possibly from the spoils of his Pontic wars, and certainly to house them. This landscape is treated alongside the Horti Sallustiani by Spencer in *Roman Landscape* (2010), and this implies some degree of equity between the two, despite her identification of their clear differences in both form and function.⁶⁹ Reconstructions and archaeological investigations can help understand landscapes such as that created in the *Porticus*, and Spencer employs the reconstruction from Gleason's assessment of the relationship between the architecture and the garden to identify a grove that was simultaneously wild and yet cultivated, or 'harmoniously natural and highly urban and artificial'.⁷⁰ This nature, which Spencer presents as having been manipulated alongside the architecture for Pompey's 'self-promotional agenda', is reflected in Statius' description of Pollius Felix's country estate, and the unison between the rural and the urban may suggest a Pompeian nod to Rome's rural beginnings. In her comparison of the Porticus Pompeiana to the garden, Spencer highlights both *topopoesie* (topopoetics – the reading of a place through poetry) and *rus in urbe*, both common features of Latin poetry at the time. The phrase *rus in urbe* is found in Martial's *Epigrams* and it is compared by Watson and Watson to other passages in Martial's *corpus*, and other contemporary literature.⁷¹ They propose that 'the Romans... preferred villas where the amenities associated with city living were combined with an artificially created rural ambience' and this attitude is found elsewhere, in garden

⁶⁸ Larmour and Spencer (2007b) 3-4.

⁶⁹ Spencer (2010) 161-71. For specifics on the difference between the two, see 167.

⁷⁰ Spencer (2010) 168; Gleason (1994). The Porticus Pompeiana will be examined in the fourth chapter of this thesis.

⁷¹ Mart. *Ep.* 12.57.21. Watson and Watson (2003, 156) compare this passage to Mart. *Ep.* 4.64.25 and Plin. *Ep.* 5.6.35. Purcell (1987) presents the difficulties of definition in *rus*, *urbs*, and related terms. Spisak (2007, 74-81) comments on the frequent use of the country and the city as oppositional elements in the *Epigrams*, with particular reference to the different lifestyles in the territories.

scholarship. Throughout Spencer's examination of the landscape in the Roman world, landscape is presented as a vehicle for communication, and the creation of a rural space inside a villa served as a private expression of imperialism, and territorial control.

Stackelberg's examination of gardens in *The Roman Garden: Space, Sense, and Society* (2009) places the garden on a level with the landscape, like Spencer's approach to the controlled garden-esque space in the Porticus Pompeiana. The garden is treated as 'a vehicle of cultural communication', and it is easy to see how the same term can be used to describe as politically active a space as the Porticus. In her examination of the politically communicative gardens, such as the one in Pompey's complex, Stackelberg focusses the garden on the owner, and differentiates the *hortus* from the other public arenas used for politics such as the Forum. In this way, the garden should be treated as separate from the landscape, as a less confused and more controlled place to communicate to the people. This use of the garden as a location for controlled encounters came into its own in the early imperial period, and Augustus capitalised on the garden complexes of his predecessors to create public spaces in which he could control these encounters, and direct them to a more favourable outcome.⁷²

A garden had another function in the Principate, identified by Stackelberg in her discussion of Pollius Felix's estate, described by Statius and quoted above. She also notes the militaristic language of subjugation and dominance in the passage, and applies this to the political climate that Statius, and Pollius Felix, were operating in, under Domitian. It was a challenging time for personal expression of power, and involvement in public life was fraught with danger. The villa estate, for Stackelberg, had become a means by which an individual could experience absolute control over a territory and not have to run the risks associated with holding public office.⁷³ In this regard, the *hortus* of a villa estate was the equivalent of the villa's empire, controlled by its owner, much like the eastern gardens discussed by Totelin (2012), while the Horti of Rome reflected its own growing empire, and, in the case of the Porticus Pompeiana, were cluttered with monuments acquired through conquest.

During the growth of Rome's empire, the city became a cosmopolis, a world city which incorporated elements of its territories, and this is shown in the literary output of the early Principate. McEwan, in a discussion of Vitruvius which heavily influenced later approaches to the *De architectura*, observes that 'the *corpus of architectura* was, reciprocally, shaped by the

⁷² Stackelberg (2009) 76-9. At 79, Stackelberg provides a helpful summary of the Horti of Rome coming under imperial control in the early Principate.

⁷³ Stackelberg (2009) 80.

body of Empire’, and we have already seen above that Livy’s *Ab urbe condita* roots the reader and the Romans in Rome, emphasising its importance and centrality in a growing world.⁷⁴ There has been a large amount of scholarship produced on the establishment of the cosmopolis, most notably *Rome the Cosmopolis* (Edwards and Woolf 2003), and this was followed by studies of the mechanism by which a large number of goods were imported – the triumphal procession. From Östenberg’s *Staging the World: Spoils, Captives, and Representations in the Roman Triumphal Procession* (2009) to Beard’s *The Roman Triumph* (2007), these discussions of one of the Roman processes of introducing foreign goods to Rome examine the changing political landscape, and how the city is used as a performative space.

2.4. War and Empire

Trees are explored in terms of war in Östenberg’s monograph, specifically as a triumphal import, and Leach views this creation of an artificial cosmos within the city’s walls as ‘an exaggerated assertion of man’s power to control nature and tame the wilderness by his art’.⁷⁵ Östenberg examines trees in her chapter focussed on captives, and she is quick to identify the comparable role trees play to spoils more traditionally regarded as captives – prisoners, hostages, and animals. The trees are, according to Pliny, ‘led’ in triumph, and Östenberg notes that the language used is identical to the language used for other captives, as opposed to representations.⁷⁶ This, she argues, leads to the conclusion that Pliny ‘equates the population of trees with that of human beings’, with particular reference to the balsam, which is described as ‘paying tribute alongside its race’.⁷⁷ The conquest of trees, their subjugation, and the subsequent display of them in the triumphal procession will be examined throughout this thesis.

A consequence of the equivalency that Östenberg identifies between trees in the triumphal procession and the captives they are displayed alongside, and the comparativist, animistic approach to trees discussed above, under ‘Religion’, is that they are viewed with some caution in a military context. Of particular interest is a well-known grove found in Lucan’s *Bellum civile*, outside of Massilia, felled by Caesar in 49 BCE to make room and supplies for his camp.⁷⁸ Among the earliest of the studies of the grove, which will be examined in detail in the final chapter of this thesis, is Phillips’ (1968), who assesses the historicity of the incident. After he quickly ascertains that the incident is fictitious, and probably invented by Lucan, he takes it

⁷⁴ McEwan (2003) 301.

⁷⁵ Leach (1973) 84.

⁷⁶ Östenberg (2009) 184-8.

⁷⁷ Plin. *HN* 12.112; Östenberg (2009) 187.

⁷⁸ Luc. *Bell. civ.* 3.394-452.

as an *inventio*, designed to further characterise the figure of Caesar in Lucan's poetry.⁷⁹ To do this, Phillips places the felling of the grove, considered sacred by the local population, to other famous fellings in literature, and promptly reads the passage with an animistic slant. This is in line with Lucan's own narrative, which places emphasis on the issue of violation and sacrality, although Lucan is undoubtedly employing a hyperbole which does not need to dominate discussions of the passage, and Phillips ends his article with an indication of the point of Lucan's invention – to further highlight that 'the divine gives way to Caesar with disheartening regularity'.⁸⁰ For Phillips, the trees of Lucan's epic are freely available communicative media, and the landscape is a useful canvas for developing literary themes.⁸¹

The use of trees, or landscape in general, in descriptions of warfare is not unique to Lucan, nor is it unique to literal descriptions of warfare, as in the grove examined by Phillips. At the start of this thesis, Statius' martial description of Pollius Felix's country estate was presented, and the military language used was linked to Greek precedents, and the use of farming as a noble form of warfare. This approach was common, and the garden, as we explored above, has been treated as a war zone between the unsanitised wild elements and the contained rural space. However, Edwards suggests that we should be tentative in applying a strict distinction between rural and urban activities and spaces, and reminds us of the paradox of Romulus, that he was both the first king of Rome, and remembered in the city, but was himself a rustic king who never lived in a city.⁸² This muddying of the waters underlines the complexity of discussing trees and landscapes in ancient Rome, and the natural dialogue between the areas of scholarship that have been examined above.

2.5. Post-Classical Trees and Monumentality

Outside of the ancient world, we find that this dialogue already exists, and is particularly evident in Watkins' *Trees, Woods, and Forests* (2016). From the outset, Watkins outlines the 'rich, intricate and multi-layered' relationship between humankind and trees, and he reflects this in the content of his monograph, which covers a range of topics, from woodland management in the ancient world to representations of trees in artwork.⁸³ The underlying

⁷⁹ Phillips (1968) 296.

⁸⁰ Phillips (1968) 300.

⁸¹ The communicative qualities of civil war landscape in Lucan's poetry are further explored by Spencer (2005).

⁸² Edwards (1996) 40.

⁸³ Watkins (2016) 12. The holistic approach of Watkins in the monograph can be found replicated in his earlier co-authored work, *The British Arboretum* (2011), with Elliot and Daniels, and in the recently published *Trees in Art* (2018). It is particularly evident in the opening chapter of *The British Arboretum* (11-36), which addresses the British tree culture of the nineteenth century, and incorporates social and cultural approaches to trees alongside timber production.

element of these (ostensibly disparate) topics is that multi-layered relationship, which is built on and influenced by the relationship humans have historically had with trees in a variety of spheres.⁸⁴ Watkins approaches trees within the framework of this relationship, and emphasises their permanence, as this thesis will too, as stable objects by which ‘we can match our individual lives and the lives of nations and civilisations’.⁸⁵ Watkins’ approach, to trees as fixed features of a landscape, providing stability and continuity in the lifespan of humans is a useful one, and helps us to place ourselves in the context of ancient Rome, as opposed to looking back at the trees of the ancient city as long dead and obviously transitory features of the city, unlike the statues which have survived in a tangible form. To those Romans who met in the shade of the trees around them, they would have seemed as permanent as the modern elm trees which Watkins uses to highlight the effect of a tree’s death.

In the case of an arboreal death, particularly in the instance of a familiar tree, Watkins sees an acute sense of regret and loss, and the large scale removal of woodlands creates a community-wide reaction (he uses the group Save England’s Forests as an example).⁸⁶ It is in these threats that the high regard that trees are held can be best seen, and Whyte explores this in the specific context of a boundary elm threatened with removal in post-medieval Norfolk (2013). Here, Whyte explicitly sets herself apart from the trend to focus on the practical aspect of trees in her field, and declares her intent to study the role of this tree and trees more broadly in identity construction.⁸⁷ To do this, she aims to move past the ‘ideational landscapes of elite writers’ and focus on ‘the social and symbolic meanings of trees in everyday vernacular contexts’. While this is easier to do in periods more recent than ancient Rome, it is a reminder that the trees of Rome were, on the whole, a publicly accessible feature and repository of memory. While the trees of sacred sites, such as those examined by Hunt (2016), and those in tightly controlled spaces such as the *horti* analysed by Stackelberg (2009) may have had limited public access, the majority of the trees of Rome were publicly accessible, from the *figus Ruminalis* on the Palatine and in the Forum, to the groves that remained in Rome from Evander’s wooded landscape. Whyte continues to remind us that the trees of her period were appreciated by people

⁸⁴ The broad engagement with trees outside of the classical world has been remarked on by at least one reviewer (Houlbrook, 2017) of Hunt’s monograph (2016). Houlbrook (2017, 323-4) struggled with Hunt’s early assertion that trees had been relegated to a ‘funny old world’ approach, and subsequently neglected in scholarship, citing a number of examples of engagement with our arboreal neighbours outside of the classical world, beginning with Davies (1988), and ending with Watkins (2016).

⁸⁵ Watkins (2016) 275.

⁸⁶ Watkins (2016) 11-12.

⁸⁷ Whyte (2013) 500-503.

regardless of class difference, whether or not they were preserved, a quality also applied to the trees this thesis concerns itself with.

The trees that Whyte uses in her article are, she notes, identified by their contemporaries as ‘surviving from the ancient past, carr[ying] meaning in the present and the past’.⁸⁸ This, combined with the borrowed title of Whyte’s article (taken from Bradley’s monograph, *An Archaeology of Natural Places* (2000)), begins to suggest a monumental approach to trees. Whyte applies Bradley’s methodology to her article, arguing that, despite the difference in time period – Bradley is concerned with prehistory – Bradley’s methodology is nevertheless useful. Bradley argues that the term ‘monument’ cannot be properly applied to a natural feature, since a key aspect of ‘monument’, for him, is that it is constructed by human labour, and is just as easily deconstructed.⁸⁹ In spite of this methodological approach, both Whyte and Bradley continue to explore natural features in monumental terms, and Bradley proposes that the similarity with artificial monuments is because natural features acquire ‘a significance in the minds of people in the past.’ This is expanded upon by Whyte, who adds that, while people ‘experienced and gave meaning to material objects, monuments, and entire landscapes’, it is the creation of monuments within those landscapes that inscribes memory onto it. Whyte does distance herself from Bradley’s methodology, and points out the difference between trees and natural places as a whole, which are the focus of Bradley’s book, in an attempt to reclassify trees as having the potential for monumentality. The first key point she identifies is that trees are not a permanent feature of the place, unlike geographical features, and that their ‘ongoing preservation was to a large extent the result of human decision making, and their destruction the cause of tension and conflict within local societies’, much like a monument. Again, similar to a monument, the tree ‘structured the spatial order of everyday landscapes by providing tangible reference points, places to meet, and landmarks to denote jurisdictional boundaries and spaces’.⁹⁰

In the ancient world, what defines a monument is equally fluid, and scholarship has focussed on artificial monuments, from small statues to colossal temples.⁹¹ Thomas, in *Monumentality and the Roman Empire* (2007) qualifies monumentality as reflecting the attitudes of society, while also presuming a relationship with the individual. The duality of this ‘interactive relationship’, Thomas suggests, is a result of the monument’s position on the ground, and the

⁸⁸ Whyte (2013) 500.

⁸⁹ Bradley (2000) 34-5.

⁹⁰ Whyte (2013) 500-503.

⁹¹ See Thomas (2007) and Meyers (2012).

ideals formed by the imagination in response to it.⁹² Thomas goes on to explore monumentality in natural landscapes, and proposes that the Acropolis is only monumental due to the buildings placed upon it, which compete with their surroundings. As a result, he qualifies his earlier definition of monumentality by adding that it is ‘an agent of commemoration, of sacred human memory, and of the relationship of man with the gods.’⁹³ It should not be forgotten that Thomas is specifically discussing architecture here, and that human involvement is required – he often refers to ‘monumental architecture’, as opposed to ‘monuments’. Later, Meyers, who is writing on the experience of monumentality, emphasises the connection between memory and monuments in the ancient sources, and acknowledges that the usage of the term *monumentum* in Latin literature sometimes reflects this.⁹⁴ She ventures beyond the realm of buildings briefly, and proposes that the ancient *monumentum* may not be a specific structure, but could be a space, with the only absolute necessity being that it has strict boundaries.⁹⁵ By Bradley’s approach, a tree cannot be a monument, since it is not constructed by human labour. However, when the lack of a clear definition in the ancient world is considered, alongside the unique place a tree holds, as expressed by Whyte, a tree that communicates some aspect of human memory, either to a religious past or to a mytho-historic one, and even a grove, can be a natural monument.

Whyte proposes that trees function as a meeting place in post-medieval England, a part of the spatial structuring within the landscape. Similarly, Zanker argues that statues were used as a meeting place in the ancient world, which is seconded by Edwards.⁹⁶ Edwards focusses her chapter in *Rome the Cosmopolis* (2003) on the import of foreign statues into Rome in the first and second centuries CE, and the corresponding rise of luxury found in the literature of the period.⁹⁷ When discussing spoils, she places them within the narrative of conquest, in the triumphal procession, as they are used to demonstrate the extent of the empire, and to represent

⁹² Thomas (2007) 3-4.

⁹³ Thomas (2007) 11.

⁹⁴ Meyers (2012) 8-10. She cites a number of sources, and Horace’s hope that his poetry becomes ‘a monument more lasting than bronze’ (*Carm.* 3.30) is the most helpful for relating *monumentum* to non-architectural forms. An example left uncited by Meyers is that of Paul, in his epitome of Festus’ abridgement of the Augustan Verrius Flaccus’ *De significatu verborum*. Here, Paul defines a *monimentum* as being either funerary or ‘anything to conjure a memory of someone, from shrines, to a porticus, to writings and poems’ (Fest. 123L).

⁹⁵ Meyers (2012) 11.

⁹⁶ Zanker (1997) 186; Edwards (2003) 46.

⁹⁷ While Augustan sources associate foreign statues with the rise of luxury in Rome, Gruen (1992, 116) argues that the attempt to pinpoint the origin of this, and to lay the blame at the base of particular Greek statues is ‘hackneyed’ and ‘devoid of historical value’.

the conquered in Rome.⁹⁸ Like statues, which Pliny treats as similar to trees,⁹⁹ trees were also displayed in the triumphal procession, and were used to represent the extent of the empire, although they too did not have to rely upon the formula of the triumph to be incorporated into the city. These trees, all considered foreign, proved to be challenging to Roman ideas of identity, made more challenging, as Edwards argues, because it is difficult in the process of imports to determine when a piece of foreign *spolia* becomes Roman.¹⁰⁰ As foreign natural monuments in the city, these trees contributed to the growing cosmopolis that was Rome, and in some instances memorialised, or perhaps monumentalised conquest.¹⁰¹

3. Research Questions

The primary goal of this thesis is to lay the groundwork for future explorations into the role of trees outside of their practical use and religious applications. These have not yet been explored in Classical scholarship to any great degree, since scholarship prior to Hunt's monograph was prejudiced toward religious trees, and Hunt's monograph is a necessary realignment of how trees functioned as a sacred object in the ancient world. To this end, this thesis will explore the complex and versatile role of trees in Roman society, religion and culture, and consider how trees were employed and represented throughout the Roman world during the late Republic and early Principate, the contexts in which they were grown and sustained, and why they were suited for these particular purposes. It will explore trees holistically, drawing on their practical and religious significance, as well as their place in both landscape and cityscape, and will bridge the gaps between Meiggs' (1982) and Hunt's (2016) practical and religious focussed studies of trees in the ancient world. In order to do this, it will define how we might approach the category and descriptor 'tree' in a Roman context, and how ancient authors distinguished a tree from other types of plant. Other questions that I will explore include literary or artistic appropriations, events and key moments in Roman history, and the social interactions with living trees in the physical cityscape. Through an examination of trees in different media and contexts, the thesis will explore where trees are most commonly found, and which of a tree's physical components and their symbolic characteristics are most salient in surviving literary and visual representations. This project, then, will scrutinise a number of trends in approaches

⁹⁸ Representations of geographical areas is a well-known use of statues in Rome (Toynbee 1934, 7-23).

⁹⁹ Plin. *HN* 12.3.

¹⁰⁰ Edwards (2003) 59.

¹⁰¹ An overview of Rome's collections, and their desire to conquer and catalogue the known world can be found in Rutledge (2012).

to trees in Rome, and will shed some light on the diverse species that were familiar to a range of Roman authors and artists.

One key context for literary representations of trees is how Romans incorporated trees into their cosmogonies, and how the physical and symbolic characteristics of a tree influence its aetiology. Building on Roman understandings of how, when, and why trees became signifiers within the Roman environment, the thesis will explore how trees were used as sources of timber, fruit, foliage, ornamentation and shade as well as exploited as carriers of social, religious, and political meaning in the Roman cityscape. It will interrogate Martial's idea of *rus in urbe*, and will examine the principles and challenges of containing and controlling nature within the city, and how trees functioned as highly visible exemplars of that nature. I will ask how trees are exploited to communicate the cultural trends of the author's time, as well as their personal agendas, from triumphalism to Stoicism. This exploitation can be of either the physical or symbolic characteristics of a tree, and this project will explore both forms of exploitation, and will discuss whether individual authors, and generic-based groups, exploit trees as an object of trade, or for less tangible benefits, such as social utility. Discussions of the exploitation of trees lead into considerations of their appropriation, and the thesis will address their appropriation by imperial figures as omens. It will ask why trees are particularly suited to a role as an omen, especially dynastic omens, as visible representatives of nature within a religious context, and how their position in the landscape is either exploited (in the case of a pre-existing tree) or manipulated (in the case of planted trees and groves) according to an author's intended meaning of the tree or grove.

The visible role of trees in the landscape is evident in visual representations of trees, and the project will consider the prominence of trees in visual culture. It will explore how we identify trees in visual media such as Trajanic architecture and compital shrines, and will examine how the main properties of trees influenced their depiction in a variety of contexts. The thesis will place these trees in their narrative context in visual media, and will ask how they are used to supplement, and sometimes control the message of that narrative. I will also explore the differences between the visual depictions of trees in a landscape and written depictions, before comparing their use in visual media to their prominent placement in Rome itself. Through placing the monuments in Rome, I aim to examine the interplay between the trees on the monuments and those planted around the monument.

The discussion of the trees around Rome leads to a consideration of their provenance. This consideration, which links strongly to earlier questions of cosmogony and aetiology, as well as

rus in urbe, is prominent throughout the thesis. The provenance of trees begins with the fundamental question of where trees originated from, which quickly focusses to where the trees in Rome came from. This established, the project will ask where the trees were in the city of Rome, and how they are introduced into the city. Where this is a result of triumphal imports, and Rome's burgeoning empire in the late Republic and early Principate, the thesis will explore what made trees suitable for use as triumphal imports, and how they functioned as useful indices of conquests in the transitional period. It will examine the challenges of incorporating trees, and nature more generally, into the Roman cityscape, and what the principles were behind containing nature within the city (when successful). A key question that arises from this is whether or not trees were treated differently dependent upon their provenance, and the project will explore the ramifications of importing a foreign tree into Rome, both within and without the triumphal context, and will explore how long it took for trees to be fully naturalised and recognised as 'Roman'.

Once trees were incorporated into Rome, their monumentality could be emphasised, and the project will examine the concept of the 'living trophy' in the ancient city, and the challenges that a natural monument poses in the context of the city. Like the boundary elm presented by Whyte (2013), these living trophies of conquests and natural monuments to events grew and died, and the thesis will explore how these constant changes are negotiated, and how they affect the role of the monument in the city. I will examine what made a tree 'monumental', and how arboriculture was negotiated in this monumental context. The monumentality of trees, particularly in a religious setting, has been critical in prompting historic reactions to trees in the ancient world as being inviolable, and this thesis will address the challenges of an inviolable sacred tree, what makes a tree or grove sacred, what qualifies as a violation of a tree, and how the care and upkeep of a sacred tree or grove is negotiated. In doing this, the thesis will also identify those trees which have no discernible inviolability, and how different authors approach these trees in various contexts.

4. Methodology

To answer these questions, this thesis draws upon a wide range of literary evidence, and combines it with visual and archaeological material. This has been done in line with Meiggs' and Hunt's earlier examinations to reflect the interaction with trees and the landscape in the ancient world, which was not restricted to an individual evidence body. A key concern, however, is the classification of what is meant by 'tree' in the Roman world. Trees are notable for their size, and they are defined by their scale by the sixth- to seventh-century etymologist,

Isidore of Seville.¹⁰² Drawing a hard line between trees, timber, and wood is a challenge in the ancient world, since the only identifier offered by Isidore is their size, and Pliny includes discussion of timber in his books concerning trees, as does Columella in *De arboribus*. There is no obvious line between tree, timber, and wood ever offered in Latin literature, and since this thesis deals with trees, it must also necessarily deal with wood and timber too, although it will prioritise those trees which are still living, or recently deceased, as opposed to what would now qualify as timber – a squared piece of wood, no longer in the recognisable shape of a tree, and artificially created to be something else.

The subjugation of nature, which refers to the phenomenon of nature as opposed to the Roman divinity of Nature, requires further examination. Traditionally, the subjugation of nature, such as that seen in Pollius Felix's construction of a landscape, might be regarded as the wholesale acquisition of nature, the levelling of a forest, and the creation of a habitable landscape from somewhere that was previously inhospitable. Take, for example, the groves in Statius' account. They are now found in places which did not even have earth before, and an entirely new landscape has been created by the conqueror, fit for his own habitation. While there is some analysis of this type of subjugation in this thesis, it is also extended to include the manipulation and direction of nature. In doing so, this thesis takes the idea of 'subjugation' back to its roots, in *sub* (under) and *iugo* (I yoke). Placing nature under the yoke does not necessarily have to mean the creation of a carefully controlled artifice by removing natural elements, and a poetic take on attempts to completely remove nature will be examined in this thesis' opening chapter. Instead, it can be taken to mean the direction of nature, and the manipulation of it to communicate a particular message – subjugation does not have to entail the destruction of nature, and has a wider meaning. Further, there has been an emphasis, particularly in the practical studies within Erdkamp, Verboven, and Zuiderhoek's edited volume (2015), on the physical subjugation (or exploitation, in their title) of the natural world. This thesis will address this type of subjugation in architectural layouts, literary depictions and exertions of control, and the use of nature in art.

The scope of the evidence available crosses genre boundaries, is present throughout the history of Rome, and involves a variety of topics. Due to this breadth of evidence, some areas will have to be overlooked. For example, this thesis will not be able to include the recent advances in garden archaeology within this framework of the cultural inclusion of nature in the city. By

¹⁰² Isid. *Etym.* 17.6.1.

not including this, the thesis will be able to stress the cultural impact of trees in the ancient city and explore these aspects on the same level as the religious role of trees that has been prioritised in earlier scholarship. If this thesis were to include detailed engagement with the mechanics of tree-planting in the ancient city, then the socio-cultural role of these trees could be diminished, as would the aim of this thesis (which is not to prove the easily demonstrated fact that trees were throughout the city – see Fig. 4), to demonstrate the extent of their cultural capital outside of religion. Where this thesis does engage with archaeological approaches, as in Chapter Three, the limitations of these approaches, primarily that trees are biological remains and therefore much less concrete than architectural remains, must be considered, and the conclusions that this chapter draws regarding planted trees are not final ones, and our knowledge of the biological life in the ancient world is necessarily limited.

Typically, scholarship outside of garden archaeology has engaged with trees as a homogenous arboreal group, with some species definition being found in the comparativist tradition only in the context of the opening of Book Twelve of Pliny's *Natural History*, where he identifies a range of trees and their respective associated deities.¹⁰³ Even in the twenty-first century, scholarship has tended away from emphasising the importance of variety in the trees of the ancient city. Lowe broadly states that 'all forests were sacred' and relegates discussion of which trees gave their names to the landmarks of the city to a footnote.¹⁰⁴ Nicholls' *In Reviving Roman Religion*, Hunt makes efforts to examine the importance of different tree-types, identifying them where possible, and making it apparent in her concluding remarks that the type of tree matters: 'a fig bursting through an altar could mean something very different to a palm'.¹⁰⁵ However, her discussion aims to primarily re-classify our overall engagement with trees in religious Roman contexts, and this as a discussion does not need to prioritise the varieties of trees – it is instead a wholesale reassessment of the role of trees. This thesis, in its examination of Rome's monumental trees, aims to put the variety of Rome's trees front and centre. In doing this, it will exhibit the variety of trees in the city of Rome, and how this biodiversity reflected the growing territories under Rome's control.

There are, of course, limitations to the practice of identifying trees by their species, and this is most apparent in that not all the trees of the ancient world can be identified by species. From planting pits corrupted by modern interference to the vagaries of *arbor*, even where there is

¹⁰³ Plin. *HN* 12.3, discussed above.

¹⁰⁴ Lowe (2011) 104; 104 n.25.

¹⁰⁵ Hunt (2016) 293. This refers to a particular omen, reported by Pliny (*HN* 17.244), and discussed by Hunt (2016, 206-10).

evidence for a tree, there is no indication of the type, and we can only offer conjecture as to what these trees were. In some examples, it is possible to narrow down the variety of tree, but no firm conclusions can be made, and this thesis does not aim to re-create a conjectured landscape of Rome. For this reason, the map presented in Chapter One (Fig. 4) is necessarily limited, in two key ways: first, it does not identify the different coverages of trees (a requirement in part of scale), and actively avoids this by using squares to identify the trees. Secondly, it does not identify every tree that will have been in the city. As in the modern city, there were trees in ancient Rome for which no evidence has survived in the modern day. Some of these will have been trees of great importance to a select social group, as in the case of Whyte's boundary elm in Norfolk, or simply avenue trees, planted for no reason other than aesthetic. These trees are not on the map, and will likely never be able to be accurately discussed.

4.1. The [Roman Trees Database](#)

Because of the significant amount of primary source material available, this thesis began with a data gathering exercise, bringing together the disparate array of sources into one searchable place, which was later published online as an open access resource, under the name of the *Roman Trees Database (RTD)*, which is available in an abridged version in Appendix 1.¹⁰⁶ This database, which remains a work in progress, collects references to uses of specific Latin tree names and their associated adjectives in Latin literature, and originally used those trees listed in the indexing of Meiggs' *Trees and Timber in the Ancient Mediterranean World* (1982). After this index was exhausted, additional names of trees were added from André's dictionary, *Les noms des plantes dans la Rome antique* (1985). At the time of writing, the database has catalogued 45 terms for trees, and comprises 1855 references, with still more to be added, searching the *Thesaurus Linguae Latinae*, Perseus Digital Library, the Packard Humanities Index and print editions of texts not available in these resources. The emphasis on the tree type in the database, which is listed as the first element of an entry, is to demonstrate that the use of trees in literature is not an unconsidered *arbor*, and that the type of tree matters to a Latin author. It also aims to provide a holistic overview of Roman literary engagement with trees, and to show that this engagement was not restricted to one of the four areas which have typified previous scholarship on trees, and that each Latin author used trees in a number of ways, revealing a complex relationship in the source material.

¹⁰⁶ Fox (2018) http://www.nottingham.ac.uk/roman_trees.

When compiling the *RTD*, the first question asked was how diverse Rome's arboreal population was, and whether this was reflected in how it was presented at the time. As a result, the *RTD* began with a brief survey of the tree types, following the indices identified above, before concluding that the biodiversity was sufficient in both actuality and presentation to warrant it as a focus within the *RTD* itself, prioritising species types over *arbor*. This caused the thesis, as a result, to move toward a species-based focus, and has highlighted the variety of engagement, as well as the arboreal knowledge, of Latin authors. A consequence of not including *arbor* at the present time is that the extent of arboreal engagement presented in the *RTD* is limited to those accounts which refer directly to the *genus* of tree, and the cataloguing of typically generic terms such as *arbor*, *silva*, *lucus*, and *nemus* is a future goal of the database. These references are not necessarily references without identifiable species, and include the earliest Latin reference to the *Citrus medica*, in Vergil's *Georgics*.¹⁰⁷

The frequency of tree types in the *RTD*, illustrated in Figure 1, shows the breadth of engagement with specific terms in Latin literature, although *quercus* is the most frequently attested. This could be due to its widespread nature: Meiggs declares the deciduous oak 'intractable' when trying to relate its spread in the ancient world.¹⁰⁸ Its appearances in the database are varied, and it is used both in practical and symbolic applications, again accounting for its prevalence in the *RTD*.

A wide variety of Latin authors are evident in the *RTD*, from a number of eras. The database focusses on Latin sources for this exercise, and it incorporates literature from early Latin, such as Ennius' *Annals* and the fragments of Sisenna's histories, to Servius' fourth-century CE commentaries on Vergil and Prudentius' fourth-century CE *Cathemerinon*. By doing this, the *RTD* aims to provide a useful resource, not just for the aims of this thesis, which focusses on the early Principate, but also for other students of nature in Latin literature. The ability to divide the database as an online resource into authors is helpful when exploring the approach of one individual, or one text, although no author writes in a vacuum, and a future aim of the database is to have the ability to select multiple authors and texts in the same search, to compare their approaches, and how frequently each author uses trees in their writing. Figure 2 demonstrates the current author frequency in the *RTD*, and an obvious trend can be seen. Pliny appears more frequently in the database than any other author, almost three times more often than his closest competitor, Vergil. Given the immense scope of Pliny's *Natural History*, which Chapter Two

¹⁰⁷ Verg. *G.* 2.131.

¹⁰⁸ Meiggs (1982) 45.

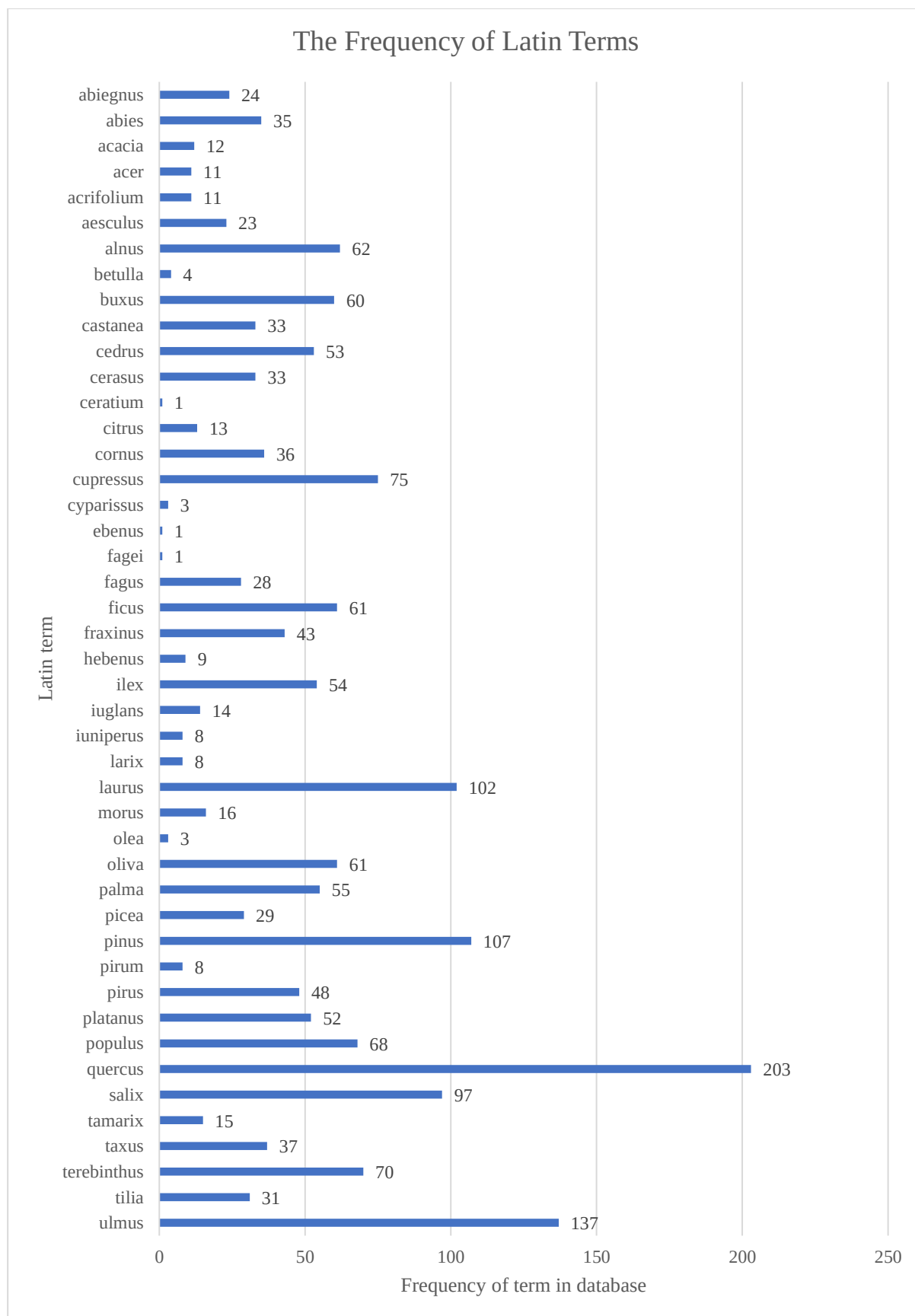


Figure 1: Graph showing the frequency of Latin terms in the *RTD* (as of 25-June-2018).

examines, this is unsurprising. The spread of results elsewhere, however, suggests a broad engagement with trees in the Roman world, and the disparate genres that these authors write in indicates that the engagement with trees in literature is not something restricted to pastoral poetry. Like landscape, trees cross generic boundaries.

Within the database, each individual entry is assigned at least one topic, from a list of 66 different possibilities, and the frequency of these categories within the *RTD* is shown in Figure 3. Roman engagement with the trees around them is difficult to fit into one neat label, highlighting the holistic approach to trees in the ancient world, and as a result some entries fall into multiple categories. The list of topics has been expanded as and when the need to add a new topic arose from the primary source material, and the *RTD* began by cataloguing the entries according to three broad headings, of ‘Practical’, ‘Religious’, and ‘Social’. These topics were intended to reflect the two major arboreal monographs published prior to the *RTD*, Meiggs’ *Trees and Timber in the Ancient Mediterranean World* (1982), and Hunt’s *Reviving Roman Religion: Sacred Trees in the Roman World* (2016), as well as foreshadowing the scope of this thesis, which aims to examine the roles of trees in Roman society and culture. However, it quickly became apparent in the compilation of the *RTD* that these three groups would be too large to aid in any meaningful data analysis and often overlapped. As a result, the additional classifications were needed, and overlaps were maintained but made more specific, such as those between ‘Use’, ‘Timber’, and ‘Produce’. As an example of how the *RTD* can be used to augment existing arguments, and to provide new insights into Roman engagements with trees, we can interrogate the database for information concerning one of the most famous uses of wood in the ancient world – the Trojan horse. The horse, Vergil tells us, is made of *abies*, which features in the *RTD* 35 times, and its corresponding adjective (or rare poetic form), *abiegnum*, appears 24 times.¹⁰⁹ This wood is commonly used for ships in Vergil’s poetry, and three of Vergil’s twelve references to ships currently catalogued in the *RTD* are *abies*. However, when Cybele is discussing the fate of the Trojan ships with Zeus, she tells the god that they are made of the *pinus*, *picea*, and *acer*, taken from her own wood.¹¹⁰ Supplementing the *RTD* with Greek literature, we find that *abies* was considered a fine material for ship building, particularly warships, in Theophrastus’ *History of Plants*.¹¹¹ Vergil’s comment that

¹⁰⁹ Verg. *Aen.* 2.16. Austin’s (1964, 69) suggestion that the later contradiction, where Sinon identifies that the horse is made of *acer* at 2.112, is a deliberate misidentification by Vergil, in order to further characterise Sinon as dishonest, is reasonable.

¹¹⁰ Verg. *Aen.* 9.85-7.

¹¹¹ Theoph. *Hist. Pl.* 5.7.1-3. Meiggs (1982, 118) cites this passage when discussing ship building, and Theophrastus lists fir as best for warships, pine for merchant ships, and cedar when there is no fir available.

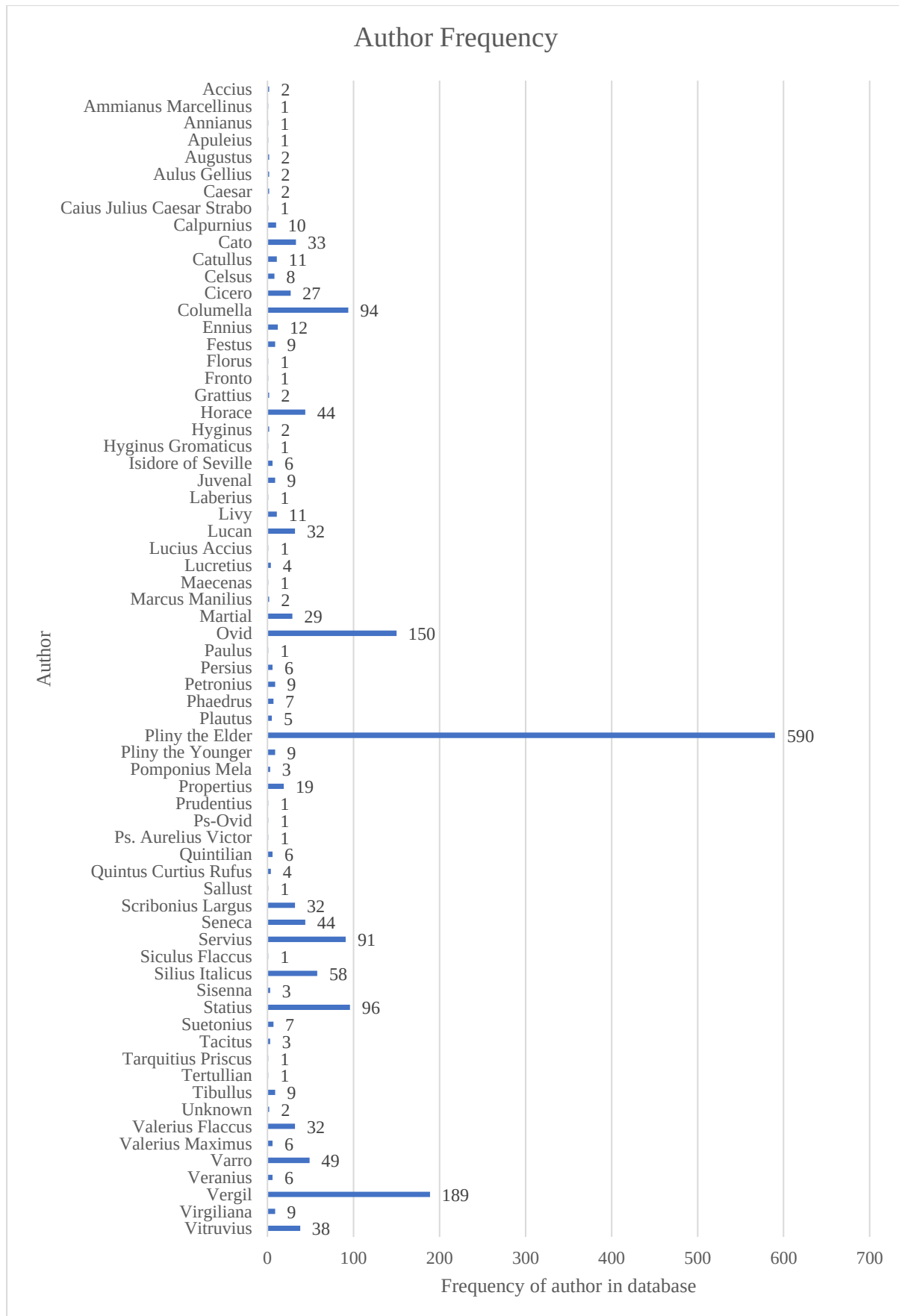


Figure 2: Graph showing the frequency of authors in the *RTD* (as of 25-June-2018).

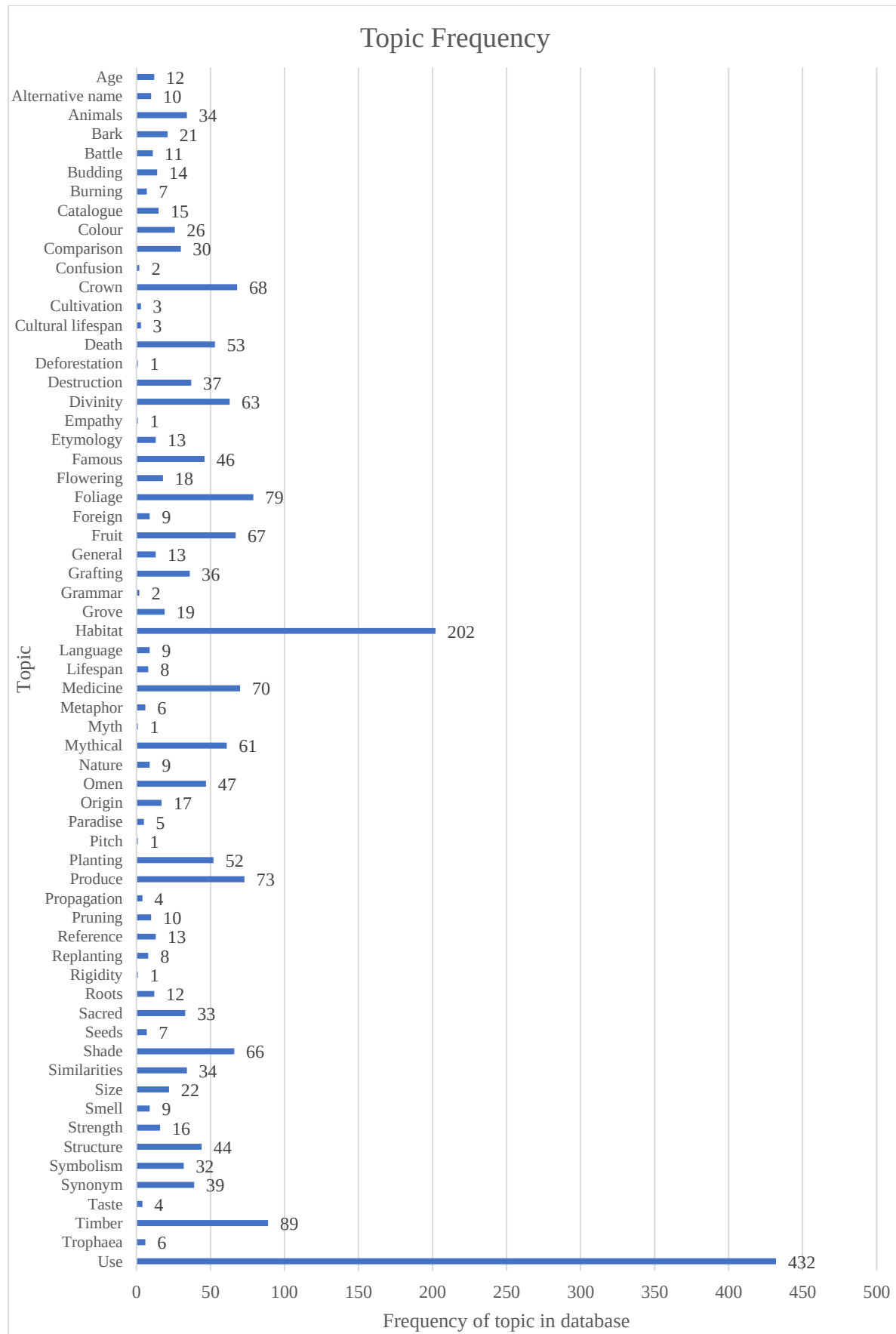


Figure 3: Graph showing the frequency of topics in the *RTD* (as of 25-June-2018).

the wooden horse is made of fir, then, could be taken to be an indication that the horse was composed of the old warships no longer needed to transport dead Greeks home from Troy. The construction of the horse is consistent across Latin poetry, and Propertius refers to the wood used as *abiegnus*, a variant of the more common *abies*.¹¹² Taken further, when Vergil uses the same type of wood to refer to Trojan ships, as at 5.663 and 8.91, it could be read as a deliberate use, and this would indicate a circularity, as the vessel that carries the Greeks in to destroy Troy is made of the same material as the vessels that save Troy and bear its warriors to Italy.¹¹³

The *RTD*, as a searchable resource, encourages a holistic approach to trees in Latin literature. Through comparing the references via author, topic, and the Latin term used, we can combine the symbolic and the practical approaches, as well as typically and traditionally religious evidence in the ancient source material. This approach to the ancient evidence demonstrates that the complexity of a post-medieval relationship with trees, as explored by Whyte (2013), is evident in the ancient relationship, and there was no universal approach to trees as expected by the early comparativist, animistic religious scholars. As Hunt explained in her analysis of what makes a tree sacred, each tree has to be approached without a broad brushstroke, and it is this individualised approach that this thesis aims to replicate.

4.2. Case-Study Approach

The evidence for trees is spread throughout a range of media, and the *RTD*, as a non-exhaustive exercise, only synthesises some of the literary evidence. This broad spread of evidence invites a case-study approach, which is only further encouraged by the lack of a complete picture of Rome's arboreal population. Originally, these case studies were drawn from the *Roman Trees Database*, as key themes were established according to the topic groupings, but as the thesis expanded from its original literature focussed approach, case studies from other media were added, augmenting the themes that had already been identified. The resultant thesis does not so much aim to provide a fully continuous argument of how trees were interacted with within the city of Rome in a particular period, medium, or by an individual. Instead, it aims to offer a broad array of roughly contemporary case studies to aim to better inform our understandings of the complex relationships that Romans had with their surrounding trees, particularly those

¹¹² Prop. 3.1.25; 4.1.42. The use of *abiegnus* rather than the traditional *abies* is stylistic rather than functional, being a rare poetic form of the latter (Fedeli 1985, 76; Fedeli, Dimundo and Ciccarelli 2015, 231; Coutelle 2015, 399).

¹¹³ The use of *abies* also works with the rationalist tradition that the horse actually functioned as a battering ram, in part preserved by the Propertius passages cited above (following Heyworth and Morwood (2011, 150), and also found more explicitly at Plin. *HN* 7.202 and Paus. 1.23.8. *abies* is used in the context of a battering ram by Ammianus Marcellinus (23.4.8).

that do not appear in overtly religious context, in an aim to complement the thorough work done in Hunt's re-assessment of religious Roman trees. The range of evidence employed, from topography, literature, material and visual culture, alongside lived and sensory experience, and inscriptions, are intended to emphasise that the natural world is one which does not have a specific barrier to experience. Unlike literature and inscriptions, it does not require the audience to be literate to develop a full understanding; unlike visual and material culture, it does not require an ability to 'read' the image, nor a proximity to the object. Meanwhile, landscape and trees are inhabited by the rich and the poor, the illiterate and literate, the Roman and the non-Roman, the young and the old, the native and the visitor. Responses to it are thus found across the ancient world, and understanding interactions with elements of the natural world requires that these responses are presented on equal footing with one another.

One of the key sources for this thesis, and the topic of one of the case studies, however, is a written one: Pliny's *Natural History*. This wide-ranging survey of the world offers a literary catalogue of the Roman territories, and includes some reference to non-Roman ones. In five books on trees, examined in Chapter Two of this thesis, Pliny presents a world-view which draws on a wide range of evidence available to him, including several sources which are inaccessible to us, from his experience, anecdotes, or simply non-extant pieces of writing. As a result, his approach to trees represents a thorough synthesis of approaches until the first century CE, and the most complete interaction with trees, both in terms of the number of varieties he discusses and the breadth of territories he covers in his discussion. An understanding how Pliny approaches the natural world, his tendencies and the challenges that using his work entails is essential in any examination of trees in the ancient world. As a result, the case study is necessary.

A clear consequence of the case-study approach that it cannot easily be used to extrapolate broad conclusions, nor does it readily promote a continuous argument. However, what it does offer is something that is needed: a cross-section of a broad range of evidence from often disparate sources and media. By putting pieces of evidence together that are not often placed together (as in the discussion on *trophaea* in Chapter Four), the approach can reveal interesting contacts and conclusions that have a place outside a clearly continuous argument. Instead, the thesis benefits from being able to explore roughly contemporaneous evidence taken from all areas of Roman society, reflecting the universal and often unwritten engagement with the landscape.

4.3. Dealing with Religion

This thesis has been anticipated in scholarship through the publication of Hunt's *Reviving Roman Religion: Sacred Trees in the Roman World* (2016).¹¹⁴ A key premise of this monograph, based on a doctoral thesis itself, is that nuance must be applied when discussing trees in the ancient world. As has been outlined above, in 2.2, and in the compilation of the *RTD*, religion has a prominent role to play in the trees of the ancient world, and in scholarship about them. However, it is not the only role, and Hunt presents her monograph as being more about religion than it is about trees.¹¹⁵

Throughout the monograph, Hunt stresses the need for a carefully considered, individualised response to trees in the Roman world, and this can be extended into this thesis, which aims to complement Hunt's approach. Hunt identifies a two-hundred-year tradition of primarily European scholarship that has dismissed the trees of the Roman world as sacred, dissecting it in her opening chapter, on 'Tree-Thinking', and encourages her readers to think more flexibly about the trees in the Roman world. Part of this must necessitate that only some Roman interactions with trees were religious ones, and these are the interactions that Hunt focusses her monograph on. The trees discussed in this thesis, and the interactions with them, are typically outside of the scope of her work, and religion is typically given less prominence than it has historically had in these discussions of trees.

The removal of religion from its central position in Roman interactions with nature has the potential to cause problems in portraying an incomplete understanding of the ancient world. Historically, scholarship has focussed on two aspects of trees in the Roman world – as religious emblems and icons, and (less often) as sources for timber. What has not yet been done is a social examination of trees which do not fit neatly into these two interactions, that is trees or representations of trees without any explicit connection to a divine body, and which are not being employed for their timber. This thesis, which aims to follow Whyte's lead in a discussion of trees outside the confines of religion, will bring approaches from outside of the discipline of Classics (as discussed above in 2.5) to approach non-religious relationships with trees in the ancient world. There should be a distinction made here between 'non-religious' and 'areligious'. There is no getting around the fact that religious interactions with trees existed, and that religion was far more pervasive in the ancient Rome than in post-Medieval Norfolk, and this thesis will not exclude religion entirely. However, by putting an immediate tendency

¹¹⁴ The thesis was submitted shortly before the publication of Tully's *The Cultic Life of Trees in the Prehistoric Aegean, Levant, Egypt and Cyprus* (2018), which examines images of trees on Minoan gemstones, as a goddess-type representing fertility in depictions of ritual performance.

¹¹⁵ Hunt (2016) 292.

to see religion as a key factor in interactions with Roman trees, a prejudice developed from the past two centuries of scholarship, a more complex relationship can be seen. This complex relationship is one that is borne out by the data presented in the *RTD*, where the topics ‘Divinity’, ‘Omen’, and ‘Sacred’ only account for 143 entries, not allowing for overlaps between the three categories.

Sidelining religious interactions within a study of the social role of trees means that this thesis cannot offer a complete understanding of Roman relationships with trees. However, what it can offer is a new insight into a relationship previously dominated by discussions of religion, whether in early comparative discussions or the more nuanced modern approach of Hunt. Religion has a pervasive role in Roman social interactions, but it is not the only aspect of them, and this thesis aims to complement Hunt’s discussion of that religious role with a broader consideration of trees in the Roman landscape.

5. Thesis Outline

While this thesis moves around time periods, often jumping forward and backward, it follows a broad structure in terms of its case-studies. The opening chapter aims to provide a wide-ranging overview of primarily literary approaches to trees, leading from the evidence presented in the *RTD*. The second and third chapters offer case studies of Pliny’s *Natural History*, the most influential Roman text on modern approaches to Roman trees, and of Trajanic architecture depicting trees in foreign landscapes, a common feature of the triumphal architecture of this period, which is largely extant, and contains trees that are identifiable by species, a key feature of Pliny’s *Natural History*, but in a different context. The fourth chapter offers a study focussed on one event, addressing the role of trees in the triumphal procession, and includes some examples from Rome’s myth-history, as they were reported in this thesis’ chronological purview of the late Republic and early Principate. This is done to demonstrate understandings at the time of reporting as opposed to treating these examples as actual historical events. The final chapter takes the end of a monumental tree’s life, and examines how this is dealt with, building on a theme established throughout of monumentality within the landscape. The death of these monuments, whether natural or otherwise, is an inevitable fact of their existence, and the different ways in which they are dealt with reveals the challenges of broad brush approaches to trees in the ancient world.

The results of the *RTD* raise several key questions, not least of which is how the literary engagement with trees in the Roman world translates to physical engagement. Chapter One,

‘Rome’s Trees’, will examine a number of key elements of the *RTD*, and addresses Roman perceptions of the origin of trees before moving to the containment of natural elements in Roman society. Here, the chapter will introduce gardens, both literary and visual, as well as a poetic trope of a barren fig tree, yet to be completely catalogued in the *RTD* due to the different terms used for the fig. Following the containment of nature, the chapter will assess the integration of trees into Rome, bringing two of the original three topics intended for the *RTD* into the chapter, examining religious and social interactions with trees. Imperial interactions, and imperial manipulation of the environment will also feature here, and the chapter explores the use of trees in Suetonius’ biographies, as well as the *lauretum* at Ad Gallinas Albas, the villa of Livia on the Flaminian Way. Through these three interactions with trees, and discussions as to their origins and containment, the chapter aims to provide a comprehensive understanding of Roman relationships with their arboreal neighbours.

Following the broad overview of Rome’s relationship with trees, the second chapter will explore the usage of trees in one specific text, Pliny’s *Natural History*. Pliny is by far the most commonly cited authority in the *RTD*, appearing 590 times at the time of writing, over three times as common as the next author, Vergil, who is attested 189 times. In the *Natural History*, Pliny presents a catalogue of the natural world, and approaches its role as a resource to be exploited. However, Pliny’s conflicting philosophies can be seen in the discussion of the trees, and Chapter Two will consider how this Roman author, the most prolific source on trees in the ancient world, reconciles his world-view with those of the authorities he cites, as well as negotiating his own often conflicted philosophies regarding the dangers of *luxuria* next to the benefits of *imperium*.

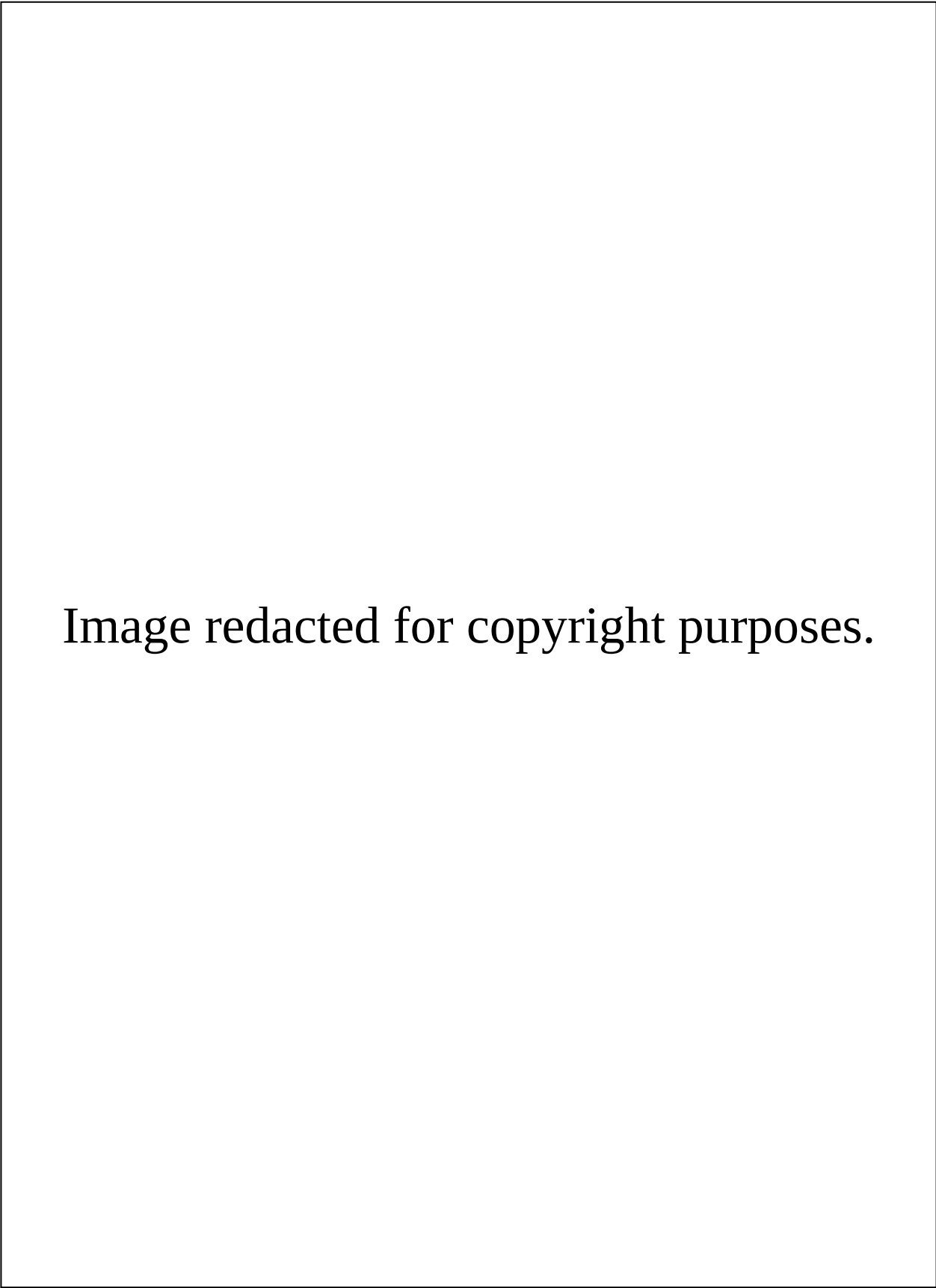
The third chapter, ‘Trajan’s Trees’ moves from a focussed literary discussion to an artistic and architectural discussion. This chapter will consider the role trees played in the triumphal architecture following Trajan’s Dacian and German conquests, and how they functioned in the urban plan of Rome in Trajan’s reign. Picking up on the triumphal overtones of Pliny’s *Natural History*, ‘Trajan’s Trees’ examines the use of trees to communicate control of the Roman empire in this period, with a particular emphasis on Trajan’s Column.¹¹⁶ The role of trees both on and around these monuments will further inform our understanding of how trees functioned in other settings within the city, such as Pompey’s *porticus*, and within the city’s architecture,

¹¹⁶ For a focussed piece on only the Column, see Fox (2019).

such as on the Ara Pacis, which has had its botanical content recently assessed by Caneva (2010), and by Kumbaric (2013).

Next, the thesis moves to a discussion focussed on an event, and Chapter Four assesses the role of trees in the triumphal procession. This chapter expands upon the triumphs of Trajan to triumphs more generally in the early Principate, and the late Republic. It is in the earlier period that the import of trees in the triumph begins, with Pompey's Pontic triumph in 63 BCE. The procession itself is one which displays the wealth of a subjugated territory, and Chapter Four explores the ways and contexts in which trees are exploited in the narrative of subjugation. This does not only take the form of the display of trees, but also the use of leaves in various crowns, and trees in *trophaea*. This chapter, and the preceding chapters will contrast the conquest of foreign nature with Roman nature, and will explore the monumentalisation of nature, particularly in this chapter, where trees are used as memorials of conquests.

The thesis' final chapter explores the challenges of monumental trees, and begins with their vulnerability to human activity, specifically framed within the violability of sacred groves, a common theme in previous scholarship. The topos of the unviolated woodland is frequently found in Roman approaches to trees, and has its roots in both law and myth. The legal evidence for this topos will be presented at the opening of this chapter, in the form of two inscriptions from Spoleto and Trevi, alongside the potential for misunderstanding which groves and trees are inviolable. Identification of monumentality is a key issue in the case of natural monuments, and the opening section to this chapter, on violations, explores both monumental and non-monumental trees in a variety of settings. The chapter then moves on to discuss the harmful growth of trees, specifically when that growth interferes with another monument. This section, on removals of monumental trees, focusses on two trees, one in Rome and one in Nocera, and the methods of removal, and examines the consequences of that removal. Finally, the chapter closes with a fundamental fact of a natural monument such as a tree – a death that is not considered a violation. Two monumental trees from the founding of the city are recorded as dying, the *figus Ruminalis* and the tree that grew from Romulus' spear on the Scalae Caci, and the chapter closes with a discussion on the different ways that the death of a natural monument is negotiated. This chapter will examine discrete natural monuments, and will address the benefits and the challenges of using trees as monuments such as those explored in the previous four chapters.



Number on map	Tree, grove, or Horti	Number on map	Tree, grove, or Horti
1	Vatican oak	15	Balsam planting in the Templum Pacis
2	Horti Luculliani	16	<i>Ficus Ruminalis</i> in the Comitium
3	Horti Sallustiani	17	Volcanal <i>lotus</i> and cypress
4	Trees surrounding Augustus' mausoleum	18	<i>Vicus aesculeti</i> – <i>aesculetum</i>
5	Horti Lolliani	19	Horti Maecenatis
6	Nemus Thermanum	20	<i>Ficus, olea, vitis</i> group in the Lacus Curtius.
7	<i>Ad Pirum</i> (Martial's apartment)	21	Fig tree outside the Temple of Saturn
8	Horti Agrippae	22	<i>Ficus Ruminalis</i> (original) on the Palatine
9	Plane trees in the Porticus Pompeiana	23	Laurels planted outside Augustus' house
10	Dacian trees in Trajan's Forum	24	Cornel from Romulus' spear
11	<i>Lotus</i> of Lucina	25	Grove of the Camenae
12	Oak tree at the Temple of Jupiter Feretrius	26	Horti Caesaris
13	<i>Inter duos lucos</i> . Romulus' Asylum.	27	Arval grove, 5 miles south-west of Rome on the Via Campana
14	Tarpeian grove.		

Figure 4: A synchronic overview of Rome's trees, superimposed over the similarly synchronic overview proposed by Larmour and Spencer (2007a, fig. 1).

1. Rome's Trees

When Aeneas first sets foot on the site that will become Rome, or so Vergil tells us, a rural idyll is presented to him. A huge grove (*lucum ingentem*) fills the space which will one day be Romulus' asylum, and the Argiletum, which would become one of the busiest access points to the Forum Romanum, is similarly wooded (*sacri monstrat nemus Argileti*). The Tarpeian rock and the Capitoline are conspicuous by their thorny woods, contrasting with the golden Augustan spectacle (*aurea nunc, olim silvestribus horrida dumis*), and the very rocks and woods of the site cause its visitors to quake with fear (*iam tum silvam saxumque tremebant*).¹¹⁷ From such rural beginnings was the city of Rome founded.

By the time of Vergil's writing, these trees were all but gone, replaced by pockets of nature within a growing cosmopolis, integrated and isolated within Rome, and the competition between urban and rural space appeared to have been won by the city. Engagement with nature appears ostensibly to have been limited to confined spaces within the urban landscape, such as gardens, and in the countryside, beyond the city's boundaries. Beyond these boundaries, trees formed an integral part of the idyllic rural landscape, and this is obvious in the descriptions in Vergil's *Eclogues*, particularly at the opening of the fifth *Eclogue*, in which Menalcas describes the scene for his music competition with Mopsus as being 'where hazel trees are dotted among elm trees'.¹¹⁸ This peaceful country setting apparently jars with the urban environment in which the poem would have been disseminated, and the trees are central to creating this apparent disunion, which is further exacerbated by generic differences, and the ultimately successful interplay between elegy and pastoral poetry within parts of the *Eclogues*.

Within the physical fabric of the city, and in contrast with the poetic separation of the two, natural features were common, and can be found depicted in a variety of sources and media, from urban planning to visual representations to literature. Trees were sometimes found grouped together in a *lucus* (grove), a term which has undergone rigorous etymological examination from Broise and Scheid and, more recently, Hunt. Both studies are particularly concerned with the Arval grove, a short distance from the city, and one which will be explored in this chapter. As to *lucus*, Broise and Scheid suggest that the word is etymologically linked to *lux* (light), and that to prune a *lucus* was to allow the *lucus* to fulfil its pre-destined

¹¹⁷ Verg. *Aen.* 8.337-50.

¹¹⁸ Verg. *Ecl.* 5.3. This is only one of the 52 references to the species (that have been catalogued at the time of writing) within Vergil's *Eclogues*. *Eclogue* 5 in particular highlights the rural utopia in Mopsus' and Menalcas' eulogies for Daphnis, the mere presence of whom was so unifying that it disrupted the natural order (*Ecl.* 5.58-64).

etymological purpose.¹¹⁹ However, as Dumézil acknowledges in his similar etymological discussion, *lucus* is used in Latin to refer to both a clearing and a wood – a difficulty which ancient authors also grappled with.¹²⁰ Quintilian places *lucus* among his list of words derived from their opposite, as a place noted for being absent of light, and Servius also qualifies a *lucus* as a place ‘which is not lit’.¹²¹ Later, in the late sixth or early seventh century CE, Isidore of Seville similarly comments that a *lucus* is a place of dense forest, characterised as having little light, before offering a similar clarification to that found in Servius’ etymology, that they are lit by other means, bringing *lumen* rather than *lux* into the grove.¹²² Hunt, following Quintilian’s far earlier example, describes the ancient etymology from the absence of *lux* as ‘absurd’, but cautions against the ‘light-centric’ reading of *lucus* proposed by Broise and Scheid, given the artificiality of the light that ancient grammarians use to justify a positive association between light and the *lucus*.¹²³

The debate of etymology for *lucus* is indicative of the challenges faced when dealing with the natural world in ancient Rome, and in defining the terms that are used by Latin authors. This is a key issue in understanding Roman relationships with their natural surroundings: if we know what an author means when they use the word *lucus*, or *arbor*, we are able to understand the nuances of ancient approaches. It is sometimes unclear what the distinction is between a tree and a plant, with *arbor* being used to describe what would now be considered a plant (e.g. the balsam and the vine).¹²⁴ Isidore aims to qualify this distinction by applying some degree of progression: a small plant is referred to as *herba*, a sapling as *arbusta*, and a tree as *arbor*.¹²⁵ Within the modern definition of a tree, as ‘a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground’ (*OED*), Isidore’s definition finds itself lacking. However, the *OED* offers an alternative definition of tree, which is used more widely: ‘any bush, shrub, or herbaceous plant with a tall erect stem, e.g. a banana plant’. It is this definition for the English ‘tree’, reliant upon the adjectives ‘tall’ and ‘erect’, which is closer to the Latin *arbor*, which clarifies our understanding of what it meant to call a plant an *arbor* in the Roman world, as opposed to adhering to the stricter modern definition.

¹¹⁹ Broise and Scheid (1993) 151.

¹²⁰ Dumézil (1975) 43.

¹²¹ Quint. *Inst.* 1.6.34; Serv. *Comm. Aen.* 1.441.

¹²² Isid. *Etym.* 14.8.30, 17.6.7. Hunt reads this artificial form of light as candles (2016, 150).

¹²³ Hunt (2016) 148-50.

¹²⁴ See, for example, the balsam, in Plin. *HN* 12.111-12.

¹²⁵ Isid. *Etym.* 17.6.1.

This chapter aims to offer a broad survey of the trees that primarily both grew within the city of Rome and were inextricably linked to it by prominent individuals, and explores the findings of the *Roman Trees Database*.¹²⁶ As a result of the observations arising from the data gathered in the *RTD*, the chapter is able to assess the role of trees in Rome and its environs in the early Imperial period, such as the grove of the Camenae outside the Porta Capena, as well as considering the origins of Roman engagements with trees, and how this engagement varied according to the biases (either individual or genre-specific) of authors. To properly understand the implications of this interaction with trees, the chapter will occasionally extend beyond the city of Rome, and will address interactions that were central to Rome's developing form in the Imperial period, such as the Vespasianic oak, which will be addressed alongside the *lauretum* of the Julio-Claudian dynasty at the Villa of Livia. The survey of Rome's trees that this chapter provides does, however, have its limitations. There are unknown and unknowable trees in the ancient city, either because they died and any trace of them vanished from the archaeological record, or they were unimportant avenue trees, which did not prompt a reaction on their death. Unlike the groves listed by Varro in *De Lingua Latina*,¹²⁷ individual trees are more easily subsumed into a growing cityscape, and some groves will have existed in places which maintained their original name, rather than adopting the name of a deceased arboreal monument.¹²⁸ About these trees, we can make no conclusions or definitive statements.

When examining the ancient city of Rome, particularly following the Augustan cultural revolution, there is a tendency to think of the city as one of marble, influenced by Suetonius' comment, that Augustus came to Rome as a city of brick, and left it a city of marble.¹²⁹ However, trees were throughout the city, isolated as individual monuments or groves, or incorporated into the city's architecture, as seen in the map that preceded this chapter (Fig. 4). This map is a composite of the key known monumental trees found in the *RTD*, superimposed on top of the map of Rome in Larmour and Spencer's *The Sites of Rome* (2007b). The monumental trees are found clustered on the left-hand side of the Tiber, and in the metropolitan centre of the city, while the gardens and groves are found on the city's outskirts, possibly as a result of space being a high-value commodity in the city's crowded centre. Unlike the gardens, which are spread around Rome, the monumental trees follow the city's typical centres, from

¹²⁶ Fox (2018) http://www.nottingham.ac.uk/roman_trees.

¹²⁷ Varro, *Ling.* 5.152.

¹²⁸ For an example, see the cornel cherry tree grown from Romulus' spear on the Palatine, discussed below (see p.000)

¹²⁹ Suet. *Aug.* 28.3. Cf. Cass. Dio 56.30.3-4, among others. The use of marble in Augustan building projects has been examined by Bradley (2006), Fant (1999), and Mattern (2000, 147-51).

the Palatine and the Capitoline to the Forum Romanum, according to the city's expansion. The draining of the marshy landscape of early Rome would have helped the growth of trees in the valleys between the city's hills. While most maps of ancient Rome, such as Lanciani's *Forma Urbis Romae* (1893-1901), focus on the monumental architecture of the city, Carandini's recent *The Atlas of Ancient Rome* (2017) frequently concerns itself with the trees in the city plan, as well as the green spaces more generally, providing a guide to the city's Horti as one of the earliest maps (Vol. II, tab. II).

While the presence of trees across the city is indisputable, their prominence in Roman ideas of the city, and Roman interactions with the trees already in the city is less clear, and this chapter will address three key aspects of these ideas and interactions. The first, concerning the origins of trees, assesses two contrasting cosmogonies, offered by Lucretius and Ovid, and their accounts of the creation of trees. Through placing these two sources side by side, the apparent breadth of engagement with the arboreal elements of the natural world in the early Imperial period will be explored, revealing both the differences and the similarities in the approaches of two disparate genres and authors. The chapter will then move to the containment of trees within and without the city. By their very nature, trees must occupy a contained space, being firmly rooted in the ground, and as a result, they were sometimes isolated from the surrounding city, and an analysis of the tradition in urban poetry involving the resurgence of nature and breaking of human monuments will address the consequences of isolating nature in the city. Moving from the containment of trees, the chapter will explore Roman interactions with trees into the life of the city, and of the citizens. This section, which moves beyond the city to include trees which affect the city, will consider three key spheres – religion, the politics of empire, and society in Rome. This section aims to prove that trees were a key and continual presence throughout everyday Roman life, not only in literature, but also in the urban topography, and to thus establish the extent of the Roman citizenry's interactions with its arboreal inhabitants, exploring a wide variety of ancient evidence, from literary to visual to archaeological.

1.1. Origins

Among the most commonly cited passages in reference to the trees of the ancient world is the opening to Pliny's books on trees in Book Twelve of the *Natural History*. Here, Pliny associates a few trees with particular deities – the oak with Jupiter, the olive with Minerva, the laurel with Apollo, poplar with Hercules, and the myrtle with Venus. All trees, however, are

sacred to tutelary woodland deities, such as nymphs, fauns, and Silvanus.¹³⁰ Despite this passage being deeply problematic and having had a lasting effect on arboreal scholarship,¹³¹ some of these divine associations appear frequently in mythology. Hunt is clear in her treatment of this passage, and its ambiguity, stressing that it should not be read as implying a divine ownership of a tree *genus*, but a more tenuous association.¹³² In the context of the creation of trees, this relationship is apparent in stories such as the metamorphosis of Daphne into a laurel tree as she flees Apollo, an account which is among the earliest in Ovid's *Metamorphoses*, and which sets the tone for future metamorphoses in the poem.¹³³ The metamorphoses of the trees in Ovid's epic are regarded by Francese as 'attractive' aetiologies, but they do have a key element in common with other aetiologies offered, one of which will be briefly discussed here, in that the aetiological metamorphosis of trees is often a process implicitly driven by either the divine Natura or the individual who metamorphoses, and that, once created, the trees are instantly an integral part of nature.¹³⁴ The same attitude can be found in Lucretius' Epicurean cosmogony, in the fifth book of the *De rerum natura*, which comments that trees grew immediately from the ground, as extensions of the world itself.¹³⁵ These trees are spontaneous growths, in a way that the metamorphoses found in Ovid's text are not, and are described as wombs, designed to nourish and create life with their milky fluid. Trees and nature itself form a key part of the world around the early men, whose fortunes improve as they take control of the landscape around them, moulding it to their will.¹³⁶ This subjugation of the landscape, forcing forests to retreat up the mountains, using trees to map out plantations is the catalyst for humanity's progress in the *De rerum natura*. The exertion of control over nature is a common theme throughout this thesis, and its presence in Roman thought on the origins of trees indicates that this theme was imposed by Roman authors from the very inception of trees, as well as that of productive fertility, and how it is imposed will be examined here.

¹³⁰ Plin. *HN* 12.3

¹³¹ For a discussion of this passage and its consequences in scholarship, see Hunt (2016) 13, 67, 187-8, and 230-1.

¹³² Hunt (2016) 231.

¹³³ Zatta (2016, 103-5) highlights the difficulties of this passage in terms of arboreal scholarship. In the Introduction to this thesis, we examined the development of religious scholarship and trees. Zatta explores the transformation of nymphs into trees, and Ovid's use of form to convey meaning – the laurel tree retains Daphne's lithe form, and her formal qualities are directly mapped onto the tree – her hair becomes leaves, her arms branches, and so on. Zatta also emphasises that it is not just Daphne's physical attributes that are transferred – the tree is still repulsed by Apollo and moves away as best it can (*Met.* 1.556).

¹³⁴ Francese (2004) 153.

¹³⁵ Lucr. 5.783-7.

¹³⁶ Lucr. 5.1361-78.

In Ovid's *Metamorphoses* (which, like Lucretius' *De rerum natura*, adapted Hellenistic texts for a Roman audience), trees are produced from the earth itself in a similarly spontaneous fashion, as in the case of the laurel,¹³⁷ the syrinx,¹³⁸ the poplar,¹³⁹ the lotus,¹⁴⁰ the pine,¹⁴¹ the cypress,¹⁴² and the myrrh.¹⁴³ These trees are produced by a variety of means, although a common theme between them is that they are characterised by Ovid as the genesis of the species. Whether or not these were genuinely regarded as the origin of the trees by the poet or his audience is both impossible to know and inconsequential to the current inquiry, which focusses instead on the setting and the content of the metamorphoses in comparison to Lucretius' cosmogony.

Lucretius places the origin of trees in the earlier phases of the world's creation. Similarly, Ovid's aetiologies occupy a 'Golden Age' era, when gods inhabited the world, an era in an inaccessible past for his audience. A clear distinction ought to be drawn here between the outlooks of these two periods here in order to avoid any confusion – while Lucretius' vision of the world in its early stages is one of savagery turning into civilisation, Ovid offers an idyllic landscape, typical of depictions of the Golden Age from this period. A further distinction can be found in the process of growth. Lucretius' trees are presented as a natural outcome of the growth of civilisation, while Holzberg identifies that the creation of the *Laurus nobilis* in the *Metamorphoses* depends upon the interruption of one of humanity's 'earliest cultural achievements' – hunting.¹⁴⁴ In the *Metamorphoses*, Apollo is the first hunter, but his hunt of stags is interrupted by Cupid, who introduces the chaotic element of love, which results in the first *Laurus nobilis*. Holzberg's identification of civilisation interrupted in the *Metamorphoses*' first tree might imply a reading of this as a natural intervention, and as suggesting a dichotomy between humanity and nature – for nature to flourish, man's activities must be interrupted. However, this does not seem present elsewhere in the *Metamorphoses*, which shows the

¹³⁷ Ov. *Met.* 1.452-567.

¹³⁸ Ov. *Met.* 1.705-13.

¹³⁹ Ov. *Met.* 2.364-67. Ovid does not refer to the variety of tree here, but Hyginus (*Fab.* 152A) names the trees as black poplars, as does Ovid elsewhere in his corpus (*Pont.* 1.2.32).

¹⁴⁰ Ov. *Met.* 9.335-80. This metamorphosis, of Lotis/Dryope, is into a poplar in the variant account of Antoninus Liberalis (32).

¹⁴¹ Ov. *Met.* 10.103.

¹⁴² Ov. *Met.* 10.106-25.

¹⁴³ Ov. *Met.* 10.490-500. Ovid has Orpheus appear somewhat conflicted about this tree, and Nagle (1983, 306-7) notes the shift in tone from the sneering remark that 'the new tree was not worth too much' (10.310) to the sympathetic tone at the end of Orpheus' telling of Myrrha's transformation (10.501-2).

¹⁴⁴ Holzberg (2002) 123.

harmonious Golden Age, and contains a number of tropes for this period, including the obvious presence of the gods, and their interactions with mortals.

Another common trope of this period, alongside the interaction of the gods with humanity, is the dripping of honey from oak trees, found in a number of authors, beginning with Tibullus' *Elegies* and continuing to the *Cathemerinon* of Prudentius in the fourth century CE, as well as being found in a range of more prosaic prose texts.¹⁴⁵ Authors vary in their classification of the tree from which the honey traditionally flows, distinguishing between the *ilex* and the *quercus*, and even Ovid is unclear as to which species of oak was the source of this miraculous occurrence, himself referring to honey coming from *ilex* trees in the *Metamorphoses*, and *quercus* in the *Amores*.¹⁴⁶ In comparison, the oak trees in Lucretius' *De rerum natura* are presented in a less mythologised manner, producing only the expected acorns.¹⁴⁷ Trees are used in both texts to produce meaning – in Ovid's *Metamorphoses*, the trees and their produce are used to highlight the abundance of the period, and to signpost it as a time inaccessible to Ovid's contemporary readers, introducing the atmosphere in which other, bigger miracles are able to occur. Meanwhile, for Lucretius, the trees are emblematic of the landscape, and are key in the progress of humanity, who have to subjugate their surroundings before they can progress as a species. Acorns are considered to be one of the lower and earlier forms of food according to a number of Latin authors, and Ovid recounts that Ceres traded acorns for 'more useful food' in the *Fasti*.¹⁴⁸ As a result, Lucretius' use of acorns, and consequently, of oaks, would have reminded his readers that they were dealing with a primitive society, not yet in control of their landscape.

The aetiologies of trees found in the two works appear distant from each other at first sight. In Lucretius' *De rerum natura*, the trees are 'given' by the earth, growing like hairs from its surface.¹⁴⁹ In Ovid's account of Daphne's metamorphosis into the laurel, which is presented in the *Metamorphoses* as the tree's aetiology, her metamorphosis proceeds from her core as opposed to from the earth itself.¹⁵⁰ In Ovid's account, there is a clear deity responsible for the metamorphosis of Daphne – her father, Peneus, to whom she appealed for aid, while Lucretius

¹⁴⁵ Tib. 1.3.45; Verg. *Ecl.* 4.30; Ov. *Am.* 3.8.40, *Met.* 1.112; Hor. *Epod.* 16.47; Prudent. *Cath.* 11.74.

¹⁴⁶ This distinction could be a simply superficial one, dependent upon word choice – *quercus* is used as a general word for 'oak' as well as the more specific species *quercus robur*, while *ilex* refers to a number of oak trees, most commonly the *quercus ilex*.

¹⁴⁷ Lucr. 5.939 – *glandíferas... quercus*.

¹⁴⁸ Ov. *Fast.* 4.400-402. Acorns as an early food source can also be found at Juv. 14.184; Plin. *HN.* 16.20; Serv. *Comm. G.* 1.348; Val. Flacc. *Arg.* 1.70; App. Verg. *Cul.* 135.

¹⁴⁹ Lucr. 5.783-94.

¹⁵⁰ Ov. *Met.* 1.548-52.

ascribes the creation of trees to the earth itself, the subject of the verb *dedit* (*genus herbarum viridemque nitorem / terra dedit*). For Ovid, whose genesis necessitates the intervention of a figure external to the story, the metamorphosed tree is not a naturally occurring phenomenon, and the *Laurus nobilis* is a late development, as Ovid draws attention to – Daphne is often found wandering the woods.¹⁵¹ Lucretius, meanwhile, presents an impersonal provider, characteristic of Epicurean philosophy, which distances gods from the physical world. This absence of divine personality is comparable to some metamorphoses in Ovid's poetry, and can be seen to some extent in the account of the Pyramus and Thisbe myth, in which Thisbe appeals directly to a mulberry tree to change the colour of its fruit and timber from white to mimic the blood of the two lovers.¹⁵² While the metamorphosis is confirmed by the gods, it is pre-empted by humans, and could be read as a human control over the landscape, creating new plants, a practice entirely familiar to Romans – Pliny laments that there are no new fruits to create through grafting,¹⁵³ and a number of other sources comment on the practice, particularly in Cato's *De agricultura*, and Columella's *De arboribus* and *De re rustica*.

When specific divinities are associated with trees, as in the case of the *Laurus nobilis* and Apollo, this can cause issues with discussions surrounding the tree itself. As will become apparent later in this chapter, the association is attractive when writing about laurel trees to link them with Apollo, regardless of setting. This is not an accurate understanding, however, and has recently been addressed by Hunt, who challenges Tylor's idea of 'direct and absolute tree-worship'.¹⁵⁴ Pliny's opening remarks in Book Twelve of the *Natural History* are an easy proof of a numinous understanding of trees in the Roman world, but Hunt rightly criticises those who have been too quick to rely on the passage as proof for the Roman relationship with the arboreal being exclusively religious.¹⁵⁵ Instead, it is helpful to look at the trees of the Roman world with a degree of scepticism. For example, while some laurel trees are sacred to Apollo, and the species as a whole is associated with the deity, not all laurels are sacred trees, nor are they inviolable.

In terms of etymology, ancient authors do not often associate trees with religion, and only a select number of trees are linked to divinities in their names. One example of this is the walnut, or *iuglans*, which Varro claims derives from a contraction of *Iuppiter* and *glans*, indicating that

¹⁵¹ Ov. *Met.* 1.479.

¹⁵² Ov. *Met.* 4.158.

¹⁵³ Plin. *HN.* 15.57. For more on the ancient practice of grafting, and its consequences, see Hunt (2010) Lowe (2010), and Thomas (1988).

¹⁵⁴ Tylor (1871) 202.

¹⁵⁵ Hunt (2016) 60-2.

it is Jupiter's nut.¹⁵⁶ This etymology is found elsewhere in Latin, in Pliny's *Natural History*, and in Servius' *Commentary on the Eclogues*, in which Servius tells us that walnuts were under the guardianship (*tutela*) of Jupiter.¹⁵⁷ This etymology indicates confusion, which Meiggs has picked up on, between the walnut and the chestnut in early Latin.¹⁵⁸ When writing about the chestnut, Theophrastus sometimes uses the name Δῖος βάλανος, which literally translates as the 'acorn of Zeus',¹⁵⁹ and Meiggs believes that there was minimal differentiation between the species of nut before the late Republic, pointing to the confusion in Cato's varieties of nuts.¹⁶⁰

Deriving the names of trees from Greek is not exclusively reserved for the walnut, and can also be found in the *cerasus* (cherry) which takes its name, according to Pliny, from the Greek κεράτιον.¹⁶¹ While this is a relatively simple etymology, the *fagus* (beech) had a more challenging journey from Greek to Latin, being derived from the Greek φηγός (oak). In Vergil's first *Eclogue*, in its first line, Meliboeus addresses Tityrus under a *fagus* in what is widely read as a direct reference to Theocritus' shepherd, who rests under a φηγός.¹⁶² While Meiggs judges that Vergil chooses to transliterate rather than translate is a result of preferring sound over substance, there is no such excuse for Pliny's misreading of the Greek φηγός.¹⁶³ Meiggs suggests an explanation for the mis-transliteration between Greek and Latin, and he proposes that the Greek φηγός and the Latin *fagus* share a common Indo-European ancestor in a generic word for 'tree'. Meiggs believes that the word was subsequently applied to the dominant tree in Greece and Italy, the oak and beech respectively.¹⁶⁴ As a result, we can see the challenges that are posed to Romans in identifying trees in the ancient world, a challenge which sometimes catches Pliny out, as in the case of his comment, translated from Theophrastus, on the sweetness of the acorn, mistakenly identifying that of the *fagus* as being the sweetest.¹⁶⁵

By identifying trees, they are able to be framed as monuments – the myrrh will be remembered by its identification with Myrrha, who was transformed into it, a metamorphosis which Ovid

¹⁵⁶ Varr. *LL.* 5.102. Pliny reiterates this etymology, although he does not indicate whether or not he agrees with it (*HN* 15.91).

¹⁵⁷ Serv. *Comm. E.* 8.29.

¹⁵⁸ Meiggs (1982) 420-422.

¹⁵⁹ Theophr. *Hist. pl.* 3.3.1, 3.4.2, 4.5.4.

¹⁶⁰ Meiggs (1982) 421, possibly a reference to Cato's list in *Agr.* 8 or 133.

¹⁶¹ Plin. *HN.* 12.14. The name could also have originated in the origin of the tree, if Servius' aetiology is to be believed, and the tree was brought from a town named Cerasus (*Comm. G.* 2.18). Pliny offers a conflicting aetiology, linking the tree with Lucullus, which will be discussed in greater depth below.

¹⁶² Verg. *Ecl.* 1.1, cf. Theoc. *Id.* 12.8.

¹⁶³ Meiggs (1982) 34.

¹⁶⁴ Meiggs (1982) 25.

¹⁶⁵ Plin. *HN* 16.16, taking from Theophr. *Hist. Pl.* 3.8.2.

tells us will never be forgotten throughout the ages – ready to be integrated into the ancient world, functioning as reminders of a historical or mythological past.¹⁶⁶ Through the aetiologies offered by Lucretius and Ovid they are identified as both a reminder of, and witness to a far-off past, although what they witnessed differs between the sources, as well as being an item of nature ready to be subjugated by humanity. Similarly, the association of trees with a far distant past roots them as monuments and recollections from an earlier age, as living vessels that have remained unchanged in form, a magnitude of age which is reflected in the etymologies discussed above, with linguistic similarities that indicate common ancestors, or ignorance of the variety of species available. To address these trees as monumental remnants of a distant era confers status on these isolated remnants of the past. However, the origins offered by Ovid are not to be taken literally, nor should the oak trees dripping honey in the Golden Age be treated as a genuine, widely-held belief, and it is used for more metaphorical purposes in these accounts. Similarly, the aetiologies proposed by Lucretius should not be considered a standard conclusion, since he is communicating a specific philosophical viewpoint. The similarities between the two accounts, specifically the role of fertility (in both the Myrrha myth and the prioritisation of acorns providing food), offer some indication that these two sources, though from disparate genres that cannot offer either a complete or comprehensive picture, are both founded in a similar attitude toward the environment. This pragmatic approach toward the environment is one which remains consistent across a number of Roman authors and periods, and will be discussed in the following chapter. It does prioritise productive fertility, which causes other perceived purposes of trees, such as timber, to be discounted in the origins of trees, as well as their role within a city, where productivity is often superseded by more symbolic associations.

1.2. Containment

The Horti of written Rome are a clear example of nature's containment within the city. These spaces in the buzzing metropolis acted as specific zones in which the people of Rome could wander among landscaped areas and trees. These Horti are primarily a Republican feature, three of the most prominent being those of Lucullus, Pompey, and Caesar. During the early Imperial period, the privately owned Horti of Republican Rome came under imperial possession, and were transformed into public parks, as opposed to the privately owned spaces

¹⁶⁶ Ov. *Met.* 10.501-2. See also Nagle (1983) 306-7.

they had been before.¹⁶⁷ This imperial exertion of control over the Horti was a statement of intent, and removed the *hortus* as a politically communicative tool for wealthy individuals, begun by Augustus turning the gardens of Agrippa over to public use after inheriting them.¹⁶⁸ Despite this level of integration, bringing nature to the public, the *horti* remain an example of the isolation of nature on a large scale, nature with defined borders within the city, and this can be seen more clearly in smaller spaces, in the use of rural scenes by poorer individuals in Rome. Pliny tells us that ‘the lower classes now used to afford themselves views of the country in their windows, by use of an *imago hortorum*’.¹⁶⁹ Precisely what is meant by *imago hortorum* is unclear, although it has often been assumed to be window-boxes, an assertion which Stackelberg finds jarring, given the complex nature of the *imago*.¹⁷⁰ However, for the sake of concerning ourselves with isolation, the issue at play here is not the precise nature of the *imago*, but its location, *in fenestris*. The *fenestra*, or window, is a framed space, which has led some to argue that the *imago* is in fact a painting within the window frame,¹⁷¹ and is found within the house, a distinctly human setting. This contrasts with the idyllic natural content of the *imago*, that of *horti*. Nature, whether as a painting or a window box, is kept, as in the Horti, as a strictly isolated event, even within the highly individualised setting of the house, which is a direct contrast to the Horti of the city, places of grand scale and scope.

Here, in the contest between rural and urban within the city, there are battle lines, and an uneasy peace, the two of them occupying their spaces and not intruding on the other, and this can be seen throughout the city, even in its individual arboreal monuments. In his discussion of the Ruminal fig tree, Conon, the Augustan mythographer, informs us that ‘A sacred fig tree stands as testament to these events for Romans in front of the senate house, enclosed with bronze lattice gates.’¹⁷² The fence that protects the tree from tampering and interference from the city also removes Rome’s founding tree from Rome itself, preserving nature as an inviolable feature within the city. It acts as a physical reminder, not of the integration of nature, but of its isolation and veneration within the city, and this is explored further in instances of the tree’s portentous death.¹⁷³ In the *Natural History*, while Pliny describes the famous trees of Rome in relation to their urban surroundings, they seldom interact with the city in a positive way, and are

¹⁶⁷ Stackelberg offers a useful summary of the acquisition of the Horti by the Julio-Claudian emperors (2009, 79), and the map provided by Carandini is equally helpful (2017, Vol. 2, tab. II).

¹⁶⁸ Cass. Dio, 54.29.4.

¹⁶⁹ Plin. *HN* 19.59: *iam in fenestris suis plebs urbana imagine hortorum cotidiana oculis rura praebebant*.

¹⁷⁰ Stackelberg (2009) 2.

¹⁷¹ Kuttner (1999); Linderski (2000).

¹⁷² Conon, *Narr.* 48.

¹⁷³ Tac. *Ann.* 13.58. See below, p.206.

sometimes presented as being alien to Rome, as in the case of an *ilex* on the Vatican hill, dated to being older than the city by the presence of an Etruscan tablet at its base.¹⁷⁴ By framing this tree as a foreign one in a Roman context, Pliny presents it as an isolated remnant of a lost past, and as a monument that does not belong within the city itself.

Looking a short distance outside of Rome, the discourse between nature and the city can be seen in stark detail, in the case of the grove outside of the Porta Capena.¹⁷⁵ This grove, according to Livy and Juvenal, was the fabled meeting point of the king Numa with the nymph Egeria.¹⁷⁶ Livy provides a dedication for this grove, to the Camenae, an alternative name for the Muses in Roman literature, which Livy may be using here as an archaic name for the local goddesses of the springs, since the area was also known for its springs within the grove.¹⁷⁷ Juvenal likewise agrees with Livy, linking the grove to the Camenae, although his interaction with the grove is an extremely negative one. The grove is a key battleground, for Juvenal, between the immigrants rushing into Rome, polluting it, and the Romans leaving it. The subject of his poem epitomises this battle – it is an account of Juvenal's friend, Umbricius, and his journey from Rome, which Umbricius blames on the immigrant influx.¹⁷⁸ While Livy's grove may have still been sacred to the Camenae, any such association has been removed by Juvenal's time, fifty years later, and the grove is a shadow of its former glory, alienated from its past:

For every tree has been ordered to pay its rent to the people.

The Camenae have been ejected, and the wood now begs for scraps.¹⁷⁹

Juvenal's choice of words in this poem should be recognised. The group of trees is called a *nemus* when the goddesses have some sway within it, but when the Camenae have been cast out, it has become a *silva*. In looking at the grove, we see a formerly religious space, one of the oldest in Rome, dating back at least to the second king, but now isolated from the city, and forced to pay rent (*mercedem*). It is unclear why the rent is due, or if it is required for the

¹⁷⁴ Plin. *HN* 16.237.

¹⁷⁵ There is some debate as to the location of this grove, particularly in Juvenal's poetry, and this has been discussed by Kraan (2001), Pearce (1992), and Nisbet (1988, 92-3).

¹⁷⁶ Livy 1.21.3; Juv. 3.17.

¹⁷⁷ Livy 1.21.3 offers the dedication, while Juv. 3.18 refers to the *sacer fons* in the location. For more on Egeria and the grove, see Oglivie (1965) 102 (for Livy) and Courtney (1980) 157-9 (for Juvenal).

¹⁷⁸ The usage of geographic symbolism is not restricted to this grove in Juvenal's *Satire*: rivers are used, in Umbricius' speech, when he laments to Juvenal that the Syrian Orontes is polluting the Roman Tiber (3.62). The invasion of the foreign in Juvenal's *Satire* is read by Staley (2000) as being a parallel with *Aeneid* 2, which shows Aeneas fleeing the Greek-occupied city of Troy. Egeria's grove, as the site of Umbricius' monologue, is emblematic of this occupation.

¹⁷⁹ Juv. 3.15-16. The alienation of the grove from the spirit of Egeria, which used to dwell within it, is examined by Motto and Clark (1965), who use it and the surrounding dried fountains to show the isolation of the grove from its surroundings.

continuation of the grove's lifespan, although Courtney theorises that Juvenal is suggesting that the trees are having to beg for money from the Jews, like the Roman paupers such as Umbricius.¹⁸⁰ That they are begging (*mendicat*) is obvious, and the implication is that a formerly noble Roman grove has been polluted by the foreign influence, which serves not only to isolate it from Rome, but also to isolate Rome within its surroundings. This latter point is evident through Umbricius' diatribe, which forms the bulk of the poem – he is leaving Rome because it is no longer the Rome he recognises, and the grove's isolation from the gods serves to demonstrate its isolating influence on Rome.

In Cicero's *De legibus*, when Atticus asks about the veracity of a named oak tree, Cicero tells his friend that he has no time for the people obsessed with such detail in everyday life, and refers his audience to the meeting of Numa and Egeria in the grove of the Camenae, admonishing any who genuinely believed such a meeting actually happened.¹⁸¹ At the opening of the second book of *De legibus*, Atticus muses on the beauty of natural places while pouring scorn on the artifice of monumental structures, and Hardie (1998) finds a comparison between this and Juvenal's depiction of Egeria's grove, surrounded and enclosed (like Conon's *ficus Ruminalis*) by marble, which Juvenal views as a violation of the native tufa.¹⁸² Throughout Rome, groves like the Camenae's could have found themselves isolated in a changing world despite Atticus' and Juvenal's preference for the natural, and would have become increasingly urbanised. An example of this can be found in the *vicus aesculeti*, where no trace of the grove remains. However, nature can never be fully banished from the city, and Juvenal is aware of this, recycling a poetic trope in *Satire* 10, of a fig tree breaking apart the tombs of proud men who seek eternal glory, even after death. By using nature to show the ultimate futility of lasting fame, and through using a barren fig tree in particular, Juvenal demonstrates that, even with a lack of fecundity, the rural will eventually triumph over man, and that Rome, even as a great city of marble, will one day return to the idyllic pastoral scene that is seen by Aeneas on his arrival.

In the example of the fig tree, a further effort to control and isolate trees from each other can be seen, through the naming of particular species, and the sanitising of particular varieties. The

¹⁸⁰ Courtney (1980) 158. See Sturtevant (1911) for further on the rent paid, which is not the levy imposed by Vespasian on the Jewish population.

¹⁸¹ Cic. *Leg.* 1.4.

¹⁸² Cic. *Leg.* 2.2; Juv. 3.20. Witke (1962, 245) exploits the idea of violation, and contrasts Egeria's thronged home with the deserted home of the Sybil at Cumae, which is where Umbricius was departing Rome for. Egeria's grove is violated, for Witke, while the Sybil's abode is untainted, 'unspoiled and natural'.

trope of the fig tree breaking monuments is found in four poets' work: Propertius, Persius, Martial, and Juvenal.

May the tomb of the procuress be an old wine jar with a broken neck: may a wild fig tree (*caprificus*) push down upon your amphora with force.¹⁸³

'Why study, if this ferment, this wild fig tree (*caprificus*) has taken root within and cannot burst forth in a passionate eruption?'¹⁸⁴

A wild fig tree (*caprificus*) splits the marble tomb of Messala.¹⁸⁵

But a nation was once ruined by the desire of a few for glory and honours, and for a name which would stick to the stones destined to guard their ashes, stones which the evil strength of a barren fig tree (*sterilis mala robora fici*) is strong enough to break, since even their tombs have been allotted fates as well.¹⁸⁶

In these examples, we see two different terms being used for the fig tree: *figus* and *caprificus*. The first, *figus*, refers to the cultivated fig tree, while the second, *caprificus*, is understood to mean a wild fig tree. The *caprificus*, Pliny incorrectly tells us, produces no fruit, and corrupts its surrounding fig trees, hosting an invasive insect, which causes nearby trees to rot.¹⁸⁷ The *figus*, meanwhile, produces edible fruit, and is associated with motherhood unlike the *caprificus*, which is both robbed of and robs other fig trees of the associations, drying up their milky sap.¹⁸⁸ The fig tree that breaks the tomb apart is either a wild or a sterile fig tree, and this further highlights the sterility of legacy while it erases the monuments of man. Additionally, and also evident in other Latin terms for cultivated and wild trees, for example *olea* and *oleaster*, the subservient and conquered fig is distinguished from its untamed and untameable counterpart. Here, in taxonomy, it is apparent that there is an attempt to not only integrate trees into an acceptable and sanitised culture, with a controlled nature, but also to isolate and distance that same culture from the resistant trees. When these isolated trees, over which some degree of control is exerted by identifying them as distinct from more urbanised arboreal units, are

¹⁸³ Prop. 4.5.75-6.

¹⁸⁴ Pers. 1.25.

¹⁸⁵ Mart. 10.2.9.

¹⁸⁶ Juv. 10.142-6.

¹⁸⁷ Plin. HN 15.25.

¹⁸⁸ Colton (1977, 346) briefly argues that Juvenal's use of *figus* and the associated phrases is an expansion and exaggeration of Martial's earlier line, which could lead to the conclusion that the two trees should be regarded as the same species.

introduced into the narrative it is apparent that they are lesser, while at the same time imbuing these trees with a sense of the power, albeit a raw power, of nature over the city.

Totally containing nature in Rome was, then, a futile activity, and one that the satirists capitalised on. However, it is not unrealistic to say that trees were confined to particular zones of interaction in the city, from the Horti of wealthy Republicans, and later the Imperial families, to the fenced off *figus Ruminalis* in the Comitium, an isolated and protected monument. Physical containment, as in the case of this tree, was possible in the case of individual monumental trees, but when a grove was identified within the city, its boundaries were more conceptual than the physical boundary of a fence, and this is seen in the *aesculetum*, confined to its neighbourhood, the *vicus aesculeti*.¹⁸⁹ The vulnerability of a tree or grove makes it particularly susceptible to the advancement of the city, and tenuous identities without any physical presence can cause a grove to become isolated from its past, and from the city it once enjoyed a connection with, and this was explored above in the case of the grove of the Camenae outside the Porta Capena. This grove, a leftover from Rome's myth-history, and a formerly sacred site became isolated from its past and from the city as new residents moved in. It is the growth of the city that risks trees moving from containment to isolation to destruction, with only references to the trees that once inhabited the sites being left, as in the *vicus aesculeti*. However, satirists warn against the futility of this growth, and any efforts (intended or otherwise) to erase nature with marble monuments, grand tombs, or other artifices. Nature, now wild and unfertile without human influence, will break through, and crack the monuments left by an arrogant nation.

1.3. Interaction

In Rome, there were a number of iconic trees, and some of the oldest trees of Rome are listed by Pliny, in a passage of the *Natural History* which engages specifically with the ancient trees of Rome.¹⁹⁰ Beyond these isolated instances of famous trees within the city, however, there are several key interactions with trees, which can be broadly categorised by three themes: religious, imperial, and social, with inevitable overlap between the three forms of interaction. Through a discussion of these three settings for interacting with nature, this section aims to demonstrate that the trees of Rome permeate every aspect of Roman life, and provide a lens through which Roman interaction with nature can be better understood. Looking beyond the evidence offered

¹⁸⁹ Other examples of grove-neighbourhoods are found listed by Varro (*LL* 5.152), although these examples do not indicate that the neighbourhood existed when the grove was alive.

¹⁹⁰ Plin. *HN* 16.234-40. This passage will be explored in the next chapter.

by Pliny, some key Latin sources discuss trees in the city, from the poetry of Martial, Propertius, and Ovid,¹⁹¹ to the histories of Livy and Tacitus.¹⁹² Interactions with trees are also apparent in epigraphic evidence, from the Arval brethren's inscriptions describing ritual activity in their grove to street and place names, such as the *vicus aesculeti*, which may have derived its name from the *aesculetum*, a grove of oak trees in the Campus Martius,¹⁹³ and the Porta Querquetulana, a reference to another oak grove, possibly on the Caelian hill, which Tacitus tells us was once called the Mons Querquetulanus.¹⁹⁴ This, combined with the *horti* and the natural monuments already mentioned, indicates that trees can be found throughout the Roman city and empire, and the interaction of the Roman people with their trees was similarly pervasive.

1.3.1. Religious Interactions with the Trees

There is a ready association between trees and religion in the Roman world, which Hunt has already discussed. Incited by Pliny's association of *numen* with trees in his arboreal books, there is a rich academic history of simplifying the Roman relationship with their arboreal surroundings as one that is exclusively religious. When this is combined with the epigraphic evidence found in Spoleto and Trevi, which states that no man may enter or violate a *lucus* (the language is uncertain, and will be discussed in Chapter Five), and augmented by Festus' description of the punishment for entering a *lucus capitalis* (a grove whose entry would invoke capital punishment), it is presented as absolute proof that the ancient engagement with trees was, if not exclusively, primarily on a religious basis, and that the violation of any grove was considered categorically wrong.¹⁹⁵ Hunt argues that this approach is too simplistic, and that it leads scholars into 'conceptually odd' situations when put into practice.¹⁹⁶ Among a range of other cases, she takes the Arval grove as a key example of a grove which clearly complicates

¹⁹¹ Martial discusses the groves of the Porticus Pompeiana at 2.14 and 11.47, alongside 29 other references to specific species of trees in his poetry. The trees of the *porticus* had earlier been identified by Propertius as plane trees (*platanus*), at 2.32.13, who appears in the *RTD* on 15 other occasions. Meanwhile, Ovid's *Tristia* offers a key description of the House of Augustus (3.1) and the laurel trees (*laurus*) planted at the door posts. Ovid is one of the most prolific poets in terms of references to varieties of trees, his 146 appearances in the *RTD* only being surpassed by Vergil's 189.

¹⁹² Trees can be found sporadically throughout Livy's *Ab Urbe Condita*, with specific references at ten points, while Tacitus is far more discerning, only naming trees at three points in his corpus. This is, however, not the complete picture, since the *RTD* only addresses explicit references to particular varieties of trees, as opposed to the more generic words applied, such as *arbor*, *silva*, *lucus*, and *nemus*.

¹⁹³ For the street name: *CIL* vi 30957. For the grove: Varro, *LL* 5.152; Plin. *HN* 16.37.

¹⁹⁴ Tac. *Ann.* 4.65. There is evidence of planting pits in key locations in Rome, from Trajan's Forum (Packer, Sarring and Sheldon 1983; this will also be discussed below, in Chapter Three), to the Forum Romanum (Lugli 1946, 87-90; Grant 1970, 112). The permanent inclusion of trees in these places, and in others (examined by Lloyd 1982), indicates that the trees of Rome were considered as permanent as the marble buildings they mingled with.

¹⁹⁵ *CIL* i² 366; xi 4766; Fest. 57L.

¹⁹⁶ Hunt (2016) 128.

the understanding of arboriculture in the ancient world as ‘almost an offence against the sanctity of the forest’.¹⁹⁷ However, Roman religious interaction with the trees is not limited to arboriculture – another key sphere in which trees are integrated into Roman society is in their role as omens. Arboricultural actions in the Arval grove will be discussed in this section, with a dead tree within the grove to be discussed in Chapter Five. Here, I will explore how arboreal omens were negotiated, both in terms of arboriculture and attribution, and will deal with exclusively apolitical omens, such as the elm that grew over Juno’s altar in Nocera.¹⁹⁸

Taking the Arval grove as a case study, the Roman practice of arboriculture within the confines of a sacred grove can be seen from the formalised inscriptions that preserve a record of ritual activity at the site, a complex which was situated outside of the *pomerium*, only part of which was occupied by the grove.¹⁹⁹ The grove itself, sacred to Dea Dia, is referenced in the inscriptions 27 times,²⁰⁰ and consists of mostly unknown trees, although an *ilex*, some *laurus*, and a *figus* are found evidenced in the inscriptions.²⁰¹ These trees are common in Latin literature, and are collectively found over 200 times in the *RTD*, so the fact of their inclusion within the grove should come as little surprise – they were not foreign trees, and are naturally suited to the Mediterranean climate, all still flourishing in Rome today. As stated, this grove was a part of a ritual complex, and a *piaculum* was required before the customary pruning of the grove, evidenced in inscriptions as occurring in May, a bad time for pruning according to both ancient and modern sources, and the Arvals’ pruning practices are so unusual that they could be criticised as harmful, as Pliny regards the practice of annual pruning.²⁰² As a result, Hunt comments that the pruning of the Arval grove was a choice of the Brethren, and, as an unnecessary arboricultural action, should be regarded as being of ‘deep religious significance to the Arvals... not prompted by a concern for the trees’ inviolability’.²⁰³ As a result of this, we can see that the religious trees of ancient Rome were not treated as aloof and inviolable, a widely held assertion in the comparativist tradition thoroughly explored by Hunt. Instead,

¹⁹⁷ Granger (1895) 95.

¹⁹⁸ Plin. *HN* 16.132.

¹⁹⁹ Scheid questions the authenticity of these inscriptions as a true and complete record of the Arval’s activity (1998, vi), a question re-iterated by Hunt (2016, 137).

²⁰⁰ These inscriptions have been catalogued by Hunt, and are found appended to her monograph (2016, 295-300), taking the text from Scheid’s earlier (1998) edition of the inscriptions.

²⁰¹ *Ilex*: Scheid 55 II; *laurus*: Scheid 64 I; and *figus*: Scheid 94 I-II.

²⁰² In addition to those sources cited by Hunt (2016, 150, n.95), also see Columella (*RR* 11.2.19) for the pruning time of the poplar, in early February, Pliny (*HN* 18.240) for the willow, between winter and spring, and Cato (*Agr.* 17.2) for the elm, in autumn. Pliny criticises the practice of annual pruning at *HN* 17.257.

²⁰³ Hunt (2016) 152.

interaction with religious trees is integrated into the routine of Roman life, although perhaps not an everyday process.

However, the exact nature of this interaction, which I have previously called pruning, following Hunt, is uncertain, as the verb used in the inscriptions, *coinquere*, is found elsewhere only once, in Paul the Deacon's eighth-century epitome of Festus' *De verborum significatione*, itself a second-century epitome of an Augustan work by Verrius Flaccus.²⁰⁴ Here, Paul equates *coinquere* with *coercere*, meaning 'to restrain'. Obviously, this causes difficulties when the verb is used in the context of a grove, and Hunt suggests a link between the Arval Brethren's formula for reporting the pruning and Cato's prayer for pruning, found in the *De agricultura*.²⁰⁵ Hunt sees a compelling similarity between the Arval's formula of *ad aram immolavit porcas piaculares duas luci coinquendi et operis faciundi* (he sacrificed at the altar two expiatory pigs so as to *coinquere*/restrain the grove and perform the works) bears a striking resemblance to two of the clauses used by Cato – *illucce sacri coercendi ergo* (therefore for the *coercendi* of this sacred grove) and *operis faciundi causa* (for the sake of doing this work).²⁰⁶ Cato's prayer is designed for anyone aiming to *conlucare* a grove, a verb which is helpfully defined by Paul as being 'when branches blocking the light from a *profana* wood were cut off',²⁰⁷ and by Festus as 'to fill a place (*locus*) with light by cutting trees'.²⁰⁸ Hunt goes on to link *coinquere* to *conlucare* via Cato's use of *coercere*, discerning that the appropriate meaning of the word is 'to prune', asking 'what other arboricultural action both restrains and lets in light at the same time'.²⁰⁹ As a response to the question posed, the answer must surely be 'to tie branches back', particularly in the context of a sacred grove. As Hunt acknowledges, Paul's reference to a *profana* wood is problematic for her, since Cato's prayer is clearly religious, while Paul specifies a non-religious setting through the use of this word.²¹⁰ Similarly, when Festus defines *conlucare*, he is equally secular, referring to a *locus*, not any specific sacred place. This could indicate that the original reading of engagement with religious groves as being on a primarily

²⁰⁴ Fest. 57L. Hunt also points to 'Festus' in another section of Paul's epitome (33L) as providing an answer to the question of the meaning of *coinquere* (2016, 139). Here, Paul glosses *coninquere* as meaning *deputare*, widely translated as 'to prune', and Hunt assumes that the use of *coninquere* here is a 'variant or textual error'. However, this is the only occurrence of the word in Paul or Festus, and one has to ask why Paul would define the same word twice with two different words, and why Festus, who Paul was basing his comments off, would have done the same, if the two words had identical meanings.

²⁰⁵ Cato, *Agr.* 139-40. For the discussion on the verb *coinquere*, see Hunt (2016) 137-9.

²⁰⁶ Hunt (2016) 138; Arval inscription found throughout Hunt's appendix; Cato *Agr.* 139, 140.

²⁰⁷ Fest. 33L.

²⁰⁸ Fest. 474L.

²⁰⁹ Hunt (2016) 139.

²¹⁰ Hunt (2016) 139 n.54. This is further complicated by the use of *conlucare* by Columella (*RR* 2.21.4), which is again used in an entirely non-religious context.

inviolable basis may stand up to examination, and causes us to question if the step to translate *coinquere* as ‘to prune’ on the basis of its synonym, *coercere*, which is used in a different non-religious context, is not the easy step that Hunt takes it to be. Instead, it shows that the religious engagement with trees is not a simple one, that comparing the actions taken within a sacred grove to those in a secular context is problematic, and that, perhaps, trees were able to be manipulated into a religious context, for example, by restraining a tree, forcing it to grow to a particular pattern, in order to create a *lucus* which was dependent upon the presence of *lux*, regarded by ancient etymologists as central to the origin of the word, and the inviolability of the grove itself.

If the action taken against the Arval grove is to be considered pruning, then such an action was not without risk, as is made evident by the actions taken against an elm in Nocera, which had grown over an altar of Juno during the Cimbrian Wars (113-101 BCE). This tree was, according to Pliny, pruned back before its regrowth mirrored the improving Roman fortunes in the war.²¹¹ This tree is called ‘politically minded’ by Hunt, and Gowers comments on similarly political trees at the end of Nero’s reign.²¹² However, since Juno’s elm is not linked to any political figure, while all those cited by Gowers are explicitly linked to the imperial families, it seems appropriate to include the Nocera elm as an instance of religious arboreal interaction.

In spite of this, Pliny’s passage is extremely clear – the tree was not initially welcome in the area that it grew into, and is in fact treated as an intruder:

This portent revealed itself to the Roman people during the Cimbrian wars, by way of an elm in the grove of Juno at Nocera, even after its head had been removed (*amputatum erat*), since it was resting on the altar, the elm restored itself of its own accord (*sponte*) to the point that it immediately flowered, from which time the majesty of the Roman people was resurrected, which had been previously devastated by defeats.²¹³

This passage addresses three key elements of the Roman-arboreal relationship: first, the rejection of nature, its isolation; second, the agency of the tree in the omen; and finally the integration and acceptance of a nature which had formerly been an invader into a human space.

²¹¹ Plin. *HN* 16.132.

²¹² Hunt (2016) 216; Gowers (2011).

²¹³ Plin. *HN* 16.132.

To take the first – the tree is clearly intended to be isolated from the altar, and the intrusion of the tree in the *lucus* suggests that this is a light-centric understanding of the term, as opposed to the darkness-centric ones which ancient etymologists put forth (see above, p.44). When the tree intervenes with the sacred space of the *lucus*, it is cut back, using language which is far more decisive and certain than the *coinquere* of the Arval inscriptions – *amputare* is unchallenged in its meaning, and firmly attested. It also has the benefit of fitting with the general language of arboriculture in the ancient world, which refers to some practices as ‘wounding’ the tree.²¹⁴ The tree was removed from the altar, not by a gentle act of restraint (or perhaps *coercere*?), but by a violent removal of its head, and subsequently the fortunes of the Roman people suffered. Could we assume that the proper rituals were not followed here? After all, Pliny makes no mention of them in his account, unlike a similar fig tree which was in danger of uprooting a statue of Silvanus in the Forum – this had to be sanctified by a sacrifice, and there were no subsequent adverse effects.²¹⁵ The removal of the tree, which portended badly for the Roman people, is treated by Pliny as an unrati ed isolation of nature, a nature which, by its own show of strength, forces its integration.

This (entirely expected and perfectly natural) regrowth is indicative of the tree’s agency and is read as a show of strength. Its regrowth is not explicitly connected with Juno, despite being present at her shrine, and a part of the *lucus Iunonis*. Instead, it is ‘of its own accord’, with no direct divine attribution. Omens such as this, with no explicit reference to a divinity, could be construed as a direct intervention by the divine force of Nature into the human world. Alternatively, it could be read as an intervention on the part of the tree itself, with no guiding deity, which brings the question of agency to the forefront. This is a complex issue, and one which has been thoroughly examined by Hunt.²¹⁶ Hunt’s conclusion, that the issue of agency should be dealt with on a case by case basis, directs us again to *sponte*, which clearly indicates that, in this instance, the omen of the elm is as a direct result of the tree’s agency within the Roman religious context.

Following this regrowth, which was perceived as miraculous by the Romans affected by it, there is no indication that the tree was ever pruned again, and comparable examples of miraculous regrowth lead us to wonder if it was integrated into the shrine, and maintained as a

²¹⁴ An example of this can be found in Colum. *RR.* 4.22.3, among numerous other examples throughout arboricultural works in Latin. This can lead into an easy comparison of the trees that are generally maintained by humans and those which are violated by human hands, such as Erysichthon’s oak (Ov. *Met.* 8.761-2) and Atlanta’s oak (Stat. *Theb.* 9.595).

²¹⁵ Plin. *HN* 15.77. For further on this, see below p.197.

²¹⁶ Hunt (2016) 173-223.

part of it. The palm which grew on the altar of Jupiter Capitolinus, before being brought down by storms and spontaneously replaced (*enata est*) by a fig tree is a similar example.²¹⁷ The period between the two trees is unclear, although the lack of an intervening clause between the palm tree being brought down by storms and the fig tree growing in Pliny's account indicates a similar speed to Juno's elm at Nocera. The agency of these trees, like that of the elm, is impersonal, not linked to any particular deity except by provenance. Again, similarly to the elm, the palm tree's miraculous growth occurs in times of war (with Perseus, in 171-168 BCE), and portends triumphal processions, highlighting the palm tree's triumphal connotations.²¹⁸ As in the example of the elm, there is no evidence that the fig tree was subsequently removed, and the palm tree was removed by storms, as opposed to man's interference. A similar tree is found in Taracco, when a palm grows on the altar of Augustus, and Quintilian refers to a joke made by Augustus on hearing about the tree's growth – 'it is apparent how often you light fires on the altar'.²¹⁹ As in the case of the fig on Jupiter's altar, the participle *enata* is used, and this palm can be judged to have been considered similarly portentous, although the only quasi-divine figure it is connected to is Augustus (who had not yet been deified, since he still lived). While Quintilian's Augustus is clearly dismissive of the omen, the tree remained in Taracco after his death, and is found depicted on coinage in Tiberius' reign, with the earliest attestation of the type being in 15 CE.²²⁰ Clearly, once nature had intervened, and a tree produced, it was subsequently integrated into the religious sphere, and became a part of the complex despite early attempts at separation of natural and human, as shown with the elm at Nocera.

1.3.2. Imperial Interactions with Trees

Beyond interactions with trees which are linked to deities by provenance or by name, there are some instances in which omens occur without any divine association at all, either an expression of nature's own excursion into portents usually associated with the traditional pantheon, or as an entirely impersonal event, disassociated from any deity. Examples of these omens can be found at key points in Suetonius' *De vita Caesarum*, and trees from across the empire are sometimes chosen as the vehicle for these messages, which could be viewed as political omens, distanced from explicit religion. The decision to focus on trees from across the empire, rather than limiting this section to only those which can be found inside the *pomerium* is one made

²¹⁷ Plin. *HN* 17.244. This account may be a close replication of Piso's original, who is cited by Pliny as referring to the growth of the fig tree on the altar, in 154 BCE, as the moment *pudicitia* was overthrown.

²¹⁸ The palm is treated as a symbol of victory in Suet. *Aug.* 94.11 by Julius Caesar, used as a synonym for glory in Cic. *De sen.* 19, and can be found in 15 other instances in the *RTD* in similar circumstances.

²¹⁹ Quint. *Inst.* 6.77.

²²⁰ *RPC* 1 225/10.

partially out of necessity: the majority of omens relating to imperial families are from outside of Rome, but it also serves to demonstrate the extent of nature's reaction, and highlight that this relationship with trees was not, despite this chapter's name, exclusive to Rome. This section will discuss trees related to dynasties, the *lauretum* of the Julio-Claudian line, and the Flavian oak tree, both Suetonian dynastic omens. From here, it will focus on the ominous trees in the reigns of Julius Caesar and Nero, both frequently associated with positive and negative arboreal omens. By assessing the two side by side, the varying role of nature as a means by which political messages are communicated will be shown.

Suetonius' *Life of Galba* begins with the end of the dynasty Galba succeeded, the Julio-Claudian line. The end of this dynasty is expressed by the withering of the laurel grove at Ad Gallinas Albas, Livia's villa outside of Rome, better known as the Villa of Prima Porta.²²¹ The laurel grove at this villa, which lasted for the duration of the Julio-Claudian dynasty, untouched through good times and bad had an unusual aetiology, having been founded from a branch carried by a reprieved hen, fallen from the talons of an eagle into Livia's lap, around 39 or 38 BCE. The hen was saved by Livia, and the branch planted, from which a flock flourished and a tree was grown respectively.²²² This laurel provided subsequent triumphal branches for the Julio-Claudian dynasty, and withered to the root towards the end of Nero's (abruptly coppiced) life. The large garden excavated at Livia's villa has been suggested by Reeder to be this laurel grove itself,²²³ and Klynne supports this assertion, adding that the villa was both spectating on and spectated in the landscape, and reinforces this with the proposal of a three sided portico, surrounding the grove and framing its southern aspect to travellers at the bottom of the hill, on the Flaminian way.²²⁴ There are, it has to be acknowledged, issues with the assertion that this portico housed the Julio-Claudian *lauretum*, not least the lack of planting pits for trees (although the fragments of pot found in the vicinity of the villa suggest planting for the area was not in the ground).²²⁵

If the grove proposed by Klynne is the laurel grove of the Julio-Claudians, then it was placed in a prominent position, facing the south-east aspect of the hill, onto the Via Flaminia, and was visible from the road. Klynne proposes that the *porticus* found on some of the edges of the

²²¹ Suet. *Galb.* 1; Cass. Dio 63.29.3.

²²² The story is found in two other sources, Cass. Dio 48.52.3-4, and Plin. *HN* 15.136-7.

²²³ Reeder (1997a, 1997b, 2001).

²²⁴ Klynne (2004).

²²⁵ Messineo (1984) fig.9 for the location of these pots. Kahler has theorised that the garden was a hanging garden (1959, 10), an assertion which was originally supported by Klynne and Liljenstople (2000, 230), before Klynne re-assessed (2004, n.12).

garden knowingly mimicked a sanctuary-like topography, and compares the hill of Ad Gallinas Albas to a hill in Nikopolis, on which a ‘dwelling place’ of Apollo was set up in honour of the spot that Augustus pitched his tent the night before the Battle of Actium.²²⁶ The *lauretum* grove and its location on the brow of a hill, Klynne argues, function in a similar fashion, creating a sacred hill of Apollo, an assertion seemingly linked solely to the laurel’s symbolic association with Apollo. Beyond the architectural features, however, there are no indications in visual or literary sources that the *lauretum* was explicitly linked to the god, and any suggestion that it should be was only implied. Klynne’s other assertion, that the *lauretum* was to be associated with the Julio-Claudians, is more plausible. Augustus made several attempts to co-opt the laurel as ‘his’ plant, and the placement of the laurel grove at the villa of Livia, a central hub of the Julio-Claudian power base would have done exactly that.²²⁷

The laurel, far from being annexed for Augustus alone, became the plant associated with the entire dynasty, particularly this grove, the *lauretum* at Livia’s villa. Following the planting of the first tree by Livia, both the tree and the grove were used in the triumphal processions of the Julio-Claudian dynasty, with each then planting either the crown they wore or the branch they had carried in the procession, growing a new tree from it.²²⁸ The grove provided an important continuity to the Julio-Claudian dynasty, and, by restricting the origin for triumphal laurel, it acted as a physical embodiment of the Julio-Claudian claim to the triumph.²²⁹ This manifestation, as Flory refers to it, is of the political dominance of Augustus’ family, and would have been made even more apparent, and far more prominent if the grove was visible on one of the major roads out of Rome. The villa does, as Klynne understands, resemble a sanctuary, although the lack of any Apollonian imagery in the villa casts some degree of doubt over his assertion that it was a hill sacred to Apollo. Instead of a sanctuary of Apollo, the *lauretum* can be read as a physical embodiment of the Julio-Claudian appropriation of the triumphal procession, and of the renewal and resurgence of the dynasty. Through its dominant position on the Via Flaminia, then, both spectating on and being spectated by the passers-by on a major route into and out of Rome, the Julio-Claudian *lauretum* acts to present the deep association between triumph and Julio-Claudians through the integration of the laurel into the Julio-

²²⁶ Klynne (2004, 6) highlights another similarity between the two sites: there is clear evidence of planting at the Nikopolis site, citing Zachos (2003, 81 fig.24).

²²⁷ The association of the laurel with the Julio-Claudian household has been discussed in Flory (1995, 52-5), and Kellum (1994, 211-13).

²²⁸ Plin. *HN*. 15.136: *ex ea triumphans postea Caesar laurum in manu tenuit coronam capite gessit, ac deinde imperatores Caesares cuncti. traditusque mos est ramos quos tenuerunt serendi*. Suet. *Galb.* 1: *tale uero lauretum, ut triumphaturi Caesares inde laureas decerperent*.

²²⁹ This idea is explored within the context of cameo portraits of Livia by Flory (1995).

Claudian house as well as its household. When combined with the isolation of the trees from the people passing below, tantalisingly out of reach atop a hill and in a private dwelling, the trees represent the exclusive rights to the triumphal procession of the Julio-Claudian dynasty.

The laurels in the *lauretum* are not the only dynastic trees, nor the only tree which portended the future of either individuals or dynasties in the first century of the Principate. An oak prophesied the future of Vespasian and his two siblings, growing out branches to mimic the lives of the three individuals on the occasion of each of their births: a small branch which died quickly for Vespasian's short-lived older sister, a vigorous second branch to represent the life of Vespasian's generally successful brother, and a tree-like branch to stand for Vespasian himself.²³⁰ Unlike the Julio-Claudian *lauretum*, there is no archaeological evidence for this tree, and no confusion around whom this oak tree is sacred to, as Suetonius directly informs his readers that it was sacred to Mars. This is in itself unexpected, since the oak tree is more commonly associated with Jupiter in the Roman world, and Mars has no known tree associated with him. Putting this curiosity aside, the omen is one of future, while the Julio-Claudian *lauretum* is only considered relevant retrospectively: it is observed by those concerned with such things that a tree planted by a Julio-Claudian withers shortly before the death of its planter, thus establishing a mutually dependent existence between emperor and tree.²³¹ Meanwhile, Titus Flavius Sabinus, the father of Vespasian, is reported to have consulted a *haruspex* prior to the omen of the Flavian oak's actualisation in order to understand it, and to have then publicised the (accurate) interpretation of the *haruspex*.²³² As Hunt has acknowledged, there is likely to have been a great deal of invention in arboreal portents such as those which have been explored thus far, and some level of sycophancy. For Hunt, the key point is the 'tacit acknowledgement of how hard it was to identify meaningful behaviour in a tree, so much so that you might easily overlook it when it was actually happening', a difficulty which would inevitably have led to the retrospective attribution of portents to arboreal actions.²³³ Trees were central to the portrayal of dynastic fortune, since they had the advantage of a longer lifetime than the humans they related to, matching the lifespan of a dynasty more closely, or indeed a city, as has been seen earlier, with the rise and fall of trees in times of war, mirroring Roman

²³⁰ Suet. *Vesp.* 5.2. Tacitus (*Hist.* 2.78.2-3) and Cassius Dio (Xiphilinus 66.1.3) tells us that another tree, this one a cypress, is regarded as an omen by Vespasian, and this has been examined by Vigourt (1996, 346-7), Wardle (2012), Morgan (1996), who compares this cypress tree to the elm tree at Nocera, discussed above, and Ash (1999, 132), who explores the choice of tree, which is linked to death.

²³¹ Suet. *Galb.* 2: *et observatum est sub cuiusque obitum arborem ab ipso institutam elanguisse.*

²³² Suet. *Vesp.* 5.2. Wardle argues that this is common, and that *haruspices* have a 'well-attested competence in tree-portents' (2012, 196), citing Haack (2003, 46).

²³³ Hunt (2016) 217. Also see 199-223 on 'Arboreal Portents'.

fortunes. As a result, the integration of a grove into a dynasty acted as a natural confirmation of their longevity, and was essential in the early imperial period to the establishment of a cohesive rule that had a longer than human lifespan.

Trees also serve to signify individuals, in their growth, death, and movement, replicating and portending various actions and events. Two Roman leaders, Julius Caesar and the Emperor Nero, are associated with political interactions with trees and they have a key role in their rule in different ways. While some of the trees addressed here are considered religious portents by Hunt, they will be addressed under the political interactions here on account of them being directly associated with an individual as opposed to an event, such as a war.

In Tralles, a coastal town on modern day Turkey's western shore, there stood a Temple of Victory, within which stood a statue of Julius Caesar. In its vicinity or on its base, a palm tree grew spontaneously in 48 BCE, towards the end of Caesar's civil war with Pompey. The exact dating of this growth is unclear: Caesar places it as being on the day of the final battle, as a result of a backward calculation, while Pliny is more vague, commenting that it was simply during the civil wars.²³⁴ The location of the palm is more consistent, with most Latin sources for the prodigy emphasising that it grew from the joins between paving slabs, while Pliny identifies it as growing from the base of the statue, and Plutarch as being from the pavement close to the base of the statue of Caesar.²³⁵ As Hunt has previously stated, there is a 'clear commitment' from the tree in 'emerging in this particular spot, thus securing the meaning of its appearance'.²³⁶ Consistent with the symbolic value of the palm (see above, p.66), the omen was taken as a sign of victory, as was another Caesarian omen, another miraculous palm, this time in Munda, which additionally, as a result of a fresh shoot, was taken by Caesar as an indication of his ideal heir – Octavian.²³⁷ It was not only the palm which was associated with Caesar – the plane tree is linked to him by Martial, albeit in a slightly different fashion. In the ninth book of his *Epigrams*, Martial refers to a plane, which he claims was planted by Caesar himself, in Tartessus. The tree, Martial claims, 'seems to sense its author and master: it is so green, and seeks the lofty stars with its branches'.²³⁸ Here, the tree, still growing long after Caesar's death (Martial was writing in the late first and early second century CE), is taken by the Roman epigrammist as a comparandum for the figure of Caesar, who has reached loftier

²³⁴ Caes. *BCiv.* 3.105.6; Plin. *HN* 17.244.

²³⁵ Val. Max. 1.6.12; Caes. *BCiv.* 3.105.6; *Obsequens* 65a; Plin. *HN* 17.244; Plut. *Caes.* 47.1-2.

²³⁶ Hunt (2016) 213.

²³⁷ Suet. *Aug.* 94.11.

²³⁸ Mart. 9.61.9-10.

heights, having been deified after his death. Like Caesar, and the Caesarian line, the tree's success is undying (*perpetuos*), and it only grows as the reputation of its planter and its family does.²³⁹ A tree is well suited to the role of representing a continually renewed dynasty, and Roman examines this plane tree alongside the Saepta Julia, which was perpetually restored by the imperial families.²⁴⁰ Unlike the Saepta Julia, however, Martial's description of this tree firmly places it as an other-worldly phenomenon, intruding peacefully into the mortal world. Nymphs and fauns play in the tree's dappled shade, and while the tree is a 'delight of the gods', it is never attributed to any deity of the traditional pantheon specifically, only to Julius Caesar.²⁴¹ Therefore, instead of being a divinely appointed omen of the glory of Julius Caesar, the tree can be read as a statement to the other-worldly and eternal power of Julius Caesar, and of his line, reinforced and represented by the input of nature, intervening in the tree's lifespan to make the message clear.

If the role of trees in Julius Caesar's career and afterlife is exclusively positive, then their role in Nero's reign is the mirror image, particularly towards his death. Gowers identifies 68 CE as an '*annus horribilis* in the lifecycle of the city's trees'.²⁴² Not only did the *lauretum* discussed above wither away and die, lotus trees had their end hastened by the fire,²⁴³ a cypress tree fell and was neglected in Vulcan's precinct,²⁴⁴ and the *figus Ruminalis* withered before a remarkable recovery.²⁴⁵ A final portent occurred outside of Rome, when an olive grove migrated to the opposite side of the road, swapping places with a field of crops on the other side. Here, trees are integrated into the political narrative to show nature's reaction to the impending close of the Julio-Claudian dynasty. As with the far more positive portents linked with Nero's ancestor, these omens are unattributed. Nero's associated omens are geographically limited, and in comparison to Julius Caesar's, demonstrate a narrow focus toward the end of the dynasty. Nature rejoiced across Roman territories at the victories of Caesar, and at the beginning of the Julio-Claudian dynasty, while its rebellion at the dynasty's end is fixated on Rome and its immediate territories, even affecting the tree of Rome itself, the *figus Ruminalis*. When communicating messages concerning entire dynasties, or attempting to convey the agelessness of an individual's influence, a long-lived tree or a sustainable grove

²³⁹ Mart. 9.61.19-22.

²⁴⁰ Roman (2010) 116.

²⁴¹ Mart. 9.61.10-19.

²⁴² Gowers (2011) 87.

²⁴³ Plin. *HN* 17.5-6.

²⁴⁴ Plin. *HN* 16.236.

²⁴⁵ Tac. *Ann.* 13.58. For more on this tree's death, see p.206 below.

was ideal. The unexpected death of a long-lived tree or grove is a suitably seismic shift in the local topography that it could be used to negatively characterise a dynasty or person, and a natural process that could be ignored if an omen could not be retrospectively applied to it.

1.3.3. Social Interactions with Trees

In broader social contexts, trees are found throughout Rome. From their use as boundary markers in agricultural writing, to the use of the *ficus Ruminalis* to justify the positioning of a she-wolf statue by the Ogulnii brothers, to the archaeological evidence we have for them, they were applied in a variety of ways, enforcing an understanding of them as a key part of the Roman cityscape.²⁴⁶ Trees appear in place names in Rome as well, although the trees to which they refer do not necessarily survive. For example, the *vicus aesculeti*, a neighbourhood only evidenced in an inscription on an altar dedicated by the *magistri*, is often understood to be indicative of the location of a grove, the *aesculetum*, which would then be placed on the left bank of the Tiber, opposite the Tiber island.²⁴⁷ This grove was the location of a key moment in Republican history, the passing of the Lex Hortensia in 287 BCE, which made the resolutions of the plebeians binding on all citizens.²⁴⁸ Pliny includes the *aesculetum* and its history in a broader description of Rome's neighbourhoods, which he tells us were 'distinguished by the types of woods', containing in his list the Porta Querquetulana, the precinct of Jupiter Fagutal, and 'all the *luci*'.²⁴⁹ The Porta Querquetulana is perhaps the best known of these examples, and the name is replicated in the Mons Querquetulanus, an alternative and archaic name for the Caelian hill in Rome. As a result, it is clear that the ancient trees of Rome are present in the place names within the city, and it is not a difficult leap to imagine that the name of the *vicus aesculeti* is a reminder of the *aesculetum* that had once stood on that spot, but may have been cut down by the time of the inscription.

On a smaller scale, social relationships with trees are evident too, in the social networks of an elegiac poet. Martial advises his friend, Lupercus, against sending his boy *ad Pirum* to collect his book of poems, and suggests that Lupercus should meet him in the Argiletum instead.²⁵⁰ This reference has not troubled scholars since the 1800s, when Friedlander and Jordan both treated the reference as one to the name of Martial's apartment block, following the standard location setting of *ad* plus a noun.²⁵¹ However, here it is the reference to the *pirus* which will

²⁴⁶ For the use of trees as boundary markers, Varr. *RR* 1.15; for the Ogulnii statue, Livy 10.23.12.

²⁴⁷ *CIL* vi 30957.

²⁴⁸ Plin. *HN* 16.37.

²⁴⁹ Plin. *HN* 16.37.

²⁵⁰ Mart. 1.117.6.

²⁵¹ Friedlander (1886) 234 n.6, cites Jordan (1842) 71.

be addressed. As in the example of *Ad Gallinas Albas*, the name of Livia's villa derived from the omen of the white hens, the usage of *pirus*, or pear tree, is clear proof that there was a pear tree that grew in or nearby Martial's apartment building. Like the broader place names, such as the *vicus aesculeti*, the usage of *pirus* in the name of Martial's property is evidence that a tree is being used as a geographical identifier, fully embedded in the fabric of Roman life, and Martial uses it here without any requirement to, without any attached symbolism, and without any context to qualify his reference, as we saw in Pliny's reference to the *aesculetum*. Thus, we see a sub-conscious integration of nature into the life of a Roman author, even one who is aware of the role of nature within their poetry.²⁵²

Image redacted for copyright purposes.

Figure 5: Painting from Fronto's house, Pompeii, Reg.V.4.a, mid to late 1st century BCE. A badly eroded tree can be seen in the front of the image, between two raised beds.

This reference from Martial offers indications of the role of trees in urban planning. They are, evidently, found in residential areas. These are not famous or important trees – Martial's *pirus* is the only attested pear tree in Rome – but they proliferate in the city, as trees do today, and could be found on street corners throughout Rome, even in less affluent areas such as the *vicus aesculeti*. Among the places these trees could be found are within gardens, such as the tree seen in the painting in Fronto's house, in Pompeii (see Fig. 5). These gardens are a key site for nature's integration within the city. The Horti of Rome were a form of communication, projecting the character of their owner to the outside world, a communicative tool found in public spaces such as the Porticus Pompeiana and the Horti Luculliani, both of which housed

²⁵² Martial appears in the *RTD* 29 times at the time of writing.

the spoils of each owner's war against Mithridates. These Horti acted throughout Rome as spaces for interaction, and were a fundamental part of the triumphal Roman cityscape, fully integrated into the city as a key area for the city's populace, both as a space to be spectated and a space to spectate, as the Julio-Claudian *lauretum* was, in its prominent position on the hill (much like Lucullus' Horti, on the Pincian). The nature that is found in these spaces is a subdued, controlled nature, tamed by the hand of the gardener, as is evident from Statius' account of Pollius Felix creating his garden.²⁵³ Where there was once wilderness, there is now order, and so the nature that is integrated into the social space is a sanitised version, receptive to human influence, and content under the yoke of control.

1.4. Concluding Remarks

Throughout this chapter, the tension between the rural and the urban has been evident, both in interactions with nature throughout Roman life, and in its containment within the city itself. This tension is apparent in a wide range of sources and is at a state of uneasy equilibrium in the early Imperial period, where a sanitised and controlled form of nature is permitted within the city, and even then, has to be contained, both within the formal geographic boundaries of the *horti* and the more theoretical boundaries of the *imago hortorum*. In the city's presentation of itself, trees are fundamental, offering a link to a past beyond human lifespans, and as a communicative tool for an individual. They can ensure a lengthy afterlife or dynasty, and nature is sometimes exploited to that effect, as in the case of the Julio-Claudian *lauretum*, a fundamentally ominous grove for the imperial family and comparable to the well-covered imperial portents in Hunt's *Reviving Roman Religion*.²⁵⁴ As a broad concept, the tree is a relic of a far-off past, and a pure representation of that past, offering as direct a link as possible to deities and history, although the multi-valent relationship with the arboreal in Rome is such that to limit these engagements to being religious is to disregard the complex role of trees in everyday Roman life.

It is by the integration of the trees discussed in this chapter into everyday Roman life that they were able to function as a sanitised insertion of rural features into a cityscape. However, this integration of trees was an uncertain one. The grove of the Camenae is an example of this uncertainty, the grove did not change as rapidly as the space's use, and the original religious identity of the grove, as the home of the Muses, was overcome by its new, economic occupants – the Jewish market. If a tree or grove does not progress with the times and adapt to secure

²⁵³ Stat. *Silv.* 2.2.52-9. See above, p.4.

²⁵⁴ Hunt (2016) 217-23.

meaning and relevance within the evolving cityscape, then it becomes isolated from the city, as the Vatican *ilex* does, although such isolation is not necessarily negative, as shown by the Ruminal fig tree in the forum, which not only represents the role of nature in the city's founding, but is also a sacred tree, venerated and inviolable by its physical isolation. Ultimately, though, nature can never be contained, a fact which the ancient poets knew all too well, and the satirists warn about the consequences of men over-reaching, seeking eternal glory, and continue to remind them that, although their courtyards are paved now, nature will eventually triumph, and a barren fig tree will break through.

2. Pliny's Trees

Pliny devotes six books of his *Natural History* to trees, and his approach to them exposes some of the literary and cultural trends that are commonly observed throughout the texts compiled within the *RTD*. The *Natural History*, which has a similar scope to the *RTD*, attempts to collect and distil all known information on a topic, and makes these trends apparent in a contemporary context. Among these are the need to explore and evaluate the use and abuse of nature as a resource, the exertion of power and control over the natural world, and Pliny's desire to preserve his idea of Romanness: rejecting foreign imports as totems of *luxuria*. These cultural influences are evidenced throughout the *Natural History*, a work of such extensive scope that it combines the symbolic and cultural value of trees with their practical application, which has not always translated to modern approaches to Latin literature, which treat most texts as approaching one aspect or another – Columella's *De arboribus* and *De re rustica* are considered practical handbooks, while Vergil's *Georgics* are regarded as dealing with the symbolic aspects of trees.²⁵⁵

It is this scope, a result of Pliny's extensive reading and research, which has led to the *Natural History* being dismissed as 'a dust-covered tome' rather than as a usual author, whose cultural context is considered alongside their writing.²⁵⁶ Another weakness that originates from Pliny's scope is his tendency to provide contradictory or misread evidence, which caused Meiggs to dismiss him as 'no botanist', providing a list of the errors and faults he had found with the *Natural History*,²⁵⁷ while Meiggs' contemporary, Goodyear, criticised Pliny as 'a learned amateur [who wrote] for the benefit of unlearned amateurs'.²⁵⁸ His number of appearances in the *RTD* compared to other authors helps us to understand how much of the arboreal world he covers in the *Natural History* (see Fig. 2 above). In the *RTD*, it is apparent that Pliny's assessment of the trees in the Roman world is far more comprehensive than even Vergil's, the

²⁵⁵ Whether this view was common in the ancient world is unclear, and is explored by Doody (2007), who addresses Pliny's and Columella's use of the *Georgics* as a practical guide, although Meiggs (1982, 33-34) is critical of the Augustan poet's knowledge and consistency in trees. The relationship between the works of Cato, Columella, Varro, and Vergil is also explored by Dumont (2008) and Spencer (2010, esp. 86-104). The reliance of Pliny on Varro, and the complicated relationship between Varro and his predecessors, Cato and Vergil, is examined in relation to grafting by Lowe (2010), who also explores Columella's views on the same subject, finding similarities in their approaches. That Cato's, Columella's, and Varro's writings remained influential agricultural manuals among the Roman élite is not a recent discovery, and Liu (2010) reflects on 18th century historian Robert Castell's examination in *Villas of the Ancients Illustrated* of planting habits in Pliny the Younger's Laurentian villa, which bear a striking resemblance to those set out by the three authors.

²⁵⁶ Axtell (1926) 104.

²⁵⁷ Meiggs (1988) 24.

²⁵⁸ Goodyear (1982) 670.

second most attested author in the database thus far. This engagement, predominantly contained in Books Twelve to Seventeen of the *Natural History*, spans the breadth of the Roman empire and explores a disparate range of topics, from building construction to Pliny's social influences, particularly utility and luxury. Through this, the *Natural History* displays Pliny's character, represented through both his choices of focus and his narrative decisions.

Pliny's character, and the societal implications on his writing, have been the focus of the rehabilitation of Plinian studies, and have been highlighted by Beagon, Wallace-Hadrill, and, more recently, Laehn.²⁵⁹ Through a consideration of Pliny's character, and his personal biases, they are able to inform their responses to his work, approaching it from different points of origin, from the imperialistic approach of Laehn, Murphy, and Carey to the anthropocentric discussion of Beagon.²⁶⁰ Pliny's background in the Flavian court influences his imperialistic approach, a dominant feature of Fear's analysis, and his experiences on campaigns around the Empire can be seen influencing his approaches to compiling the *Natural History*.²⁶¹ However, a key aspect in the *Natural History*'s creation is a received Stoicism, influenced by his contemporaries in Roman society.²⁶² Hunt tells us that this Stoic approach to the world, highlighted in the opening chapters of the *Natural History* and Pliny's treatments of *natura* and *numen*, is conscious, while Beagon points to the differences from Seneca's considered philosophy, and notes that, while 'the components [of Pliny's philosophy] are familiar, the picture Pliny builds with them is unique'.²⁶³ This suggests a Stoicism that is not fully considered, based upon what was 'fashionable' at the time of his writing, and which is distinct from the established philosophical writings of authors such as Seneca.²⁶⁴ This allowed Pliny's philosophy to maintain a fluid nature, adapting to each aspect of the *Natural History* on a case-by-case basis, and it is through several of these cases that we will view Pliny's approach to Rome's relationship with trees.

This chapter will address how Pliny interacts with the arboreal world in line with his Stoic influences, which includes a desire to establish a Roman totality, and how these influences affect his composition and presentation of the natural world. While the *Natural History* is, as Beagon admits, a 'huge and unwieldy work', and cannot aim to provide all examples, it is

²⁵⁹ Beagon (1992); Wallace-Hadrill (1990); Laehn (2013).

²⁶⁰ Laehn (2013); Murphy (2004); Carey (2003).

²⁶¹ Fear (2011).

²⁶² Beagon (1992) 26-54. Pliny's Stoicism is discussed by Murphy (2004, 184), who compares the natural historian's approach with the philosophical context it exists within.

²⁶³ Hunt (2016) 203-4; Beagon (1992) 32.

²⁶⁴ Wallace-Hadrill (1990) 84. The fluidity of Pliny's model is perhaps what inspired Paparazzo to place scare quotes around 'philosophy' in his chapter on the subject (2011, 89).

nevertheless possible to take case studies and expand upon them, drawing from throughout the *Natural History* to provide some examples.²⁶⁵ It is with this approach in mind that this chapter examines the work, while it will also present a complete view of the arboreal books of the *Natural History*. To do this, the first section addresses the structure of the six books focussed on trees (12-17), and considers it from an imperialistic standpoint, examining the act of cataloguing as one of conquest and control. The following two sections engage more closely with one another, and with Pliny's Stoic ideals, contrasting the use and abuse of nature – through utility and luxury – in the arboreal world presented within the *Natural History*. These two sections will utilise two key examples to explore the ideology of Pliny. For utility, the vine will be considered, to which one book is dedicated, while the abuse of nature focusses on citrus wood tables and the excessive consumption shown by the Roman bourgeoisie when this luxury item came into fashion. From here, the chapter will consider Pliny's approach to Rome's oldest trees, and of old trees closely related to the city, all within the chapter of the *Natural History* concerning 'The Age of Trees'. This section, which examines an olive tree planted by Scipio Africanus, will explore Pliny's relationship with source material, his interest in the prosperity of future generations, and his treatment of arboreal portents. Finally, an individual case study will pull these themes together, in an interrogation of Pliny's varied stances on the cypress tree and timber. Here, it will become apparent how Pliny's principles are played against each other, and how the author manipulates his audience through his principles when a conflict arises.

2.1. Structure

Pliny includes a list of contents for the six books devoted to the role of trees in the ancient world, as he does for the other thirty books of the *Natural History*, and this is translated in Appendix Two. This contents list is commonly presented as the 'first book', and was intended by Pliny to save his patron (the future emperor Titus) time. To do this, Pliny identifies the major topic of each book, which are then divided into sub-topics, to prevent Titus from having to read the entirety of the *Natural History*.²⁶⁶ While Pliny's sub-topics have been described by Goodyear as being 'disparate matters unhappily conjoined', noting the many 'digressions, historical references, and elaborate descriptions [that] vary and enliven the work', they can also be seen as being a part of a wider narrative purpose within the *Natural History*, encouraging

²⁶⁵ Beagon (1992) pref. ii.

²⁶⁶ In discounting the contents list from the number of books, I follow Laehn (2013, 7), who takes his lead from the author himself. In his prefatory letter, Pliny identifies 36 volumes of the *Natural History*, and states that the list of contents is appended to the letter itself. This is a statement which even Pliny's own nephew ignores, in a letter to Baebius Macer (*Ep.* 3.5).

Roman control over their surroundings.²⁶⁷ Murphy has proposed that the *Natural History* seeks to define things by opposition and contrast,²⁶⁸ and one of the central oppositions in the *Natural History* is between Roman and non-Roman, with Roman power being the uniting force behind the world. The praise of Roman power as a uniting force is a theme in the arboreal books, particularly in Pliny's invective against luxury at the opening of Book Fourteen.²⁶⁹ This leads to the *Natural History* having an imperialist and triumphalist tone, which has featured in a number of modern commentaries on Pliny's wide-ranging work.²⁷⁰

Table 1: Brief summary of the content of Books 12-17 of Pliny's *Natural History*.

Book Twelve	Overview of trees; Indian and Far-Eastern trees.
Book Thirteen	Near-Eastern and African trees and their products (perfumes and papyrus); Greek trees.
Book Fourteen	Vines and wines.
Book Fifteen	Fruit-bearing trees, focussing on the olive, the myrtle, and the laurel.
Book Sixteen	The oak; pitch; timber; life-cycles of different trees; the age of trees.
Book Seventeen	Cultivation of trees.

The six books concerning trees come within those commonly listed as being about plants (Books Twelve to Nineteen),²⁷¹ and are broad in their scope. Even when distilled into their simplest topics (as they are in Table 1), there is evidence of digression – on perfumes and papyrus, and the whole book on vines and wines. However, Pliny is insistent in his prefatory letter that there should be no ‘digressions, speeches, dialogues, miraculous occurrences, or unusual events’,²⁷² an aim which he frequently fails to attain. Pliny's failure to write a work without ‘digressions, speeches, dialogues, miraculous occurrences, or unusual events’ is immediately apparent from the categorised translation of Pliny's list of contents to the arboreal books appended to this thesis (see Appendix Two). This has caused the *Natural History* to be treated by Healy as being more comparable to Herodotus' *Histories*, which are ‘full of anecdotes, digressions, and colourful description’, exactly the kind which Goodyear earlier claimed ‘vary and enliven’ the piece.²⁷³

²⁶⁷ Goodyear (1982) 670.

²⁶⁸ Murphy (2004) 29.

²⁶⁹ Plin. *HN* 14.2.

²⁷⁰ For a general comment on Pliny and imperialism, see Fear (2011), for more focussed discussion, see Conte (1994), and Carey (2003).

²⁷¹ Laehn follows a number of others in his brief summary of the entire *Natural History* (2013, 7).

²⁷² Plin. *HN praef.* 13.

²⁷³ Healy (1999) 39; Goodyear (1982) 670.

These digressions within the *Natural History* are not treated by the natural historian as being extraneous details. Instead, they are relevant to the narrative, tangents and offshoots without which the *Natural History* would become unwieldy. All the digressions within the arboreal books provide additional information that would be ill-suited anywhere else, evident through the categorisation in the contents. The historical anecdotes refer to the history of trees, the chapters identified as being ‘General/Other’ in the appendix often originate with trees, such as the digression ‘On the Happiness of the Arabians’ in Book Twelve. This leads from the lack of cinnamon and cassia in the region, and the other sources of wealth available, in the absence of these spices.²⁷⁴ Book Thirteen, while easy to be accused of straying from the goal of simple display of catalogued information, follows Pliny’s stream of consciousness, dominated by discussions of the produce available from trees, perfumes and papyri, and leading to a book on one tree (by Pliny’s classification), and its uses. The few historical anecdotes throughout these books refer directly to the trees being discussed and fit with the tone of the *Natural History* in providing all information available with minimal apparent structure to it. In Book Fifteen, following the discussion of the vine, Pliny moves along a logical regional progression to the olive and continues to discuss the purpose of the fruit and its history. Book Sixteen opens with yet another apparent digression, following the pattern of other books which seem to begin on a tangent, before Pliny remembers himself and re-focusses. This tangent, however, is easy to track, aided by Pliny’s admission of it before it begins. He acknowledges that his next topic, following fruit-bearing trees, should rightly be ‘acorn bearing trees’, but that he feels he should first comment on those regions that have no trees.²⁷⁵ Then, passing over the places he has already mentioned (in his digression on the happiness of Arabians in Book Twelve), he directs his readers to two tribes, the Greater and Lesser Chauci, who can be found in Germany. It is in the choice of tribes as opposed to the topic that Pliny’s line of thought becomes clear: he is driven by geography. The oak, which he was about to discuss (and does, after his discourse on the Chauci), is associated with Germany, and he lists a number of German forests to open his account of the tree.²⁷⁶ In the arboreal books of the *Natural History*, Pliny was thinking geographically rather than thematically, following no carefully laid plan beyond where his work wandered to next.²⁷⁷ It is only in Book Seventeen that Pliny develops any continued direction, and it is perhaps for this reason that this book feels like something of an outlier in

²⁷⁴ Plin. *HN* 12.82-4.

²⁷⁵ Plin. *HN* 16.1.

²⁷⁶ Plin. *HN* 16.6.

²⁷⁷ Laehn (2013, 6) argues for an annular structure of the *Natural History* as a whole, although he is unusual in approaching it in this way.

terms of the tone of the six books. The seventeenth book, regarding cultivated trees, is concise, clear, and only strays from its topic once, in a brief aside on the origin of grafting.²⁷⁸ It is true that it is concerned more with the cultivation than the nature of cultivated trees, but this is hardly surprising – Pliny has clearly covered the nature of all the trees he wanted to in the five preceding books and now moves to growing them.

On a larger level, however, there appears to be a broader theme to the arboreal books, which is explored in other portions of the *Natural History*: imperialism, or triumphalism as Carey argues for.²⁷⁹ Carey also states that, through cataloguing the world, Pliny has incorporated conquest into the work, and that cataloguing itself is an act of conquest.²⁸⁰ Elsewhere, Naas, while exploring paradoxes in the *Natural History*, points to the contradiction inherent within viewing the *Natural History* as a vehicle for imperialism via the conquest of knowledge, and reminds her readers that Pliny blames the decline of knowledge on imperialism.²⁸¹ She continues to explore the theme of imperialism, amidst a number of other paradoxes related to the pursuit of knowledge and imperialism, and establishes Pliny's complex relationship with empire, both as a force for good, in the expansion of knowledge through expansion of territories, and as a prompt for laziness in times of peace. However, in terms of triumphalism, Pliny's attitude is clear – the display of knowledge accumulated through conquest is not only necessary, but also praiseworthy.

Knowledge is also framed within Roman terms, and the world Pliny displays to us is a Roman one, catalogued and explained using Latin bureaucratic frameworks of *colonia*, *municipia*, and so on.²⁸² It is, of course, limited by the extent of Roman exploration up until this point, and the act of surveying the world is not, in and of itself, an act of conquest – Murphy points to the tradition of a general surveying the land before conquering and ruling it, but goes on to argue that the two are inextricably linked.²⁸³ Therefore, when Pliny opens with a survey of the known world, he could be seen as preparing his readers (or marshalling his troops, to continue Murphy's military comparison), for the conquest of the known world, bringing it under Roman control. This control still does not automatically translate to conquest. Instead, it is an extension of power, and an advert for the exertion of Roman power, marking it as the centre of the world, to which all knowledge is gathered – Sri Lanka, or Taprobane, is considered part of a separate

²⁷⁸ Plin. *HN* 17.99.

²⁷⁹ Carey (2003) 76.

²⁸⁰ Carey (2003) 34.

²⁸¹ Naas (2011) 59. See Lao (2011) 41, also Carey (2003) 75-9.

²⁸² Carey (2003) 33.

²⁸³ Murphy (2004) 132.

world until Pliny reveals what he has learnt about it following the visit of emissaries in Claudius' reign.²⁸⁴ In the arboreal books, Pliny's survey similarly makes Rome the centre, and he addresses trees from the outside in, highlighting the first times the trees were brought to Rome, either as timber or as the tree itself.

A key example of this is the citron, which he acknowledges cannot be grown anywhere except in Media and Persia, shortly before making a similar admission with the ebony.²⁸⁵ His knowledge of the citron's rejection of other lands, which remains uncited, is based on practical experience – 'various nations' have tried and failed to grow it in their lands, attracted by its medicinal qualities. However, they have found that it cannot be grown anywhere other than its home country, where no other tree is as 'highly praised'. Implicit within this exposition is a Roman attempt to grow the citron, as is again implied with the ebony, which Vergil relates cannot be grown in Rome.²⁸⁶ This treatment of foreign trees which cannot necessarily be naturalised begins early in the arboreal books, and after the first tree, the plane, which is preceded by a brief secondary introduction to notify his readers that we are now going to be dealing with the 'exotic trees' which have not been naturalised to Rome, and these other trees will be explored among the fruit trees.²⁸⁷ Through the separation of fruit producing trees according to geographical boundaries, Pliny establishes a definition of what is arboreally Roman by first defining what is not, a typical tactic of the *Natural History*, which frequently seeks to define 'Romanness' by opposition to that which is not, and does so from the opening of the arboreal survey.²⁸⁸

However, the true beginning of the arboreal books, before even the plane tree, is a section that Pliny titles 'The grace of trees' in his list of contents (see Appendix Two). Here, Pliny presents a list of associations between trees and the divine, linking trees to Roman deities, and identifying all woodlands as being under the care of woodland spirits.²⁸⁹ By placing the arboreal world in a Roman setting, Pliny highlights from the opening of the *Natural History* that the world he is observing is, to its very foundation, Rome-centric, and this complements his approaches elsewhere, explored by Carey in the creation of a Roman totality.²⁹⁰ Before the

²⁸⁴ Plin. *HN* 6.81-91.

²⁸⁵ Plin. *HN* 12.16-17.

²⁸⁶ Verg. *G.* 2.116.

²⁸⁷ Plin. *HN* 12.14: *sed quae ex iis incolarum numero esse coepere dicentur inter frugiferas. in praesentia externas persequemur.*

²⁸⁸ Fear (2011).

²⁸⁹ Plin. *HN* 12.3.

²⁹⁰ Carey (2003) 32-40.

discussion of the Roman deities, Pliny identified the origins and early uses of trees, exploring the ‘gift’ that they offer to mankind:

For a long time, the benefits of the earth were hidden, and trees and woods were believed to be the greatest gift offered to mankind. From these, they first derived food, used their leaves to soften their caves, the bark for clothing.²⁹¹

This gift, which is universally offered, is Pliny’s motivation for placing the discussion of trees before mined materials, since they were discovered later, and he is mapping the evolution of mankind’s exploitation and control of the resources available to them.²⁹² It is in Rome’s control of trees, particularly naturalised fruit-bearing trees, that the pinnacle of arboreal exploitation is found, and the movement from the exotic trees to the fruit-bearing ones could be read as a journey toward Pliny’s idea of civilisation’s pinnacle, which centres on Rome. This discussion also reminds the reader of Lucretian ideas regarding the origins of trees, which have been explored above (see pp.47-54), and almost certainly will have influenced Pliny, who includes Lucretius in his list of references, albeit not within the arboreal books. In both Plinian and Lucretian cosmogonical views, the world and nature exist as an exploitable resource, and the level of exploitation can be seen as a measure of a culture’s level of civilisation.²⁹³

2.2. Using Trees

Through exploiting and controlling the landscape, a civilisation is able to explore the utility of nature, and this is a common theme throughout the *Natural History*, and Pliny chooses to employ the categories *usus*, *utari*, and *utilitas* 103 times in the arboreal books alone.²⁹⁴ This utility is the lens through which Pliny views the natural world. The first indication we have of his preference for utility, and what *utilitas* entails is in the prefatory letter, which accompanied the *Natural History* and dedicated the books to their recipient, Titus. Here, Pliny relates that he favours those who perform in spite of difficulties and aim to give *utilitas* over those who succumb to giving pleasure (*iuvandi*). To aid Titus in discerning his meaning, Pliny uses an example, that of Livy, who began a now lost volume of *Ab urbe condita* with an admission that he had achieved everything he had desired, and was now writing primarily to sustain his own

²⁹¹ Plin. *HN* 12.1.

²⁹² Plin. *HN* 12.2: *quamobrem sequi par est ordinem vitae et arbores ante alia dicere ac moribus his primordia ingerere.*

²⁹³ On the changeability of *Natura* in Pliny’s *Natural History*, see Beagon (1992, 36-42).

²⁹⁴ De Oliveira (1992) identifies *l’utilité sociale* as a key factor in Pliny’s judgement of imperial rule, and focusses on it throughout his monograph.

mind.²⁹⁵ While this was perhaps not the intent of Livy when he stated that he intended his readers to find *exempla* in his histories, Pliny remained a fan, and took the historian's remarks to indicate that he was writing for the good of the Roman people, and to further their glory.²⁹⁶ Thus, Pliny's view to the purpose of writing, for the benefit of the Roman society is a pursuit of *l'utilité sociale*, as de Oliveira has put it.

For trees, this social utility is displayed in two ways. First, trees can further Roman society by feeding humans, a basic function of trees, and their original purpose across Roman literature, from the acorns in Lucretius' *De rerum natura* to the oak trees dripping honey in Ovid's *Metamorphoses*.²⁹⁷ Additionally, they provide timber, which was used for the construction of buildings, ships, and tools. Pliny offers extensive comment on the timber qualities of his trees, giving an account of those which he considers worthy of such focus in an extended portion of the *Natural History*.²⁹⁸ His opinions regarding trees which fail to perform these functions can be found in Book Sixteen, when he remarks:

For there are some entirely wild trees, and some more assimilated to city life (*urbaniores*), since it is customary to distinguish them by these names: the latter, which benefit humans by fruit or some other gift, and shade, may not inappropriately be called urbane (*urbanae*).²⁹⁹

This brief comment tells us that social utility, for Pliny, is the hallmark of a cultivated life, which is associated with the city (*urbs*) by the language used – *urbaniores*, *urbanae*. It also reveals that his negative opinion of the plane tree, which was imported 'for the sake of shade' is one which remains consistent throughout the *Natural History*.³⁰⁰ It is not enough for a tree to only provide shade to be a valuable tree: it must produce more than this to benefit mankind.

The primary way for trees to benefit mankind, by providing fruit, is the topic of two books of the *Natural History*, and the first tree Pliny includes in his account of fruit bearing trees is the vine. Here, we find a key issue when discussing trees in Pliny's *Natural History* – what does

²⁹⁵ Plin. *HN praef.* 10: *profiteor mirari T. Livium, auctorem celeberrimum, in historiarum suarum quas repetit ab origine urbis quodam volumine sic orsum: satis iam sibi gloriae quaesitum, et potuisse se desiderare, ni animus inquires pasceretur opere.*

²⁹⁶ Liv. *praef.* 10: *hoc illud est praecipue in cognitione rerum salubre ac frugiferum, omnis te exempli documenta in inlustri posita monumento intueri; inde tibi tuaeque rei publicae quod imitere capias, inde foedum inceptu, foedum exitu, quod vites; Plin. *HN praef.* 10: *profecto enim populi gentium victoris et Romani nominis gloriae, non suae, composuisse illa decuit.**

²⁹⁷ Lucret. 5.939; Ov. *Met.* 1.112. See p.50.

²⁹⁸ Plin. *HN* 16.62-73.

²⁹⁹ Plin. *HN* 16.78.

³⁰⁰ Plin. *HN* 12.6.

Pliny regard as a tree? Evidently, this was a cause for question in his own time, since Pliny appears to feel the need to justify the vine's inclusion in this section: 'by the maintenance of its size, vines were numbered among the class of trees from early times.' To further explain the inclusion of the vine in the class of trees, Pliny turns to the longevity of its timber, of which there is none more eternal, thus highlighting the two means by which a tree can be classified: size and longevity.³⁰¹

The first use identified for the vine is one that battles luxury, following Pliny's view that the natural world, here represented by the vine, is at constant war with luxury.³⁰² When it blossoms in Italy, it is a preferable fragrance to any other, and surpasses all the 'good things' of the world, acting as a champion for Italian supremacy in all things.³⁰³ However, this remains a typical tertiary purpose in the *Natural History* and Pliny continues to discuss the varieties of vine, and offers a long excursus on the wines that are produced from vines, their history, and their alternatives in a piece which lasts for all of Book Fourteen.

The next purpose to be briefly mentioned is the use of vine wood as timber, which lasts without decay 'for many ages'. It has historically been used for a number of long-lasting items, from a statue of Jupiter to columns and staircases, all made of single pieces of vine wood. As has already been mentioned, this timber is the longest surviving of all, although Pliny goes on to clarify that these timbers are 'from the woods' (*ex silvestribus*), and moves his discussion away from the wild vine to the cultivated one.³⁰⁴ The wild vine does not fit neatly with Pliny's theme of controlled nature here, which began with an encouragement of agriculture, although his insatiable appetite for knowledge requires the timber of the vine to have a brief mention, thus disseminating the knowledge once acquired.³⁰⁵

Despite its brief appearance in this book, timber remains a key element of judging a tree's worth throughout the *Natural History*, and Pliny dedicates a portion of Book Sixteen to trees whose wood is valued.³⁰⁶ This section, which follows a discourse on the benefits of pitch and resin, other products of trees, prioritises timber in every tree that has not until this point been

³⁰¹ Plin. *HN* 14.9.

³⁰² Plin. *HN* 21.46: *paria nunc componuntur et natura atque luxuria depugnant*.

³⁰³ Plin. *HN* 14.8: *quarum principatus in tantum peculiaris Italiae est ut vel hoc uno omnia gentium vicisse etiam odorifera possit videri bona, quoniam ubicumque pubescentium odori nulla suavitas praefertur*. On Pliny and perfumes, see Dalby (2000) and Vons (2000).

³⁰⁴ Plin. *HN* 14.9: *Iovis simulacrum in urbe Populonio ex una conspicimus tot aevis incorruptum, item Massiliae pateram; Metaponti templum Iunonis vitigineis columnis stetit; etiam nunc scalis tectum Ephesiae Dianae scanditur una e vite Cypria, ut ferunt, quoniam ibi ad praecipuam amplitudinem exeunt*.

³⁰⁵ See Lao (2011).

³⁰⁶ Plin. *HN* 16.62-73.

discussed.³⁰⁷ In his framing of timber and its uses Pliny reverts to his preferred method to confer *gravitas* to his account: he gives timber a history. In Rome's relationship with trees, he needed to look no further than traditional Roman *exempla*. For the practice of agriculture, Pliny turned to Hesiod. When addressing the historical use of the vine for timber, he cites its role 'in early days' (*apud priscos*) as a tree, and implies its historical precedence with the phrase 'even now' to describe the staircase in the temple of Diana at Ephesus.³⁰⁸ For timber more generally, Pliny directs us to the ash, which is the 'most productive' tree, and the one that opens Pliny's account.³⁰⁹ The timber of this tree is especially important to Pliny, since Homer tells us it was used for the spear of Achilles. This gives the material the same authority as that of the ancient trees outside of Rome, one of which is reported to have been planted by Agamemnon.³¹⁰ Timber, as a produce, is a major concern of Pliny, and it recurs frequently throughout the *Natural History*'s discussions on trees, particularly in the latter half of Book Sixteen. The tone is similar to that used for the citrus tables, as if Pliny is making an inventory of the world and a guide for prospective buyers. He advises, for example, to coat timber in cedar oil, 'lest it suffer maggots or decay'.³¹¹ Later, he tells of historic lengths of timber, such as the largest ever to be seen in Rome which was used in the construction of Nero's amphitheatre of 59 CE, and exhibited by Tiberius on the bridge for the *naumachia*:

It is believed that the largest tree to be seen in Rome to this day was that which Tiberius displayed as a marvel on the bridge at that same *naumachia* mentioned earlier [at 16.190], having brought it back with all the other timber, and it remained until Nero's amphitheatre. It was a timber of larch 120 feet long, and two feet thick. From this, the scarcely believable height of the tree could be understood, by measuring from base to top.³¹²

³⁰⁷ Plin. *HN* 16.62: *materiae enim causa reliquas arbores natura genuit*. Hughes (1983, 443) misconstrues Pliny's meaning in this sentence, and discounts his preceding passages on pitch and resin derived from trees, preferring instead to cite fruit and timber as the only products that Pliny viewed as coming from a tree.

³⁰⁸ Plin. *HN* 14.9.

³⁰⁹ Plin. *HN* 16.62. In this contained treatment of timber, Pliny addresses the timber of five trees: the ash, the lime, the maple (which is second to citrus in cabinet making), the box, and the elm.

³¹⁰ Plin. *HN* 16.62: *multumque Homeri praeconio et Achillis hasta nobilitata*. This comment refers to Hom. *Il.* 22.133. Elsewhere, Ovid states that Achilles' spear is made of ash (*Met.* 12.122), and Pliny comments that it is the best wood for spears (*HN* 16.228). For the plane tree planted by Agamemnon, see Plin. *HN* 16.238. For more on Pliny's idealisation of the past, see Fear (2011).

³¹¹ Plin. *HN* 16.198: *cedri oleo peruncta materies nec tiniam nec cariem sentit*.

³¹² Plin. *HN* 16.200. It is peculiar that Pliny treats this piece of timber as a tree, referring to it as *arbor*, while it clearly is not, being later referred to as *trabs*. Perhaps Pliny is pointing to an exhibition of the tree, which was subsequently made into timber for the bridge to the island in the middle of the *naumachia*.

There is no discussion of luxury in this example, and the incredible lengths of timber themselves draw no criticism from Pliny in this section. Instead, he seems to revel in the extraordinary nature of these trees, and at how nature has conspired to grow something so miraculously large. It is man whose exploitation of this timber is criticised.

Key to the purpose of a tree, for Pliny, is that it has a ‘social utility’, as examined by De Oliveira (1992). This utility is manifested in trees as a need to feed humans, or to provide timber, the two primary purposes of a tree. They can also, Pliny identifies, have some other purpose, but social utility as a concept is key. This utility is associated with the city, and this ties into the satirist trope examined above (in 1.2), where a fig tree that resists the city is barren, and unable to fulfil its key role of providing fruit to humans. When examining the production of fruit in trees, Pliny begins with an entire book on the vine, and offers an extended discussion on the tree as a whole, beginning with a third-tier purpose, after providing fruit or timber, identifying its role in battling luxury. This is a central theme throughout Pliny’s *Natural History*, and his challenge to luxury will be explored in the following section. The bulk of this section addressed timber as a purpose – fruit has already been established as a key purpose of trees from Lucretius’ and Ovid’s accounts of trees’ creation – and how provenance is central to establishing the value of a timber. Pliny values woods with a historic utility, from the vague *apud priscos* applied to the vine’s timber, to the specific yet mythological utility of the ash, as Achilles’ spear. By historicising these timbers, he confers value onto them, and this is echoed when he establishes the extraordinary lengths of timber. In these examples, he does not criticise the growth of the tree, nor man’s use of it, although excessive felling of trees is a topic he will return to later in the *Natural History*.

2.3. Abusing Trees

In the thirty-first book of the *Natural History*, when Pliny’s topic is water, he returns briefly to the issue of tree felling and emphasises over-zealous felling. He briefly comments that ‘dangerous torrents converge where woods, which used to contain and absorb the rain, have been taken away from the hills’.³¹³ As Hughes observes, ancient authors are unafraid to link the negative impact of deforestation with human activity, and it is the over-indulgence of man in timber that Pliny now identifies as the cause for flooding.³¹⁴

³¹³ Plin. *HN* 31.53: *plerumque vero damnosi torrentes contrivantur detracta collibus silva continere nimbos ac digerere consueta.*

³¹⁴ Hughes (1983) 440. Hughes goes on to cite Vitruvius (*De arch.* 8.1.6-7), who observes the effect that forests have on water supply.

Luxury, and man's propensity toward over-indulgence, is the enemy throughout the *Natural History*, and Pliny sometimes depicts luxury in a physical fight with the more sedate and controlled nature.³¹⁵ The two duelling rivals, however, can come together on occasion, and Wallace-Hadrill reminds us that 'nature herself is luxurious', pointing to a vine that 'luxuriates destructively' which leads to its own demise.³¹⁶ This vine is emblematic of the luxury that Pliny argues can be found across and, more importantly, within the world.

The vine, which Pliny has praised throughout Book Fourteen, exists in both its cultivated and uncultivated states, with the cultivated vine being the primary focus of the book, the uncultivated being used for timber. In an unusual example within the *Natural History*, Pliny presents both wild and cultivated examples of the tree as beneficial to mankind. Again unusually, and in the following book, he stresses that it is the cultivated variety that is in danger of over-luxuriating. In Book Seventeen, Pliny explains that the cultivated vine requires the care of man to keep it from over-reaching as it luxuriates destructively. In this example, the vine tree prioritises its growth over the production of fruit, and in doing so causes its own demise. As Wallace-Hadrill has noted, this luxury is markedly different from that of trees in blossom, which cause no harm to themselves or others by blossoming, and needs controlling by human hand, much like the corn which is excessively fertile, causing the head to collapse under its own weight.³¹⁷ In the example of the vine, which prioritises timber, and the corn, which prioritises fruit and fertility, it is apparent that in Pliny's *Natural History*, there is a limit to acceptable utility in a plant, and it is when that limit is transgressed that man must intervene, and rein nature in. Agriculture, the science that was discarded for luxurious pursuits at the start of Book Fourteen, is the proposed method of Pliny in the control of nature, and the efficient exploitation of its utility. In the same section as he criticises the luxuriating vine, he provides a detailed account of how to care for it, and the limits that ought to be placed upon the plant, while the corn is to be left available to be grazed on by flocks, as a remedy to its excessive growth.

Perhaps as a caution to the possibility of luxury within a fruit-bearing tree, and to foreshadow the dangers that the vine can encounter, Pliny opens his portion on fruit bearing trees with an invective against the dangers of luxury, pointing to the declining pursuit of early studies, such as that of Hesiod, who noted down every aspect of agriculture, in favour of 'cultivating

³¹⁵ Plin. *HN* 21.46.

³¹⁶ Wallace-Hadrill (1990) 88; Plin. *HN* 17.178.

³¹⁷ Wallace-Hadrill (1990) 88-9, citing Plin. *HN* 16.95; 18.154-61.

greed'.³¹⁸ However, by framing this diatribe in the context of fruit-bearing trees, comparing the current lamentable state of things with earlier discourses on agriculture, and using the language of agriculture to describe the growth of luxurious pursuits, Pliny is making his purpose in this section plain – to denounce luxury cultivated through greed with the advertisement of the benefits of trees, cultivated through agriculture.

Wallace-Hadrill argues that it was Pliny's contention that 'the further you have to go for it, whether underwater, underground, or to the far east, and the more it costs, the less natural it can be.'³¹⁹ This observation, which comes within a comparison of nature and luxury, the one identified by its simplicity and cheapness, the other by its complexity and dearness, suggests that Pliny's rejection of luxury would have caused some issues with the wider cultural tradition in which he wrote, where trade, and the import of foreign goods, had become of paramount importance to the Roman ruling class.³²⁰

Symptomatic of the growing importance of trade was Pliny's scrupulous account-keeping of the amount spent by aristocrats over the past century on wooden tables. These tables, made of citrus wood, were a status symbol, and were owned by a number of famous, wealthy, or famous and wealthy Romans in the late Republic and early Imperial period. The tree, which had been known to Homer as an aromatic wood burnt on Calypso's fire,³²¹ is north African in origin, and was also known to Theophrastus, implying that it had been valued as an import for centuries before Pliny wrote the *Natural History*, and before the Roman aristocracy took it on as a status symbol.³²² The timber was prized for its decorative and structural qualities, both of which are described in intricate detail by Pliny.³²³ This description does not focus on the greedy over-exploitation of the landscape, which led to the obliteration of Mauretania's supply, and is

³¹⁸ Plin. *HN* 14.4: *nimirum alii subiere ritus circaque alia mentes hominum detinentur et avaritiae tantum artes coluntur*.

³¹⁹ Wallace-Hadrill (1990) 88.

³²⁰ As Beagon comments (1992, 191), Vespasian was keen to exploit trade 'as the East became more accessible and its products... easier to acquire', while remaining 'adept at manipulating trade to the advantage of himself and the state treasury'.

³²¹ Hom. *Od.* 5.59-61: πῦρ μὲν ἐπ' ἔσχαρόφιν μέγα καίετο, τηλόσε δ' ὁδμὴ κέδρου τ' εὐκεάτοιο θύου τ' ἀνὰ νῆσον ὁδῶδει δαιομένων. Θυώδης, the adjectival form of θύον, is found at *Od.* 4.121 and 5.264, identifying the fragrant scent to Helen's chamber, and to the clothes Calypso provides Odysseus with. Curiously, Pliny identifies three trees that are burnt as being the *citrus*, *larix*, and the *cedrus*, as opposed to only the *citrus* and *cedrus*, as well as mis-identifying the burner in the *Odyssey* as Circe (*HN* 13.100).

³²² Theop. *Hist. Pl.* 5.3.7. Meiggs (1982, 286-7) explores the use of the tree in Egypt, and in Cyrene, with particular attention being paid to the tables within Cleopatra's palace, which he already singled out for its luxurious solid ebony doorposts.

³²³ Plin. *HN* 13.96-100. Further, Pliny (*HN* 13.101-2) cites Theophrastus' comments on the application of the timber, although Theophrastus makes no mention of the citrus wood tables and prizes the citrus around the Temple of Hannon in Cyrenaica, as opposed to Pliny's preference for the timber of Mount Ancorarius in Mauretania.

more concerned by the nature of the timber, although this too could have been a sticking point for Pliny, who chastised the vine for similarly over-luxuriating towards its own destruction.

Cato was the first Roman to rail against citrus wood, denouncing it as being Carthaginian, a powerful invective from the senator, in a speech reported by Festus.³²⁴ Varro comments in a similar vein, preferring the simplicity of an old *villa* to the new one he describes at Reate, which is bedecked in *citrus* and gold, alongside a number of other, equally luxurious features, which he views as being counter to the original design of the *villa*, as a simple farmstead.³²⁵

By the time of Pliny's writing, after the tree had been used in a triumphal procession by Caesar,³²⁶ citrus wood tables had become popular in Rome, and the tree became synonymous with over-indulgence for the natural historian.³²⁷ Pliny begins his diatribe against the citrus wood table with an observation and a comparison between the jewels of women and the citrus tables of men. This comment is not one of Pliny's own devising, but is instead anecdotal, taken from the sayings of the time: 'table-madness, which women use as a retort against men on behalf of their pearls.'³²⁸ From this point, Pliny enters into a list of well-known citrus tables, opening with Cicero's table, worth half a million sesterces, a fact which Pliny viewed as being all the more remarkable because the orator was known to struggle to keep up with the aristocracy.³²⁹ What follows is an impressive account of the tables in the Empire, with the amounts spent on them or their worth at the time. Pliny highlights the largest table he knows of, Ptolemy's, which was formed of two semi-circles, joined together almost seamlessly, and was four and a half feet in diameter and three inches thick, but spends far more time discussing the tables of Tiberius and his freedman, Nonius.³³⁰ Nonius' table, at almost four foot wide and one foot deep, is larger in volume than Ptolemy's, and made from one solid sheet of citrus wood. Meanwhile, Tiberius' table, while impressively large, is not solid citrus, having been covered by a veneer of the wood. Pliny derides the practice of veneering wood later in the *Natural History*, but explicitly targets the practice of veneering wood with tortoiseshell designed to appear like wood. His open disdain for such fashion statements, when the only goal

³²⁴ Fest. 282L: *dicere possum, quibus villae atque [aedes] aedificatae atque expolitae maximo opere citro atque ebore atque pavimentis ꝑ Poeniciis tentꝑ.*

³²⁵ Varro, RR 3.2.4: *nuncubi hic vides citrum aut aurum?*

³²⁶ Vell. Pat. 2.56.2. See below, p.158.

³²⁷ De Oliveira includes Pliny's extensive comments on the value of the tree in his list of diatribes against luxury to be found in the *Natural History* (1992 184, n.321)

³²⁸ Plin. HN 13.91: *mensarum insania, quas feminae viris contra margaritas regerunt.*

³²⁹ Plin. HN 13.92: *exstat hodie M. Ciceronis in illa paupertate et: quod magis mirum est: illo aevo empti HS D.*

³³⁰ Plin. HN 13.93-4.

is to increase expense at the cost of maintaining the table's original fabric is typical of his rejection of luxury, which revolves around an embrace of all things natural.³³¹

However, the true tragedy for Pliny is that the supply of the best variety of this timber is exhausted, and it is on this note that he finishes his accounting of the fabulously expensive tables in the Roman Empire.³³² Just as the cypress tree collapsed in Rome after the city's over-indulgence, so too does the supply of citrus timber, which is not quickly restored – Meiggs estimates that to reach a diameter of four feet, necessary for Nonius' table, required a growth of approximately 200 years.³³³ The extent to which this will have impacted the country of Mauretania, the home of this citrus and modern-day Morocco, is only evident in the accounts of authors such as Lucan, who reveals that the timber is the only source of wealth to the Mauretanian people.³³⁴ Like the vine that piqued Wallace-Hadrill's interest in the excess of natural things, so too has the citrus over-reached itself, and tempted Romans to, as Lucan tells us, 'seek dishes and tables from the end of the earth.'³³⁵ And even the absolute Stoic, Seneca, was known to have succumbed to this temptation, having furnished his house with luxurious tables.³³⁶

So why then does Pliny not offer a thorough rebuttal of such indulgences as the citrus wood tables, one of which he claims cost as much as a landed estate?³³⁷ It is not simply a case of trade (*commercium*) outweighing *luxuria*, nor is Pliny dismissing the luxury of the tables with a passing witty remark about 'table-madness', although this statement does do something to trivialise the issue of luxurious imports to Rome in particular. The over-exploitation of the citrus trees does obviously upset Pliny, but he appears more enamoured by the tables, as

³³¹ Plin. *HN* 16.233.

³³² Plin. *HN* 13.95: *Ancorarius mons vocatur citerioris Mauretaniae, qui laudatissimum dedit citrum, iam exhaustus.*

³³³ Meiggs (1982) 290.

³³⁴ Luc. *Bell. civ.* 9.426-8: *tantum Maurusia genti robora divitiae, quarum non noverat usum, sed citri contenta comis vivebat et umbra.*

³³⁵ Luc. *Bell. civ.* 9.430: *extremoque epulas mensasque petimus ab orbe.*

³³⁶ Sen. *De Vita Beata* 17.2: *cur tibi nitidior supellex est?* Cassius Dio tells us that the Stoic Seneca, who abhorred luxury in all its forms did indulge in the craze for citrus tables, having a collection of 500 tables with the fashionable ivory legs for dining from: καὶ τὰς πολυτελείας τῶν ἄλλων αἰτιώμενος πεντακοσίους τρίποδας κιτρίνου ξύλου ἐλεφαντόποδας ἴσους καὶ ὁμοίους εἶχε, καὶ ἐπ' αὐτῶν εἰστία (61.10.3). Meiggs, taking his lead from a line of Martial, comments on the symbiotic relationship between the ivory and citrus workers, who formed a guild, the *citrarii et eborarii* (Meiggs 1982, 290, citing Mart. 2.43.9: *tu Libycos Indis suspendis dentibus orbis*, Juv. 11.122-7: *lato nisi sustinet orbis grande ebur et magno sublimis pardus hiatudentibus ex illis quos mittit porta Syenes et Mauri celeres et Mauro obscurior Indus, et quos deposuit Nabataeo belua saltu iam nimios capitique graves*, and *CIL* vi 9258 for the guild.

³³⁷ Plin. *HN* 13.93: *interiit nuper incendio a Cethegis descendens HS [XIII] permutata, latifundii taxatione, si quis praedia tanti mercari malit.*

evidenced by his lengthy account of their desirable qualities.³³⁸ The tables are also a hallmark of a luxurious life, and there are only a few things that suggest such a life in a more apparent manner than the citrus tree according to Pliny, who, after his lengthy account of the tables, turns to the tree itself, although he remains distracted by the tables, closing his description of the citrus tree with a statement as to their novelty.³³⁹ Lao, in her essay on Pliny's understanding of luxury, points to the creation of an 'exchange economy' in Pliny's *Natural History*, and the quasi-account-keeping of both his sources and his descriptions of luxurious items.³⁴⁰ She advises her readers to treat Pliny's text as an inventory of the world, cataloguing nature according to the worth of each individual item within it, and she attempts to move away from a purely imperialistic approach to reading the *Natural History*. Flagging previous explorations of the place of *luxuria* in Pliny's philosophy, which is typically characterised by Pliny's negative interactions with it, Lao highlights the joint roles of *commercium* and *luxuria* in Pliny's inventory of the natural world.³⁴¹ She presents the knowledge that he has collated in the books of the inventory as a luxury in itself, and draws on Pliny's own presentation of it, couched in the language of commerce, which is used to discuss luxury in equal measure.³⁴² Lao's understanding from this is that Pliny's view of commerce and luxury is one of balance, that the benefit of the former can offset the detriment of the latter, and he demonstrates this in his financial accounting of foreign and luxurious produce at the going market rate.³⁴³ While Lao points to the lengthy account keeping in Book Twelve, highlighting the continual detail regarding price, with minimal focus on other aspects of the foreign trees, she could have easily directed her readers to the scrupulous accounts of the citrus wood tables, and the costs which had historically been paid for them.³⁴⁴

This account includes instructions on how to detect quality in the tables' manufacture, and the price that one could have expected to pay for the genuine product, fits neatly into the approach of the *Natural History*. Lao may identify this section of Pliny's *Natural History* as being similar to a passage on false gems, and placing himself on the side of the consumer in recognising the genuine, if luxurious, produce, as opposed to the counterfeit.³⁴⁵ In this instance, Pliny appears

³³⁸ Plin. *HN* 13.96-9.

³³⁹ Plin. *HN* 13.100: *inter pauca nitidioris vitae instrumenta haec arbor est*; 13.102: *de mensis tamen tacuit, et alias nullius ante Ciceronianam vetustior memoria est, quo noviciae apparent*.

³⁴⁰ Lao (2011) 35.

³⁴¹ Lao (2011) 35 n.2.

³⁴² Lao (2011) 39-40.

³⁴³ Lao (2011) 45.

³⁴⁴ Lao directs her readers to Plin. *HN* 12.128-35, among other ancient authorities. The citrus wood tables are discussed at 13.92-5 (see above pp.92-3)

³⁴⁵ Lao (2011) 47; Plin. *HN* 37.197-8.

to have prioritised the purchasing of the tables over the moral degradation, the gluttony of luxury that it will inevitably bring.

Beagon points to Seneca for an answer as to this conflict within Pliny's writing, reminding us that trade, or *commercium*, is an essential part of Roman Stoicism, a system of ethics to which Pliny loosely subscribes. Seneca tells us that *commercium* is crucial to the establishment of the one-world state that Stoicism imagines (the application of Pliny's quest for totality will be discussed later in this chapter), and Beagon extends this to explore the use of trade as a 'prime means of promoting more general communications.'³⁴⁶ By communications, Beagon means *commercium* in the most general sense, ranging from the business of trade to the business of war, and as with *luxuria*, Pliny could not, and does not, offer a wholesale condemnation, instead singling out some forms of *luxuria* as his focus. In this, the citrus tables present a number of dilemmas for Pliny: they are a luxurious item, although the term *luxuria* is never applied to them, but benefit the Roman empire through trade, while being unavoidably foreign in origin. Further to this, they represent the over-indulgence of mankind in their natural surroundings, having so completely deforested the area that even after Pliny's discerning description of the key qualities to look for in a citrus wood table, he places those made of one trunk on an equal footing with those made of multiple.³⁴⁷ As a result, he cannot treat this item, the hallmark of a luxurious life, as harshly as he treats the tortoiseshell veneer that was so popular in Nero's reign. It is, after all, natural, and is nature being utilised to benefit man through the trade opportunities and financial benefits it represents, a focus of Pliny as he runs through the historic owners of such tables, as if through gritted teeth.

2.4. Pliny and Rome's Ancient Trees

Towards the close of his arboreal books in the *Natural History*, Pliny includes an account of the exceptionally old trees of Rome, commenting on the city's place in its surroundings, and its role in the landscape's history. To qualify for this catalogue, a tree was required by Pliny to be within the city's boundaries and over 500 years old. Immediately before this list, which is comprised of only four trees, Pliny introduces the theme of 'The age of trees' with a significantly younger olive tree, important for its provenance, since it was planted by Scipio Africanus.³⁴⁸ The close association of this tree with those in Rome, both in terms of the

³⁴⁶ Beagon (1992) 190; Sen. *Tranq.* 4.4.

³⁴⁷ Plin. *HN* 13.97: *iam toti caudices iuvant, pluresque in una.*

³⁴⁸ These trees in and around Rome can be found listed, with their locations on the map (Fig. 4), and their beginning and end points of their lives where it can be determined in Table 2.

structure of the *Natural History* and its provenance, encourages it to be read as an equal to the trees within the city boundaries, and as such it will be included here. Pliny's discussion of ancient trees is briefer than we might expect from a usually thorough natural historian and comes within a larger section on the extraordinary trees in the Empire which concludes with Greek trees.³⁴⁹

Table 2: The ancient trees catalogued by Pliny the Elder in *Natural History* 16.234-40.

Species	Place (Number on map – see Fig. 4)	Point of Origin	Time of Origin	Time of Death
Olive	Scipio's villa at Liternum (with a myrtle of conspicuous size)	Planted by Scipio	Possibly planted while in retirement, between 185-183 BCE	Unknown
Lotus (Nettle?)	Precinct of Lucina (11)	Unknown	Unknown, prior to 374 BCE.	Unknown
Unknown (<i>Capillata</i>)	Unknown	Unknown	Older than the lotus in the precinct of Lucina	Unknown
Lotus (Nettle?)	Volcanal (17)	Dedicated by Romulus from spoils of victory.	753 BCE	Unknown
Cypress	Volcanal (17)	Possibly as above?	753 BCE	54-68 CE

This account of historical trees is accompanied by a surprising admission of ignorance within the *Natural History*, unusual in that it highlights the limitations of the work – that there are probably trees in the distant areas of the world, or in the impassable forests which have reached immense ages, unknown to Pliny and to mankind as a whole.³⁵⁰ He treats these trees with immense respect, observing their age in relation to the city, and includes a variety of species, which he has made an account of in both his foreign and his native sections earlier in the *Natural History*. His approach is noticeably different from others which have previously been discussed, and attempts to offer a series of factual observations with regard to the ancient trees that are found around Rome.

The four trees within Rome are preceded by an account of Pliny regarding an olive tree planted by Scipio Africanus, at his estate in Liturnum, on the Campanian coast, at the mouth of the

³⁴⁹ Plin. *HN* 16.234-240.

³⁵⁰ Plin. *HN* 16.234: *vita arborum quarundam immensa credi potest, si quis profunda mundi et saltus inaccessos cogitet.*

Volturnus river. This tree appears to have been individually unimportant excluding its provenance and age, and is instead part of a larger group, which includes a myrtle tree, noticeable for its (presumably large) size, a cave and a guardian *draco*.³⁵¹ The myrtle tree may have been of a similar age and provenance to the olive tree, certainly Pliny's use of *item* implies this. However, the tree most commonly associated with the estate is the olive, since the olive grove on the estate had been restored by Aegialus, the owner when Seneca the Younger sojourned there and wrote to Lucilius.³⁵² Given the size of this restoration, its depiction in a letter that rails on the topic of luxury, praising Scipio's rejection of it, and its location, at the villa of a famous Roman, we can assume that Pliny was aware of Aegialus' continuation of Scipio's garden keeping.

Henderson has offered some indication of a potential second cause for the role of this olive tree, in his analysis of Seneca's letter, which quotes an excerpt from Vergil's *Georgics*.³⁵³ The passage in question claims the 'tree which rears itself from dropped seeds grows late, giving shade to later generations'.³⁵⁴ This quote, which follows Seneca's observation that 'there is none among us [old men] who is not planting an olive grove for their successor', is linked by Henderson as a comment not only on trees in general, but also with a focus on the olive tree at Scipio's estate, later identified by Pliny.³⁵⁵ This tree was known by Pliny to be particularly durable, and he points to several famous old olive trees in the following sections, which address trees across the known world. But if the olive as a *genus* was considered to be 'proverbial for the lag between planting and harvesting that makes it a gift for posterity' by Pliny, as Henderson understands Seneca to have believed earlier, then Pliny's inclusion of it here is emblematic, both as a part of a grove and as a tree in its own right.³⁵⁶

The force of Pliny's account of Scipio's olive and myrtle trees, complete with the cave and the *draco* that guards Scipio's shade, should be read as the olive tree. Hunt overlooks the olive for the myrtle and notes that the myrtle is mentioned for its 'conspicuous size', but not for its age

³⁵¹ Plin. *HN* 16.234: *durant in Liternino Africani prioris manu sata olea, item myrtus eodem loco conspicuae magnitudinis—subest specus in quo manes eius custodire draco traditur*. The dragon, which may have been the focus of Pliny's source material for this tree, is briefly discussed by Ogden (2013, 206) in a section regarding the reincarnation or transformation of heroes into snakes after death. Pliny is clear here that the *draco* is not Scipio reincarnate, but is instead a guardian of Scipio's shade (*manus eius custodire*) similar to the serpent guarding the Golden Fleece in the *Argonautica*.

³⁵² Sen. *Ep.* 86.14-21.

³⁵³ Henderson (2004) 122.

³⁵⁴ Verg. *G.* 2.58: *iam quae seminibus iactis se sustulit arbos, tarda venit, seris factura nepotibus umbram*.

³⁵⁵ Sen. *Ep.* 86.14: *quorum nemo non olivetum alteri ponit*. Henderson (2004) 122.

³⁵⁶ Henderson (2004) 122.

(despite the size of the tree indicating its age).³⁵⁷ It is subordinated to the olive in the account, appearing afterwards, and reliant upon the verb *durant* from the preceding clause. The olive, meanwhile, is dated by its planting by Scipio, in a move which both Seneca's Vergil and Seneca himself identify as being a dedication to future generations. This approach is similar to Pliny's framing of his account of old trees being preserved by 'human memory', which, if read in conjunction with Seneca's letter and the attitudes of Aegialus, is a transplantation of ideas, and as part of the 'altruistic legacy' identified by Henderson as central to Seneca's account of tree-planting.³⁵⁸

There is no evidence that Pliny, who lists his sources for his books alongside the contents, ever read this letter by Seneca or Vergil's *Georgics* in the compilation of this book, since these two authors are not named in his list of authorities for Book Sixteen.³⁵⁹ However, this list is noticeably short, particularly for a book which considers the various natures of forest trees, and approaches historical traditions. Unlike the previous book, Book Fifteen, which lists 66 individual authorities and deals with fruit-bearing trees, Book Sixteen only has twenty two listed authorities. Some of the deficit could be accounted for by Locher's assessment of Pliny's contents, laid out in Book One of the *Natural History*. These contents identify, in a formulaic fashion, the 'Total: x facts, investigations, and observations' in each book of the *Natural History*.³⁶⁰ Locher suggests that these three – *res*, *historiae*, and *observationes* – can be identified as three distinct categories for the contents of each book. *Res* suggests 'undocumented factual information without further additions', *historiae* 'historical reminiscence' and *observationes* indicates Pliny's personal experiences.³⁶¹ It is unclear where oral histories and human memory fit within this, and this is sure to have been a key aspect in the composition of some sections of the *Natural History*, nor does Pliny indicate what proportion of the facts presented are from each category. However, even if one of these categories was more likely to contain fewer authorities for Pliny to cite than the others, it is still a substantial lapse for the book's bibliography. For Pliny, a man for whom plagiarism amounted to theft and 'the sign of a barren mind', and for whom the sharing of cited

³⁵⁷ Hunt (2016) 98.

³⁵⁸ Henderson (2004) 122; Plin. *HN* 16.234: [*arbores*] *quas memoria hominum custodit*. In his second *Georgic*, Vergil explores the means by which nature can be tamed, directly contradicting the altruism of tree planting advocated by Seneca, who has cherry-picked the quote from 2.57-8 in order to lend credence to his argument (by reverting to the tales of 'our Vergil'), while utterly divorcing the quote from its wider, contradictory context.

³⁵⁹ Pliny's use of Vergil's poetry, particularly the *Georgics*, as a practical handbook has been well-documented, however, by Doody (2007) among others.

³⁶⁰ Plin. *HN* 1: *Summa: res et historiae et observationes*.

³⁶¹ Locher (1986) 24. For a discussion of this categorisation as an expression of authorial control and a part of the process of constructing a totality, see Carey (2003) 30-2.

information was his foremost duty, this is an unusual omission of evidence.³⁶² This attitude, which has been explored by Lao in a chapter regarding the treatment of knowledge by Pliny as a thing with financial worth, leaves his lack of authorities for Book Sixteen all the more puzzling.³⁶³

This curiosity, however, can be somewhat assuaged when we look at the body of Pliny's text in the discussion of Rome's ancient trees. As Hunt has noted, the natural historian is reluctant to cite his sources when discussing the ages of trees, resorting to anonymous citations and impersonal verbs.³⁶⁴ As a result, we can understand that the crucial aspect of Pliny's understanding of the age of trees is not official source material, but is instead the *memoria humana* which has preserved the stories of the trees' extraordinary ages.

It is important, then, that the trees Pliny refers to in Rome itself are all linked to a story or superstition, or to an artificial location. These are hubs of cultural memory, or *lieux de mémoire*. The lotus tree, for example, formed part of a grove that gave the goddess Lucina her name and is dated to 379 AUC (375 BCE), which is marked out by Pliny as a year in which no magistrates were elected. Similarly, there is the older, religious centre of the hairy lotus, to which the Vestals' offering of hair is carried.³⁶⁵ Other trees in Rome include another lotus, found in the Volcanal, whose roots extend below the Forum of Caesar, and is the only tree with a cited authority – in this instance Masurius, who dates the tree to be 'of equal age to the city', and now stands alone, following the collapse of the cypress tree next to it, at the end of Nero's reign.³⁶⁶ One other tree, identified by Pliny as still living in his time in the suburban areas of Rome rather than the city proper in his contents list, stands on the Vatican hill dated to be 'older than the city' by the Etruscan-lettered tablet at its base, which indicated that 'the tree was

³⁶² Plin. *HN praef.* 23: *obnoxii profecto animi et infelicis ingenii est deprehendi in furto malle quam mutuum reddere, cum praesertim sors fiat ex usura.*

³⁶³ Lao (2013).

³⁶⁴ Hunt (2016) 99.

³⁶⁵ Quite what occurred in this 'carrying' (*defertur*), and what the purpose of the act was is unclear, and Pliny makes no effort to clarify his statement to this end. However, we can surmise, as Hunt does (2016, 90 n.35), that it is not necessarily in order to make an offering of the hair to the tree, since the language used is ambiguous. That the Vestals had a connection to the trees in Rome is evident from both their interactions with this tree, and their intervention with the fig tree uprooting the statue of Silvanus (Plin. *HN* 15.77), although Pliny fails to offer an explanation as to why they were so involved with Rome's arboreal residents. It can, therefore, be surmised that either Pliny was ignorant of their link, or it was so widely understood at the time that it did not warrant further discussion in the *Natural History*. Hunt draws on a marble relief depicting the temple of Vesta with an oak branch protruding from behind, and tentatively suggests that 'the combining of the oak, often associated with Jupiter, and the Vestals' temple aimed to articulate in arboreal terms how worship of Vesta stood at the heart of Rome's divinely favoured strength and supremacy' (2016, 282 fig. 14).

³⁶⁶ Plin. *HN* 16.236.

already deemed venerable then'.³⁶⁷ As emphasised by the dating of the lotus of Lucina, Pliny dates all these trees (except the hairy lotus) against the city, creating what Hunt has identified as an 'arboreal version of the *ab urbe condita* dating system'.³⁶⁸ Through establishing this arboreal calendar, Pliny establishes the co-existence and the integration of both city and nature, although not going so far as to suggest a symbiotic relationship, which would have provided an awkward transition into the following book, which focusses on the care of trees and the means through which man might control and exploit the nature around him.

Admittedly, Pliny does establish the historically interconnected world of man and nature with the omen of the cypress tree, which, 'at the end of Nero's reign, collapsed and was neglected'.³⁶⁹ McCulloch, in an effort to establish a Tacitean focus on the *annus horribilis* for Rome's trees in 68 CE, links this omen with the omen of the cypress tree in Tacitus' *Histories* which portended the rise of Vespasian.³⁷⁰ He argues that the 'particular association of the cypress tree with Vespasian can be properly understood' if the two omens are read together, and he points to the lotus tree that stood next to the Volcanal cypress. The spread of this tree's roots, McCulloch states, represents the 'course of Roman history from the founding of the city up to the close of Nero's principate, when the cypress tree fell down and was left neglected', and the resurgence of the cypress on Vespasian's estate symbolises a re-founding of Rome under the new Emperor.³⁷¹ This may be a slight stretch, since Tacitus fails to mention the Volcanal cypress in his account of the close of Nero's reign and prioritises the *figus Ruminalis* in the Forum and its withering.³⁷² The twin omens, of Tacitus' fig tree in the Forum and Pliny's cypress in the Volcanal, could be read together as Roman nature rejecting Roman rule. Just as when man overreaches in his quest for immortal legacy, and a barren fig tree breaks through the stone monuments (see pp.58-9), so too does nature react against harsh rule. The disconnect

³⁶⁷ Plin. *HN* 16.237: *vetustior autem urbe in vaticano ilex in qua titulus aereis litteris Etruscis religione arborem iam tum dignam fuisse significat.*

³⁶⁸ Hunt (2016) 100.

³⁶⁹ Plin. *HN* 16.236: *fuit cum ea cupressus aequalis, circa suprema Neronis principis prolapsa atque neglecta.*

³⁷⁰ McCulloch (1980) 239; Gowers (2011) 87-8. For the portent, see Tac. *Hist.* 2.78.2; Suet. *Vesp.* 5.4; and Cass. Dio 66.1. This cypress tree is the same one that Suetonius reports withered before Domitian's assassination (Suet. *Dom.* 15).

³⁷¹ McCulloch (1980) 239-40.

³⁷² Tac. *Ann.* 13.58. For more on the death of this tree, see p.206. Morgan (1996, 47 n.21), responding to McCulloch's abbreviated argument (1984, 163-5), points to the Julio-Claudian laurel grove at the Villa Prima Porta as a more fitting comparison to the Flavian cypress to indicate the withering of the Julio-Claudian line and need for a new dynasty. To some extent, this is a reasonable criticism, and the laurel grove (which was synonymous with the Julio-Claudian line), withered closer to the resurgence of the Flavian line than the 58 CE withering of the *figus Ruminalis*. Additionally, as has been explored earlier, it was as prevalent in the historical tradition as the Flavian cypress.

between nature and man in Nero's reign can be discerned from Pliny's final word of the account of Rome's trees – *neglecta*.

The cypress tree, old as the city, lies neglected and it is on this note that Pliny chooses to end his account of Rome's old trees, moving to old trees outside of the city. Having advocated the integration of trees with the city, emphasising their coexistence by dating them against each other and linking them to religions at the heart of Roman society with the Vestals, he closes his account with nature isolated from the city. The catalogue has a symmetry to it, again augmented by Seneca's letter and his description of Scipio Africanus' bath house. Scipio was, unlike Nero, a paragon of the Stoic rejection of luxury, and his bath house is extremely modest, rejecting the fashions which Seneca deemed overly luxurious.³⁷³ Through comparing the beginning and end of Pliny's catalogue of trees, we can see that the trees addressed are representative of the men who control them. The olives, planted by Scipio, secure a harvest for future generations, fulfilling their duty both to act as vessels of a memory passed from human to human, and to provide food. Meanwhile, the cypress, which has stood for the duration of the city, harmoniously growing alongside it, collapses toward the end of the luxurious reign of Nero, having been neglected by the master of the city. In this catalogue of Rome's oldest trees, then, Pliny provides us with a synopsis of Rome's changing relationship with trees, from the ideal of his *exemplum* Scipio, to the hero's antithesis, Nero.

2.5. The Cypress Tree

It is in the cypress that we find the traditions which we have explored in this chapter converge. The Plinian precepts – a rejection of *luxuria*, and preference of *utilitas*, placed against the prioritisation of *commercium* so as to benefit the conquest of the natural world and the quest for totality within it – come into conflict in Pliny's discussion of this tree, revealing his personal biases and beliefs. Despite his inclusion of a cypress tree in the oldest trees in Rome, standing from the foundation of the city, Pliny identifies the import of the cypress to Italy as being at some point prior to the second century BCE, and to a Greek colonial city, Tarentum, which was founded almost fifty years after Rome.³⁷⁴ This cypress is likely to have been the *Cupressus sempervirens*, which is straight, tall, and native to the Mediterranean. The tree's structure encourages the growth of long branches, which all extend upward in closely-grouped foliage,

³⁷³ Sen. *Ep.* 86.6-13.

³⁷⁴ Strabo 6.3.2. Pliny's own account refers to the import of the cypress tree, although it does not offer a date: *huic patria insula Creta, quamquam Cato Tarentinam eam appellat, credo, quod primum eo venerit* (Plin. *HN* 16.141).

and the tree's resinous nature directed Pliny to identify its natural habitat as being in mountainous regions.³⁷⁵

A cursory reader of the *Natural History*, using it as a mine for information rather than a continuous narrative, might have missed Pliny's varied approaches to the cypress tree, which is found at different points of the *Natural History* and under three different headings on his contents list. The first, which identifies itself as 'On the cypress', is a negative account, while the others, found in two sections, the first on 'Trees which do not feel dry rot, trees which do not crack', and then in the section immediately following, concerning 'Historical facts about the durability of wood', are positive. The miner of information would not have been immediately directed to the positive accounts of the cypress tree, and it was only through a reading of the *Natural History* as a continuous narrative, combined with the synthesis of data in the *RTD* that it first became apparent.

Pliny makes four positive remarks on the cypress in the *Natural History*, found in his sections on timber. These include the tree alongside a number of others, establishing its usability in building.

The barren wood is harder than the fertile wood, except in the genera where the male bears fruit, such as the cypress and the cornel.

The cedar, cypress, olive, and box do not split or crack spontaneously.

The following do not feel the effects of age and dry rot: cypress, cedar, ebony, *lotus*, box, yew, juniper, wild olive, and cultivated olive.

The ebony, cypress, and cedar are thought to be the most eternal.³⁷⁶

These statements bear out against other ancient sources and stances toward cypress timber. Vitruvius corroborates that cypress and pine timber 'usually warps, but lasts a long time without decay', while Theophrastus confirms that 'naturally proof against decay are the cypress, cedar, ebony, nettle tree (λωτός), box, olive, wild olive, resinous fir, holm oak, oak, chestnut.'³⁷⁷ Through a comparison of the lists offered by Theophrastus and Pliny, we can see that the two are very similar, with the cypress, cedar, ebony, *lotus*, box, olive, and wild olive included by both authors, the only difference in order being between the olive and wild olive. However, this is not a simple faithful rendering of source material by the Roman natural

³⁷⁵ Plin. *HN* 16.73.

³⁷⁶ Plin. *HN* 16.211-13.

³⁷⁷ Vitr. *De arch.* 2.9.12, Theophr. *Hist. pl.* 5.4.2

historian, and he makes emendations to his source for the list.³⁷⁸ He adds the timber of the yew and the juniper, and removes the fir, two varieties of oak, and chestnut, additions which fulfil Pliny's criteria in being commercially viable, as the citrus wood used for Cicero's table was. Thus, this list is the result of Pliny's personal opinion and independent thought and is evidence of wider reading, leading to an educated statement, restricted by an attitude toward source materials that limits his innovation.

In an earlier section on the cypress tree, however, which Pliny directs his readers to via his list of contents, the natural historian's reliance on source material is removed. In this interruption of Pliny's well-sourced narrative, his personal opinion is revealed in a tightly phrased invective, significantly earlier in the *Natural History*.

The cypress is imported and very difficult to grow, so much so that Cato wrote more on this tree than on any other. It is slow to seed, bears worthless fruit, a grim berry, has bitter leaves, and an assaultive smell, and does not even offer any decent shade. The timber is limited, so that it might rather be classed as a scrub. It is sacred to Pluto, and is placed outside homes as a sign of death. The female of the species is barren.

cupressus advena et difficillime nascentium fuit, ut de qua verbosius saepiusque quam de omnibus aliis prodiderit Cato, satu morosa, fructu supervacua, bacis torva, folio amara, odore violenta ac ne umbra quidem gratiosa, materie rara, ut paene fruticosi generis, Diti sacra et ideo funebri signo ad domos posita. femina ... sterilis.³⁷⁹

The motivation for the difference in tone is unclear and Pliny limits his later praise of the cypress with the remark that 'the timber is limited'.³⁸⁰ At a later point, as Pliny goes on to discuss the role of the cypress in providing a border to gardens, it is evident that he is referring

³⁷⁸ As has been briefly explored elsewhere, Pliny's approach to source material is to insist upon citation, and this has been explored by Lao (2011).

³⁷⁹ Plin. *HN* 16.139-40.

³⁸⁰ This is not necessarily a negative remark made by Pliny, since the timber can be both limited and of excellent quality. However, given the *cupressus sempervirens* (the *genus* referred to here) yields twenty or more poles per tree after successive felling of the leaders (main upright stems) over a number of years (Couppis 1954, 72-3), and each pole is roughly of four inches or more in diameter, it can be judged to be an inaccurate comment. Since Columella tells us that the average Roman woodsman would be able to fell and square up forty square feet of cypress a day (*Rust.* 11.2.13). When the ideal size of a *cupressus sempervirens* (at four to five feet in diameter according to Couppis' calculations) is factored into this, then the average daily yield of a well-maintained Roman cypress stand would be close to two hundred poles of cypress a day per woodsman, which compares favourably to other trees listed by Columella in this passage – surpassed only by the poplar and the fir, both at sixty square feet.

to the same tree in each section, so it is not a simple case of mistaken identity. The next assumption would be to check the citation he offers, from Cato. However, in consulting Cato the Elder's thoughts on the cypress in *De agricultura*, we can only find corroboration of a small part of Pliny's description.

Where you intend to sow cypress seed, turn the ground with a mattock. Plant at the start of spring. Make ridges five feet wide, add beaten manure, hoe it in, and break the clods. Flatten a ridge into a shallow trough. Then plant the seed as thickly as flax, and sift dirt over it, a finger's breadth deep, using a sieve. Level the ground with a board or feet, set forks around the edges, and place poles on these, on these, hang brush or fig curtains, so as to defend from the cold and the sun. Construct this so that a person may walk underneath it. Weed frequently. As soon as the weeds begin to be born, kill them. For if you pull up the hardened weed, you will also pull up the cypress. Use the same method for planting and covering the seed of the pear and the apple.³⁸¹

Cato only provides evidence of the difficulty in growing the tree, which a later (shorter) passage tells us he received from Minius Percennius Nolanus, of whose writing nothing is extant. But the cypress is not alone in Cato's account, and neither the pear nor the apple receive the same negative treatment from Pliny, whose tightly phrased description contains ten two-word descriptions of the tree. It is in this list that another possible cause for Pliny's distaste is found, when he identifies the tree's association with Dis (*Diti sacra*). The cypress was hung outside homes in mourning, is commonly associated with death, and is found in reference to deaths and funerals twenty two times in the *RTD*.³⁸² However, Pliny's approach to other trees associated with death, such as the pitch pine (*picea*), is positive, and his only negative comment is reserved for the fraud practised in Seplasia, passing off the tree's resin for frankincense.³⁸³ While this is in line with Pliny's inventory of the known world, it is not a fault of the tree that it has been exploited for such purposes and has no relation to the tree's usage in funerary contexts. Therefore, we have to assume that the motivation for Pliny's distaste in considering the cypress tree has its roots elsewhere.

³⁸¹ Cato *Agr.* 48, cf. 151.

³⁸² Servius (*Comm. A.* 6.216) offers a concise explanation of the cypress tree's funerary associations.

³⁸³ Plin. *HN* 16.40. Similar to the usage of the *picea* and *cupressus* in funerary contexts, Pliny is ambivalent about the employment of the trees in gardens as topiary, not exploring the traditionally luxurious nature of Roman *horti*.

These roots can be found in the opening of Pliny's contained discussion of the tree, in the first two-word phrase: 'the cypress is imported (*cupressus advena*), and extended through the second: 'it is difficult to grow (*difficilime nascentium*). These two criticisms, taken together, contradict the ideals of Pliny with regard to the construction of a Roman totality.³⁸⁴ By ostensibly resisting the green fingers of Rome, the cypress in Pliny's account opposes direct conquest and proves to be an obstacle to the establishment of a Roman totality. Additionally, the imported aspect of the tree can be closely linked with Pliny's stance against luxurious imported goods.

This denial of purpose by the tree contradicts a key principle of Pliny's latent Stoicism, as was discussed at the opening of this chapter, and has been prevalent throughout. Pliny's brief comment on the purpose of trees, to 'benefit humans by fruit or some other gift, and shade' defines his constructed arboreal role, a role that the cypress directly contradicts, disregarding these joint purposes.³⁸⁵ It fails to provide fruit, offering only 'worthless fruit, a grim berry' (*fructu supervacua, bacis torva*), and neglects to even offer any shade (*ne umbra quidem gratio*). As a result, the only other benefits available to it are timber and pitch. Pliny makes no mention of pitch, but is clear in targeting timber, identifying it as being limited (*materie rara*). In terms of utility, then, the tree has none in this account (although it is apparent from his other references to the cypress that he understands this to be factually inaccurate). The tree even fails to provide offspring, and the female of the species is identified as infertile (*femina...sterilis*), failing in the most basic duty – to continue growth for future generations, as the olive in Seneca's account of Scipio's villa succeeds in doing, and as Vergil explores in relation to the growth of trees, in order to benefit future generations. This could have been enough to prompt a visceral rejection of the tree, but in the cypress tree, it only serves to add another charge against an already condemned tree.

The main prompt for Pliny's dislike, amongst the litany of criticisms of the tree, is the foreign nature of the cypress, which is prioritised over all other aspects, placed first in his list of disagreements, and keeping it in closest proximity to the name of the tree. This is closely linked with the difficulty had in naturalising the tree, and Pliny ties this to the foreign nature by its close juxtaposition in the passage. While this may be a consequence of Pliny's quest for Roman totality, it may also be linked to the understanding that trees could be representative of a place,

³⁸⁴ Pliny's imperialist approach to natural history is part of a rich culture of imperialism within botany which is explored by Miller and Reill (1996), Smith and Finden (2002), and Pollard (2009), among others.

³⁸⁵ Plin. *HN* 16.78.

a memory, or a person. The origin point of the cypress tree in Italy, as identified by Pliny, is Tarentum, a town known for an uneasy allegiance to Rome, having revolted against the city in the Second Punic War, ‘because they had lost all hope in the Empire’.³⁸⁶ Likewise, the Taranto cypress, as Pliny refers to the tree later, exists in an uneasy alliance with Rome, only growing with difficulty.³⁸⁷

As a tree, the cypress can take on a role within the cityscape which is not afforded to inanimate imports, such as foreign marble, and has the potential to represent the successful conquest and establishment of a totality throughout the world. Building upon the challenges faced in naturalising this foreign tree, Pliny establishes a portrayal of the tree as counter to his preferred worldview, directing criticisms at key elements that contradict the latently Stoic ideals that pervade the *Natural History*. Using this as a springboard, Pliny can then move to a similarly contentious issue, the use of the tree in the garden, which has been identified by Hardy and Totelin, and by Stackelberg as a problematic element in Roman thought and by extension the *Natural History* in that it encourages excess while serving minimal commercial or practical purpose.³⁸⁸

In spite of all this, Pliny’s structure betrays him. He has identified the cypress tree as an imported tree of limited use, claiming it offers poor fruit, little shade, and (falsely) identifying limited timber. And yet the tree is included in the middle of a book on forest trees, after his books on exotic trees, and Book Fourteen began with a statement of intent, and an assessment of his previous topic:

Thus far, the foreign trees, impossible to be naturalised anywhere other than where they first appear, which do not pass into strange lands, have been placed together. It is now right to speak about the trees common across the world, of which Italy can be thought the particular parent to all.³⁸⁹

The trees examined before the cypress is critiqued in Book Sixteen, in a section entitled ‘The differing natures of trees not growing everywhere’, are all included in Pliny’s books on exotic trees, unlike the cypress, which has not been furnished with an extended comment in the *Natural History* until this point. In his structuring of the *Natural History*, Pliny is well aware of his divisive remarks on the cypress tree, but chooses to overlook his assertion that Italy is

³⁸⁶ Livy 22.61.12.

³⁸⁷ Plin. *HN* 16.141.

³⁸⁸ Stackelberg (2009) 64-5; Hardy (2016) 164-6.

³⁸⁹ Plin. *HN* 14.1.

the particular parent of the trees following his earlier remark, which brought a definite ending to his discussions of foreign trees.

This disruption of Pliny's structure, however, is a reflection of the imported nature of the cypress tree, which is Pliny's first comment on the tree in the *Natural History*. In the treatment of the cypress as both tree and timber separately, we can see Pliny's precepts interacting with each other. Pliny's opinion of the timber is typically divorced from that of the tree and the commercial benefits of the material are highlighted, while the tree is highlighted as a foreign import, disrupting the structure of the *Natural History*. When associated with the living tree, the timber is presented ambiguously, and falsely, as being limited. The tree challenges the latent Stoic ideals present throughout the work, and advertises luxury, growing for the sake of itself rather than for the benefit of mankind – no overtly positive description is offered of the tree. In his critique of the tree, Pliny's own tendencies and biases become apparent, and he is led throughout by a desire for Roman control, frequently presenting information that is contrary to fact, influenced by one quality of the tree and the most important aspect of the *Natural History* – the cypress is not Roman, it is imported.

2.6. Concluding Remarks

While elements of Pliny's character and some overarching themes of the *Natural History* have been assessed in the past, particularly in the chapters of Gibson and Morello's *Pliny the Elder: Themes and Contexts* (2011), these have not previously been applied to Pliny's treatment of trees in the *Natural History*. In these five books, Pliny presents all elements of trees outside of their medicinal properties, which are found in Book Twenty-Four, and this makes it unusual in ancient literature, which has traditionally been divided down tree-wood-timber lines. Even Columella's *De arboribus* does not deal with the tree once it has been felled, and Vitruvius' *De architectura* is one of the few texts that discusses both timber and the tree but reserves any discussion of the tree for the context of its architectural benefits. Pliny, meanwhile, includes discussion of every aspect of the tree in his *Natural History*, and this is indicative of his holistic approach to the ancient world. He takes evidence from a wide variety of sources, which are likely to have included the less tangible oral histories, long-held traditions, and *memoria humana* within the Roman élite.

As a compiler of these different resources, Pliny offers a unique perspective, and his account keeping of the ancient world is one which is influenced by a number of cultural biases, from the status of the Flavian imperial programme to the role of Stoicism within the court. A key

principle of this is that *luxuria*, a symptomatic feature of the Neronian period, is thoroughly rejected, and *utilitas* prioritised. While *luxuria* can be broadly translated as ‘luxury’, and *utilitas* as ‘utility’, the understanding of what a translator understands by these words has an effect on how we understand Pliny. For Wallace-Hadrill, ‘luxury’ is identified by the distance one has to travel to get the product, either a literal distance or a physical effort; for Lao ‘utility’ is identified as being intrinsically linked to financial worth, while Fear’s version relates ‘luxury’ simply to being non-Roman. In the context of this assessment, *luxuria* has been identified as anything extraneous to a tree’s central purposes, as identified by Pliny, of bearing fruit, producing timber, or benefitting humanity by some other means, while *utilitas* is fulfilling at least one of these purposes. A consequence of this is that my assessment has been driven by the identification of a tree’s ‘purpose’ and approaches the theme of luxury vs utility as a separate theme to the triumphalism of Fear’s approach and the financial pragmatism of Lao’s.

In the *Natural History*, nature is sometimes criticised for its own luxury and a lack of identifiable purpose can become a key target in any description of a tree. To this extent, Pliny could be viewed as a product of his time, in that he is influenced by his context, but his approach to source material makes this a difficult claim. He absorbed information before composing the *Natural History* and created a catalogue of all known approaches. He was, as a result, influenced by them, as can be seen in his treatment of the cypress timber, as much as he was by his context, as shown through his treatment of the cypress tree.

While this leads to some conflict, there is an over-arching theme throughout the *Natural History* of triumphalism, and the creation of a world with Rome at the centre, with all useful trees being brought to the city, which should, in Pliny’s ideal world, respect its old trees, and consider the future benefits of these trees, as Scipio did in planting his olive grove. This triumphal, imperialist attitude towards trees permeates Roman approaches, as seen in the previous chapter, with the Roman impetus on the successful integration of controlled natural spaces into the ancient urban environment.

Throughout the text of the *Natural History*, Pliny builds his version of the Roman world, according to his idea of what it means to be Roman. In his treatment of the trees in this world, this manifests through an occasionally conflicting set of principles which set out a basic approach to life, as we have seen above. This approach prioritises social utility while at the same time advocating trade and triumphalism. Throughout, however, there is a consistent message – man and nature should exist in a useful and harmonious symbiosis with an emphasis on controlling native landscapes, although whether this is a relationship with a religious idea

of nature has not been addressed. This was seen before, in Pliny's contemporaries and his sources, when the fig tree split the marble monuments, when Pollius Felix conquered his garden, and when Vergil presented the farmer as a general, at war with nature, which would soon become his ally. Pliny's *Natural History* directs his readers, including the future emperor, Titus, to control nature, and to harness it for the purpose of a triumphal social utility.

3. Trajan's Trees

Pliny constructs a literary landscape of the Roman world, and the imperialist tone of the *Natural History* encourages the Roman control of nature to direct it to a purpose. This controlled nature is then integrated into the physical landscape of the Roman world, and into the cityscape of Rome itself, often in tightly regulated urban spaces, in a combination of architectural decoration and the urban plan of the city.³⁹⁰ In a closely contemporaneous Roman world to that experienced by Pliny, Trajanic architecture epitomises the use of trees in built areas, and the interaction between human and nature within the physical and cultural fabric of the cityscape.

In this chapter, three examples of Trajanic triumphal architecture will be explored – the Column and the Frieze in Rome, and the Arch in Beneventum, the Column being the main focus of this chapter.³⁹¹ These monuments each contain arboreal imagery, as does the badly weathered Trophaeum Traiani at Adamklissi, and maintain a consistent triumphal message throughout, a common theme of Trajanic architecture.³⁹² The Column, erected in the emperor's forum complex by 113 CE as a monument to his successful Dacian Wars, depicts Trajan in a foreign landscape, and is decorated with a helical relief that shows the events of these campaigns, and the land in which they were fought.³⁹³ The Arch of Trajan, erected at Beneventum, south of Rome, at the northern end of the Via Traiana (where it joined the Via Appia), commemorates two conquests – over the German and the Dacian territories, with a focus on the Danube region, and particularly the confluence with the Tisa, a tributary in Romania.³⁹⁴ The dating of the Arch is uncertain, but it is generally accepted to have been dedicated at a similar time to the Column.³⁹⁵ The Great Trajanic Frieze, however, is far more challenging to date, but Leander Touati has attempted to fix it.³⁹⁶ It survives in the form of eight slabs, which were adapted and incorporated into the Arch of Constantine in the fourth century CE, and a number of fragments. Like the Arch, it is assumed to have been a

³⁹⁰ The incorporation of trees into the urban plan is often similar to their treatment in the modern world. For further, see Lawrence (1988) and Ross (2016).

³⁹¹ For a focussed discussion of the Column, see Fox (2019).

³⁹² Leander Touati (1987) 79.

³⁹³ This is in contrast to the Column of Marcus Aurelius, which focusses more on the individuals, with significantly less concern over depicting the world in which the war was fought, perhaps a symptom of the style change between the two periods.

³⁹⁴ This is judged from the portrayal of these two river deities on the Arch's country facing (north-east) face.

³⁹⁵ Hassel (1966) proposes 114 CE for the dedication, and Lepper's detailed review (1969, 251-3) of this date indicates that the evidence bears this out as a rough date, although there is some degree for variation, of almost two years either side.

³⁹⁶ Leander Touati (1987).

commemoration of the Dacian Wars, and may have been housed in Rome, possibly in the Forum of Trajan itself.

The Column of Trajan is the most complete representation of the Dacian countryside in the Dacian Wars. Key to this landscape are the 224 trees on the Column, each one individually carved and stylised. These trees, and their amplified leaves, are likely to have been painted, and the green of the leaves would have made them prominent features against the background of the frieze.³⁹⁷ It is via their leaves that the trees can be identified, and Stoiculescu, a Romanian forest historian, catalogued them in his study, identifying 37 different leaf types on over 200 trees, which represent seven species groups, including one large group of resinous trees.³⁹⁸ This article is a little known contribution to a long tradition of scholarship around the Column which attempts to match the events depicted to known events of the Dacian Wars, and Stoiculescu assessed the trees within the context of those that were native to Romania, where the wars took place.

Despite Stoiculescu's article being published earlier than Lepper and Frere's commentary,³⁹⁹ and Coarelli's similar treatment of the Column,⁴⁰⁰ the trees remain neglected or trivialised in the course of studying the relief, often dismissed simply as scene dividers,⁴⁰¹ or, as in Leander Touati's thesis on the Great Trajanic Frieze, as a curiosity within the background material.⁴⁰² In fact, Stoiculescu's article has only been cited a handful of times, and engagement with its content has been limited.⁴⁰³ While trees clearly can and do operate as scene dividers in certain

³⁹⁷ Whether or not the Column was painted is a question which was first raised in the early 1800s, and although recent analysis has found no evidence of surviving paint on the Column's relief (Conti 2000), there have been more recent colour reconstructions, following the recent trend toward polychromy in ancient sculpture (Pogorzelski 2012). Bradley (2009a, 436) argues that colour would have been essential in reading the Column's narrative, particularly in identifying Trajan on the relief, who would likely have been garbed in purple.

³⁹⁸ Stoiculescu (1985). Throughout this chapter, Stoiculescu's categorisations will be referred to, taken from the database at the close of his article (1985, 96-8). These individual identifications will not be given a page reference at every point, for the sake of avoiding repetitive citations, and will instead be presented as species group followed by leaf type, divided by a period, e.g. Type A.1.

³⁹⁹ Lepper and Frere (1988).

⁴⁰⁰ Coarelli (2000).

⁴⁰¹ Trees as scene dividers have been a well-covered aspect of scholarship since serious study of the Column began in the nineteenth century, leading reviewers of study on the Column to identify them as 'well-known' (Coulston 1990a, 296). Cichorius identifies several scenes which he presents as the beginning and end of scenes in his edition of the frieze. He planned to expand on his definition of scene dividers in a second study, but this never materialised (Cichorius 1896, 5). Lehman-Hartleben uses this absence to present a counter argument, focussing on the image of the scene as opposed to the elements which delimit images, although his divisions remain largely the same as Cichorius' (Lehman-Hartleben 1926, 122). This disagreement is picked up on by Gauer, who reduces the number of scenes on the Column to 100, removing a number of Cichorius' divisions (Gauer 1977). Malissard also identifies a number of trees as framing scenes (Malissard 1982), and Leander Touati extends the use of trees framing scenes to the Great Trajanic Frieze (Leander Touati 1987, 32-3).

⁴⁰² Leander Touati (1987).

⁴⁰³ The most use that is made of this study is in two reviews, one by Coulston, of three commentaries on Trajan's Column, and another by Houston, on the treatment of technology in the ancient world. Coulston comments on

parts of the Column, it is not the only use of arboreal features on the frieze. The importance of the trees can be inferred from the intricacy of their carving, as detailed as that applied to the faces, costumes, and urban architecture on the Column.⁴⁰⁴ In their considerations of the carving of imperial reliefs, Wootton and Russell arrive at two key conclusions regarding the trees. First, they appear to have been carved by at least two different sculptors,⁴⁰⁵ and second, they were rendered with the same level of detail regardless of the height at which they were carved.⁴⁰⁶ These two observations, when considered alongside the variety of trees identified by Stoiculescu, and the sculptural precision that was applied to them, invite the viewer to consider the broader role and significance of trees on this iconic early imperial monument.

Beyond the commonly accepted usage of the trees as a scene divider, there are two other major purposes of the Dacian forest in Trajanic architecture, and it is these which will be addressed in this chapter, after a brief survey of Stoiculescu's earlier study and identifications, and their application to the other monuments. First, I will explore the role of trees in the Column's depiction of the Roman army in a foreign landscape, focussing on their appearances in tree-felling scenes, which usually lead into construction scenes, as in the road construction of scene XCII.⁴⁰⁷ These trees are almost always felled by Roman soldiers,⁴⁰⁸ although the extent of tree felling is only partially represented by the Column's frieze, as Thill has shown, and should perhaps be understood synecdochally.⁴⁰⁹ Thill identifies that the majority of Dacian structures on the Column's relief are made entirely of wood (55.7%), while only 16% of the Roman structures on the Column are exclusively wooden. This conflict in the evidence presented, that Roman forces perform most of the tree felling on the Column, while their constructions are rarely made of wood, will be addressed in this chapter, concentrating on an interpretation of the scenes that is allegorical rather than literal. The chapter will then move to an examination

Settis' use of trees as scene dividers on the frieze (Coulston 1990a, 296), while Houston is surprised by the lack of reference to the Column in Meiggs' *Trees and Timber in the Ancient Mediterranean World*, in light of Stoiculescu's study (Houston 1989, 72).

⁴⁰⁴ For recent discussions of these individualised and highly stylised depictions on the Column, see costumes: Goldman (1994), Coulston (2003); urban architecture: Coulston (1990b) and more recently Wolfram Thill (2010).

⁴⁰⁵ Wootton (2013) 16. Rockwell (1981-3, 105) agrees that there were multiple groups of carvers who specialised in different aspects of the relief.

⁴⁰⁶ Wootton *et al.* (2013) http://www.artofmaking.ac.uk/explore/sources/519/PR205_1_05_20. The two techniques of carving trees, one flat and lifeless, the second vibrant and vivacious, indicate to Wootton and Russell that there were at least two sculptors of the trees on the Column.

⁴⁰⁷ The depiction of this road has been analysed by Rossi, who argues that depictions of military engineering, such as that of the road, were the easiest way to portray the triumphal concept (Rossi 1968).

⁴⁰⁸ There are three instances of Dacian tree felling on the Column, at the close of the first Dacian war, scene LXVI. This is compared to 45 trees felled by Romans, and a significant amount of additional timber carried by Roman soldiers.

⁴⁰⁹ Thill (2010).

of the context in which the opposing leaders – the Dacian king, Decebalus, and the Roman emperor, Trajan – appear on the Column's relief. Through a consideration of these two figures, and the figures around them, this chapter will demonstrate that trees functioned as a narrative tool in Trajanic architecture, and will attempt to provide some suggestions as to why such a specific range of trees can be found throughout the sculpture. Through these aspects of arboreal representation on the frieze, I explore the nature of warfare that is represented on the Column and its contemporary architecture, and the cultural and narrative significance of the 235 trees depicted throughout the monuments.

3.1. Identification

Of all the arboreal elements present in Trajanic architecture, it is those on Trajan's Column which have been most closely analysed. These trees have undergone rigorous assessment at the hands of Stoiculescu, who matched the leaves from the frieze to those on two groups of secular trees (i.e. groups of trees which have remained a consistent feature of the region) in the Southern Carpathians of Romania. The main division drawn by Stoiculescu is between resinous and deciduous trees. The resinous trees are typically evergreen and identifiable by their straight trunks, growing from a singular point. These trunks are almost invariably more than half the height of the tree (some allowance must be made for the two trees in III, given that they are at a significant distance from the scene's action), and are topped with a narrow excurrent crown, which typically only has a few branches, often with the tree's needles directly attached to the trunk. It is through these needles that Stoiculescu divides the resinous trees into sub-species. The trunks of the deciduous trees are twisted, and 'full of imperfections', which are particularly noticeable given that they usually lack branches on the trunk's bottom half. Further, these trunks are fluted, pitted, and with visible loose knots, an indication of the dedication of the sculptors to projecting an appearance of reality.⁴¹⁰ The expectation would be for branching, particularly on deciduous trees, to start earlier on the trunk, as opposed to the Column's depictions, in which the spreading branches of the deciduous trees are restricted to the top of the relief. The knots on the trunks suggest that the lower branches expected on these trees have been removed. The crown of these deciduous trees is described by Stoiculescu as either

⁴¹⁰ Stoiculescu (1985) 85. The freer depiction of the trunk of a deciduous tree is replicated in the oak of the *Ctr* relief on the Arch of Trajan. This trunk, which Lepper draws issue with, due to the way it 'swell[s] out on either side of the join [to the neighbouring panel] like flesh round an open wound' (1969, 260). The depiction is consistent with other deciduous trees in the Trajanic architecture, and there is no reason for Lepper's alarm at the shape of the tree trunk.

umbelliform (with laterally spreading branches) or obovate (with branches spreading from a

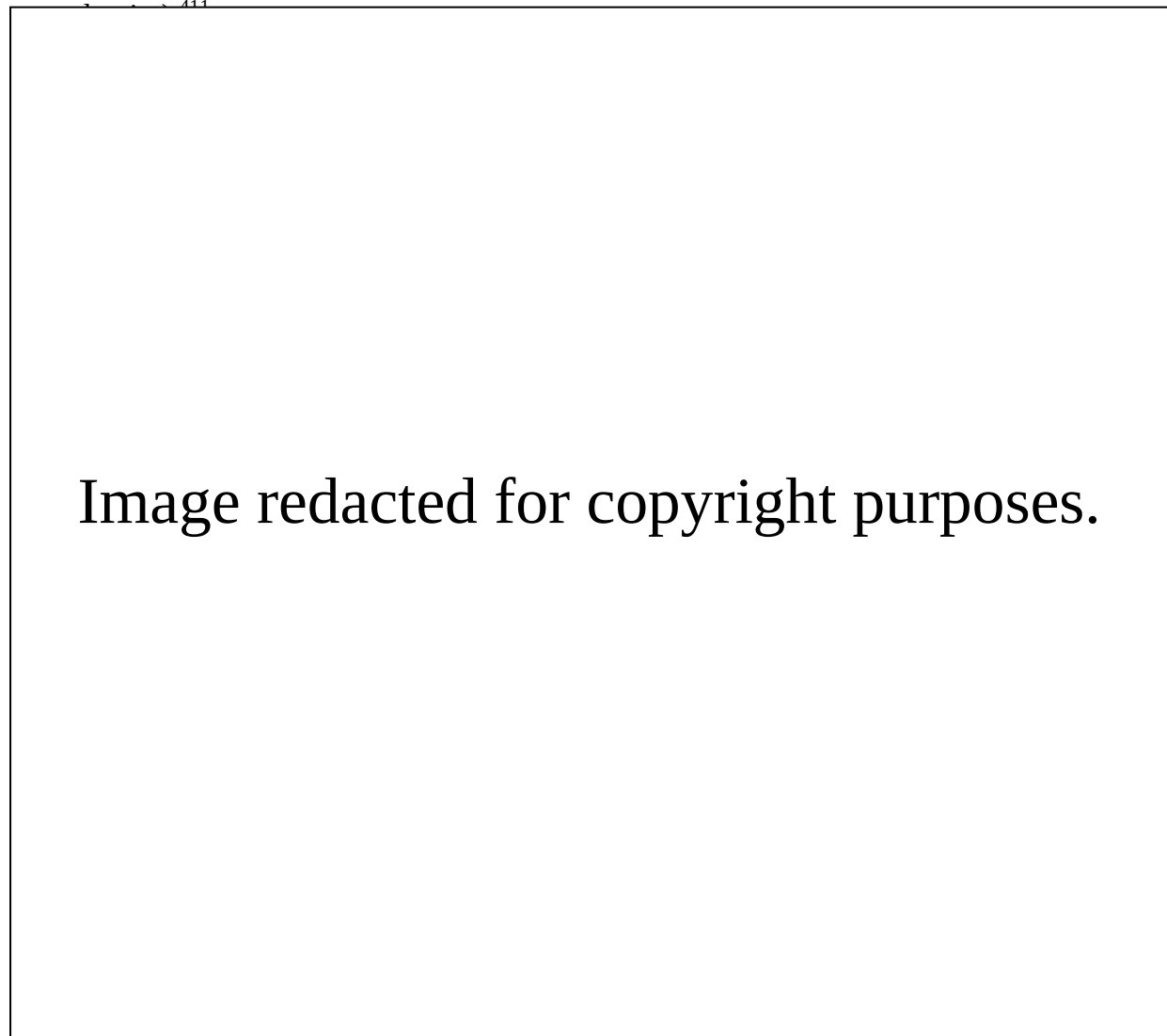


Figure 6: Leaf types on Trajan's Column, as identified by Stoiculescu (1985, figs 4 and 5). Stoiculescu describes the resinous leaf types (A and B) as follows: 'Resinous species types included in the A and B species subgroup according to the crown and needle forms. *Columnary crown*: type 1 – long and pendent needles; type 2 – revolute, semilanceolate needles; type 3 – short and scaly needles; type 5 – needles grouped in pendent fascicles; type 6 – slightly revolute, lanceolate, big needles; type 7 – scaly and oblong needles; *Pyramidal crown*: type 10 (suggesting a primitive form of the actual pyramidal black poplar – *Populus nigra* L. cv. *Italica* – or the cypress – *Cupressus sempervirens* L.) *Semipyramidal crown*: type 8 – needles grouped in short fascicles; *Rhomboidal crown*: type 4 – long and scaly needles, catenary disposed; *Ovate crown*: type 9 – erect, fanned, exclusively disposed at the tree top.'

The leaf types of the deciduous trees (C – G) are listed thus: 'Foliaceous species types divided in five subgroups according to their form of leaves: C – pentapalmate lobate leaves (suggesting *Acer* genus), D – broadly ovate leaves, with 3-5 triangular lobes slowly decreasing to the top (suggesting *Sorbus torminalis* L.), E – unregularly obovate and pennate lobate leaves (suggesting *Quercus* genus), F – oblong leaves (suggesting *Prunus* genus), G – elliptic leaves (suggesting *Fagus* genus).'

Following his division into resinous and deciduous trees, Stoiculescu further identifies seven distinct sub-species groups, which are further split into a total of 37 different leaf variations

⁴¹¹ Stoiculescu (1985) 85.

(see Fig. 6). Stoiculescu contends that the first sub-species group, of resinous trees, is impossible to diagnose with more precision. Despite this, the clear differentiation between the types within group A indicates the importance of variety and specificity within the resinous tree types, as well as potential authorial intent to differentiate between the species.

Depictions of the beech, or *fagus*, are unexpectedly rare: the tree, found across modern-day Romania, only appears in one form (Type G.37), and is only seen once on the Column. The motivation for this, Stoiculescu argues, is that ‘the beech was much too common’, and he goes on to suggest that Trajan aimed instead to impress his audience with a conquest over an exotic and foreign land, populated with strange-leaved trees. While the level of control that Trajan exerted over the frieze’s arboreal contents is unclear, it is widely accepted to expect that his account of the wars, the highly fragmentary *Dacica*, would have had some influence in the overall intentions of the Column, if not its individual components.⁴¹²

Trees across Trajanic triumphal architecture are similarly styled to those analysed by Stoiculescu. The five trees on the Arch, and the six identified by Leander Touati on the Frieze can generally be identified by the drawings of Stoiculescu (see Tables 3 and 4). These trees, like those found on the Column, have a variety of functions, including as architectural features of the scene – the pine on Slab 7 of the Frieze acts as a central spine of a scene, while the sycamore at the close of the scene, on Slab 8, ends the action, although it should not be considered the end of the Frieze as a whole, which would surely have continued.⁴¹³ While the majority of the trees on the Trophaeum Traiani at Adamklissi are too damaged to determine species, the continuity of stylistic features and the species depicted on the Arch and the Frieze suggests that they would have been of a similar form.

⁴¹² Rossi (1972, 56) explores the possibility of the Trophaeum having been composed with direct imperial supervision. Throughout this article, Rossi points to a number of similarities in a disparate range of examples across Trajanic architecture, artwork, and material culture, which indicate a guiding hand across the depictions, and may explain the consistency of the variety of trees depicted. This is not unusual in commemorative architecture from the period, which is known for a unified purpose.

⁴¹³ Leander Touati (1987) 25, 26, 32.

Table 3: The trees on the Arch of Trajan at Beneventum.

Tree location	Identifications in other literature	Identification following Stoiculescu's drawings
Arch: <i>Cbr</i> – Country (NE) facing, bottom row, right pillar.	Two pear trees. ⁴¹⁴	F.36 (<i>Prunus</i>) – contrary to Rotili's identification.
Arch: <i>Cbl</i> – Country (NE) facing, bottom row, left pillar.	Oak. ⁴¹⁵	E.31/32/33 (<i>Quercus</i>).
Arch: <i>Ctr</i> – Country (NE) facing, top row, right pillar.	Oak. ⁴¹⁶	E.24 (<i>Quercus</i>).
Arch: <i>As</i> – Vault, South side.	Vine. ⁴¹⁷	D.16/21 (<i>Sorbus torminalis</i>). Could also be an <i>Acer</i> .

Table 4: The trees on the Great Trajanic Frieze.

Tree location	Identification by Leander Touati (1987)	Identification following Stoiculescu's drawings
Frieze: Slab 2	Pine. ⁴¹⁸	Adapted A.1 – added fruit.
Frieze: Slab 3	Oak, from lacinated outline of foliage. ⁴¹⁹	Impossible to achieve without detailed foliage.
Frieze: Slab 6	Oak. ⁴²⁰	E.30 (<i>Quercus</i>), possibly adapted with fruit.
Frieze: Slab 7	Pine. ⁴²¹	Adapted A.1 – added fruit.
Frieze: Slab 8	Sycamore. ⁴²²	C.13 (<i>Acer</i>).
Frieze: Fragment P	Oak. ⁴²³	E.29 (<i>Quercus</i>).

⁴¹⁴ Rotili (1972) pl.80. There is some disagreement in the identification of this tree - Lepper (1969 258) identifies these trees as Spanish olives, following Veyne (1960, 195) and Toynbee (1934 15 n.5), who both identify the Hercules figure as Hercules Gaditanus, leading to the identification of a Spanish tree, following Strack (1931 103).

⁴¹⁵ Rotili (1972) 89.

⁴¹⁶ Lepper (1969) 255.

⁴¹⁷ Leander Touati (1987) 17 n.35.

⁴¹⁸ Leander Touati (1987) 17; pl.7.1.

⁴¹⁹ Leander Touati (1987) 19; pl.2.

⁴²⁰ Leander Touati (1987) 24; pl.1.3; pl.13.1.

⁴²¹ Leander Touati (1987) 18, 25; pl.4; pl.14.

⁴²² Leander Touati (1987) 26; pl.4; pl.16; pl.17.4.

⁴²³ Leander Touati (1987) 108; pl.50.3.

Stoiculescu argues that the trees depicted on Trajan's Column are reasonably representative of the forest at the time, and their similarities to the trees on the other Trajanic monuments allows that argument to be extended beyond the Column. He excludes from his assertion on the Column both the absent beech, and the two non-Dacian trees (Type B.10) found on the Roman side of the Danube at the start of the relief, isolated and properly subjugated in a walled city. Stoiculescu's assertion is part of a broader narrative, attempting to fit the trees into an argument that the relief is an accurate depiction of Dacia itself. Meiggs concurs with this assessment, in a brief observation regarding Trajan's Column. Focussing on scenes he identifies as ones containing 'deforestation', Meiggs comments that the majority felled are oak, and that 'this was not because they were more decorative; oak was the dominant species in these central European forests'.⁴²⁴ This comment appears to have been picked up in future studies, and Lepper and Frere identify trees as oaks, firs, or poplars, dependent on whether they are resinous or deciduous respectively.⁴²⁵ This association of the oak has also been influenced by a remark made by Pliny, in the *Natural History*, who identifies the neighbouring region of Pannonia as 'acorn bearing'.⁴²⁶ The above examples demonstrate the extent of engagement with the trees on the Column, which overlooks the impressive variety of foliage identified by Stoiculescu, and presents the trees as a generic group, instead of the impressive range on offer.

A key difficulty in the depiction of such a wide variety of trees on the Column particularly is in both their visibility, and their recognisability. Visibility has been an issue with the Column's frieze since study of it first began, with numerous solutions proposed, from the vertical axis viewing first suggested by Lehman-Hartelben (1926) and later by Gauer (1977), to the

⁴²⁴ Meiggs (1985) 186-7.

⁴²⁵ Lepper and Frere identify the two non-Dacian trees of scene III as Lombardy poplars, or *populus nigra* (Lepper and Frere 1988, 53), while all others are identified as fir or oak. Lepper and Frere (1988) 64: 'the trees are certainly oaks', identified by Stoiculescu as three sycamores (Type C.12) and one oak (Type E.24); 66: 'fairly typical oak tree divider' (Type D.16: service tree); 69: 'mixed forest of oaks and conifers' (three Type A.3: resinous trees, two Type D.19: service trees); 80: 'the sharp conifer divider' (Type A.5: resinous trees); 85: 'an oak-tree divider' (Type E.30: oak); 91: 'poplars as dividers and oaks for timber' (general comment referring to scenes 46-73, which contain 73 trees, of 4 sub-species, and 25 different types); 105: 'the oak-woods' (two Type E.31: oaks, one Type E.23: oak, and one Type C.15: sycamore); 108: 'a double tree division (poplars or conifers?...)'; (Type A.6: resinous); 109: 'the tall conifer' (Type A.5: resinous); 111: 'the tall conifer' (Type A.9: resinous); 121: 'a poplar-tree' (Type A.4: resinous).

⁴²⁶ Plin. *HN* 3.147. This association is in some conflict with the use of the oak on the Arch of Trajan at Beneventum to represent the German territories (Rotili 1972; further noted by Lepper 1969, 255), and Schama's extensive analysis of Germany's oak fetishism (Schama 1995, 75-134). Further, Pliny distances himself from tying the tree exclusively to the province (*HN* 16.17: *cum robur quercumque vulgo nasci videamus*). However, Pliny is being specific in this example, specifying the *robur* and *quercus*, while neglecting the *aesculus* and other varieties of the oak. Additionally, the profligacy of the oak would not prevent it from being strongly associated with more than one region.

neighbouring viewing platforms put forward by Coarelli (2000).⁴²⁷ With regard to the trees, however, there remains a difficulty. In spite of the deliberately amplified leaves, which enable the differentiation and identification of the tree species, there is an assumption that a Roman observer of the Column would be familiar enough with trees to be able to identify them, and to place them as Dacian trees.

The first difficulty with this assumption is that the trees depicted on the Column's frieze are not exclusively Dacian. The oak, one of the more common species on the frieze, was found across Europe at this time, and the same can be said for the other two dominant foliaceous trees – the service tree (a type of wide-ranging *Sorbus* genus, which includes mountain ash and rowan in its variations) and the sycamore.⁴²⁸ Similarly, Romans would have been familiar with a variety of resinous trees, evidenced through poetic record stretching as far back as Ennius' *Annals*,⁴²⁹ and the agricultural handbooks of the mid to late Republic and early Principate, written by Cato the Elder, Varro, and Columella, discuss a large number of resinous trees. While these texts would only have been read by a small proportion of the population, the implication of their coverage is that there would have been some degree of familiarity with the trees in Rome and its surrounding territories among the wider community without knowledge of specific species group. Additionally, the content of these works will have been disseminated from the educated élite, typically land-owners like Pliny the Younger, to their workforce. To what extent it matters, however, that these trees, and their species group, may have already been familiar by sight to the Roman people will be dealt with in the context of tree felling on the Column and the triumphal procession in the next section.

Through identifying the different varieties of trees, a study of Trajanic architecture, and particularly the Column, reveals an almost complete depiction of the (expected) Dacian landscape of the time. The absence of the beech is particularly important, since it reveals that the sculptors were selective over what trees they carved, and the range of leaf types shows a concern for individualised depictions, as in the human figures on the relief. Clearly, they were carved with this much care, even in the unenthusiastic style of the second sculptor (as

⁴²⁷ Brilliant strongly criticised the design of the Column, for the circular motion required of any viewer intending to view the relief as a continuous narrative, and for the difficulty that a viewer has in understanding the uppermost scenes on the relief (Brilliant 1984, 90-4).

⁴²⁸ As to the intricacies of the variety of oak, Lepper queries whether it should be expected that the artist, or the spectators, would have had the necessary botanical knowledge to differentiate between the Mediterranean oak and those from northern Germany (Lepper 1969, 255). This level of detail in botanical knowledge should not be expected from an ancient audience, much as it should not be from a modern one.

⁴²⁹ Enn. *Ann.* Sk. 6.177.

highlighted by Wootton and Russell), for a purpose, and that purpose may become clear as we explore the different functions of the trees on the monuments.

3.2. Felling Trees on Trajan's Column

The Column features 48 trees in tree-felling scenes, and is the only monument discussed in this chapter on which there is direct interaction between the human figures and the arboreal elements.⁴³⁰ This frequency of depiction makes it one of the most common contexts in which trees appear on the relief, and these scenes are found from the Column's opening. The first example of the practice is in scene XV (Fig. 7), and the activity continues to appear up to the final tree-felling scene (CXXXVII). The usual content of these scenes is exceptionally revealing: beyond three instances of Dacian tree felling, all within the same scene (LXVI), Roman soldiers are felling Dacian trees, in line with the general theme of industry on the Column's relief. Davies comments that the Column 'downplay[s] the gruesome realities of war', and instead depicts more peaceful themes, of travel, construction, *adlocutio*, *submitio*, and sacrifice.⁴³¹ Coulston has since added to Davies' earlier statements, and notes that the battles are commonly fought by 'non-citizen auxiliary troops', while the Roman citizen troops are lauded for their 'building construction, field-craft and siege warfare'.⁴³² The absence of warfare and the prominence of construction scenes is, for Davies, part of an effort to portray a mechanised Roman army, in complete control of both their surroundings, and the war.⁴³³ In this reading of the Column, the tree felling scenes are key, and when this is put in the context of the Romans' relationship with the environment in times of war, a fresh understanding of the usage of trees on Trajan's Column begins to emerge. However, challenges arise when tree felling on the column is considered within the broader tradition of tree felling in Greek and Roman myth and history, and there has typically been an assumption made by modern scholars that any tree felling is a sacrilegious act.⁴³⁴ Recently, Hunt has revisited this assumption, and

⁴³⁰ For the sake of clarity, 'tree felling' is being used here as opposed to 'deforestation' due to a definition-based difference between the terms: while the former indicates simply the felling of trees, the latter is defined as the permanent removal of a forested area, for which there is no concrete evidence on the relief.

⁴³¹ Davies (1997) 63. The lack of battle scenes has allowed Ferris to identify the warfare shown on the Column as a 'sanitised' version, thus allaying the Roman population's fear of the army, while the possible association of the Dacians with the forest and the Romans with construction presents a clash between nature and culture (Ferris 2000, 61-85).

⁴³² Coulston (2003) 403. Elsewhere, Coulston suggests an association between the 'differing degrees of architectural verisimilitude' and the propagandistic nature of the Column (Coulston 1990b, 49).

⁴³³ Davies (1997) 63.

⁴³⁴ This assumption is begun in Boetticher (1856, 195). It is continued in modern discussions of the ancient relationship with the tree, from Thomas (1988, 263) to Dyson (2001, 146-7), and beyond, to Hughes (2014, 185). The primary issue for several discussions of the felling of trees is one of inviolability, and this is briefly summarised by Dowden (2013, 108-9). For a thorough discussion of the assumed inviolability of groves and

has explored the possibilities of sacrality in trees beyond a wholesale attribution.⁴³⁵ This leads to a challenge in identifying which trees are sacred, which prompted Thomas to earlier conclude that ‘any tree felling [is] potentially hazardous’.⁴³⁶ The consequences for such a felling are usually severe.⁴³⁷ The felling of the trees on the Column operates alongside this rich literary tradition of tree violation, but also engages with a cultural tradition, with its roots in the late Republic and the conquest of foreign nations.



Figure 7: Scenes XV – XVI, tree felling can be seen in scene XV, on the left, watched by Trajan from scene XVI on the right. The trees are, in order, three times C.12, and one E.24. Source: Cichorius (1896) plates XIII and XIV.

As should be expected with the relief, all the felled trees are in Dacian territory, and many felled trees are oak, a tree associated with Dacia by modern scholars, as noted above. In scene XV, the trees are identified by Lepper and Frere as being exclusively oaks, although Stoiculescu’s analysis of the foliage proves otherwise.⁴³⁸ Regardless of their error in this particular scene, oaks are prominent on the Column, and the argument of Lepper and Frere that

sacred trees, see Hunt’s thorough critique of the past two centuries of European arboreal scholarship (2016, 121-9).

⁴³⁵ Hunt tackles the issue of constrictive definitions of *sacer*, such as the legalistic one, in the introduction to her piece (Hunt 2016, 1-28), ‘Rooting in: why give time to sacred trees?’, and addresses the issue of felling trees in her fourth chapter, ‘Arboriculture and arboreal deaths: rethinking sacrality again’ (Hunt 2016, 121-72). In the fourth chapter, Hunt acknowledges that an unviolated wood, regardless of whether or not it was dedicated, had the ability to provoke a religious reaction (Hunt 2016, 125, citing Ov. *Met.* 3.28; *Fast.* 2.435; Stat. *Theb.* 4.420; Luc. *Bell. civ.* 3.399). The question of how a sacred tree should be defined and cared for will be dealt with in the final chapter of this thesis.

⁴³⁶ Thomas (1988) 263.

⁴³⁷ In myth and history, the punishment is traditionally dismemberment or decapitation, from Halirrhothius’ axe rebounding from Athens’ sacred olive tree and killing him (Schol. on Ar. *Nub.* 1005; Serv. *Comm. G.* 1.18), to Turullius’ execution by Augustus (Cass. Dio 51.8; Val. Max. 1.1.19). In both these examples, the trees felled are sacred ones, to Athena (as in the case of the olive), and to Asclepius (as in Turullius’ delayed execution on Cos).

⁴³⁸ Lepper and Frere (1988) 64.

certain trees can be considered characteristic of Dacia is useful. While the trees in scene XV are not exclusively oak, they are all trees which Stoiculescu identifies as being typical of a Romanian forest, and he adds that ‘the priority cutting of the deciduous trees suggests the preponderant waging of the two Dacian wars just in this vegetation-zone type, where resinous trees existed only sporadically’.⁴³⁹ These authors direct us to the conclusion that the forest depicted on the Column is both authentically and symbolically Dacian, being composed of trees that were both theoretically common to the area, and traditionally associated with it.⁴⁴⁰

Presenting trees associated with areas is common throughout Trajanic architecture relating to Dacia and Germany. On the Arch of Trajan, the oak, which has already been discussed as being associated with the regions of Pannonia and Germany (see p.125 n.410) is shown in the *Cbl* and *Ctr* reliefs (Figs 8 and 9), which are understood by Rotili to be depicting the pacification of Germany by Trajan and the submission of Dacia respectively. In the representation of this tree, its symbolic association with foreign lands at the outer reaches of the Empire, established in part by the contemporaneous Column’s relief, and other factors such as the reference of Pliny, the treatment of the oak as a forest tree (it is presented as the seminal forest tree in the *Natural History*), and its status as the uncultivated source of food to early man in Lucretius, will have superseded its actual geographic spread, which reached into Italy. Therefore, the tree must offer an indication of the broad region, as Lepper explores in his review of Hassel’s work on the Arch. Lepper, in an assessment of the function of trees on the Arch in response to Hassel, identifies the trees on the Column as ‘vertical dividers, punctuation-marks, as it were’.⁴⁴¹ Moving to the Arch, he comments on the sparseness of the trees on this monument, which are found in groups of two or fewer, as opposed to the Column, where they often appear in forests. However, as Leander Touati explains in relation to the sparse trees on the Column, and in comparison to those on the Frieze, individual trees are often used to ‘represent

⁴³⁹ Stoiculescu (1985) 84.

⁴⁴⁰ Here, the absence of the *fagus* proves challenging for Stoiculescu, who appears to have expected it to be far more common on the relief than it actually is, given the tree’s prominence throughout. As was discussed above, this can be excused by the need to display trees which would have been considered exotic or particularly Dacian, as opposed to the more common *fagus*.

⁴⁴¹ Lepper (1969) 257.



Figure 8: The *Cbl* relief of the Arch of Trajan at Beneventum, showing the pacification of Germany. Source: Rotili (1972) plate 72.

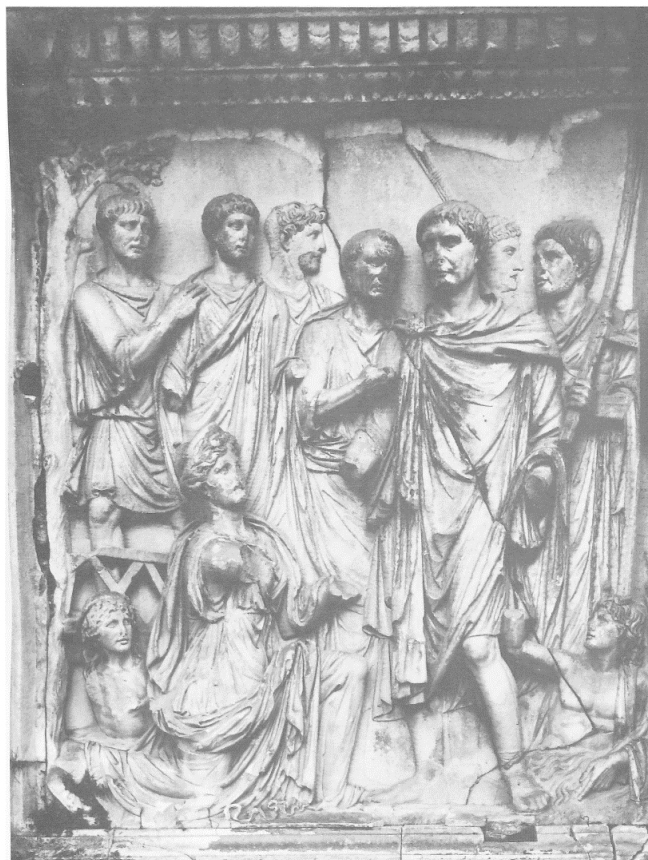


Figure 9: The *Ctr* relief of the Arch of Trajan at Beneventum, showing the submission of Dacia. Source: Rotili (1972) plate 120.

nature' in contemporary art.⁴⁴² Lepper likewise suggests that some trees, such as the oaks on the Column, were 'meant to convey the region', although advises caution in applying such a use to all trees, particularly on the Arch.⁴⁴³ Leander Touati's comment, within a note on the similarities of natural presentation in Trajanic architecture, states that the trees of the Frieze are more comparable with those on the Arch than those on the Column, and that the specific representation of species makes it 'difficult not to believe that the species have the function of defining the different regions depicted'.

The specificity in depiction is common on the Column, as Stoiculescu proves, and not limited only to the Frieze and Arch reliefs. As a result, the trees on Trajan's Column could be read in a similar manner to those on the Arch and the Frieze, identified by Leander-Touati as 'defining the different regions depicted', although any attempt to take from this that they indicate a specific place in a narrative sense should be avoided.⁴⁴⁴ Reading the trees on Trajanic architecture as identifying a region and, in the context of the Column, its subjugation, is comparable to the triumphal import of trees, a practice discussed by Östenberg and in Chapter Four of this thesis.⁴⁴⁵ The imported trees, Östenberg argues, stood for the race to which they originally belonged, and the land that they originated from. She takes her lead from two brief accounts found in the *Natural History*, the first of which indicates the import of the ebony by Pompey,⁴⁴⁶ and the second relating the display of the balsam by Vespasian and Titus.⁴⁴⁷ There is a clear differentiation between trees and timber, indicated by Pliny's specific use of *arbores* when referring to the practice in general, and the presence of the timber in Rome previously.⁴⁴⁸ Additionally, Östenberg notes the usage of the verb *ducere* (to lead) in the context of displaying the trees in the triumph, a verb only used for the living spoils (e.g. prisoners and animals).⁴⁴⁹ Östenberg points to the *balsam* in particular, which pays tribute to Rome alongside its *gens*.⁴⁵⁰ In applying the attitudes which led to this practice to the trees on Trajan's Column, and to trees

⁴⁴² Leander Touati (1987) 17 n.35.

⁴⁴³ Lepper (1969) 257.

⁴⁴⁴ *Contra* Lepper (1969) 257: 'would [a tree in the background] on occasion be meant to do more, to provide a location-clue, say, like the fig-tree next to the statue of Marsyas on the "Anaglypha Traiani"?' This fig tree is clearly monumental by its depiction, unlike those found on other Trajanic architecture.

⁴⁴⁵ Östenberg (2009) 184-8.

⁴⁴⁶ Plin. *HN* 12.20.

⁴⁴⁷ Plin. *HN* 12.111-12.

⁴⁴⁸ Plin. *HN* 12.17-18.

⁴⁴⁹ Östenberg (2009) 188.

⁴⁵⁰ Plin. *HN* 12.112.

in conflict more broadly, a new tradition emerges: war on the landscape, which is expressed through the prominent tree felling scenes.⁴⁵¹

These scenes show the Roman forces waging war on the land of Dacia itself. Unlike the tradition of tree violation, the felling of the trees on the relief has no adverse consequences for the Romans, and the focus is on industry, a focus clearly expressed in the first tree felling scene on the Column, scene XV. This scene runs almost seamlessly into scene XVI, and Cichorius' division between the two is contested by Lepper and Frere, who identify the trunk of the oak tree at the close of XV as a 'stage-prop rather than a divider'.⁴⁵² The continuity between the two scenes, highlighted by the figure of Trajan, who is looking back at XV from XVI, implies that the timber felled in the earlier scene was used to construct the Roman fort of XVI. In contrast to the tradition of tree violation, this is not presented as a violation of a potentially sacred tree. Rather, the industry of the Romans, ratified by the emperor's approving gaze, is displayed in a positive light. The Roman soldiers are seen taking control of the foreign landscape, moulding it to their purpose, and in doing so urbanise their rural surroundings, in contrast to their Dacian enemies.⁴⁵³

War on landscape is a common theme in contemporary Roman descriptions of the Dacian Wars, particularly in the accounts of Pliny the Younger. Control of the landscape is a key component of Trajan's portrayal in contrast with Decebalus in the *Panegyricus*, Pliny's only surviving speech, written and delivered prior to Trajan's first Dacian War. In this panegyric, written in the expected hyperbolic fashion,⁴⁵⁴ Pliny describes the land of the 'barbarian king', and its betrayal of the native ruler. It prefers to part for Trajan to advance, before turning and fighting for the emperor.⁴⁵⁵ Here, a good emperor is seen in complete mastery of the forces of nature, and Hutchinson compares this to the negative portrayal of Domitian later in the speech.⁴⁵⁶ Hutchinson adds that Domitian's mastery of nature is artificial and incomplete

⁴⁵¹ This tradition is replicated in Trajan's mastery of the sea, expressed in Pliny the Younger's *Panegyricus*, and analysed by Manolaraki in 'Political and Rhetorical Seascapes in Pliny's *Panegyricus*' (2008).

⁴⁵² Lepper and Frere (1988) 64-5.

⁴⁵³ The three trees felled by Dacians in LXVI further this idea of the Roman army subjugating the Dacian landscape throughout the Column's relief. The scene in which the Dacians are maintaining their control of the landscape is towards the end of the first Dacian war, and the conquest of the country is not yet complete.

⁴⁵⁴ The hyperbole of the *Panegyricus* has historically provoked a dismissive response, found throughout readings of Pliny's lengthy speech. Syme comments that, as a speech, it has done 'no good to the reputation of the author or the taste of the age' (Syme 1958 114), while Radice calls it 'indispensable yet unreadable', adding that 'some of its topics are laboured to the point of obscurity or hidden behind a façade of elaborate rhetoric' (Radice 1968 169). Recently, the *Panegyricus* has gained more status as a valuable source for senatorial imperial oratory and its themes have been explored in an edited volume (Roche 2011).

⁴⁵⁵ Plin. *Pan.* 16.5.

⁴⁵⁶ Hutchinson (2011) 128, citing Plin. *Pan.* 50.1.

compared to the willing submission of the landscape to Trajan. Moving genre, to Pliny the Younger's *Letters*, and a letter to Cannius Rufus, the theme continues. Here, Pliny relates Trajan's command of the landscape, his creation of new rivers, and the subsequent bridging of these rivers, an echo of the bridging of the Danube at the base of the Column's frieze.⁴⁵⁷

It can and should be assumed that Trajan invoked the tradition of arboreal triumphal imports in his triumphs over Dacia, and that he displayed the trees of the land alongside the river deities and other natural features, particularly in the absence of a foreign ruler. It is therefore not unlikely that the emperor will have followed similar precedent and incorporated these trees, Dacian by their association with the triumph, into his Forum complex, in the pits first excavated by Packer in 1982, which he proposed form double colonnades in the Area Fori, identical to the known avenues of plane trees in the Porticus Pompeiana.⁴⁵⁸ Meneghini's excavations did not find the second row of planting pits – Packer was only permitted to excavate a single one – but the existence of the first row remains viable.⁴⁵⁹

While tree felling is prominent on the Column's relief, it is not portrayed within the expected tradition of tree violation. Instead, it taps into a broader cultural tradition that incorporates the import of the trees in the triumphal procession, the urban habitat of the Romans as opposed to the rural character of the Dacians, and the industry required. I have characterised this earlier as a war on the landscape, an attitude which acknowledges the Roman war on the country, represented here by the trees, and by the similarly tamed Danube, as well as a war on the people. As a result, the victory depicted on the Column is not only a victory over the Dacians, but also over Dacia itself, which has now come under Roman control.

3.3. Trajan and Decebalus

In the preceding section, we saw how the tree felling scenes on the Column could be characterised as a part of war on the landscape. The use of trees as a narrative device can also be found in the depictions of the two leaders, who appear among trees several times in reliefs: Decebalus is shown in a forest setting four times on the Column, and Trajan three times on the

⁴⁵⁷ Plin. *Ep.* 8.4. Control of the landscape is critical to a Roman conquest, and within Roman war. The oldest crown of the Republic, Pliny the Elder tells us, is composed of grass of a conquered site, and indicates the absolute surrender of the territory and the peoples within it (Plin. *HN* 22.8). In the Second Punic War, Fabrizi points to the emblematic significance of Scipio's sea crossing to Africa throughout her chapter, and also suggests the importance of nature in warfare when discussing the role of fog and dust in the Battles of Trasimene and Cannae (Fabrizi 2016 286).

⁴⁵⁸ The excavation of these planting pits is reported in Packer, Sarring and Sheldon (1983), and Packer (1997 418-19). The Porticus Pompeiana will be explored in the following chapter.

⁴⁵⁹ Meneghini et al. (1990; 1998).

Column, while he appears in each of the reliefs on the Arch that feature trees. On the face of it, a comparison between the number of arboreal based depictions on the Column seems unremarkable until compared to the total number of appearances of each leader: Decebalus is found six times on the Column, compared to Trajan's 57-60 appearances. In other words, the Dacian king is over ten times more likely to be found in a forest setting than his Roman counterpart. This might be expected, given the conflict between culture and nature inferred by Ferris, which he then extends to being between Roman and Dacian, and then to barbarism and civilisation.⁴⁶⁰ The portraits of Trajan on the Column, which may have been coloured purple and thus be extremely visible to the viewer, are in line with his general portraiture, and remain consistent between the Arch and the Column, both in their general appearance and their placement in scenes. Tuck has argued that the expected Augustan qualities of *virtus*, *clementia*, and *pietas* are visible throughout this portraiture, as opposed to being restricted to depictions on this monument.⁴⁶¹ The common forest setting of the Dacian king is often in direct contrast to the expected virtues from the *clipeus virtutis*, as will become apparent.



Figure 10: Scene XXIV, Decebalus' head can be seen in the trees on the right, while Jupiter Tonans aims to hurl his thunderbolt from the left. The trees are identified as a D.18, A.5, A.5, D.16 (underneath the window), and a final A.5. Source: Cichorius (1896) plate XIX.

⁴⁶⁰ Ferris (2000) 61-85.

⁴⁶¹ Tuck (2015) 226.

Decebalus' appearances on the Column's relief are framed by two in which the trees have a central role in the scene's events. His first appearance, in scene XXIV, is one of surveillance, as he watches from the back as the armies clash in the opening battle of the relief, likely the second Battle of Tapae, which was won by the Roman forces (Fig. 10). The trees that dominated the previous scene, one of Roman tree felling, reappear at the close of this one, as the Dacian troops attack from the forest that shelters their watching king. He hides underneath a resinous tree and behind an unusually small deciduous tree with broad palmate leaves, identified by Stoiculescu as a service tree, and is the final figure in the top half of the scene. This first appearance of Decebalus is clearly not a positive one, and attention is drawn to him by the projected line of the thunderbolt wielded by Jupiter Tonans, seen here to the upper left of Decebalus, slightly to the right of the centre of the battle. This is simply conjecture, since the thunderbolt itself is missing, but by extending Jupiter's line of sight, and combining it with the direction of his throwing arm, we find that he appears to be aiming at the Dacian king.⁴⁶² Lepper and Frere question this as being the sole purpose of the deity's inclusion in the relief, and ask if it is instead to indicate the thrust of the Roman forces, who advance into the forest under divine direction, or perhaps that Jupiter Tonans' function is to indicate that the battle occurred during a thunderstorm (as Cichorius had earlier suggested), and to further imply the 'general support of Olympus' for the Roman cause.⁴⁶³ The ultimate conclusion, of course, is that the figure of Jupiter Tonans can have all the above functions, but the most obvious one to a viewer is the literal interpretation, that the god is aiming his wrath at the hiding Decebalus.

The trees themselves are mentioned in the commentary of Lepper and Frere, who identify them as reappearing 'to form the right-hand boundary of the scene,' which underplays their significance in the scene.⁴⁶⁴ The trees at the close of XXIV do not function solely as a scene divider (the final resinous tree does this for the top half of the relief, but is obscured by the Dacians carrying their wounded comrade in the bottom half). Rather, they have multiple functions within the scene. The first function of the trees is that which is highlighted by Lepper and Frere, and is a structural one, closing a scene, and interrupting the narrative of the Column. However, they direct their readers to the previous scene, XXIII, and the trees there. This is a tree felling scene, following a Roman advance through the forest (scene XXII), and the lack of ostentatious construction leads to the conclusion that the Roman soldiers are clearing a path

⁴⁶² Settis *et al.* (1988) 146.

⁴⁶³ Lepper and Frere (1988) 68.

⁴⁶⁴ Lepper and Frere (1988) 71.

for the advancing army.⁴⁶⁵ Although Lepper and Frere link these trees to those which Decebalus reportedly dressed in Dacian armour at Tapae,⁴⁶⁶ it is easier to link these specific trees, and the episode as a whole, to the broader tradition of a war on the landscape. Nature is tamed by Roman forces in the scene leading up to the battle, and in the battle itself, they are found only on the Dacian side of the scene, attempting to hide the king from the wrath of Jupiter Tonans.

When compared with the imperious figure of Trajan, both in scene XXIV with Decebalus, and immediately behind him in XXV, the contrast between the rustic king and the urban emperor can be seen clearly. In XXIV, Trajan is dominant, giving the order to advance, as the heads of Dacians are shown to him. Meanwhile, Decebalus hides in the forest, distanced and uninvolved in the action of the scene, and identifiable at first viewing only by the direction of Jupiter's thunderbolt. This comparison is strengthened by the direct contrast between the figure of Decebalus in this scene, and Trajan, only two figures after him, in the following scene. In this appearance, Decebalus' depiction is a complete reflection of the Roman emperor: he hides where Trajan leads,⁴⁶⁷ and unlike Trajan's backdrop earlier in scene XXIV of advisors and a stone wall, Decebalus' surroundings are rustic and arboreal. Thus, the opening depiction of Decebalus is not a flattering one on the relief, and the trees are integral in establishing the tone of this depiction.

Decebalus' final appearance on the relief is in the moment of his suicide underneath a tree identified as belonging to the *quercus* (oak) genus, in scene CXLV (Fig. 11). In this scene, the oversized figure of Decebalus is seen taking a knife to his throat at the foot of the tree as the Roman forces arrive. The tree is passed over by Lepper and Frere, and by Settis, the latter of whom only refers to it as a place identifier for Decebalus' prone form, although without an appreciation of the identifier's redundancy, given the gigantic proportions of Decebalus compared to the other figures on the Column, and the direction of the other figures' gazes, focussed on the fallen king.

⁴⁶⁵ Coarelli (2000) 64.

⁴⁶⁶ Cass. Dio 67.10.2-3.

⁴⁶⁷ The extent of Decebalus' concealment can be seen by the number of trees which surround him, and the shade they typically cast: three resinous trees (all listed as A.5 by Stoiculescu), and two deciduous (the first is catalogued by Stoiculescu as D.18, the second (under Decebalus) is a D.20). With particular regard to the shade of the resinous trees, ancient authors have a great deal to say on the shade cast by them, with particular reference to the *pinus* and the *picea* (Plin. *HN* 17.91; Hor. *Carm.* 2.3.9-11; Serv. *Comm. Aen.* 9.86; Sil. *Pun.* 1.83).



Figure 11: Scene CXLV. The trees are identified as C.11, E.22 (under which can be seen Decebalus), C.13, and E.23. Source: Cichorius (1896) plate CVI.

Unlike the first appearance of Decebalus, to which this scene is directly comparable, the king is not hiding in the forest, but is clearly visible to the viewers of the Column. Here, the king's presence is the focal point, and his visibility is paramount. In addition to the oversized figure, and the concentrated gaze of all the surrounding figures and spears, the tree acts as a framing device for the king. There is a distinct, short, leafy branch halfway up the trunk, a feature on the relief unique to this tree. This branch, which is short and leafy, shades Decebalus, framing him as an individual within the forest, and forcing the figure into a prone position. The tree, the trunk of which is behind the king, further isolates Decebalus, not from the Roman forces, but from his own sons, as Cichorius, followed by Lepper and Frere, identifies the two figures. Here, the tree acts as an internal scene divider, providing compositional emphasis, similar to the way that the rich drapes that surround Jupiter Tonans do in scene XXIV.

The choice of the oak tree can be construed as a continuation of Jupiter's ire, echoing the thunderbolt of scene XXIV, which is further down the same side of the Column, on the well attested north-west, or 'Victory' axis. The Column could never be read as a continuous spiral, and if we are to assume that the viewer would have been standing at a gallery, or unable to circle the Column to read the continuous relief, they would have read the Column as a vertical

axis.⁴⁶⁸ As a result, the viewer will have been able to compare the first appearance of Decebalus with the final one, directly above it, and would see corresponding symbolism. First, the thunderbolt of Jupiter Tonans isolates the figure of Decebalus, who is only watched by the deity. And at his death, the oak tree, sacred to Jupiter, again isolates the Dacian king from his sons, forcing him from the shadows of his first appearance, and thrusting him into the foreground at the moment of his death. At this, the climactic moment of the Dacian Wars, and of the Column's relief, the landscape of Dacia, represented by the tree most commonly associated with Dacia betrays the Dacian king, and works for the Romans, thus paralleling the rivers and mountains in Pliny the Younger's writing. Thus, the scene not only shows the defeat of the Dacians, but also the subjugation of Dacia itself, and the Romans' war on the landscape is complete.

There are two other appearances of Decebalus on the relief in which trees play a part. First, Decebalus observes a battle from a forest, and is framed by trees, in scene CXXXV (Fig. 12). Lepper and Frere comment that 'the tree at the junction of Casts 360 and 361 (and the rocks beside it) detach Decebalus from the thick of the fight,' and add that 'a second tree firmly separates Decebalus and his bodyguard from the next scene'.⁴⁶⁹ Settis further draws attention to the isolation of the Dacian king, although he focusses on the eyelines of the king's entourage, which are directed away from the king, focussing instead on the action. This is, for Settis, a passive scene, unlike an earlier, comparable scene (XCIII), in which Decebalus' entourage are focussed on him.⁴⁷⁰ The trees function as the most obvious isolating tool here, and are combined with a low wall to further separate Decebalus from his surroundings. With a similar emphasis on framing as in scene CXLV, the trees arch over the scene, containing Decebalus and his entourage as separate from the action, and only one forearm is allowed to intrude on Decebalus' contained entourage, thus connecting the two scenes, together with the gaze of the figures, who focus beyond the bounds of their frame, much like Decebalus' first appearance on the Column. The trees could have a dual purpose in this scene: on the one hand they act as a haven for Decebalus and his entourage, much like the trees do in Decebalus' first appearance, and distance him from the battle happening around him, to which he is only linked by eyeline

⁴⁶⁸ Following Bandinelli (1978) 139; Settis *et al.* (1988) 202-3; and Coarelli (2000) 19. This particular vertical axis is perhaps the most significant on the Column, containing the crossing of the Danube at the base, the first appearance of Decebalus, being targeted by Jupiter, the Victory appearing between two Dacian *tropaea*, and the suicide of Decebalus at the top of the Column. In her analysis of Victoria's position on this axis, Kousser comments that the axis can be read as a synopsis for the campaign, from its origins at the Danube to its moment of closure (Kousser 2008, 85).

⁴⁶⁹ Lepper and Frere (1988) 173.

⁴⁷⁰ Settis *et al.* (1988) 144.

and an intruding arm. This separation is not necessarily a positive one, and it is noticeable that there is no comparable appearance of Trajan, who is elevated from his people, but never separated from them. This is the second function of the trees within the scene, which focus attention on the Dacian king, elevating him and highlighting his importance, and his regality as the enemy forest-king. In this aspect, perhaps, Decebalus is compared to Trajan, but the comparison ends with the elevation. The trees separate the Dacian king, highlighting both his isolation in the scene, and his rusticity. The separation of Decebalus from his men by trees is again seen in his penultimate appearance on the relief, in scene CXXXIX (Fig. 13). Here, Decebalus holds council with his fellow *pileati* (Dacian noblemen) in a woodland setting after the looting of his treasure by the Roman forces. The trees in this scene are intermittent, two acting in a rough framing capacity, and a third, background tree, between the two, to the right of Decebalus. As in scenes XXXV, CXXXV, and CXLV, this tree could be seen to be isolating Decebalus from his men, although it does so in so subtle a manner that it serves as an indication of the continued forest throughout the scene. The choice of tree as a framing device is consistent with the usage of other deciduous trees as framing devices elsewhere on the relief. The shaping of the tree, with overhanging branches rather than a single straight trunk allows for the scene to be contained both at its edges and at the top of the scene. By containing Decebalus here with a background tree, as opposed to the foreground tree which isolates him from his troops in scene CXLV, the relief identifies him within the scene. This is directly comparable to Trajan's appearance in scene XXXVI, in which two background trees frame him as the key figure of the scene. Decebalus' appearance in the forest is similar to Trajan's appearances elsewhere on the relief, since this is the only scene in which a figure other than the emperor appears in an *adlocutio* stance. This is one of the most flattering depictions of Decebalus on the relief, since he begins to conform to the expected role of a statesman on the Column, which is typified by Trajan's behaviour. As a result, the sculptor here is highlighting rather than isolating the figure of Decebalus, bringing him to the fore in a defining moment of the war, as the Dacian king organises a retreat. It is not necessarily a good moment for the king to be highlighted, and all the elements of the Dacian defeat come to the fore in this scene: their king, in their native forest, orders their flight, abandoning their country to the advancing Romans, including the trees which will later separate the king from his men (scene CXLV).



Figure 12: Scene CXXXV. The trees are identified as E.26 and D.16. Source: Cichorius (1896) plate XCIX.



Figure 13: Scene CXXXIX. The trees are all identified as D.21. Source: Cichorius (1896) plate CII.



Figure 14: Scene LII, showing Trajan greeting a Dacian embassy. The trees are both identified as E.22. Source: Cichorius (1896) plates XXXVII; XXXVIII.

Unlike Decebalus, Trajan is found in proximity to trees only a handful of times, and each with a similar purpose: to re-iterate the ‘war on landscape’ tradition, and to frame parts of the action. In the first of three appearances, Trajan is seen leading auxiliary forces into a forest, where he receives a report from a group of scouts (scenes XXXVI-XXXVII). He is next seen receiving a Dacian embassy, who emerges from the trees of a forest that is being cut down and tamed by the Romans (scene LII). The final appearance of Trajan in the context of a forest is in scene LXVIII, in which a prisoner is brought in front of the Emperor, again from the forest. Each of these scenes is one of two sides, of presentation to Trajan, either the scouts presenting a report of the Dacian territory to Trajan (XXXVI-XXXVII), or the prisoner presentation of LXVIII. In these scenes, the trees additionally function in a framing context, dividing the two sides, and in the case of the battle, the two scenes.⁴⁷¹ However, in the case of the Dacian embassy (scene LII, Fig. 14), the scene dynamic has shifted noticeably. Here, Trajan stands facing away from

⁴⁷¹ The tree-divider between the two sides of the battle is one which is devised by Cichorius, and could be re-interpreted as a division within the scene, splitting two halves of the same conflict. The lack of clarity to the scene division is further emphasised by the crossing of the barrier by each side.

the tree felling behind him, as his forces tame the Dacian landscape, and he receives a Dacian embassy, who is seen extending his hands in greeting and supplication across the division of the tree, and the safe haven of the Dacian forest. This scene can be read to communicate that what was once Dacian territory is now being controlled and manipulated by the Roman forces, and the Dacian embassy must now enter a foreign, newly urbanised landscape in order to negotiate with their Roman enemy. This is common throughout Trajan's arboreal appearances in the Column and the Arch (two examples of the latter can be seen in Figs 8 and 9), and in almost every instance the forest is associated with the opposing forces,⁴⁷² whether in battle or peacetime, and the urban sophistication of the Emperor is contrasted with the rustic simplicity of the Dacians and Germans, epitomised by their almost exclusively arboreal king, who is eventually betrayed by the tree which fundamentally represents the land of Dacia.

3.4. Concluding Remarks

Contemporary literature about the Dacian wars, such as Pliny the Younger's *Panegyricus* and his letter to Cannius Rufus suggests the important role that certain Romans ascribe to the landscape in times of war. In these pieces, the mountains, seas, and rivers are presented as active participants in Pliny's description of the war, which is often assumed to be hyperbolic as a result of their genre. However, the frieze on Trajan's Column demonstrates the boundless nature of this hyperbole, which transcends genre. Nature plays an active role in the Column's relief, and is crucial in communicating its message of Roman dominance and superiority over a foreign enemy and their land.

The trees of Dacia, and to a lesser extent Germany, are prominent throughout Trajanic architecture. On the Column, these are carved in intricate detail, from the base of the relief to the very top, and the trees on the Arch and Frieze maintain close similarities with the types identified by Stoiculescu and can generally be matched to one of the 37 different leaf varieties, all of which conform to the trees of the regions depicted. Whether the accuracy of the depictions on the Column, the Arch and the Frieze was continued across Trajanic triumphal architecture, such as the Trophaeum Traiani at Adamklissi, is unknowable, given that monument's weathered state. In these three monuments, however, the function of the trees comprising an accurate representation of Dacia is one of the more prosaic uses of trees on the Column, and is just one simple reason for the presence of trees on the Column's relief, although their inclusion

⁴⁷² The North facing Arch relief (As) steps outside of this to some degree – this depicts a scene from *institutio alimentaria*, and does not involve enemies to Rome. However, the tree is still found on the opposite end of the relief to the Emperor, and the Beneventines are leaving toward the wooded area (geographically toward the town).

on the Arch serves to identify the antagonists' nationality in the scenes. In looking at the continuous narrative present on Trajan's Column, however, we see the complexity of Rome's relationship with trees, and the trees on the relief work within a complex set of conflicting traditions, those of tree violation, and war on the landscape. These two traditions dominate ancient thinking with regard to the relationship between the Romans and their environment. Since tree violation depends on at least some level of sacrality and inviolability to the trees, and usually precedes direct divine retribution, it is not a realistic reading of the Column's trees. There are only three deities on the Column's relief, and only one interacts with the trees, aiming a thunderbolt into the forest: hardly an action which supports any idea of the forest's inviolability. As a result, I have argued that the Column's narrative focusses principally on the latter tradition. It could, of course, be argued, as Stoiculescu did, that the trees are included solely to encourage realistic representation of the Dacian arboreal life. Another reading could be that the trees are simply bookends to the scenes, structural devices in a continuous relief, as they have been identified, and has been discussed in this chapter. And it is not unrealistic to say that both of these are true, and can remain true, within the thematic reading that has been presented here. In the theme of 'war on the landscape', the trees function as diagnostic features of Dacia, and are a target for the Romans to subjugate, and as a vehicle for the message that the Roman army is exercising complete control over the Dacian territories on the Column's relief, thus accounting for the large number of tree felling scenes on the relief and corresponding to the response of the landscape in Pliny's *Panegyricus*.⁴⁷³ Further to this message, the associations of environment are clear within the narrative of the Column, and this is most apparent in depictions of the two leaders, Decebalus and Trajan. In a comparison between the two figures, we can see that the Dacian leader is depicted primarily in arboreal settings, and the sculptors have used the trees to highlight his role in scenes, and to dictate his role in scenes, from being a back-room general, hiding from the battle in a forest, to being isolated from his men, abandoned by his own land, represented by the tree which presents his suicide to the Roman forces. Meanwhile, Trajan is distanced from trees, and is only ever seen advancing into them, never within the forest itself. He orchestrates tree-felling scenes, and the taming of the Dacian landscape, even in the face of the Dacian embassy in scene LII. This distance from the rural, un-urbanised landscape of the foreign country is replicated on the Arch. Here, the emperor stands apart from the landscape, which offers submission to him, or is

⁴⁷³ The lack of any theme of violation here, in any way at all, runs well alongside Hunt's call for nuance in assessing the assumed inviolability of groves and trees in earlier scholarship (2016, 126-9).

curated by him. When the quantity and detail of the trees on the Column, and their proliferation throughout Trajanic triumphal architecture is combined with the theme of the war on the landscape, which is expressed through the numerous tree-felling scenes on the Column and the distinction between an urban emperor and a forest king, one key purpose of the trees becomes clear. They serve to demonstrate that the war shown on the Column is not just against the Dacians, but against the land of Dacia itself. This tradition, in which the land is conquered and submits to Roman rule as much as the people, is replicated not only throughout the catalogue of nature known to the Romans in the *Natural History*, but also by the triumphal import of trees from conquered territories.

4. Triumphal Trees

Just as Decebalus can be defined as a forest king, and Trajan as an urban emperor in the context of Trajanic triumphal architecture, Roman rulers are defined by their surroundings, and horticultural symbolism is manipulated to communicate messages in a range of examples from Roman history. The first Roman leader to be associated with nature through their horticultural practices is Tarquinius Superbus, whose garden maintenance is presented by Livy as a metaphor for his governance. In Livy's account, the last Roman king is presented with a report of the Gabii by a messenger from his son, Sextus. Superbus, in place of a verbal answer, strolls into his *hortus*, and swipes the heads off the tallest poppies in the garden with his stick. The nonplussed messenger relays this to Sextus, who takes appropriate action, and executes or exiles the chief men of Gabii in order to gain sole control of the state before it was transferred to the Roman king.⁴⁷⁴ That Tarquinius Superbus both had a *hortus*, and that he tended to it himself (albeit in a rather brutal fashion), should come as little surprise, and is typical of the Roman kings, who Pliny tells us all tended gardens, as well as referring to this tale twice in the *Natural History*, calling the message 'savage and bloodthirsty', a characteristic of the reign of Rome's last king, while not being a usual Roman trait.⁴⁷⁵ To associate a ruler with their cultivated surroundings is not exclusively Roman, and Totelin explores comparable Eastern examples, such as Attalus III and Mithridates VI Eupator.

These rulers, termed by Totelin as 'botanizing rulers', are taken as precedents for the Roman use of a leader's interaction with nature as a metaphor for their rule. Attalus III, the final king of the Attalid dynasty, who reigned in the first half of the second century BCE, is the tender of a garden which was dominated by plants that were not easily kept in order, and his garden became overgrown as his country disintegrated.⁴⁷⁶ Meanwhile, Mithridates' garden was characterised by its poisonous plants, and these are read as indicative of the deficiencies in the character of the gardener. While both of these examples deal with smaller plants – Attalus' garden in particular is characterised as being full of *gramina* by Justinus,⁴⁷⁷ and dismissed as frivolous by Plutarch⁴⁷⁸ – the planting of Cyrus the Younger, recorded by Xenophon of Athens, is of trees, and the garden metaphor is, in this instance, far more positive.⁴⁷⁹ The trees here are

⁴⁷⁴ Livy 1.54. This tale was inspired by the Herodotean precedent in Thrasybalus and Periander, as discussed above (see pp.2-3).

⁴⁷⁵ Plin. *HN* 19.50; 19.169.

⁴⁷⁶ Totelin (2012).

⁴⁷⁷ Just. *Epit.* 36.4.3.

⁴⁷⁸ Plut. *Dem.* 20.1.

⁴⁷⁹ Xen. *Oec.* 4.20-5

ordered, and the king (who planted the trees himself, and enthuses as to their regularity) is a reputable ruler of his kingdom, which is similarly ordered and controlled. The act of gardening is also held to be comparable to that of war, and this may indicate a fourth century BCE precedent for the attitude found in Pollius Felix's garden, recorded by Statius. The comparison also presents the reflection of war and peace, in which the Roman practice of agriculture is the practice of peacetime.⁴⁸⁰ The use of the garden as a metaphor for the governance of Eastern rulers and for the early Roman kings' control of their kingdoms, has led to an assertion by Totelin that the metaphor is Eastern in origin, taking her lead from the Eastern 'botanizing rulers' catalogued by Stronach.⁴⁸¹

However, herbage acting as a metaphor for country can be found in one of Rome's oldest traditions, which Pliny ties to Germany – the *corona graminea*. This crown, also known as the *corona obsidionalis*, is reckoned by Pliny to be the oldest of the crowns awarded in Rome and was awarded to one man who saved either an army or a city from total disaster and was constructed of the grass from the site of the victory.⁴⁸² Pliny relates this to an ancient practice, which was still German tradition. This involved the handing over of a location's *flora* as a sign of total surrender, handing over your burial place and your homeland.⁴⁸³ While this is, like Attalus' garden, distant from trees, it suggests a relationship between the landscape's *flora* and the territory. This relationship, particularly the role the vegetation plays in representing the country, is carried over into Roman usage of trees and plants in the triumph.

The triumphal procession, one of the best known military practices in Rome's history, is replete with vegetal imagery like the triumphal architecture erected by Trajan, and this chapter will examine three instances of such imagery in the procession, beginning with the import of trees as *spolia*. This practice, which began in the Republic, possibly a result of the rivalry between Pompey and Lucullus, was continued to at least the Jewish triumph of Vespasian and Titus, over a century later, and possibly into Trajan's Dacian triumph, as referred to in Chapter Three. This chapter will examine the occasions attested in literature, and explore the implications of the tree displayed.

Following this, I will address the foliage of the crown worn by the *triumphator* alongside the *corona civica*. As could be expected from the precedent set by the *corona graminea*, Rome's

⁴⁸⁰ This will be discussed further below, see p.195, n.594.

⁴⁸¹ Stronach (1990).

⁴⁸² Plin. *HN* 22.6-14.

⁴⁸³ Plin. *HN* 22.8: *namque summum apud antiquos signum victoriae herbam porrigere victos, hoc est terra et altrice ipsa humo et humatione etiam cedere, quem morem etiam nunc durare apud Germanos scio.*

oldest and most prestigious crown, the foliage used in these crowns was selected with particular care, as was the fruit that complemented the leaves. The triumphing general has been the focus of studies on the procession, and Versnel's examination of the triumph is a particular example of this focus.⁴⁸⁴ In a later study, Beard re-introduces the general to his surroundings, and discusses the role of the spectacle in the state.⁴⁸⁵ Östenberg, two years later, represents a near-complete movement away from Versnel's earlier focus, and examines the surroundings of the *triumphator*, to the near-total exclusion of the man himself.⁴⁸⁶ The examination of the crowns in this chapter will explore the role of the *triumphator* as a wearer of the crown, and his interaction with his surroundings, which Beard describes as 'noisy, messy, [and] probably rowdy'.⁴⁸⁷ Additionally, this section will examine the impact of the depiction of the *corona civica* around Rome, and how visual representations can affect our understanding of the crowns' composition.

Finally, the chapter will assess the role of trees in *trophaea* and the *spolia opima*. Both of these features of Roman victories and triumphs involve trees as vessels for the armour of defeated enemies, either as a monument to the point at which an army was put to flight, or as a result of commander-to-commander combat, in the case of the *spolia opima*. Also to be addressed here are the visual depictions of *trophaea*, and how these compare to the literary arrangement of Mezentius' armour in the *Aeneid*. Through an examination of these three symbols of victory in the Roman world – exhibited spoils, crowns, and *trophaea*, this chapter will discuss the exploitation of arboreal symbolism in the Roman world, and how this was translated from the brief triumphal procession to have a more lasting legacy after the celebrations had concluded and begun to fade from public memory.

4.1. Triumphal Imports

The triumphal import of trees began in Rome with Pompey's import of the ebony, according to Pliny the Elder, in a brief remark appended to a discussion of Vespasian and Titus' import of the balsam, over a century later: 'We have led trees (*arbores...duximus*) in the triumph since the time of Pompey Magnus.'⁴⁸⁸ The import of trees has precedent in the Egyptian Ptolemaea, and an account of this festival is preserved in the second-century CE *Deipnosophistai* of

⁴⁸⁴ Versnel (1970).

⁴⁸⁵ Beard (2007). This book incorporates material from Beard's chapter in *Rome the Cosmopolis* (2003).

⁴⁸⁶ Östenberg (2009).

⁴⁸⁷ Beard (2003) 28.

⁴⁸⁸ Plin. *HN* 12.111.

Athenaeus which presents Kallixeinos' second-century BCE original.⁴⁸⁹ This procession, which was a rough equivalent to a Dionysian triumph in Egyptian history, is dated to the 270s BCE by Rice, who has examined this account in detail.⁴⁹⁰ In it, the extent of Ptolemy II Philadelphus' empire is displayed, and included in the display are 2000 ebony logs, presented by Ethiopian gift-bearers.⁴⁹¹ This is where the comparison ends, however, since the trees exhibited in the Roman triumph are alive. Östenberg draws attention to the language used as an indicator of this, and highlights that the trees are treated as being comparable with the captives in the triumphal procession.⁴⁹²

There are two examples of the triumphal import of trees attested to in literature, and two of the use of timber to narrate conquest. This practice was briefly mentioned in the introduction to this thesis, and in the previous chapter (see pp.132-4). These four examples, from Pompey's triumph over Mithridates, Caesar's Gallic and Pontic triumphs, and Vespasian and Titus' Jewish triumph, are accompanied by a possible triumphal import in Lucullus' *spolia*, imported in preparation for his delayed triumph over Mithridates. How these trees would have been transported and displayed, however, remains a difficult topic, and there exists only comparative evidence from other processions and practices. Östenberg identifies a number of visual cues, including Egyptian paintings which depict trees being displayed 'upright in carrying devices, which were suspended on poles carried by men'.⁴⁹³ In the Roman tradition, there is a mural from an *oecus* in Pompeii which shows an alternative method, in a wedding procession, with the bride and groom portrayed as Iuventas and Hercules. On the left hand side of the fresco, two men carry a tree on a *ferculum*, and Östenberg again notes that this tree is carried upright (see Fig. 15).⁴⁹⁴

⁴⁸⁹ Ath. 197c-203c = *FGrH* 627 F2.

⁴⁹⁰ Rice (1983) 5. Totelin (2012, 132-3), and Östenberg (2009, 185) both relate the Ptolemaea to the triumph, particularly that of Pompey.

⁴⁹¹ Ath. 201a: ἦσαν Αἰθίοπες δωροφόροι, ὧν... ἐβένου κορμούς δισχιλίους.

⁴⁹² Pliny makes the point that the tree itself had been exhibited, using the feminine *eam* at *HN* 12.20, and referring directly to the *arbores* that had been exhibited since the time of Pompey at *HN* 12.111. For more, see Östenberg (2009) 185.

⁴⁹³ Östenberg (2009) 188.

⁴⁹⁴ Ryberg (1955) 169; pl. LXI, fig. 99. Östenberg (2009) 188.

Image redacted for copyright purposes.

Figure 15: Oil painting of the (now eroded) fresco from Pompeii Regio VII.9.47, House of Mars and Venus. Painting by F. Morelli (1800-30). Image source: <http://www.culturaitalia.it/>

The consensus from Östenberg, Stackelberg, Kuttner, and others is that these trees were imported with the intention of planting them.⁴⁹⁵ As a result, it should be assumed that they were imported and displayed as trees, possibly even as living trees, as Östenberg proposes. The import of trees over long distances is not a novel idea in the ancient world, and Pliny tells us of a usual practice by which the citron tree was imported, and attempted to be replanted:

Peoples have tried to import it [the citron tree, *Malus medica*] because of its excellent medicinal value to their countries in earthenware pots, with holes drilled through the pots for roots, just as all plants about to be transported a particularly long distance are planted as tightly as possible.⁴⁹⁶

⁴⁹⁵ Östenberg (2009) 188; Stackelberg (2009) 81; Kuttner (1999) 345; see also Totelin (2012) and Russell (2016).

⁴⁹⁶ Plin. *HN* 12.16.

Assuming that the display of a tree in the Pompeian wall painting is a close representation of the actual mechanics of carrying a tree in a procession (a similar representation is found in the display seen on the pediment of the Temple of Apollo Sosianus, discussed below, see p.175, Fig. 22), there is clearly no room for the roots of the tree. As a result, we could conclude that the trees actually displayed in the triumph were part of a larger import, the majority of which were retained as living trophies for future planting. By planting the trees, they would then be able to act in numbers alongside the other permanent displays of *spolia*, as arboreal representatives of the land from which they originated.

Pliny tells us that the first triumphal import of trees was by Pompey in 61 BCE, and that the Republican general imported the ebony, an account re-iterated by Solinus.⁴⁹⁷ The variety of ebony is questioned by Östenberg, who proposes the Indian ebony (*Diospyros*, probably the *Diospyros ebenum*) above the Egyptian variety (*Dalbergia melanoxydon*), in line with the testimony of Solinus, who specifies that the trees from Pompey's triumph were 'from India'.⁴⁹⁸ It was the first time the ebony tree had been seen in Rome, according to Solinus.⁴⁹⁹ Although the wood was widely used throughout Greece and (unsurprisingly) Egypt, Meiggs infers that it was hardly seen in the Roman world until Pliny was writing, referring to Vergil's inaccurate statements regarding the wood's origins in the *Georgics*.⁵⁰⁰ When Pompey imported the ebony from India, then, it was a novelty, even to the Roman rich.

In choosing to exhibit a tree, and the ebony in particular, Pompey was making a statement, and possibly a challenge, to his political rival, Lucullus. Five years prior to Pompey's triumph over Mithridates, Lucullus had returned from the same region, with his *spolia* already prepared for a presumed triumph. This triumph did occur, three years later, but was not remembered as the traditional procession. Instead, Plutarch tells us that Lucullus created a static triumph, laying out the armour on the Circus Flaminius, before leading a procession of the remainder of his spoils into the city.⁵⁰¹ However, the delay to this procession had led to one item of *spolia* being impossible to display – the cherry tree (*cerasus* – probably the *Prunus cerasus* or *Prunus*

⁴⁹⁷ Plin. *HN* 12.20; 12.111-12. Solin. 52.52.

⁴⁹⁸ Östenberg (2009) 185-6.

⁴⁹⁹ Solin. 52.52: *hebenum ex India Mithridatico triumpho Romae primum Magnus Pompeius exhibuit*. For the origins of the aspiration on *hebenus*, see Solin (1973).

⁵⁰⁰ Meiggs (1982) 285-6, citing Verg. *G.* 2.116-17. These inaccuracies in Vergil, who believes the wood only came from India, are corrected by Pliny (*HN* 12.17). Meiggs, who is referring to the absence of the wood in Rome within the context of furniture, suggests that the Roman equivalent to ebony, the typical status wood, was the citrus, which has been mentioned above in the context of Pliny's account keeping of citrus wood tables in the late Republic and early Empire (see pp.96-100).

⁵⁰¹ Plut. *Luc.* 37. See Keaveney (1992, 129-42) for the machinations that led to Lucullus' triumph.

avium). Whether or not Lucullus intended to display this tree in his presumed triumphal procession is unknown, but he is credited with having brought it back from his Pontic wars in 74 BCE by Pliny.⁵⁰² There is, of course, some gap between the dates here, and a suggestion that Lucullus never intended to exhibit the tree, merely collecting it for the Horti he would later construct. However, the fact remains that Lucullus returned from the Mithridatic Wars with a novel tree, never before seen in Rome, and Pompey reacted in kind.

Since the ebony was identified by both Solinus and Vergil as being exclusively Indian,⁵⁰³ it was associated heavily with the Roman empire's eastern borders, and with the extent of Alexander the Great's march across Asia. This has proven to be a sticking point for Totelin, who categorically (and correctly) states that the ebony 'is not a Pontic tree'.⁵⁰⁴ Kuttner, meanwhile, credits Pompey with displaying 'the Asian landscape' in a more complete form than that desired by Totelin, and this leads to the question of how important the correlation between tree and territory is.⁵⁰⁵ The ebony, with its Eastern associations, is a sensible import for Pompey, and suggested a further conquest than he had achieved, as well as containing Alexandrian implications.⁵⁰⁶

The ebony presented a new challenge for Pompey, whose import followed the type set by Lucullus. Lucullus' naturalisation of the cherry was easy, and the tree had spread to Britain within 120 years of Lucullus importing it.⁵⁰⁷ Meanwhile, the ebony proved far trickier to grow in Rome, and no surviving farming manual mentions the tree.⁵⁰⁸ Therefore, if Pompey wished to have a natural monument from his triumph, he would need an alternative, with similar characteristics and symbolic ties to the region, to house alongside his other spoils. Pompey housed these spoils in a theatre complex that commemorated his triumph, and the *porticus* in this complex was known for its shade,⁵⁰⁹ a characteristic shared with the ebony tree, as identified by Pliny and Lucan.⁵¹⁰

The evidence for these trees is both literary and archaeological, unlike the proposed trees in the Area Fori of Trajan's Forum in the previous chapter (see p.134). While in that instance it was

⁵⁰² Plin. *HN* 15.102

⁵⁰³ Verg. *G.* 2.116-17: *sola India nigrum / fert hebenum*.

⁵⁰⁴ Totelin (2009) 132, relying on evidence from Mabberley (2008) 277.

⁵⁰⁵ Kuttner (1999) 345.

⁵⁰⁶ For more on Pompey's Alexandrian ambitions, see Greehalgh (1980), and Seager (2002).

⁵⁰⁷ Plin. *HN* 15.102.

⁵⁰⁸ Pliny also includes the ebony in his opening arboreal book, on foreign trees, and it is only the second truly foreign tree to be included (the plane not counted among these).

⁵⁰⁹ Prop. 2.32.11-13; Vitruvius. *De arch.* 5.9.1.

⁵¹⁰ Plin. *HN* 6.197; Lucan. *Bell. civ.* 10.304.

unfortunately impossible to distinguish which trees were planted in the planting pits, the trees of the Porticus Pompeiana are attested plane trees, and are named thus in Propertius' description of the place:

I understand Pompey's porticus is worthless,
With its shady columns, its noble Attalid drapes,
And the plane trees, rising evenly in a thick row.⁵¹¹

It is plane trees that Packer regards as the traditional avenue tree when attempting to determine the tree planted in the Area Fori, a precedent no doubt set by Pompey's own planting of the porticus.⁵¹² And while the smaller planting pits of that area would be unable to house this tree, there is no such restriction in the Porticus Pompeiana. That there were trees planted there is not just evident from the descriptions, but also from the archaeological evidence. First, the avenues of drilled holes on the Marble Plan in the Porticus Pompeiana could be taken to indicate trees, following the literary evidence.⁵¹³ Second, there is corresponding evidence from soundings conducted under the *Teatro Argentina*, which discovered remains of trees in avenue formation.⁵¹⁴

While there is no evidence that this theatre complex was manubial, it is often treated as such, and Russell argues that some of the artworks in the complex 'must... have been seized as [Pompey] dismantled Mithridates' enormous treasures', and that 'the live trees Pliny reports were carried in the triumph must be the same as those which later graced the portico and gardens'.⁵¹⁵ While this is impossible – as already discussed, the ebony would not grow in the city of Rome – Pompey may have made the decision to substitute the Indian tree with another, typically Eastern tree. Stackelberg comments on the political opportunities afforded by these gardens and compares Pompey's horticultural advertisement of his political power and victories to the masses with Lucullus' peer-based rivalry.⁵¹⁶ The trees that lined the *porticus*, then, needed to be Eastern, and to provide shade (in order to attract the populace to the space, and to emulate the ebony). An alternative was found in the plane tree (probably the *Platanus*

⁵¹¹ Prop. 2.32.11-13. Martial also refers to the theatre as a *nemus* (2.14.10), and they are explored periodically by Davies (2017, 226-34).

⁵¹² Packer, Sarring and Sheldon (1983). The report explores the possibility that there were *ilex* trees planted in these pits, although it is possible that the trees planted in Trajan's manubial structure would have been those associated with the conquered regions, in this case Dacia and Germany, which were also depicted on the nearby Column and (possibly) Frieze.

⁵¹³ Carretoni (Cressedi) (1960) 202. Cf. Lloyd (1982).

⁵¹⁴ Coarelli (2007) 285.

⁵¹⁵ Russell (2016) 163. See also Kuttner (1999) 345; 356.

⁵¹⁶ Stackelberg (2009) 76.

orientalis).⁵¹⁷ The plane tree had a strong Eastern association, specifically with Asia, and with botanizing rulers of the past. Propertius' description of the ordered plane trees, incorporated almost as an architectural feature, and contrasted with the 'shady columns' calls to mind the neatly arranged garden of Cyrus, who himself had received a golden plane tree as *spolia*. By neatly arranging the trees in this garden complex, Pompey was able to exhibit his control of the Asian world to the Roman people, which was further displayed in the artwork available in the porticoes of the complex.⁵¹⁸

Like Pompey and Lucullus, Caesar was driven to use subjugated nature in the celebration of his conquests, and the apparatus from his Gallic triumph was made of citrus wood, while his Pontic was from acanthus, according to Velleius Paterculus' account.⁵¹⁹ This use of two types of flora, both known in Rome – the citrus, as we have already discussed, was prized for its ornamental qualities and was used as timber – is read by Davies as being a transformation of indigenous materials to provide a narrative for their subjugation, alongside the other materials used for the apparatus (tortoise-shell for the Alexandrian triumph, ivory in his African triumph, and silver for Spain).⁵²⁰ This is in contrast to the prior exhibition of the ebony by Pompey, and indicates a progression from simply signifying the conquest of a new territory to the utilisation of it.⁵²¹

Despite the arboreal revolution and extensive vegetal imagery in Augustan Rome, there is no attested import of trees in the triumph again until the Flavian Jewish triumph (71 CE), in which the balsam was imported.⁵²² Östenberg identifies the balsam imported as being the *Commiphora gileadensis*, while André proposes the *Chrysanthemum balsamita*.⁵²³ The precise

⁵¹⁷ The plane trees, decribed by Totelin as 'quintessentially Asian' (2012, 134. Also Kuttner 1999, 347), may have been accompanied by other trees, suitable for the dedication of the temple to Venus, such as the myrtle (Gleason 1994, 19). However, this is entirely conjectural.

⁵¹⁸ For Davies, the control of landscape within the complex carries the insinuation of Eastern kingship, and this insinuation is accentuated by the Attalid drapes (2017, 234).

⁵¹⁹ Vell. Pat. 2.56.2. The citrus wood used is probably the *Callitris quadrivalis*, while the acanthus is likely to have been *Acanthus mollis*, which is found in Roman architecture (see Caneva 2010).

⁵²⁰ Davies (2017) 262.

⁵²¹ There is no evidence to suggest that the trees themselves were imported and integrated into the architecture of Caesar's primary manubial monument, the Forum Iulium (on the manubial status of this Forum, see Davies 2017, 258). Despite the similarities laid out by Ulrich (1993) between the Forum Iulium and Pompey's theatre complex, in terms of ostentatious purpose and contemporaneity, the use of the Forum Iulium is identified by Appian as being business-related (*B Civ.* 2.102), while the Theatre complex is leisure-centric, as evidenced by the accounts of Propertius and Martial.

⁵²² A misreading of *arbores* at Plin. *HN* 12.111-12 as being specifically in reference to the balsam, as opposed to 'trees' generally, has led to the balsam being included in the trees imported and exhibited by Pompey – *RE* II (1896) s.v. 'Balsambaum' (Wagler), 2837 (This was corrected in *BNP* VIII (2000) s.v. 'Opobalsamum' (Hünemörder), 1258); Greenhalgh (1980) 174; Kuttner (1999) 345; Davies (2017) 226 n.78.

⁵²³ Östenberg (2009) 186 n.349; André (2010) s.v. 'balsamum'.

species here is important, since the account of Pliny describes the tree as being required to ‘pay tribute alongside its *gens*’, and the two plants have very different ways to pay a tribute.⁵²⁴ The first, *Commiphora gileadensis*, is known for its oil, used in perfume and its resin for incense, while the *Chrysanthemum balsamita* has fragrant leaves, used in cooking and medicinally. Following Pompey’s and Lucullus’ models, the balsam will have been naturalised, or attempted to be naturalised (and the indication from Pliny’s description of it paying a tribute is that it was successfully naturalised). Pollard suggests that the balsam may have been housed in the gardens of the Templum Pacis, and places it alongside the cinnamon, which was first dedicated as a wreath by Vespasian at this location.⁵²⁵ Josephus tells us that the spoils from the Second Temple in Jerusalem, as well as other artworks from the city were housed in the Templum Pacis and its adjoining gardens,⁵²⁶ and that the balsam would have been housed in the same space as other triumphal spoils is likely, given Pliny’s account. The natural historian tells his readers that the plant was fought over by the Jews and the Romans, and its Jewish owners had tried to destroy it ‘just as they did with their own lives’ and would thus take the place of a human captive, following the usage of trees as comparable with living captives through the use of *duximus*, as explained above (see p.151). Pliny goes on to explain the value of the balsam that Vespasian and Titus imported, and the methods of extracting the oil from the tree – by scarring the bark.⁵²⁷ The oil of this tree, Pliny tells us, is used for perfumes, thus indicating that Östenberg’s identification of the *balsamum* imported in the Flavian Jewish triumph as being *Commiphora gileadensis* is more likely than André’s of the *Chrysanthemum balsamita*. The balsam proved to be a valuable conquest, and Pliny reports that in the five years following the conquest of Judaea, the tree accrued 80,000 sesterces in tribute to the people of Rome. The location of the balsam, in the gardens of the Templum Pacis, places it in the vicinity of the Flavian Horrea Piperataria, the spice market built by Domitian, and at the heart of Rome’s administrative and business centre. So placed, the balsam would act as a constant reminder of the valuable conquest, and as an effective contributor to the city’s finances.

4.2. Crowns

Geographic positioning was important in the city of Rome. While the balsam worked within the public space of the city to communicate its value as a financial import, the eastern planes

⁵²⁴ Plin. *HN* 12.112.

⁵²⁵ Pollard (2009) 327-9; citing Plin. *HN* 12.93. Lloyd (1982) examines the garden’s representation on the Marble Plan, which follows a unique pattern on the Plan.

⁵²⁶ Joseph. *BJ* 7.5.7.

⁵²⁷ Plin. *HN* 12.116-18.

in Pompey's porticus simulate the conquered Asian landscape and insinuate that Pompey had taken on the role of an Eastern 'botanizing ruler'. Earlier, the housing of Lucullus' cherry tree in his private Horti reveals a peer-based rivalry, as opposed to the public-facing focus of Pompey's complex. In the early years of the Principate, Rome's Horti were acquired by the Julio-Claudian family.⁵²⁸ This is only a small aspect of the awareness and manipulation of land- and cityscapes in this period, and the changes made to the crowns of the Republic in the Augustan period reflect this. We have already mentioned the *corona graminea* above, which was last received by Octavian, given to him by the people of Rome in 29 BCE. This crown represented the surrender of a conquered landscape, and was discontinued following this award, probably in order to remove power from the people – it alone of the Republic's crowns was awarded upwards from soldiers to their commander, or the saved to their saviour.⁵²⁹ Two of the crowns which did continue into the Empire were the *coronae civica* and *triumphalis*, and both of these are constructed of particular types of tree foliage and awarded for particular achievements, as recounted by Pliny in the *Natural History* and Aulus Gellius in *Attic Nights*.

The *corona civica* passed through three phases, from *ilex* to *aesculus* to *quercus*, according to Pliny's undated sequencing of the crown's variation.⁵³⁰ Each of these trees are different species of oak tree, which are differentiated by their leaves, and are comfortably identified by André in *Les noms des plantes dans la Rome antique* (1985). Pliny tells us the focus in the *quercus* phase was on the fruit of the tree, the acorn, and there will be some discussion later in this section on the implication of the changes between foliage types, and in the crown's construction and depictions. Like its construction, the means by which the *corona civica* was achieved changed over time. Originally, the crown was awarded to a citizen for the saving of another citizen's life and the killing of an enemy, before holding the spot against the enemy on which these events occurred for the remainder of the day.⁵³¹ However, Pliny, who outlines these conditions of the crown's acquisition, earlier states that it had become a symbol of 'the clemency of the emperor' a long time before the *Natural History* was written.⁵³² This section will consider the implication of this shift, which allowed the *corona civica* to be awarded to

⁵²⁸ See above p.54. Also Stackelberg (2009) 79.

⁵²⁹ Plin. *HN* 22.4: *ceteras imperatores dedere, hanc solam miles imperatori*. In Cassius Dio's account of Maecenas' influence on Augustus, giving the people the power to convey honours upwards was potentially dangerous, and this could be an indication of why the crown was removed from the roster of Imperial honours available (Cass. Dio 52.33.4).

⁵³⁰ Plin. *HN* 16.11: *civica iligna primo fuit, postea magis placuit ex aesculo Iovi sacra, variatumque et cum quercu est ac data ubique quae fuerat custodito tantum honore glandis*.

⁵³¹ Plin. *HN* 16.12.

⁵³² Plin. *HN* 16.7.

the saviour of a citizen body, rather than limiting it to an individual citizen. The redefinition of the *corona civica* corresponds to the *corona graminea*, the difficulty of its acquisition, and the subsequent construction of the *corona civica*.

The most famous of the Roman triumphal crowns is the *corona triumphalis* itself. This crown, worn by the triumphing general, was originally constructed of laurel leaves, or *laurea*, which Pliny highlights as being the only occurrence in all of the Latin language in which there is a different word used for the leaf and the tree (*laurus*).⁵³³ However, by the time Aulus Gellius wrote *Attic Nights*, in the second century, it had come to be made of gold, possibly in a facsimile of the original laurel.⁵³⁴ Unlike the *corona graminea* and *corona civica*, the *corona triumphalis* is exclusively bestowed upon an individual, rather than being awarded upwards, from soldier to general, or laterally, from citizen to citizen. Unlike the very plain *corona graminea*, which Pliny acknowledges as being surprising for the highest honour in Rome, and Wallace-Hadrill uses as an example of Pliny's stance that luxurious materials should not be used to convey power, these crowns both contained fruit.⁵³⁵ Through this added element in the crowns, and their use in the architecture of the city of Rome, there was the potential for the crowns to be exploited for their symbolic value, which was reliant upon the trees that comprised them.

The *corona civica* in particular was subject to this exploitation and manipulation, and was mentioned in Augustus' epitaph, unlike the less easily controlled *corona graminea*.⁵³⁶ In the *Res Gestae*, Augustus directs his audience to the fact that 'a civic crown was fixed above my door' as an indication of the people's gratitude to him in establishing peace.⁵³⁷ This event is recorded elsewhere by Ovid,⁵³⁸ and the oak wreath, worn or unworn, is a popular motif on Augustan coins.⁵³⁹ Such prevalence of the wreath ought to be seen in comparison to that of the *corona graminea*, of which no easily identifiable representation exists in either coins or relief. Building upon the legacy of the grass crown, the *corona civica* became synonymous with acts that saved the city under Augustus, often accompanied by the legend *ob cives servatos* (for

⁵³³ Plin. *HN* 15.138.

⁵³⁴ Gell. *NA* 5.6.7.

⁵³⁵ Plin. *HN* 22.14: *quamvis ignobiles ignotaeque honorem nobilem faciebant*; Wallace-Hadrill (1990) 91.

⁵³⁶ Aug. *Res Gest.* 34.

⁵³⁷ *RG* 34: *coronaque civica super ianuam meam fixa est*.

⁵³⁸ Ov. *Met.* 1.563.

⁵³⁹ Crowned head: *RIC* 1².26a-b, 33a-b, 35, 36a-b, 37a-b, 38a-b, 46, 46A, 47b, 48, 49, 158, 293, 298, 308, 316, 409, 411, 414.

Isolated wreath: *RIC* 1².29a-b, 30a-b, 40a-b, 57, 75a-b, 76, 77a-b, 78, 79a-b, 138, 139, 229, 230, 231a-b, 232, 233, 234, 235, 236a-b, 237, 238a-b, 239, 240, 241a-b, 242, 243, 244, 245, 246, 247, 248a-b, 277, 278, 279, 285, 302, 312, 323, 324, 325, 326, 328, 329, 330, 331, 332, 333, 334, 335, 336, 341, 342, 345, 346, 347, 348, 349, 358, 370, 371, 372, 374, 375, 377, 378, 380, 381, 383, 384, 387, 388, 400, 401, 405, 549.

The depictions found with the legend *ob cives servatos*, or an abbreviation of it, are italicised.

saving the citizens) or similar, although it was bestowed upon an individual rather than awarded up to an emperor.

The exact nature of this crown's composition was, like the *corona graminea*, mutable, although its composition was more varied in its third and final iteration. Pliny reports that it is made of three varieties of oak tree: 'the civic crown was first made of the *ilex*, but it became more attractive to make it of the *aesculus*, sacred to Jupiter, and a variety was further made with the *quercus*, combined with whichever tree grew where the crown was given, the honour being linked solely to the acorn'.⁵⁴⁰ André defines the *ilex* as being the *Quercus ilex*, the *aesculus* as the *Quercus farnetto*, and the *quercus* as the *Quercus robur*.⁵⁴¹ As was evident in discussion of the *corona graminea*, trees have divine associations, and this is again apparent in Pliny's description of the *corona civica*, linking the *aesculus* to Jupiter.⁵⁴² However, the *quercus* is more commonly associated with Jupiter by a wide variety of Latin authors from Columella to Virgil (who also associates the *aesculus* with Jupiter).⁵⁴³ The species type, then, is hardly important, given the general association between all varieties of oak and Jupiter. However, the distinction between type of leaf is crucial, since the final iteration of the crown took the emphasis away from the foliage and placed it upon the fruit. The movement to composing the crown of whatever foliage grew in the area the crown was given invites the comparison to the *corona graminea*, which fell out of use, and the association between the *corona civica* and the phrase *ob cives servatos* further shows the extent to which the *corona civica* overtook the role of the *corona graminea*. The inclusion and prominence of fruit, however, distinguishes the *corona civica* from the *corona graminea*, and influences the interpretation of the crown.

The lack of dates in Pliny's account of the composition of the *corona civica* causes us to have to identify the oak used in depictions of the crown, in order that the intended symbolism of the crown can be deciphered. For the Augustan period, compital shrines offer frequent depictions of the *corona civica*, and one of the best-preserved examples is found, *in situ*, on the corner of the Piazza della Bocca della Verità in Rome, opposite the Temple of Portunus (see Figs 16 and 17). This altar clearly depicts the pinnately lobed leaves of either the *aesculus* or the *quercus*, emphasising the fruit, with the acorn being placed centrally in the leaf, in an entirely

⁵⁴⁰ Plin. *HN* 16.11: *civica iligna primo fuit, postea magis placuit ex aesculo Iovi sacra, variatumque et cum quercu est ac data ubique quae fuerat custodito tantum honore glandis.*

⁵⁴¹ André (1985) s.v. *aesculus*; *ilex*; *quercus*.

⁵⁴² This has been stated by Pliny before in the *Natural History*, at 12.2, and is corroborated by Virgil (*G.* 2.16).

⁵⁴³ Columella, *Rust.* 7.3.24; Ov. *Met.* 7.623; Phaedrus *Fab.* 3.17.2; Serv. *Comm. Ecl.* 1.17, 7.24; Serv. *Comm. G.* 3.332; Verg. *Aen.* 3.680; Verg. *G.* 3.332.



Figure 16: Front view of the compital shrine, Forum Boarium, Rome. Photo taken by Andrew Fox (26-Apr-2016).



Figure 17: Detail of oak wreath on compital shrine, Forum Boarium, Rome. The stalks on the acorns suggest the *Quercus robur*, while the leaf maintains similarities to the *Quercus petraea*. Photo taken by Andrew Fox (26-Apr-2016).

manufactured position.⁵⁴⁴ The prominence of the fruit indicates that the emphasis of the Augustan wreath had moved from the foliage to the fruit, and that the *corona civica* depicted in the Augustan period was the replacement for the *corona graminea*.

To understand the importance of the fruit's symbolism, and how nature has been manipulated to convey one message over another, the wreath's frequent appearance on compital shrines must be addressed. Lott argues that the regularity of the crown's presence is an effort on the part of Augustus to place himself as a symbolic resident of every *vicus* in Rome. This argument recalls the crown above Augustus' door, and Lott suggests that the extension of Augustus' liminal honours, the *corona civica* and the laurel branches, which are less frequently found on compital shrines, extends the reach of his *domus*.⁵⁴⁵ Through such a manipulation of the honours given to him by the Senate and the people of Rome, Augustus finds himself able to have a presence across the city, with permanent depictions of mortal, natural honours giving his status as the saviour of the citizens a legacy not afforded by the extensive coinage.

The super-imposition of the fruit over the leaf in the crown coincides with a transition from the Jupiter-associated *aesculus* to the *quercus* and indicates a distancing from the divine implications of the wreath under Augustus towards continued fertility. This aspect of the *corona civica* is repeated in the *corona triumphalis*, which also places a fruit at the centre of its leaves, unlike the leaves in reality. Fertility imagery is crucial in Augustan art, and Caneva's work on the botanic imagery of the Ara Pacis serves to emphasise the rich tapestry of botanical life that was used by the Augustan sculptors.⁵⁴⁶ Drawing attention to the fruit in depictions of the *corona civica*, possibly an Augustus-inspired transition, promoted the image of the fresh growth of Rome, which had been ravaged by the civil wars previously, and was now able to flourish, with no small thanks owed to the fertile influence of the city's new emperor, now found in every neighbourhood of the city.

The *corona triumphalis* is very well known in antiquity, and is composed from the leaf of the *Laurus nobilis*, which was known as a *laurea*, while the tree is a *laurus*, which became an early epithet for crown in Latin literature. The wreath's nature did evolve, and Aulus Gellius relates that the *laurus* was replaced by a gold crown by the second century CE.⁵⁴⁷ The standard award

⁵⁴⁴ The average number of lobes on the leaves is seven, which would suggest that the leaf is that of the *aesculus*, or *Quercus farnetto*. However, how this fits with the development of the crown is unclear, since it could be that the *aesculus* was common to the area at which the crown was awarded, and thus included in its composition (Plin. *HN* 16.11).

⁵⁴⁵ Lott (2004) 121.

⁵⁴⁶ Caneva (2010).

⁵⁴⁷ Gell. *NA* 5.6: *haec antiquitus e lauru erant, post fieri ex auro coeptae*.

procedure was to present it to any general celebrating a triumph, and in the Imperial period, this presentation was exclusively reserved for members of the imperial family.

The identification of the crown's composition as *Laurus nobilis* is one of the most certain identifications of crown foliage in the ancient world, and the leaf is identifiable by its obovate structure with crenulations around its edge. The ripened fruit of the *Laurus nobilis*, a dark purple berry,⁵⁴⁸ will have suited the typical associations of the triumphal dress, which is often characterised as being purple and gold, and is likely to have been exploited in the composition of the crown.⁵⁴⁹ Bradley's brief comments on the colours in the triumphal procession, however, suggest a general lack of focus on colour in descriptions of the procession, although the colour that is most commonly attested is *purpureus*, or purple to identify the *triumphator*.⁵⁵⁰ As a result, and from the limited information we have concerning the actual events of the Roman triumph, the purple of the ripe *Laurus* berry would have complemented the prominence of purple in the ceremony itself, and the berries would have served as a powerful contrast in the crown's composition, and in its depiction on the Arch of Titus and the large wreath at the base of Trajan's Column (see Figs 18 and 19). Like the acorn on the *corona civica*, the fruit takes a prominent position, and is super-imposed against the leaf on Trajan's Column, and between the leaves in the crowns on the Arch of Titus.

The contrast of the fruit is only possible in the context of the ripe fruit, since the unripe berry of the *Laurus nobilis* is green and pointed, a shape which is replicated by at least one Augustan sculptor (see Figs 20 and 21). In the winter months, when the fruit of the *Laurus nobilis* was green, and contrast impossible, a new berry would have to be found to maintain such a distinction between leaf and fruit. The carving of the Augustan sculptor (Fig. 21) suggests that there was an element of realism in the carving of the fruit, and this is not replicated in the carvings of laurel wreaths, which universally show round berries. There is, then, potential for a new berry, similar to the ripe *Laurus* berry in both shape and colour, and able to be manipulated for its ability to contrast with the green leaves of the laurel.

⁵⁴⁸ This is *contra* the (extremely) erroneous testimony of Pliny, who assures his readers that the *laurus* has no berry (*HN* 15.130). See Fig. 20 for evidence.

⁵⁴⁹ Beard (2007) 228. This follows a standard depiction of the triumphal procession, which highlights the colour of the ceremony, found from Gibbon (1776-88, 361-401) onward.

⁵⁵⁰ Bradley (2009b) 215-19.

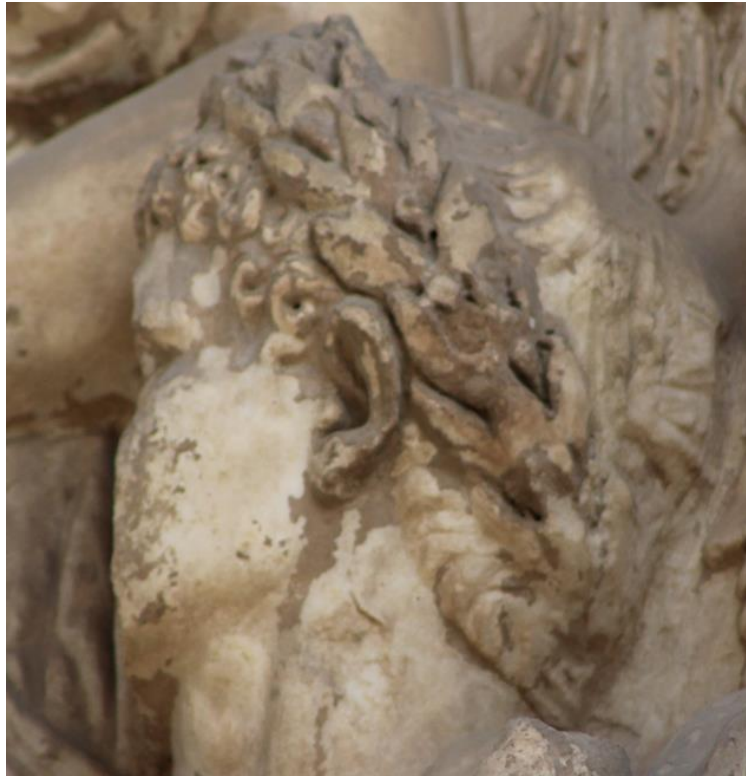


Figure 18: A laurel wreath, on the head of a soldier directly below Titus on the northern internal frieze of the Arch of Titus (post 81 CE). The berries of the crown can be seen between the leaves. Photo taken by Andrew Fox (02-May-2016).



Figure 19: Laurel wreath around the base of Trajan's Column. A mixture of pointed and rounded berries can be seen. Photo taken by Andrew Fox (27-Apr-2016).



Figure 20: The fruit of the *Laurus nobilis*, Isola Sacra, Portus. Photo taken by Andrew Fox (12-May-2016).

Image redacted for copyright purposes.

Figure 21: Fragment of frieze with laurel branches. Augustan Age (First Century BCE - First Century CE). Church of Santa Maria Antiqua, atrium. Photo taken by Andrew Fox (16-May-2016).

The possible aetiologies of the crown offered by Pliny neglect to mention any berry, in line with his assertion that the *Laurus nobilis* lacks one, and he identifies the purificatory properties of the *laurus* as being the genuine aetiology.⁵⁵¹ This is taken from a passage by Masurius, and is identified by Beard as being a popular one in modern scholarship.⁵⁵² The association of the *laurus* and purification is not unique to Pliny's citation of Masurius, a first century CE author, and can also be found in Festus' epitome of the Augustan dictionary of Verrius Flaccus.⁵⁵³ When it comes to the role of *laurus* as a tool to expel pollution, Pliny repeats himself at the close of Book Fifteen of the *Natural History*, this time without a citation, simply stating 'it is also employed for purification'.⁵⁵⁴ Other trees, with similar triumphal connotations, are also found to be used for purification, and the most obvious, the myrtle, whose fruits ripen in the months while the laurel berry is green, is found immediately before Pliny's chapters on the *laurus*.⁵⁵⁵

The role of the myrtle as a vehicle for purification is well-attested, and it is employed in Rome's early myth-history as a purificatory element at the shrine of Venus Cloacina in the Forum Romanum, used to purify combatants of both sides in the peace after the war with the Sabines, an association shared with the laurel.⁵⁵⁶ It is again recognised in association with Venus Cloacina in Servius' *Commentary on the Aeneid*, who is identified as a purifying goddess. Servius goes on, and offers Venus Cloacina the epithets of *Myrica* (of the tamarisk),⁵⁵⁷ *Myrtea* (of the myrtle) and *Purpurissa* (highly coloured – closely associated with purple), signposting

⁵⁵¹ Plin. *HN* 15.134-5. The aetiologies, that the laurel is sacred to Apollo, that it is a nod to Lucius Junius Brutus kissing the ground of Delphi after freeing Rome, and that it wards off lightning have each been addressed in other studies. Kraft (1952/3, 28) argues that the *laurus* is as commonly associated with Jupiter as it is Apollo, although Versnel (1970, 76) challenges this, arguing that while the Greek association may be between the laurel and Jupiter, the Roman one is with oak, citing Ov. *Tr.* 3.1.35-40. Meanwhile, the other two aetiologies are described by Beard (2007, 246) as two of Pliny's 'daft theories'.

⁵⁵² Beard (2007) 246.

⁵⁵³ Fest. 104L. Fantham (2012, 64) advises caution in the pursuit of this lead, and suggests we acknowledge the 'eagerness of antiquarians to track down rituals and responses to pollution', linking the citation of Masurius to Ovid's aetiologies in the *Fasti*.

⁵⁵⁴ Plin. *HN* 15.138: *eadem purificationibus adhibetur*.

⁵⁵⁵ The long history of the *myrtus* in crowns is well attested, although Pliny and Masurius do seem confused as to the nature of the procession in which the crown is used – Pliny uses both *triumphans* and *ovans* to describe a general who entered for a procession in 503 BCE and wore a crown of *myrtus*. This, he says, became the crown of the generals celebrating an *ovatio*, but identifies Marcus Crassus as an exception to the rule following the victory over Spartacus (*HN* 15.125). Meanwhile Masurius is cited by Pliny (*HN* 15.126) as claiming *triumphantes* generals wore myrtle crowns.

⁵⁵⁶ Plin. *HN* 15.119.

⁵⁵⁷ As there is no known link between Venus and the tamarisk, and given the two epithets listed alongside *Myrica*, it seems reasonable to suggest a typographical error from Servius, who may have intended *Murcia*, a known epithet of Venus, again taken from the myrtle. André (1985, s.v. *myrice*) directs us to the Greek, μυρίκη which translates as tamarisk.

both the fruit and its emphatic colour.⁵⁵⁸ That myrtle and laurel could be combined in a crown has some precedent in Roman history, and a Marcus Valerius is reported by Pliny as triumphing with two wreaths, one laurel, one myrtle.⁵⁵⁹

While the precise nature of the triumphal crown across the seasons is conjectural, the myrtle berry presents a useful substitute for the laurel berry when ripe, and is able to be exploited for an additional, olfactory purpose. Draycott, in her chapter ‘Smelling Trees, Flowers and Herbs in the Ancient World’, examines how the scent of some plants was brought under the yoke, and ‘harnessed and deliberately deployed to serve both positive and negative purposes’.⁵⁶⁰ For the *Laurus nobilis* leaf, or the bay leaf, the associated scent is well known to any who have used it in cooking, and was similarly known to Vergil:

And I will take both you, laurel, and you, neighbouring myrtle,
Since when you are planted together, you mix your sweet scents.⁵⁶¹

Vergil clearly views the scents of laurel and myrtle to work well in harmony. In the context of a triumphal procession, the foliage of the laurel and the berry of the myrtle will have combined to provide an aura of ‘sweet scent’ around the *triumphator*. Beard has indicated that the *triumphator* ought to be assessed as a participant in the procession and not as an individual, detached from the rest of events.⁵⁶² He too would have experienced the sensory assault of the triumph, while needing to maintain a degree of separation as he processed through the streets as either a king or god. The triumph was a veritable riot of senses, and the odours of the triumphal *spolia*, from animal dung, to the sweat of the soldiers and captives who proceeded the *triumphator* will have only been one side of the olfactory onslaught that awaited him in his attempt to appear distant from the celebrating crowd in a Roman winter, all of which will have combined into a potentially overwhelming stench, only to be mitigated by the sweet scent of the laurel crown, dressed in myrtle berries. This may have promoted the continued use of laurel in the triumphal crown, and the potential use of myrtle berries to augment the scent.

But whether or not the myrtle berries were used in the actual composition of the *corona triumphalis*, the myrtle adds a symbolic value to the triumphal decoration, one of particular resonance in the Augustan period. The myrtle was employed at the shrine of Venus Cloacina in the aftermath of the rape of the Sabine women, to unify the two sides of the conflict, a

⁵⁵⁸ Serv. *Comm. Aen.* 1.720.

⁵⁵⁹ Plin. *HN* 15.126.

⁵⁶⁰ Draycott (2015) 60.

⁵⁶¹ Verg. *Ecl.* 2.54-5.

⁵⁶² Beard (2003) 29.

process which led to Rome's expansion and the incorporation of the Sabine people and territories into Rome. So too, the triumph involves the leading of new territories into Rome, and the myrtle, sacred to Venus, promotes this unification. Through this manipulation of the symbolism of the trees in Rome, Augustan and early Imperial depictions of the *corona triumphalis* subtly lead to both the implications of fertility in the inclusion of a fruit, and the unification associations of the myrtle berry, a unification dependent upon the victory and peace symbolism of the laurel foliage attached to it.

In the *coronae*, trees are exploited for their physical properties – in the case of the laurel (and possibly the myrtle) for their smell; their value as rooted representations of location – the *corona civica* being comprised of the foliage from the site at which it was won (following the precedent of the *corona graminea* in this regard); and the fruit of the tree being used to emphasise fertility. It is in depictions of the crowns that we can observe them being exploited for their symbolic value, particularly in the spread of the *corona civica* around Rome. Here, we can see an awareness of arboreal imagery in Augustan architecture, and the harnessing of nature, and specifically trees, to communicate Augustan policy, which emphasised fertility and growth, much as the acorn's emphatic position in the centre of the leaf in the *corona civica* on compital shrines implied fertility and placed the stress on the fruit as opposed to the foliage. Like the arboreal revolution in Augustan Rome, highlighted in the floral imagery on the Ara Pacis, the planting of evergreen trees around the Mausoleum of Augustus, and the treatment of the *figus Ruminalis*, which will be explored in the following chapter, the changing nature of the *corona civica* promoted unity and fertility in Rome. The crown's presence on compital shrines, placed at crossroads across the city, made sure that this message was communicated throughout the city as opposed to the exclusive monuments mentioned above, and ensured that the effects of the arboreal revolution were felt in all quarters, rather than being reserved for those who interacted with the isolated monuments of Augustan Rome. The stress on fertility is apparent in the *corona triumphalis*, on which the berries again take prominence. This crown is symptomatic of a further manipulation and exploitation of trees, here for their olfactory qualities. In this instance, the leaves of laurel, and its possible supplementation with myrtle berries, become a tool for the *triumphator*, and are exploited to isolate the general from his rowdy and pungent surroundings, while also promoting unity through the combination of two trees.

4.3. *Trophaea*

Before the triumphing general entered the city, shielded by the harnessed aromas of the laurel leaf, the spoils of his victories were displayed to the people of Rome. From Pompey's time, trees were a part of this procession, and natural features such as river deities had been an integral feature of the exhibition for several years before.⁵⁶³ But trees had had a role in the procession since its inception, although not as a direct import. Instead, they were employed for their physical capabilities, particularly their strength and size, bearing the armour of fallen victims as *trophaea*.

These *trophaea*, or occasionally *tropaea*, were not exclusively triumphal, nor entirely arboreal. Some, like the Trophaeum Traiani at Adamklissi, briefly mentioned in the previous chapter, were constructions outside Rome, temporary or otherwise,⁵⁶⁴ while others were holdings for enemy armour within the triumphal procession and subsequently housed in the city. The holdings for armour and the temporary constructions were made from the wood of the local area, and arranged in such a way to house armour, in a fashion that has been likened to a scarecrow by Frantuono.⁵⁶⁵ Since the evidence for temporary constructions outside the city is limited to only a few pieces of literature, this section will only address representations of the housings for armour. Well-preserved depictions of the armour housing can be found on the frieze-architrave of the *cella* in the Temple of Apollo Sosianus, which depicts Augustus' triple triumph of 29 BCE, and on Trajan's Column, flanking the Victory shown halfway up the relief (see Figs 22 and 23). These depictions show a tree-like structure bearing armour, although the nature of the structure makes the identification of it as a definitive tree challenging. The bases of the trophies on Trajan's Column are shrouded by shields, although the visible features of the wood are similar to those of the trees discussed in the previous chapter – knotted and weathered, following the deciduous type. Similarly, the other *trophaea* are questionable in terms of whether they are living trees, although for other reasons.

⁵⁶³ Östenberg (2009) 215-44.

⁵⁶⁴ Both of these constructions indicated a point at which the army was turned around, and conformed to the traditional idea of a *trophaeum*: see Serv. *Comm. Aen.* 10.775.

⁵⁶⁵ Fratantuono (2009) 16.



Figure 22: Frieze-architrave belonging to the *cella* of the Temple of Apollo Sosianus. Musei Capitolini Montemartini, MC2776. Photo taken by Andrew Fox (20-May-2016).



Figure 23: *Trophaea* on Trajan's Column, Scene LXXVIII. Source: Cichorius (1896) plate LVII.

Image redacted for copyright purposes.

Figure 24: Attic red figure *krater*, 5th Century BCE, housed in the Louvré, Paris (G 496).

While the Trajanic trophies are clearly thrust into the ground, these others are depicted balanced on a *ferculum*, like the tree carried in the fresco from the Pompeii depicting the marriage procession of Hercules and Iuventas discussed above (see p.153, Fig.15). Earlier artistic precedent suggests that realism is not at issue in portrayals of trees on litters, evident in a red figure Attic *krater* from the fifth century BCE (see Fig. 24).⁵⁶⁶ Here, the tree offers visual cues such as foliage and a slightly flared base which indicate that the tree is alive and the potentially problematic felling of a tree in a ritual context is avoided. While realism is then superseded by the need for space in these artistic contexts – a planting pot to accommodate the tree's roots would amount to unusable space with minimal function – numismatic contexts cause confusion as to whether a *trophaeum* should be considered as a living tree. Greek numismatic representations indicate that the trophy was constructed from a living tree, with the characteristic flaring of the root at the base of the trunk, or foliage lower than the armour in

⁵⁶⁶ For more on trees in Attic vase painting of this era, see Dietrich (2010).

some instances.⁵⁶⁷ Roman depictions on coins are less ambiguous, showing the trophies as being less elaborate structures, more akin to a log thrust into the earth, with armour fixed to it, a depiction which remains consistent throughout the body of evidence.⁵⁶⁸ Roman literary accounts complicate the simple Roman numismatic evidence, particularly in two representations of trophies from Vergil's *Aeneid* and Lucan's *Bellum civile*.

In Book Eleven of Vergil's *Aeneid*, Mezentius' armour is arranged on an oak trunk by Aeneas. Conington and Nettleship treat this passage as a *locus classicus* for the construction of a *trophaeum* in the ancient world and highlight the liminality of the monument. The trunk, according to these commentators, represents the body of the fallen Mezentius, the second in command of the Italian army, and recently slain by Aeneas in single combat.⁵⁶⁹ This passage describes Aeneas lopping the branches off the trunk of the tree and arranging the armour on it, before pronouncing the structure to be Mezentius:

Stripping a huge oak of all its branches,
He thrusts it into the ground of a hill, and dresses it in shining arms,
Stripped from the commander, Mezentius,
A trophy to you, great god of war...
'...These are the spoils and the first yield, taken from a proud king.
This is Mezentius, made by my hands.'⁵⁷⁰

Here, there is no question that the oak is dead, there is no other explanation for Vergil's statement that it is 'thrust' (*constituit*) into the ground. This is in contrast with other *trophaea*, which are sometimes arranged on living trees. In Statius' *Thebaid*, Tydeus erects a trophy to his protector, Pallas Athena, and arranges armour both on and around an ancient oak.⁵⁷¹ Similarly, in the *Aeneid*, Pallas, the son of Evander, promises to arrange the armour of Halaesus on the Tiber's oak tree,⁵⁷² and in Lucan's *Bellum civile*, Pompey is compared to an aged oak tree, laden with the spoils of conquest:

He stands, a shadow of his great name;
Just like a lofty oak in a fruitful field,
Bearing the aged arms of a people,

⁵⁶⁷ SNG ANS 670-71; SG 974; SNG BMC 1605; SG 3780.

⁵⁶⁸ For some early examples: RRC 94/1; RRC 95/1; and a significantly later one: RIC 5 141.

⁵⁶⁹ Conington (1883) *ad* Verg. *Aen.* 11.5.

⁵⁷⁰ Verg. *Aen.* 11.5-8, 15-16.

⁵⁷¹ Stat. *Theb.* 2.704-14.

⁵⁷² Verg. *Aen.* 10.423.

And consecrated gifts of leaders, no longer
 Standing from the strength of its roots, fixed by its own weight,
 Casting bare arms through the sky, it makes shade
 From its trunk, not its leaves;
 And although it sways, about to fall under the first breeze,
 And many trees grow up around it with strong timber,
 It alone is worshipped.⁵⁷³

This simile, which presents Pompey as a static general, significantly past his prime, and without a future, reveals the continued life of a *trophaeum*, while the dedication of Mezentius' armour before showed us the creation.⁵⁷⁴

Image redacted for copyright purposes.

Figure 25: Military Trophy. Augustan period. Musei Capitolini Montemartini. MC0042. Photo taken by Andrew Fox (20-May-2016).

⁵⁷³ Luc. *Bell. civ.* 1.135-43.

⁵⁷⁴ For more on the simile within Lucan's poem, and its representation of Pompey in comparison with Caesar, who is compared to lightning immediately after (1.151-7), see Rosner-Siegel (1983) and Leigh (1997) 105-6.

These two accounts, from two closely related poems, offer differing accounts as to whether the trophy is constructed of a tree or of timber. Mezentius' armour, as we have already discussed, is arranged on a piece of timber, while the trophy Pompey is compared to is a tree. However, this tree is clearly no longer alive, and is held upright solely by its own weight. The death of the tree is underscored throughout the simile, by the fertility of its surroundings (*frugifero... in agro*), by the implications of weight (through the use of *pondere*) which call to mind Lucan's description of Pompey's corpse at *Bellum civile* 8.724, and the *truncus* of the tree echoing his decapitated body.⁵⁷⁵

The *trophaeum* of Mezentius' armour bears some similarity to a statue of one excavated in the Horti Sallustiani, from the Augustan Age (see Fig. 25). This large statue of a trophy is far larger than life size, and displays torso armour, possibly fashioned from a single piece of leather, with a cloak on top and fabric clothing underneath. The torso is highly detailed, outlining male anatomical features, and even including a small navel. This level of detail is found on the wood below, which flares at the root, indicating a tree as opposed to a branch thrust into the earth, further suggested by the sculpture's scale. There is also a degree of mirroring in the form of the tree, which has two branches, mimicking arms, extending from it just below the armour (the right branch has broken off), and a central knot directly below the navel, while the stratifications on the trunk imitate the abdominal muscles outlined on the armour. The level of imitation here begins to suggest a closer understanding of the *trophaeum* to that explicitly stated in the contemporaneous account of the *Aeneid*, the *locus classicus* for the construction of a *trophaeum*. The tree has here been employed, as the oaks for Mezentius and Pompey are, to stand for the owner of the armour, or the conquered hero, and just as Pompey's oak stretches its branches out, so too would this tree.

Both of the literary *trophaea* already discussed subvert the triumphant nature of the structure in different ways. Pompey is a fallen icon, and the tree that is harnessed for *spolia* and used as a *trophaeum* indicates this. Similarly, Vergil's presentation of Mezentius' *trophaeum* is highly negative. Reckford explores this *trophaeum* in the context of its similarities with Tolkien's use of trees in *The Lord of the Rings*, and compares it to the other, more positive, presentations of *spolia* in the *Aeneid*.⁵⁷⁶ Mezentius' trophy, for Reckford, is a 'death tree', and Alessio also notes the uncomfortable nature of the opening to Book Eleven, which brings the action of the

⁵⁷⁵ The simile is explored by Roche (2009) in his commentary on the opening book of Lucan's poem.

⁵⁷⁶ Reckford (1974) 77-8.

preceding books to a halt, and forces Aeneas to reflect on the cost of war.⁵⁷⁷ The lopping of the branches, the insistence that this tree is dead, and the stained and broken *spolia* all create a gruesome trophy, and its dedication to Mars (evident from *bellipotens*) highlights its role in warfare,⁵⁷⁸ particularly when juxtaposed with the oak tree, which is associated with Jupiter, sometimes in terms of sacrality. This is a trophy of contradiction, celebrating a tragic victory.

This trophy is sometimes discussed in relation to the *spolia opima*, a longstanding tradition in Rome, although it does not fulfil the requirements of this award, which necessitated the commander of the Roman army to kill the commander of the opposing army.⁵⁷⁹ The *spolia opima* are distinct from other *trophaea* but the construction follows a similar pattern. While the typical *trophaeum* is erected on a hill – Mezentius’ armour is arranged on a *tumulus*, the oak trophy that simulates Pompey is notable for its prominent position surrounded by smaller trees, and Servius tells us that this is typical, highlighting a trophy set up by Pompey in the Pyrenees⁵⁸⁰ – the *spolia opima* are dedicated in the Temple of Jupiter Feretrius on the Capitoline, and are substantially rarer in Roman tradition. The *trophaeum* is permitted to any military commander and they are numerous in the Republic and the Empire. However, the *spolia opima* were traditionally only set up on the Capitoline three times in Roman history, by Romulus, Cossus, and Marcellus.

Once the *spolia opima* had been obtained, the tree harnessed for their display is composed of oak, like the other *trophaea* in this chapter. This is not a compulsory feature of the trophy, and although several accounts of generic *trophaea* refer to the wooden frame, only the few referred to above mention the wood used.⁵⁸¹ The use of the oak is similarly inconsistent in the *spolia opima*, being employed twice out of the three times the spoils were dedicated – by Romulus in 752 BCE and by Marcellus in 222 BCE.

In the case of the *spolia opima* set up by Romulus, there are two variant traditions, put forward by Livy and Plutarch. Livy relates that Romulus, after killing Acron, the king of Caenina,

⁵⁷⁷ Alessio (1993) 22.

⁵⁷⁸ This may be a reference to this trophy being an example of the *spolia secunda*, which were offered to Mars (Alessio 1993, 22).

⁵⁷⁹ Conington (1883) *ad* 11.5; Alessio (1993) 22; Fratantuono (2009) 16. These all correctly identify that Mezentius is not the leader of the opposing forces, and that the spoils are not dedicated to Jupiter, thus challenging any identification of Mezentius’ trophy as an early example of the *spolia opima*. Livy 4.20.6 defines the *spolia opima* as being spoils exclusively ‘taken from a leader by a leader’. This definition underwent some debate in the late Republic after Crassus claimed a right to dedicate the *spolia opima* and is discussed by Rich (1996; 1999), and Flower (2000).

⁵⁸⁰ Serv. *Comm. Aen.* 11.6.

⁵⁸¹ For examples of generic references to trees in the construction of *trophaea*, see Suet. *Calig.* 45; Juv. 10.133; Ov. *Pont.* 3.4.104.

during the Sabine women episode, stripped his foe of his armour, arranged it on a *ferculum*, and deposited the armour ‘at an oak held as sacred by shepherds’ on the Capitoline, before marking out the temple of Jupiter Feretrius.⁵⁸² The account of Plutarch, however, differs slightly, and Romulus cuts down an oak tree in the camp, fashions it into a *tropaeum*, arranges Acron’s armour on it, and carries it to Rome, there dedicating it to Jupiter Feretrius.⁵⁸³ In both accounts, an oak is present, and Plutarch parallels his version of Romulus’ dedication in the *Life of Marcellus*, the final time that the *spolia opima* were dedicated, in 222 BCE.⁵⁸⁴ The statue of Romulus outside the Temple of Mars Ultor in the Forum of Augustus is described in brief by Ovid, as ‘bearing the arms of the conquered leader on his shoulders’, while the inscription indicates that these arms were clearly those of Acron.⁵⁸⁵ Further, the statue is believed to have been replicated in a painting in Pompeii, which shows Romulus bearing a trophy on his shoulder, which is a clear stump, from the texture of the tree.⁵⁸⁶ Meanwhile, in Plutarch’s account of the third dedication of the *spolia opima*, Marcellus arranges the armour of Viridomarus of Insubria on an oak, and again carries it to Rome, dedicating it to Jupiter Feretrius.⁵⁸⁷ The two oak trees are different from each other: Romulus’ is described as ‘exceedingly difficult’ to fell, while Marcellus’ oak is ‘slender’.

The difference between the two types of oak (only in form: δρῦς is used for both trees by Plutarch) may serve to highlight Romulus’ immense power, as a demi-god, compared to the merely human Marcellus, or, more likely, resemble their opponents. From a practical perspective, a more robust trophy would be required to carry larger armour, and a ‘slender’ oak would suffice as a trophy for a smaller man, or lighter armour. In both examples from Plutarch, the tree does not equate to a figure that is ambiguously dead and alive. They have been definitely felled and are no longer alive, and there is no evidence that these trunks were treated as representative of the enemy whose armour was arranged on them.

⁵⁸² Liv. 1.10.5: *in Capitolium escendit ibique ea cum ad quercum pastoribus sacram deposuisset.*

⁵⁸³ Plut. *Rom.* 22.5-6: ἐπὶ στρατοπέδου δρῦν ἔτεμεν ὑπερμεγέθη καὶ διεμόρφωσεν ὥσπερ τρόπαιον, καὶ τῶν ὀπλῶν τοῦ Ἀκρωνος ἕκαστον ἐν τάξει περιήρμοσε... ὑπολαβὼν δὲ τῷ δεξιῷ τὸ τρόπαιον ὥμῳ προσερείδμενον ὀρθόν... τὸ δὲ τρόπαιον ἀνάθημα Φερετρίου Διὸς ἐπωνομάσθη. This distinction, between the arrangement of Acron’s armour by a live tree and its placement on an uprooted tree, might be attributed to the statue of Romulus in the Forum of Augustus, which had not been built when Livy wrote, while Plutarch was familiar with the statue (*Rom.* 16.8).

⁵⁸⁴ Plut. *Marc.* 8.2: δρυὶς γὰρ εὐκτεάνου πρέμνον ὄρθιον καὶ μέγα τεμὼν καὶ ἀσκήσας ὥσπερ τρόπαιον ἀνεδήσατο καὶ κατήρτησεν ἐξ αὐτοῦ τὰ λάφυρα, κόσμῳ διαθείς καὶ περιαρμόσας ἕκαστον.

⁵⁸⁵ Ov. *Fast.* 5.565; *ILS* 64.

⁵⁸⁶ Pompeii Regio IX.13.5.

⁵⁸⁷ Vergil’s account of this event, in the procession of heroes in the underworld, records that Marcellus dedicated the *spolia opima* to Quirinus, and was the third person to do so (Verg. *Aen.* 6.859). For further on this confusion, see Horsfall (2003) *ad loc.*

Unlike other monumental trees, any tree harnessed for the display of the *spolia opima* potentially posed a significant threat to Rome, due to Roman attitudes to the armour taken from a dead enemy. Enemy armour, Versnel tells us, is considered to be a taboo item in Rome, and he argues that this taboo applies not only to the majority of armour, burnt outside the city as an offering to Vulcan, but also to the more distinguished armour dedicated as *spolia opima*.⁵⁸⁸ At this point, Versnel invites us to consider that a *piaculum*, perhaps included within the dedication of the *spolia opima*, would lead to the power of the armour being bound to Jupiter Feretrius, and further directs us to Plutarch for an explanation as to why the spoils of war were not renewed or moved, and left to decrepitude.⁵⁸⁹ Plutarch hypothesises two answers. First, perhaps the spoils are not cleared as a reminder that all men must die, and that when they die, their glory will fade. Or, his second, and favoured opinion, is that restoring the armour of a fallen enemy would be to tempt fate, and a restoration of their power rather than the glory of the victor. The Temple of Jupiter Feretrius is not a crowded space for dedications, and the three *spolia opima* would not be jostling for space if they were present at the same time, as Propertius implies they were.⁵⁹⁰ The unusual mention of the tree type in accounts of the *spolia opima* compared to the paucity of precise references to the material used for general *trophaea* is telling, since the oak is associated with Jupiter.⁵⁹¹ From the moment that the *spolia* are placed on the oak, be it branch or tree, it is linked to the deity, although a restoration of the *trophaeum*, as it then becomes would restore the power of the conquered rather than the conqueror. The tree is employed and subjugated, with the intention to channel the power of the armour to the god, just as the oxen directs the power of the plough. The tree is a particularly useful vehicle for the potentially hazardous armour, since its mortal lifespan allows the power of the armour to dissipate without any adverse effects for the city, or any concern for the vitality of a tree which stood for a now long dead foe.

Livy's account of Romulus' dedication of the *spolia opima* is unusual. Here, the tree is alive, and Romulus carries the armour to the Capitoline, dedicating it to Jupiter Feretrius by depositing it at (*ad*) an oak tree. This presents a fresh dilemma. In previous chapters, we have explored Hunt's re-examination of the opening to Pliny's *Natural History*, in which he refers to the *numen* of particular trees. This tree, we can assume, did not survive the building projects

⁵⁸⁸ Versnel (1970) 309-13.

⁵⁸⁹ Plut. *Quaest. Rom.* 37.

⁵⁹⁰ Prop. 4.10.45.

⁵⁹¹ It could also have been an understood fact, that a *trophaeum* should be constructed of oak, thus explaining the lack of references to the tree type.

on the Capitoline with its status intact throughout the remainder of Rome's semi-legendary regal period, and the Republic, until 222 BCE, when the *spolia opima* were dedicated for the final time. Numismatic evidence for Marcellus' dedication indicates that there was a temple here, and the tree is not evident in these depictions.⁵⁹² Pliny relates, at the opening of the *Natural History*, that trees were once considered the temples of the gods. Hunt has challenged this as a blanket statement, arguing that there were degrees of sacrality, and that some trees are, ultimately, just trees. However, there will have been no temple for Jupiter Feretrius on the Capitoline for Romulus to dedicate the seminal *spolia opima* in, and perhaps this oak, historically associated with Jupiter and equated in the Augustan period with buildings – see Propertius' description of the Porticus Pompeiana – could have been briefly repurposed as a makeshift temple by Livy, who wrote in the afterglow of Republican arboreal displays.

4.4. Concluding Remarks

Throughout this chapter, we have examined how trees are inserted into the triumphal procession. In the opening section, we examined the import of living trees as spoils, their subjugation and exhibition by Roman *triumphatores*. These generals, acting as king for a day, mould Rome into their own personal garden, replicating their conquests, in the manner of the Eastern botanizing rulers assessed by Totelin (2012) and the Germanic traditions of surrender. The armour displayed in the triumph was often hanging on wooden timber structures, borne like the living trees, on litters. These *trophaea*, which are sometimes depicted with the visual cues to indicate living trees, represent nature harnessed to allow armour to enter the city, and have a lengthy precedent in Rome and Greece together. As the triumph processes through the streets of Rome, purifying the city and presenting the spoils gathered in war, the general is himself purified, and separated from the rowdy crowds through a sensory trick. On his head, he wears the *corona triumphalis*, constructed of laurel leaves, with a possible insertion of myrtle berries. This distinction, the right to wear a crown, exploits the physical features of both leaf and fruit as fragrant arboreal features.

In this exploration of the roles of trees in Roman expressions of conquest, a number of key themes have emerged. The first, and most apparent, is the exploitation of trees for their physical attributes, and this sometimes transfers to the timber *trophaeum* structure. As discussed above, the laurel for the crown is exploited for its sensory contributions to the triumph, which allow for the isolated figure of the *triumphator* to rise above the fray. Similarly, the trees (and the

⁵⁹² RRC 439.

specific examples referred to here all use trees, barring a single variant account) used for the *trophaea* are exploited for their size – Pompey’s oak towers above its rivals, belying its feeble root system and lack of offspring, the oak for Mezentius is monstrous, and Acron’s armour needs to be displayed on a tree which befits its size. Perhaps the most apparent exploitation of a tree for its physical nature is in the balsam, which is harvested for its oils. This exploitation and subjugation of a tree first displayed as a triumphal import echoes the subjugation of the landscape in the cosmogonies explored in the first chapter of this thesis. Unlike the trees there, however, the balsam provides a luxurious product which pays tribute to the Roman people and has been imported specifically for this purpose, as discussed by Östenberg.⁵⁹³

The balsam also highlights the second theme – a concern for the future of arboreal imports and for arboreal imagery in general. This is obvious in the crowns and the trees displayed in the triumph. Once subjugated, the trees had to be housed (or destroyed) rather than displayed, or Rome’s arboreal trophies could have resembled the dystopic *trophaeum* that echoes Pompey’s clinging to former glories. This chapter has argued that the trees were planted in triumphal complexes, and how these gardens were kept has been explored to some degree in Jashemski’s co-edited volume with Gleason, Hartswick and Malek, *Gardens of the Roman Empire* (2017). As with the pits in Trajan’s Forum, the inclusion of trees and other plants in structures is not unusual and was not a Roman innovation – Carroll’s chapter (2017) in particular addresses Greek precedents for trees and architecture. It is perhaps no coincidence that the advent of importing trees in the procession coincides with the first instances of triumphal complex construction, since this gave the *triumphator* an opportunity to display his *spolia* in a landscape commanded by him. These complexes, though, were stationary, and failed to reach every corner of Rome in a tangible fashion. Even the *laureta* grown from the ornaments of the *triumphator* were limited to those Romans who entered them. Augustus’ exploitation of the *corona civica*, however, is a key example of the successful exploitation of arboreal imagery. By placing the image of one on every compital shrine, he was able to pervade the urban plan with modest monuments which encompassed the city.

The *spolia opima*, meanwhile, provoke a different discussion – how to deal with the death of a tree. All the natural monuments examined here and throughout the thesis have one irrefutable fact in common. They are mortal. For the *spolia opima* this presented little challenge, and any death of the monument may have been considered to indicate the end of the conquest, and a

⁵⁹³ Östenberg (2009) 185-6.

fading from the public memory. This aspect will have been made possible by the closed nature of the *spolia opima*, which resided in a private temple, and so the memory of the *spolia opima* was less bound to the monuments inside. However, for other natural monuments, death was a considerably more challenging issue.

5. Mortal and Monumental Trees

As in the case of the oak tree on or by which the first *spolia opima* were set up, there were a number of trees in the Roman landscape which acquired a monumental status, in the sense of monumentality as explored in the Introduction (see pp.000-000). Some of these, like the *figus Ruminalis*, have been mentioned in previous chapters. This chapter takes literary and visual representations of a number of monumental trees and groves from around the Roman empire and aims to explore how their monumentality interacts with their vulnerability to both human activity and to the passage of time. The trees planted as relics of triumphs would have had a monumental status similar to the artwork imported and exhibited alongside them, and a similar potential to narrate events from their native territories. When Edwards wonders whether the brooding statues of the Dacians will have cast an ominous shadow in Trajan's Forum as the Roman grip on Dacia was loosening in the third century CE, the looming shade of the Dacian trees planted alongside them have to be considered as well.⁵⁹⁴

Whether or not the trees in the Area Fori will have survived the two hundred years since they were planted highlights a key issue in the creation of natural monuments – their mortality. This is only emphasised further by the potential for human interference with the trees, as in the arboricultural actions taken against the Arval grove examined above (see pp.61-4), and a pair of ambiguous inscriptions from Spoleto and Trevi, dated to c. 240 BCE, show the difficult nature of human relationships with potentially monumental trees:

Let no one violate this grove, nor take it away, nor carry off this grove's contents, nor enter/cut except on the day left for annual rite. On that day, what is done for the sake of the goddess' festival, may it be permitted to enter/cut without penalty... Whoever might violate it must give an appeasing sacrifice to Jupiter of an ox, should he violate it knowingly and with malice, let him give an offering of a cow and be fined 300 asses. The chief magistrate is responsible for the exaction of this fine and offering.

Honce loucom nequ<i>s violatod neque exvehito neque exferetoquod louci siet neque cedito nesei quo die res deina anua fiet eod die quod rei< >dinai ca[u]sa [f]iat sine dolo cedre [l]icetod seiquis... violasit Iove bovid piaculum datod seiquis scies

⁵⁹⁴ Edwards (2003) 70.

violasit dolo malo Iovei bovid piaculum datod et a CCC moltai suntod eius piaculi
moltaique dicator [ei] exactio est [od].⁵⁹⁵

The ambiguity of this passage, where a dialectal choice confuses the taboo action – it is either entering or attacking the grove – is replicated in a passage of Ovid’s *Fasti*, where he advises a shepherd preparing for the festival of the Parilia to beg pardon in case he has transgressed on any sacred space with the following address:

‘If I have grazed my flocks in a sacred place, or rested under a sacred tree,
And my flocks have taken food from graves in ignorance;
If I have entered a forbidden grove (*nemus... vetitum*),
Or the nymphs and half-goat god were put to flight from my eyes;
If my pruning knife has ransacked a grove (*lucus*) for a shady bough,
From which a basket was filled with leaves for a sick sheep,
Forgive my fault.’⁵⁹⁶

The nature of a fault against a sacred arboreal feature is multiple, and can either be resting against a tree, entering a *nemus*, or pruning a branch from a *lucus*. The difficulty of using trees as monuments, especially when their ideal state is an unviolated one, is apparent – there is no clear distinction between non-monumental and monumental nature. Ovid’s shepherd, although familiar with the landscape, and practising the religious festivals of the city of Rome, is unaware of which trees are sacred. How the complex natural world around Rome is navigated was a challenge even to a Roman.⁵⁹⁷

In its exploration of Roman relationships with monumental and potentially monumental trees, this chapter will first examine a non-Roman monumental tree in Lucan’s *Bellum civile*, an oak like the trees that bore Acron’s armour, became Mezentius, and stood for Pompey, and will compare the use of this tree by Lucan to the exploitation of a mundane landscape by Tacitus in the *Histories*. From this, the chapter returns to Rome, and to an unnamed fig tree in the Forum Romanum, which was uprooting a statue of a god. Finally, the chapter will explore two trees that are not exclusively religious, and are both from the foundation of the city, the *figus Ruminalis* and a cornel cherry tree from Romulus’ spear. These trees are clear examples of the

⁵⁹⁵ *CIL* i² 366; xi 4766. Panciera (2006, 903-19) identifies variant language in the inscription, of *caidito* and *caidere* for *cedito* and *cedre*, a dialectal difference in early Latin (Sandys 1927, 163). To accommodate the ambiguity between ‘enter’ and ‘cut’ or ‘slaughter’, Dowden (2000, 108) includes ‘cut’ in a parenthesis, while Hunt (2016, 128) questions her translation.

⁵⁹⁶ *Ov. Fast.* 4.749-55.

⁵⁹⁷ Hunt (2016, 132) examines this complexity in a religious context, and refers to the navigation of sacrality and the destruction of potentially sacred trees a ‘live and ambiguous issue’.

ambiguity of the monumental tree, the differing approaches to the death of a tree, and both showcase different attitudes to the monumentality of trees in the Roman world.

5.1. Violation

The topos of an unviolated woodland is common in depictions of trees and groves in Latin literature, and is reinforced by the Roman law that was discussed above. The consequences of violating a grove could be severe, as an extreme law found in Festus' epitome of Flaccus' dictionary demonstrates: 'A pre-eminent grove (*capitalis lucus*), where, if anyone violates it, it is cleansed by the head of the violator.'⁵⁹⁸ When considering this brutal law, Dowden relates it to the reality of 'civilised lawgiving', in which such a drastic measure as Festus offers here is replaced by a more reasonable fine, as found in the Spoleto and Trevi inscriptions.⁵⁹⁹ Hunt, meanwhile, cautions against the establishment of a universal law based on these two different laws, reminding us that the *capitalis lucus* is not just any grove, it is an unusual one.⁶⁰⁰ Relating the challenge of navigating which *luci* were *capitales* (which Ovid cautions his shepherd over) to a religious context, Hunt explores the challenges that would be faced when distinguishing between the levels of holiness accorded to each tree, and questions how this would have affected everyday Roman life, particularly since Rome had a substantial timber trade.

Two differing attitudes to the landscape, and Rome's relationship with the potential and definitively monumental elements within them are seen in Caesar's activities in Gaul, at various stages of his career. The first, from Caesar's own account of his siege at Alesia, is the depiction of a non-landscape, with no monumental elements within it, and no concern of damage to the environment. Instead, he creates an inventory of his works, a common topic in his account of the campaign. Unlike other, more emotive accounts, Caesar is unconcerned with depriving the Gauls of their typical environment.⁶⁰¹ The trees felled for his siege works, which changed the landscape of Gaul, are referred to once in the account of his siege, and even then as fragments of trees (*truncis arborum*). This domination of the landscape can be compared to that seen on Trajan's Column, and to a far more emotive account from Tacitus, who describes Caecina's march through Germany in 15 CE.

⁵⁹⁸ Fest. 57L. Violation is a key theme of this definition, in both the Latin and the English.

⁵⁹⁹ Dowden (2000) 108.

⁶⁰⁰ Hunt (2016) 128.

⁶⁰¹ Caes. *BGall* 7.72-3. Caesar's lack of concern with the environmental impact of his siege works, and with the landscape more generally, is replicated in the attention given to this description by Rice Holmes (1914, *ad loc*), which focusses instead on the mechanics of the siege-works' construction.

In this account, the German use of the landscape is a recurring theme. They retreat into forests and attack the Roman army as it struggles through swampy land.⁶⁰² In the decisive battle, which follows a guerrilla attack on a Roman column thrown into confusion by the difficult landscape the Romans gain the advantage, and the army attribute this to the changed terrain of this battlefield. Arminius, the German leader, had been in favour of continuing the previous tactic used by the German forces and proposed at a meeting of the German leaders to let the Roman army attack the Germans on their terms, in the swamps. However, the consensus of the German leaders was to follow the more aggressive approach of Ingvimerus and to advance on the Roman fortifications, to which the army had retreated following Arminius' earlier attack. As the German army approached the Roman rampart, they found an unfamiliar landscape, and the Roman soldiers are described by Tacitus as jeering, celebrating that 'there are no trees here, nor swamps, but a level field, and fair gods'.⁶⁰³ The trees and swamps are, like the trees on Trajan's Column, treated as allies of the German forces, cut down and removed from them, while the level field and just gods are the allies of the Romans. Tacitus' decision to portray the glee of the Romans shows that the death of the trees used in the building of the camp is a positive. There is no sense of violation in either Caesar's or Tacitus' account, and when the destruction of trees is discussed, it is cause for celebration, a conquered foreign enemy.

In Lucan's *Bellum civile*, an explicitly monumental foreign tree is used to explore Caesar's character, and serves to demonstrate a Roman approach to the violation of a sacred tree in a foreign land. The use of a tree to examine the traits of individuals is common in Lucan's epic, and one example has been explored earlier. Lucan's description of Pompey as an oak *trophaeum*, weighed down with his former victories which distracted from his decaying state in the opening book of the poem is a powerful description of the character. Later in the poem, he employs an oak in a sacred grove outside Massilia to demonstrate the ambiguity of Caesar's character.⁶⁰⁴

Caesar advocates the felling of the grove, which will contribute to his siege works, like all the other trees of the area. None of these other trees are challenging for Caesar or his men and are felled without incident. However, when they come to this grove, the sacrality of it causes them to pause, and they refuse to fell the trees within it, fearing reprisals from the barbaric deity who

⁶⁰² Tac. *Ann.* 1.55-71. The use of trees is a common German trope in the *Annals*, and is also found at 2.17, when the fleeing Germans climb the trees to avoid Roman forces at Idistaviso.

⁶⁰³ Tac. *Ann.* 1.68.

⁶⁰⁴ Luc. *Bell. civ.* 3.394-452. Ahl (1976, 199) compares this vivacious oak tree to Pompey's frail, decaying oak, and suggests that Lucan intended his audience to compare the two to each other, and to recognise Pompey's weakness.

presides over it (and accepts human sacrifices). Caesar then takes up the mantle himself, seeing his soldiers' fear, and fells the first tree, an ancient oak, while demanding retribution from the god personally. When none is immediately forthcoming, the soldiers fell the trees, and the attack on Massilia continues as the residents await the god's reprisal for Caesar's impious action. The grove, sacred to a foreign deity, is challenging for Lucan in his presentation of it, and Leigh explores it in the context of deforestation and arboriculture.⁶⁰⁵ The ambiguity of Lucan's account is highlighted in one line, as 'Caesar drives his axe into the violated wood' (*effatur merso violata in robora ferro*).⁶⁰⁶ There is no way of knowing if the oak had been violated prior to Caesar's action, if Caesar's entry into the grove has violated it, or if Caesar's action is the violation, suggested by Lucan's statement that the grove has 'never been violated throughout the long passage of time' and undercut by his descriptions of human sacrifice within the grove.⁶⁰⁷

The virginal grove outside Massilia fits neatly within the topos of the unviolated woodland, and Hunt presents this theme in mirroring paragraphs, one on violated sacred trees, such as the oak at Massilia, and the next on the unviolated wood, like the grove surrounding it.⁶⁰⁸ The unviolated wood, Hunt relates, is common in depictions of a numinous environment, and directs our attention to a number of passages in Latin literature to illustrate this.⁶⁰⁹ The virginal grove targeted by Caesar outside Massilia fits with this theme, and the reactions of the surrounding Romans indicate a shared horror at the violation.

The soldiers, unlike Caesar, fear the religious reprisals of felling this grove, and the inhabitants of Massilia expect them to fall on the dictator as he swings the axe at the monumental tree in the centre of the grove. Which precedent they are influenced by is unclear, although the *Commenta Bernensia* confidently states that Caesar's soldiers (and by extension Lucan) are following the example of Lycurgus, whose tale is recounted in Hyginus' *Fabulae*. Lycurgus, we are told, took an axe to a vine after angering Bacchus, and mistakenly chopped off his own

⁶⁰⁵ Leigh (2010). See also Hunt (2016) 121-72.

⁶⁰⁶ Luc. *Bell. civ.* 3.435. Hunink (1992, *ad loc*) argues that *violata* should be read proleptically, and translated as 'and was thus profanated'. Had Lucan wanted to make this clear in his poetry, the present participle would have fitted into the scansion of the line, and would have provided a caesura, mimicking Caesar's cutting. The ambiguity of the line is deliberate.

⁶⁰⁷ Luc. *Bell. civ.* 3.399.

⁶⁰⁸ Hunt (2016) 125; Luc. *Bell. civ.* 3.435 cf. 3.399.

⁶⁰⁹ Hunt (2016) 125, citing Ov. *Met.* 3.28; *Fast.* 2.435; Stat. *Theb.* 4.419-20. The description here of a 'numinous' grove is taken directly from Ovid's description of an unviolated grove implying the presence of a god (*Am.* 3.1.2).

foot.⁶¹⁰ This is read as Bacchus' own retribution and is reflected in Cicero's account of Clodius' actions in the *Pro Milone*.⁶¹¹ Here, the orator shocks his audience with Clodius' acts of impropriety against the gods of Latin state, particularly Jupiter Latiaris. He is accused of levelling sacred groves (*caesis prostratisque sanctissimis lucis*) and polluting the woods of Jupiter Latiaris with all manner of crime (*cuius... nemora... saepe omni nefario stupro et scelere macularat*). These actions, Cicero claims, justify the retaliation of the Latin gods, and this is expressed through Clodius' death at the hands of Milo.⁶¹²

Tacitus, who was discussed earlier as an example of the positive Roman subjugation of foreign trees, treats the issue differently in the context of civil war, and monumentalises the landscape of Italy in the *Histories*:

Fewer than forty days had passed since the battle, and the field was covered with mangled corpses, truncated limbs, the rotting bodies of men and horses, the earth was polluted by gore, trees and crops hurled aside in the devastated wasteland.⁶¹³

This description, of Bedriacum as Vitellius surveys it, glorying in its gore, peaks with the blasted trees and crops, which are symbolic of the damage that civil war is doing to the country of Italy.⁶¹⁴ Unlike the other accounts explored above (with the possible exception of Cicero's invective against Clodius), Tacitus is writing as a victim, who has seen his country attacked. He presents Vitellius (and Otho's troops, in the passage offered as a comparison by Ash) as a conquering warlord who acts against the interests of the land he has conquered. Instead, the land is 'polluted' and 'devastated'. The cost on the land is prioritised over the human cost of the war, and Italy itself is the victim of the conflicts in 69 CE, which is presented as a negative conquest. The trees destroyed by Vitellius' war were not monumental, but have, by his actions

⁶¹⁰ *Commenta Bernensia* 3.431; Hyg. *Fab.* 132; 242. Phillips (1968) treats Ovid's account of Erysichthon as a clear influence on Lucan's passage, and it is read as a comparison by Leigh (2010). Cf. Halirrhottius, whose hand was amputated when he attempted to fell a sacred olive (Serv. *Comm. G.* 1.18; schol. on Ar. *Nub.* 1005).

⁶¹¹ Cic. *Mil.* 85.

⁶¹² Cf. Turullius, who was put to death by Augustus. As a conspirator and a friend of Antony, he was a key target for the young emperor, and was accused of felling sacred trees in Cos. His death, according to Dio, serves to compensate Asclepius, to whom the trees were sacred (Dio 51.8.3). Hunt (2016, 129 n.32) tackles Bodel's earlier suggestion (1985, 26) that this passage is evidence of the principle that a sacred arboreal violation required an expiation. This, example, alongside Clodius and Caesar above could be read as Roman examples of 'the archetype of the impious axeman who engages in violence' identified by Leigh (2010, 202).

⁶¹³ Tac. *Hist.* 2.70.

⁶¹⁴ The prominence of crops here, in the presentation of a rural landscape at war is a common feature in Tacitus, who juxtaposes farming as a peacetime activity with warfare elsewhere in the *corpus* (Ash 2007, 273, citing *Hist.* 2.56). This is a theme throughout Roman literature, which predominantly regards the two as being polar opposites, and is especially common in poetry – Vergil (*G.* 1.505-8) comments on the abandonment of the land by the countrymen, and the re-forging of tools of peace into tools of war; Ovid (*Fast.* 1.697-700) explores the neglect of farms at wartime; and later, Lucan (*Bell. civ.* 5.403-4) highlights the same desertion of the fields by Apulian farmers under Caesar.

and their deaths, become monuments within a monumentalised landscape of the cost of civil war. The monumentality of trees and of the landscape itself is as fluid as Ovid feared his shepherd preparing for the Parilia would find it to be.

Cicero's aim in the *Pro Milone* to provoke a negative reaction to the violation of a sacred grove by Clodius, a man who was famed to profane the gods, plays on a reaction that remains common into the early Principate, and is found in the attitude of Caesar's soldiers in Lucan's *Bellum civile*. For Cicero, Clodius' razing of the groves is an added trope, compounding his contemptible character, and while Lucan's Caesar can also be cast as such, the destruction of the grove at Massilia is more challenging. First, the setting is that of war, and second, the grove is not to a familiar deity, their rites are 'barbaric' and animals fear to enter the sacred space. These two aspects of the felling can offer a justification for Caesar's actions. Since the felling is in a time of war, it can be read as a conquest of the landscape and also, in this case, of the foreign gods. This is, of course, hubristic, and the ambiguity of a heavenly conquest underpins the decision of Caesar's men to measure their leader's anger as greater than that of the gods. Felling trees in wars of conquest was, however, generally favourable, and the conquest of landscape is replicated in the literature, where the trees of Gaul and Germany are not regarded as monumental.

5.2. Removal

Removing a monumental tree, or part of one, that transgressed onto a space or statue that was judged to have priority over it, proved a challenge in Roman arboriculture, particularly in the context of the dangers of tree violation. This section explores successful Roman relationships with monumental trees when they interfere with their surroundings. First, it will re-examine the elm at Nocera, which grew over Juno's altar (discussed above, see pp.64-7). Next, it will explore a fig tree in the Forum, accused of uprooting a statue of Silvanus, and the actions taken to preserve the statue. These two trees demonstrate very different approaches to the interaction between the natural world and gods in Italy.

The Silvanus fig is described in brief by Pliny, in the *Natural History*:

There was also a fig tree before the temple of Saturn which was removed (*sublata*) following a sacrifice by the Vestal Virgins, since it was upsetting (*subverteret*) a statue of Silvanus.⁶¹⁵

⁶¹⁵ Plin. *HN*. 15.77. Detlefsen goes against the more common insertion of *CCLX* for the lacuna that follows *anno*. This lacuna is preserved in Mayhoff's edition, although he acknowledges that it is an unusual decision.

This fig tree only appears in Pliny's account, and the source for his account is unknown. Most editors place this event to 404 BCE, with the exception of Mayhoff and Detlefsen, which would make this the earliest known cult image of Silvanus, as Dorcey notes in his study of the Silvanus cult.⁶¹⁶ Dorcey expands on the statue's point of origin, theorising that it was erected in 509 BCE to celebrate the victory of the Republic over Tarquinius Superbus, which Livy and Valerius Maximus imagine was announced by the woodland deity.⁶¹⁷ In the absence of a better motivation for the erection of a statue of Silvanus, it is judged that the deity was crucial in the establishment of the Republic, certainly in the minds of these later authors, who, while not necessarily able to reliably illuminate the truth of Silvanus' early worship, are reliable indicators of the educated Roman's thought in the early Empire.

The fig tree itself, however, is a mystery. Dorcey, again writing hypothetically, suggests that it may have been the 'famous *ficus Ruminalis*.'⁶¹⁸ This is highly improbable. The earliest extant reference to the *ficus Ruminalis* in the Forum rather than on the Palatine is found in Dionysius of Halicarnassus' *Roman Antiquities*, describing a statue of Attus Navius in the Comitium, which he says stood near the site of an unnamed sacred fig tree.⁶¹⁹ Dionysius further explains that the grove of the Lupercal had long since withered away, although Livy locates the site of the suckling as being 'where the Ruminal fig is now,' and indicates that this tree has a rich history which involved a name change at some point.⁶²⁰ Further, Dionysius' account is the earliest account of the deeds of Attus Navius which contains reference to a fig tree, often assumed to be the *ficus Navia*, which later succumbed to popular demand and was colloquially renamed after the long dead *ficus Ruminalis*.⁶²¹ In his identification of the fig tree that upset the statue of Silvanus as being the *ficus Ruminalis*, Dorcey appears to have erred by approximately 400 years in when the Ruminal was first present in the Forum. Ultimately, the fig tree remains a mystery and there is no obvious origin which indicates that it should be treated as especially monumental beyond Pliny's inclusion of it in his section on the history of figs.

⁶¹⁶ Dorcey (1992) 7. Silvanus is occasionally discussed by Hunt (2016, particularly 251-4). He was popular in the comparativist tradition, and Granger calls Silvanus 'simply... a wood fairy' (1895, 102). More recent studies, such as that by Palmer (1990, 33-42), have established Silvanus as a universal god.

⁶¹⁷ Livy, 2.7.2; Val. Max. 1.8.5.

⁶¹⁸ Dorcey (1992) 7.

⁶¹⁹ Dion. Hal. *Ant. Rom.* 3.71.

⁶²⁰ Livy, 1.4.5 – *ubi nunc ficus Ruminalis est – Romularem vocatam ferunt*.

⁶²¹ Cic. *Div.* 1.31 identifies the location of the Navian deeds by the *puteal*, Livy (1.36.5) locates them by the *curia*. Evans (1991), Hunt (2012), and Carandini (Filippi) (2017, 154) each claim that the fig tree in the Comitium is the *ficus Navia*, among several others.

The lack of obvious monumentality in the tree is perhaps reason for its subordination to the statue in its unproblematic removal process. The requirement for a sacrifice from the Vestal Virgins indicates some level of monumentality in the tree, or it could suggest a cautionary attitude, as Ovid advised. The removal of the fig tree does not precede any negative consequence, and is a removal performed with the appropriate ritual, although the recipient of the sacrifice is unclear, whether it is Vesta, Silvanus, or the tree itself.

The elm at Nocera, examined in Chapter One (pp.64-7) is a clear example of how the removal of a tree from a space judged to be more sacred can have adverse effects.⁶²² In this instance, only part of the tree was removed, the portion that had transgressed the boundaries of the grove and rested on the altar, and it was removed without the same level of care that was afforded with the fig tree in the Forum Romanum. Like the growth of the fig tree, the collapse of the elm at Nocera is not treated as being directly portentous, and the preference for artificial monuments over natural monuments is once again seen in a clear light. The grove of Juno is a sacred space, and as such, this elm tree is the property of the goddess.⁶²³ Thus, the collapse of the goddess' property is not so much an omen as it is a symptom of the state's struggles, and the removal of the top serves only to exacerbate the issues facing the Roman people, and could perhaps be seen as ominous. In this respect, it corresponds to the role landscape plays on the battlefield, in the triumphal procession, and on Trajan's Column, and the link between features of the landscape being exploited as a visual representation of the state. Continuing this theme, the righting of the tree is definitely and defiantly ominous and foretells the restoration of the 'majesty of the Roman people,' which had suffered during the Cimbrian Wars. As a result of the Roman people's restoration, the omen for which is (of course) only applied retrospectively, the date of the tree's righting can be more securely dated to after Marius' reforms of 104 BCE, and the turning point of the wars after he took control. The tree in question, an *ulmus*, was not killed by its toppling, and the priests of the grove, aware of the danger it posed to the altar, decreed that it should have its top removed, an action usually fraught with consequences for the individual who performs it. This tree is definitively sacred – it is in a *lucus Iunonis*, and unlike the grove at Massilia, is sacred to a Roman deity. This particular 'amputation' (*amputatum*) of the elm's top does not result in the dismemberment or, as far as Pliny is aware, the decapitation of any of the priests responsible for the cultivation and care of this grove – the aggressive pruning has consequences on a far larger scale.

⁶²² Plin. *HN* 16.132.

⁶²³ Cooley (2008) 261.

The action toward the elm, however, was not a terminal one, and functioned instead to preserve the life of the tree, and Hunt distinguishes between felling and pruning where others before her have not.⁶²⁴ For Hunt, actions that are undertaken for the sake of the grove's or tree's cultivation, such as pruning, do not fulfil the necessary requirements of 'violation' of a grove, as set out in the law tablets found in Spoleto and Trevi, and presented in the introduction to this chapter. However, they still need to be negotiated carefully, in order to avoid any negative side effects. In some instances, such as those in the Arval grove, arboricultural action requires expiatory rituals, and Hunt examines instances of piacular pruning in Roman arboriculture, concluding that such actions are not directed towards concerns of the tree's inviolability.⁶²⁵

While interacting with the changing nature of monumental trees, and adapting to their growth, is a potentially hazardous situation, it is not exclusively so, and Hunt's reassessment of previous scholarship has served to reveal the complexity of the issue in religious contexts. In the case of the Silvanus fig, arboriculture intervenes to prevent the collapse of a statue, and the removal and possible destruction of the tree is done with the proper sacrificial rites, circumventing any potential hazards in the process. These potential ramifications of an unlicensed removal of a tree in a religious setting are evident in Juno's elm. Unlike the felling of trees by individuals (who lose limbs or heads as recompense), the elm is amputated by an anonymous body of priests, and the country suffers the consequences as a whole. This indicates a shift from the attitude of Caesar's men in Lucan's *Civil War*, who would take individual responsibility for the felling of a tree, which is treated as a violation. There is, then, a distinction made in Roman practice, between arboricultural action, such as the removal of a tree that was transgressing on an altar, and the outright destruction of a tree in a sacred space.

5.3. Death

In the examples above, of the fig tree in the Forum Romanum, and the elm at Nocera, the removal of the tree was simple, and ultimately unproblematic. They were also human removals, as were the violations in the first section. And while a tree makes an attractive natural monument for its long life, it will inevitably die, typically after several generations of humans have witnessed it and interacted with it as a static feature of the landscape. So, when a tree in the Arval grove fell in 14 CE, and died a natural death, there was a far more complex reaction,

⁶²⁴ Hunt (2016) 103. Cf. Baddeley (1904, 5) who comments that 'Sylvanus, the Tree-spirit... had to be propitiated if the trees were pruned or cut down,' Dowden (2000, 108) refers to the 'piacular rites' of the Arvals when they pruned the grove of the Dea Dia as being routine.

⁶²⁵ Hunt (2016) 137-52.

which the Arvals detailed in their extensive epigraphic records. This section will briefly examine this reaction, before moving to the death of two trees which were monumental in their own right, as opposed to being part of a larger, monumental grove – the cornel cherry-tree grown from Romulus’ spear, and the *figus Ruminalis*, under which the twin founders of Rome were discovered. The extraordinary age of both of these monuments (both would have been in their eighth century at the start of the Principate if they were the genuine original) points to their inevitable death at some point in their monumental lifetime, and the latter half of this section will examine these deaths.

When a tree fell in the Arval grove, dedicated to Dea Dia, a sacrifice was offered by the priesthood, and the tree was left in the grove’s boundaries:

‘[Because Gnaeus Cornelius] Lentulus, son of Gnaeus, augur, magistrate in place [...], related to the Arval brothers that a tree had fallen, due to its age, [in the grove] of the Dea Dia, because they decreed thus, as to what it would please them to have done, that [since a tree] had fallen in the grove of the Dea Dia due to its age, it should be consumed for/at a sacrifice [in the grove], and none [of its wood] should be removed. Lucius Domitius Ahenobarbus, son of Cnaeus, Lucius Calpurnius Piso, priest, and Paullus Fabius Maximus, son of Quintus, were there.’

[quod]

[Cn. Corneliu]s Cn. f. Lentulus augur mag(ister) in locum...

[factus, ad] fratres aruales rettulit arborem

[in luco deae] Diae vetustate cecidisse q(uid) d(e) e(a) r(e) f(ieri) p(laceret,) d(e)
e(a) r(e) i(ta) c(ensuerunt)

[cum arbo]r vetustate in luco deae diae cecidisset ut

[in luc]o ad sacrificium consumeretur neve quid

[ligni] exportaretur.

[adfuerunt] L. Domitius Cn. f. Ahenobarbus, L. Calpurnius

[Piso p]ontifex, Paullus Fabius Q. f. Maximus.⁶²⁶

Here, the acceptable process of dealing with a dead tree in a grove is elaborated upon, although what the sacrifice is for remains unclear.⁶²⁷ That three members of the Arval brethren had to

⁶²⁶ *CIL* vi 2023a. This is also found at Scheid 2. The lack of explanation given for the fall of this tree beyond a formulaic reference to its age (cf. Scheid 62a; 68 I) indicates that there was nobody there to witness this tree fall.

⁶²⁷ Hunt (2016, 157-9) suggests that the burning of the tree acted both as a sacrifice, following Henzen (1874, 136) and Bodet (1985, 26), and to remove the offending dead tree from the grove, to purify it. She also comments

be present seems to indicate that this is a process which had an official role, even if it is not documented on a regular basis. The response is a developed one, and the grove's integrity and the goddess' property, as it is perceived by Cooley, is retained, with all the trees being maintained within the grove's boundaries – since the tree is burnt within the boundaries of the grove, it is judged to have not been removed from it.⁶²⁸

Dealing with the death of a tree in a monumental group, such as the Arval grove, is demonstrably distinct from dealing with the death of an individual monumental tree. In the case of the grove, the monument's integrity could be maintained, but the death of an individual monumental tree endangered the whole monument. When the *figus Ruminalis* died, there were two distinct reactions dependent upon the location of the tree, and we will explore both of these here, after establishing a continuity to this arboreal monument.

The Ruminal fig tree had two iterations in the Roman city, on the Palatine and in the Forum Romanum, and these two iterations both died, and their deaths were resolved in different manners according to their monumental status in their locations. When the Ruminal fig stood on the Palatine, it had a finite lifetime, and the death of the monument is not noticeably ominous. Certainly, none of the extant sources that refer to this incarnation of the Ruminal, either literary or visual, show any concern for the tree's health. Dionysius of Halicarnassus, in his first description of the ancient site of the Lupercal, tells us that the area was heavily wooded, although he neglects to make any mention of a particularly famous tree there, which is cited as standing there by Varro, Livy, and Ovid.⁶²⁹ This omission could be as a result of his focus on the temple of Pan Lycaeus, and a desire not to dilute this space with an additional monument, which even to a Roman audience had a conflicted history, being both for Romulus and for Rumina, while at the same time being a cultural marker.⁶³⁰

To resolve this confusion, we can read the Greek historian's account of the exposure for guidance as to how the Lupercal grove appeared when Dionysius was writing. Here, the information is repeated, and it is clear that whatever trees were once at the Lupercal, they are long dead.⁶³¹ There is no reference to a famous tree having stood at the site, only to the grove, and Dionysius' motivation for this oversight continues to elude. What is apparent, however, is

on the unusual nature of this inscription – it is the only instance in the body of Arval inscriptions that comments on dealing with the death of a tree, as opposed to felling a live tree (e.g. Scheid 64 I).

⁶²⁸ Cooley (2008) 261.

⁶²⁹ Dion. Hal. *Ant. Rom.* 1.32.4-5. Cf. Livy 1.4.5; Varr. *LL* 5.54; Ov. *Fast.* 2.411-12.

⁶³⁰ Ovid's etymology of the tree, at *Fast.* 2.411-12, offers some idea as to this conflicting history – *arbor erat: remanent vestigia, quaeque vocatur / Rumina nunc ficus, Romula ficus erat.*

⁶³¹ Dion. Hal. *Ant. Rom.* 1.79.

that the Ruminal fig tree is dead, and this is corroborated in a number of other sources. In the *Fasti*, Ovid, writing shortly after Dionysius, relates that ‘there was a tree. Traces do remain, and it is called Ruminal now, but was the Romulan fig tree.’ Likewise, the mythographer Conon, who writes some time before 17 CE, tells us first of the fig tree (ἐρινεός) in whose roots the twins were caught up, and by which they were saved. He then continues to relate that a memorial fig tree was set up in the Forum, in front of the Senate house (πρὸ τοῦ βουλευτηρίου), and enclosed in a fence.⁶³² It is with these passages that Dionysius’ omission of the Ruminal in its original context, on the Palatine, becomes plain: the Ruminal was, at the time of his writing, in a transitional period, between its long dead Palatine form and the memorial fig in the Forum, and the identity of this memorial was in something of a state of flux. The proof that Dionysius was aware of this fig tree can be found in his account of the deeds of Attus Navius, and the statue of the legendary augur, set up in front of the Senate house (πρὸ τοῦ βουλευτηρίου).⁶³³ This statue is further located as being ‘near the sacred fig tree’ (πλησίον τῆς ἱερᾶς συκῆς), and the placemarkers of the Senate house and the fig tree are required because the statue may have been removed from public display following damage the statue base suffered when Clodius’ supporters burnt down the *Curia Hostilia* in 53 BCE.⁶³⁴

This nameless tree must surely be the Ruminal, since the only other fig definitely present in the Forum at this time was that of the *figus, olea, vitis* group at the Lacus Curtius: the *Silvanus ficus* had long since been removed, and the very existence of the *figus Navia* is questionable.⁶³⁵ What is clear from these accounts, and reconstructed in the Ruminal’s proposed withered appearance on the fragmentary north-west relief of the Ara Pacis (see Fig. 26), is that the tree’s vitality was unimportant in the communication of its message as being the marker of the original site of the twins’ rescue by the she-wolf. The Palatine tree was allowed to die a natural death and its death was unobtrusively absorbed into the monument’s life, until such a time that

⁶³² Conon, *Narr.* 48.

⁶³³ Dion. Hal. *Ant. Rom.* 3.71.5. The identical phrasing of Dionysius’ and Conon’s descriptions may be an indication that the two fig trees are identical.

⁶³⁴ Plin. *HN* 34.21. Had the *figus Navia* been damaged in the burning of the *Curia Hostilia*, it is not unlikely to expect it to have been mentioned in Cicero’s *Pro Milone*, particularly since the razing of groves is a negative trope that he exploits in this speech (see above, p.194).

⁶³⁵ The first source to name the *figus Navia* is Festus’ second century epitome of Verrius Flaccus’ Augustan work, and all contemporary sources distance the Comitium fig from the Navian myth, using it as a geographical placeholder, as in Dion. Hal. *Ant. Rom.* 3.71.5, or not mentioning it in the context of the Navian memorials, as in Livy, *AUC*, 1.36.5, and Cic. *Div.* 1.31-3. Given the complete absence of named references to the *figus Navia* prior to a second century attribution, which Evans (1991) and Hunt (2012; 2016) both ignore, alongside several others, it seems unnecessary to complicate the already crowded memorial arena of the Comitium with a second monument to a lesser myth, especially when this monument can quite simply be explained by an accumulation of cultural attribution from the statue (which is present in ancient sources) to the Ruminal in its later life.

it became unrepresentative of the city's glory. This point of the memorial's lifetime can be placed to being in the early Imperial period, since the tree was known to be on the Palatine by both Livy and Ovid, but not by Dionysius.⁶³⁶ At this point, the Ruminal was transferred to the Comitium, and the tree's identity was transferred to a new, living host, and death gained significance for this natural monument.⁶³⁷

Image redacted for copyright purposes.

Figure 26: The Lupercal relief from the western facade of the Ara Pacis. Source: Rossini (2006) 35.

The new tree, which took up the name of *figus Ruminalis*, was in the Comitium of the Forum Romanum, in front of the Senate house, as the contemporary Dionysius and Conon relate. In the years to come, this tree would die, or would threaten to do so, and later authors picked up on this as being ominous, notably Pliny the Elder and Tacitus. Tacitus' account of the tree, referring to a specific withering in 58 CE, is the more specific of the two accounts, and deals with a partial rather than total death of the tree. Occurring at the end of Book Thirteen of the *Annals*, in the middle of Nero's reign, Tacitus tells us the following:

In the same year (58 CE), the Ruminal tree in the Comitium, which had sheltered the infants, Romulus and Remus eight hundred and thirty years before, by the death

⁶³⁶ Livy 1.4.5 on the site of the Lupercal, *ubi nunc ficus Ruminalis est*; Ov. *Fast.* 2.411-2.

⁶³⁷ The transfer of arboreal identity is found echoed at the opening of Cicero's *De Legibus* (1.1-5), when Quintus recalls an oak named the Marian Oak from his youth, the identity of which is transferred to a new tree on the same site, regardless of its relationship to the original tree.

of its branches and the withering of its trunk was diminished to such an extent that it was taken as a prodigy, until it budded anew.

eodem anno Ruminalem arborem in comitio, quae octingentos et triginta ante annos Remi Romulique infantiam texerat, mortuis ramalibus et arescente trunco deminutam prodigii loco habitum est, donec in novos fetus revivesceret.⁶³⁸

Unlike the Augustan sources, which report the death of the Palatine tree as inconsequential, Tacitus reports that Neronian attitudes were markedly different, treating the death of the tree as a dire portent. This account of the death has been dismissed in the past as being ‘brief, isolated, and meaningless’ by Ronald Syme.⁶³⁹ This accusation is entirely unfair, and Charles Segal went some way to render it ridiculous, highlighting several key aspects of the passage, notably its isolation, which ‘make[s] it stand out all the more ominously.’⁶⁴⁰ The Ruminal, in its position *in comitio*, stands at the beating heart of Rome’s political cultural life, surrounded by icons of Rome’s noble and glorious past, including the Navius statue, the Lacus Curtius, not to mention the temples themselves, and yet it is here isolated, alone, and abandoned. This serves only to highlight the utter desertion of the Roman moral compass in Nero’s reign, with the heart of Rome withering away.

But why then does the fig tree renew itself? Why would Tacitus reverse the tree’s ominous death? The answer lies in the rejuvenation itself. Tacitus has created the portent of a Rome that is rotten to the core, corrupting even the foundational tree, and then undercuts it with the tree’s rejuvenation (*donec in novos fetus revivesceret*). Segal believes that the new growth represents a structuralist contrast, creating ‘a tension between reality and appearance, divine and human truth, *pietas* and hypocrisy, fulsome lies and valid, truth-speaking language.’ Segal balances the two sides of the omen, which he takes to have been perceived as the entire process of near-death and rejuvenation, and he argues that the regrowth represents Rome’s ‘tragic resignation’ to her fate.⁶⁴¹ But Tacitus’ account of the omen is vague, and Pliny is similarly non-committal, referring to the omen as *praesagio aliquo*. Segal’s precision in his judgement of what the omen actually means is unlikely to be an accurate representation.

In the most detailed account of the Forum Ruminal, embedded in his section on historic figs, Pliny provides a brief summary of the Ruminal fig tree’s life up to the point of writing:

⁶³⁸ Tac. *Ann.* 13.58.

⁶³⁹ Syme (1958) 745.

⁶⁴⁰ Segal (1973) 108.

⁶⁴¹ Segal (1973) 113-15.

A fig tree is worshipped in the forum, in Rome's Comitium itself, regarded as sacred due to the lightning struck objects buried there, but more so out of the memory of the tree which was a nurse to Romulus and Remus, founders of the empire, and first sheltered them at the Lupercal, called Ruminal since the she wolf was found under it, offering her *rumis* (which is now called *mamma*) to the boys, a miracle relayed in bronze nearby, as if it had of its own accord crossed into the Comitium by the augury of Attus Navius, and it is not without some portent that it withers and is planted again, under the care of a priest.

colitur ficus arbor in foro ipso ac comitio Romae nata sacra fulguribus ibi conditis magisque ob memoriam eius qua nutrix Romuli ac Remi conditores imperii in Lupercali prima protexit, ruminalis appellata quoniam sub ea inventa est lupa infantibus praebens rumin (ita vocabant mammam)—miraculo ex aere iuxta dicato, tamquam Comitium sponte transisset Atto Navio augurante. nec sine praesagio aliquo arescit rursusque cura sacerdotum seritur.⁶⁴²

Hunt reads this passage as being evidence of 'the appropriation of the *ficus Navia* by the memorial associations of the *ficus Ruminalis*,' which is in itself a death of the *ficus Navia*.⁶⁴³ This may not be entirely accurate, as has been laid out above, as there is no evidence that the *ficus Navia* existed under that name until the 8th century, nor is it found in any account of the Attus Navius myth, while the statue of Attus Navius definitely stood next to a sacred fig tree, according to Dionysius, and is associated with it, as seen in Pliny's description of the tree.⁶⁴⁴ It might be more beneficial to think of this transplantation not only as the birth of the monumental Ruminal, but also as laying the ground work for the future *ficus Navia*. The vulnerability of the Ruminal is evident as it is eventually subsumed by the Navian myth, which dominates the monumental space with the *puteal*. This myth, and the name of the *ficus Navia* overpowers an identity which had remained consistent from the time of Pliny the Elder until Tacitus, potentially beginning with the Augustan account of Conon, who tells of a memorial fig tree in the Forum, relating it to the Lupercal fig, but not naming either.⁶⁴⁵ The Ruminal's identity is one which is clearly mutable, shifting freely from the Palatine to the Forum midway

⁶⁴² Plin. *HN*. 15.77.

⁶⁴³ Hunt (2012) 122.

⁶⁴⁴ Dion. Hal. *Ant. Rom.* 3.71.5.

⁶⁴⁵ Conon, *Narr.* 48.

through its lifetime as a memorial.⁶⁴⁶ As such, the acquisition of new symbolism after the Navian monuments were removed – Festus makes no mention of the statue of Navius, which appears in every version of the Navian myth – is not unlikely, since this Ruminal in the Comitium was known to not be the original.⁶⁴⁷

The knowledge that the tree was not the original Ruminal is evident in Pliny's account, which refers to a complex and confused concern for the tree, thoroughly analysed by Hunt, and including the replanting of the *figus Ruminalis* upon its death under the supervision of a priesthood.⁶⁴⁸ It is unknown which priesthood this was, although it is easy to make the argument that it was an ancient cult of Rumina, such as the one which Varro alludes to in his comment regarding the placing of a fig tree (possibly the Ruminal?) at the shrine of Rumina.⁶⁴⁹ Pliny also refers to the portent which occurs in Tacitus' writing, in which the death of the fig tree in the Comitium was taken as a portent for the city, although he remains vague as to the nature of this portent (*praesagio aliquo*). Like the Silvanus fig, the *figus Ruminalis* requires the attention of priests before being dealt with, and it is 'by their care' that a fresh tree is planted. The motivation behind the planting of the new tree may not have only been due to the portent. The Ruminal's new position, at Rome's vibrant centre, emphasised the vitality of the city and was one crowded with a myriad of monuments, with defunct ones being disposed of, as in the case of Attus Navius' statue. Even the Ruminal fig tree had to justify its continued existence in the crowded monumental space of the Roman forum, and a dead tree would likely have been swiftly swept aside, without the lingering influence of whole groves, which became neighbourhood names.⁶⁵⁰

The death of a natural monument occurs in another one of Rome's founding trees, a cornel cherry tree, also known as dogwood, on the Palatine. Plutarch is our only source for this tree's existence, and he presents an account of Romulus throwing a spear from the Aventine to the *Scalae Caci* on the Palatine.⁶⁵¹ This spear then grew into a cornel cherry tree, which was then preserved as a natural monument. Unlike the *figus Ruminalis*, which carried a religious element in each location, be it the shrine of Rumina at the Lupercal or the priests who cared for it in the

⁶⁴⁶ This shift may have occurred during a centralisation of Roman memorial tradition under Augustus, or to distance the location of Augustus' house on the Palatine from the mythical site of Romulus' exposure, in a move of false modesty.

⁶⁴⁷ Fest. 168L-170L.

⁶⁴⁸ See Hunt (2016) 116-19.

⁶⁴⁹ Varro, *Rust.* 2.11.5. It is also possible that these priests were responsible for the movement of the Ruminal from its Palatine location to the Comitium, which occurred with minimal disruption to its identity.

⁶⁵⁰ Varro, *LL* 5.152.

⁶⁵¹ Plut. *Rom.* 20.5-6.

Comitium, this tree has none. Plutarch tells us that this tree was cared for by the vigilance of anyone ‘visiting’ (προσιόντι), although Plutarch does say that this is due to its history of being guarded as sacred to the gods (τι τῶν ἁγιωτάτων ἱερῶν φυλάττοντες). The nature of sacrality is debatable here, and there are no consequences to the tree’s eventual death, during the reign of Caligula. The role of this tree is unclear, and discussion of it is almost non-existent. However, it appears to work as a cultural monument more than a religious one, flouting the legalistic approaches to sacrality that Hunt argues against. The cornel tree on the Palatine has no directly associated deity in Plutarch’s account, and no stake in Rome’s prophetic future. However, the death of the tree in Caligula’s reign can be read as a negative comment on the emperor. As we have seen previously, the relationship between an eastern king and his garden was indicative of his relationship with his kingdom, and this was carried through to Roman practice. This is apparent in the *annus horribilis* of trees during Nero’s reign, as Gowers explored. This tree is the only surviving example of a similar *annus horribilis* in Caligula’s reign, a sure indicator of an emperor neglecting his empire, and the tree does not appear to have held the same monumental status as the Ruminal, preserved only in the account of Plutarch after its death: there is no evidence of re-planting, and we should assume the tree was left to die.

5.4. Concluding Remarks

The destruction of a grove was linked to grave consequences, and this extended to general violations. The topos of the unviolated grove or woodland in general was a common depiction in Latin literature, and was echoed in a law found inscribed at Spoleto and at Trevi, which legalised the purity of an unviolated woodland, although the variant Latin dialects make it impossible to know for certain whether the law refers to the entry of a sacred grove, or the destruction of it. This disparity and the confusion that it has led to is found replicated in Ovid’s tongue-in-cheek recommendation for a shepherd’s prayer, aimed to cover all possible violations, and referring to them all in conditional clauses: ‘If I have ever... forgive my fault’. The law is then replicated in Festus’ epitome of Flaccus, although it takes a harsher line in terms of the punishment for violation: the decapitation of the offender as opposed to a fine, and the mythological precedent for this punishment is well established.

It is the nature of violation that was discussed in the opening section of this chapter, which looked at two different fellings by Caesar, one narrated by himself and the other by Lucan. In Caesar’s telling of the siege on Alesia, the blurred lines between tree and timber are apparent, as they have been elsewhere in this thesis, and this manifests in the account with the phrase

truncis arborum. However, his own narration does not even introduce the readers to the idea of violation, and instead demonstrates a general in complete command of his world, just as Pollius Felix is shown in Statius' *Silvae*. This is in direct contrast to an account from Tacitus of a march through Germany, in which the Germans retreat through their native forests, and are ultimately unsuccessful only when the Romans remove that advantage, just as the Romans on Trajan's Column take the forest away from the Dacians as an ally. Violation was not evident in any of these accounts of Roman control of the landscape, and it is abundantly clear that not all tree-felling is violation.

In Lucan's description of Caesar in Gaul, he again highlights the ambiguity of violation, typical for the author. In this account, Caesar fells an oak tree in a profane wood outside of Massilia. This oak tree may have been violated before its untimely death, but Caesar's men are still wary of felling it, and the other trees in the grove, and this plays into the mythological precedent of tree violation. Tree violation is a tool that is used by other authors to demonstrate a moral absence of an individual: Cicero accuses Clodius of levelling sacred groves and polluting woodlands, and Tacitus uses the devastated woodlands of Bedriacum as a pinnacle of his description of the dystopian landscape enjoyed by Vitellius. Similarly, Lucan exploits the image to demonstrate the moral bankruptcy of Caesar.

Similar to the felling of a tree or grove is its removal (either full or partial), and Ovid's advice to shepherds included warnings about over-enthusiastic arboriculture. Two contrasting examples of tree removal were presented in this chapter, to demonstrate the challenges of having a cut and dry understanding of trees in the ancient world, and arboricultural actions have been discussed elsewhere in this thesis, particularly in the case of the Arval priests. These actions have the potential to have disastrous consequences, in the case of some trees, and if not performed in an appropriate manner. The fig tree in the Forum, by the statue of the Silvanus, is removed under the careful guidance of the Vestals, while a tree that had encroached upon an altar to Juno in Nocera was pruned back and so Rome's fortunes in the Cimbrian Wars faltered, before resurging as the tree was allowed to return. The distinction that Hunt has made, and which this thesis has found no reason to doubt, is that arboricultural actions made for the benefit of the tree has little risk of being classified as violation, but does still need to be negotiated carefully, as the Arval brethren do, in order to avoid any charge of violation. Unlike the felling of trees, and direct attacks upon them, however, there is no notion in any account that I have so far found of removal, pruning, or other arboricultural action that is framed as control of the landscape, as the felling of trees is.

Throughout this thesis, we have been discussing monumentality in nature, from the trees imported in the triumphal processions, to the oak tree felled by Caesar, and we have countered the assertion by Bradley, laid out at the start of the thesis, that can be no natural monuments. I hope this thesis has been successful in challenging this, and demonstrating monumentality in Roman trees. A key feature, and problem, with natural monuments, however, is their mortality, and this chapter in particular has explored this. The felling and removal of trees are deliberate human interventions, and the chapter closed with a discussion on the natural death of monumental trees, and how this was dealt with in three examples: a tree in the Arval grove, and two trees that commemorated incidents from Rome's early myth-history, the *figus Ruminalis* and an unnamed tree that was linked to the spear of Romulus. These trees showed different ways that the death of a natural monument was negotiated. In the case of the Arval grove, a tree's death was internalised, so as not to damage the integrity of the grove as a whole unit: the tree was less important than the grove. Meanwhile, Romulus' spear tree, inadvertently killed by some workers was consigned to history, and remembered as a monument during the Julio-Claudian period by the later writer, Plutarch. The Ruminal fig has a much more complex history, and the flexible response to this tree's death allowed for the identity of the memorial to be transferred from tree to tree, never dying alongside the tree, a response that is echoed in other trees of less national importance. The ultimate conclusion of this chapter, evident from the confused prayer Ovid advises to the differing reactions to the deaths of trees, is that there is no broad brush approach to trees of the Roman world in any aspect of their life, or of their death. Every tree has to be dealt with on an individual basis.

Conclusions

In the heart of Israel, in the middle of the Martyrs' Forest, two bronze columns stand atop a hill, imitations of the two scrolls of the Torah. The monument, known as the Scroll of Fire, and sculpted by Nathan Rapoport in 1971, represents two narratives (see Fig. 27). On one column, the Holocaust is depicted, while the other shows the return of the Jews to Israel, and the nation's independence. These narratives follow a similar structure to Trajan's Column, ascending up the column in a rough partially helical relief, not quite wrapping around each scroll. The independence column shows the repatriation of the Jewish people, and takes its influence from the Arch of Titus, evident from its portrayal of the menorah being returned to Jerusalem, borne on a litter by soldiers, beneath a winged victory (see Fig. 28). Below this spectacle, on the viewer's level, there is an understated sculpted depiction of the revitalisation of the Jewish state, and a politically controversial one: a Jaffa orange tree shelters a pregnant woman being embraced by a man.⁶⁵² This tree, native to Israel, was adopted as a symbol of the nation shortly after the Second World War, although control of the tree has proved to be divisive, encapsulated in the flight of the Arab population from Tel Aviv, or 'The Big Orange', during the 1948 Arab-Israeli war.

The venue for the Scroll of Fire, the Martyrs' Forest, is the single largest Holocaust memorial in the world, composed of six million trees. The planting of this memorial began in 1951, and the forest is composed of a variety of trees, both native to Israel and imported. These trees are described in the *Jerusalem Post* as 'living, green memorial candles', and the Martyrs' Forest is used as a venue for Holocaust Remembrance Day in Israel.⁶⁵³ The nature of the tree, long lasting and vivacious, is employed for the communication of the message of remembrance, monumentalising the legacy of the Holocaust, and emphasising the regrowth and resurgence and rediscovered rootedness of a people despite repeated Diasporas.

⁶⁵² Azaryahu (2011, 137) stresses the theme of national revival in this, and other Holocaust memorials, a theme echoed in Young (1993, 200-25).

⁶⁵³ Karen Kayemeth LeIsrael-Jewish National Fund, (04-May-2011), <https://www.jpost.com/Green-Israel/People-and-The-Environment/Holocaust-Remembrance-Day-in-Forest-of-the-Martyrs>. Date accessed: 20-Aug-2018.



Figure 27: The Scroll of Fire, Martyr's Forest, Israel. Photo by Andrew Fox (25-Feb-2018).



Figure 28: The reverse of the Scroll of Fire, Martyr's Forest, Israel. Photo by Andrew Fox (25-Feb-2018). Tree magnified in the inset.

These trees are used as a vehicle for national identity in the case of the sculpted Jaffa orange, or as a monumental venue for collective memory, as in the Martyrs' Forest. The employment of trees in this context is not dissimilar to the various uses of trees in ancient Rome, where trees likewise stood as monuments and hubs of cultural memory. These natural, living monuments were only a portion of the arboreal population of the Roman world, and shared the distinctive properties of trees, providing shade through their branches and leaves, offering timber and fruit to the local population, and dominating a landscape with their scale, stabilised by potentially destructive roots. Like the rooted fertility of the Martyr's Forest, the trees of the ancient city were exploited as they were controlled and directed by a nurturing Roman hand. Trees, as we have seen, were employed across a range of media, from the prominence of the acorn on *coronae civicae* on compital shrines throughout the city to written accounts of the Julio-Claudian *lauretum* overlooking the Via Flaminia, or the trees that lined the Area Fori in Trajan's Forum. These trees act as a reminder of Rome's rural past, and are visible representatives of enduring nature in a city that (at least by the time of Augustus) was normally regarded as a city dominated by marble.

Throughout this thesis, religion has been only briefly engaged with in Roman relationships with the ancient world. This decision was, in part, necessitated by the publication of Hunt's *Reviving Roman Religion: Sacred Trees in the Roman World* (2016), which presented the religious relationship with trees in the Roman world in a more thorough fashion than this thesis could have done within its scope of broader social interactions. As a result of putting religion to one side, this thesis has been able to highlight other key forms of interaction with trees in the ancient world, while not offering a complete understanding of these interactions (as any focussed study cannot). Among the themes of these interactions, and one highlighted in the title of this thesis is the subjugation of nature. This has been examined from the start of this thesis, in Pollius Felix's exertion of control over the landscape he builds his estate on, and continues through interactions with trees in the city, which are barren and wild when they transgress the boundaries of man and nature. It can be found in Pliny's cataloguing and categorising of the natural world, and in the tree-felling scenes of Trajan's Column. In the fourth chapter, we explored trees' role as representations of conquered nations and people in the triumphal procession, and as *trophaea* across Roman territories and in artwork. Throughout these case studies, the theme of subjugation has been able to be demonstrated across a range of eras, genres, and media – a broad coverage which would have been more challenging to offer without a case-study approach.

The assertion that the subjugation of nature is a broad and consistent theme as a result of sporadic case-studies dotted throughout Roman history is, however, a bold one, and one that cannot be categorically made. This is a consequence of the necessary case-study approach, and a result of the lack of evidence that we have for trees in the Roman world. Some trees were of limited to no social importance, and will have died and been forgotten. An example of a tree of this type is Martial's pear tree, on the Esquiline. We do not know if there was a genuine pear tree here, or if there was only the memory of one (as in the comparable groves highlighted by Varro in *De lingua Latina*).⁶⁵⁴ However, that there was, at some point, a pear tree on the Esquiline, is made more likely by a cursory reference in an otherwise unrelated poem of Martial's. Throughout this thesis, these putative trees have been placed alongside images of trees, and the interactions have been approached through a similar framework – a consequence of a case-study approach, where a more focussed approach may have to disregard one or the other.

The case-study approach was evident from the outset, and this thesis began with an overview of the role of trees primarily within the boundary of the city of Rome as visible exemplars of nature in literature. Contrary to Martial's idea of *rus in urbe*, and the rural-urban dichotomy that we might expect within the ancient city, the opening chapter revealed a vibrant and complex relationship in which trees were used for their communicative capital, at least in written descriptions of the city. The map that accompanied this chapter showed that the written idea of a city significantly dotted with trees was not a far cry from reality. Carandini's recently published maps of the city's Horti demonstrate that large natural spaces were particularly common outside the city,⁶⁵⁵ but this thesis has demonstrated that there was also a marked concentration of monumental trees within the city's boundaries. This central arrangement of monumental trees tallies with the intensive programme of monumental architecture within the city, where trees functioned as contained instances of nature in an urban space. The range of references to trees, which cross genre boundaries and social spheres, demonstrates one of the key findings of the *RTD*: that awareness of trees in the ancient world was not limited strictly to their religious and practical applications, and that their social and cultural significance across a range of ancient evidence was diverse and complex.

The second and third chapters developed this broad set of cultural approaches to trees in the ancient world by focussing on two contrasting pieces of source material – Pliny the Elder's

⁶⁵⁴ Varro, *LL* 5.152.

⁶⁵⁵ Carandini (2017) vol. II tab. II.

Natural History (the most cited text in the *RTD*), and Trajanic triumphal architecture, epitomized by Trajan's Column. These represent two of the most visible expressions of Roman interaction with nature, and share an imperialist approach. In the *Natural History*, Pliny integrates trees into his world view, and uses them to communicate his particular literary interests in Stoicism and imperialism, alongside with a concern for commerce which characterised the Flavian court context in which he was writing. The world Pliny aims to create is one that directs foreign nature toward *utilitas*, or Roman benefit. To do this, he foregrounds timber and fruit, a tree's typical utilities, and presents the controlled production of these as an act of conquest and subjugation. This subjugation is prominent throughout a visual *corpus* of triumphal architecture, and the trees on Trajanic architecture, particularly the 224 trees on Trajan's Column, are shown being conquered by a hostile Roman army. Here, trees were one compelling component of military conquest, and framed, protected and exposed the characters of the opposing commanders, Trajan and Decebalus. Forests were felled and invaded by Roman forces, both potentially violations of sacred groves, as we explored in the final chapter, while the Dacians left forests, hid within them, and ultimately died under the trees that separated them from allies. The civilised, subdued trees presented in Pliny's *Natural History* are part of the sculpted population on Trajanic architecture, which submit to Trajan alongside the leaders and emissaries of their homelands. Across these two bodies of evidence, one literary, one visual, the subjugation of nature is celebrated in a triumphal context, as territories are conquered, and the wild forests, hostile to Roman forces and the Roman ideals of order are tamed in the service of Rome.

While the third chapter examined the artistic programme of sculpting a large number of trees on a monument such as Trajan's Column, and explored the possibility that these trees were planted in the Area Fori of Trajan's Forum as a component of the triumphal spoils, the fourth chapter began with an examination of the triumphal import of trees, and the housing of them in Rome. It drew upon a description of the trees in the Porticus Pompeiana in Propertius' *Elegies*, which corresponds to extant archaeological evidence, and explored the use of trees to communicate conquest, and comparisons to the practices of Eastern kings for whom the 'garden' was a metaphor for their kingship. It also examined the use of trees throughout the triumphal procession, and established as a key theme the exploitation of nature in the triumphal procession, where trees were employed for a variety of physical attributes – their fertile fruits, their aroma, and their stature. These were used in different ways, and communicated different messages, from encouraging the renaissance of Rome to communicating the grandeur of a

fallen enemy. The discussion of the *spolia opima* in this chapter, and of the housing of triumphal trees in this and the previous chapter highlighted the challenges of living trophies like those exhibited in the triumphal procession, and the natural monuments that they eventually became.

The final chapter of the thesis examined the challenges that faced any monumental tree in the Roman landscape and cityscape. These included violation at human hands (Roman or otherwise), the potentially destructive growth of natural monuments as they competed with stone monuments for space, and their inevitable death, both human and natural in origin. Beginning with Ovid's warnings to a shepherd preparing for the Parilia against any violations, the chapter examined the complex role of monumental and potentially sacred trees in the city. All of the trees discussed in the chapter elicit diverse responses from their Roman contemporaries, although each ancient account exhibited an enduring concern for the arboreal. In the Arval grove, priests had to take action in response to dead trees, and to prune the living ones, while the Vestals were required to remove a fig tree upsetting a statue of Silvanus in the Forum, and the priesthood of Juno at Nocera beheaded an encroaching elm. The ultimate challenge to any monumental tree, and unique to living monuments, is the monument's death. As one form of death, a natural monument could find itself killed off, as in the accidental death the cornel tree from Romulus' spear on the Palatine. Another Palatine tree showed off an alternative response to a monumental death, when the death of the Ruminal on the Palatine was ignored, and the dead tree maintained as a monument. During this monument's second life, the tree's identity was transferred to a new tree, and the monument was renewed in a new spot. A similar practice is also evident in Cicero's account of the Marian Oak, the identity of which was seamlessly transferred from one tree to another. Through this examination, I have shown that the ancient approach to these trees was highly individualised. Where similarities did exist, they were found between trees in different contexts, religious, social, or political.

In this project, I have examined the role of trees as monuments in the ancient city, but have focussed this examination on Roman trees in the late Republic and early Principate. Future explorations into the role of trees in other areas of the ancient world could reveal a similarly complex relationship with trees in either the Greek world, or other parts of the Roman one. Plants, herbs, and trees in a farming setting were not as thoroughly explored as they perhaps could have been in this thesis, and future examinations of the rural application of trees may yield interesting comparisons. Work done in this thesis on the identification of trees in sculpture has already proved itself to be useful outside of this project's focus on Rome in the

early Principate, aiding accurate identification of trees in sculpture in the third century CE. The combination of visual and literary evidence throughout this thesis can also be applied to other depictions of natural, mythical scenes, such as those found on the Lycinus cup (British Museum, 1958, 1202.1), and the possible identification of a scene on a Trajanic relief housed in the Vatican museum (Inv. no. 9510). There are opportunities for further discussions of trees in individual literary works and genres, as demonstrated by Armstrong's forthcoming monograph that addresses the role of trees in Vergil's poetry. The import of trees in the triumphal procession, and literary accounts of the importance of provenance with regard to trees, such as that of Pliny, could offer some literary evidence to direct an archeobotanical investigation into the triumphal imports of trees, and the potential housing of them in manubial or triumphal structures within Rome. The ongoing excavations of the Templum Pacis area may yet reveal the planting area for the *balsam* plants imported by Vespasian and Titus. Outside of trees, and focussing on the role of nature in Roman expression of conquest, this can be expanded to include rivers, which were also exhibited via their divine personifications in triumphal processions, and had a similar permanence, and potential for destruction (via flooding) to trees. These constantly moving and changing currents pumped through the cities and the countryside of the ancient world, nourishing the land around it while also threatening it with flood. Rivers could be visibly overcome and subjugated, either through redirection, as trees were at the opening of Lucretius' *De rerum natura*, or by bridging, as the Danube is at the base of Trajan's Column. Along with mountains, rivers are used by Pliny the Younger in his *Panegyricus* to reveal Trajan's mastery of the natural world, and these natural features are as dominant in a landscape as trees.

This thesis began with an aim to explore the complex and versatile role of trees in Roman society, religion and culture, a discussion which necessitated the contextualisation of the trees. The project aimed to take trees as a whole, and not to distil a multi-layered thing down to its leaves or timber, or to focus on a tree's religious role to the exclusion of its practical uses. This wide-ranging approach has led to a diverse, and sometimes disparate, array of source material being collated and brought to bear on the topic and has shown that trees have a role throughout Roman life. Through taking this broad cross-section of evidence, the complex and versatile role of trees has been demonstrated in a number of early Imperial Roman contexts. For some, such as Pliny, trees are primarily a resource. For Lucretius, for Statius, and for the architect of Trajan's Column, they were an indication of a wild, untamed, and 'un-Roman' landscape, waiting to be brought under the yoke. For Lucullus, Pompey, and Vespasian and Titus, they

were a commodity of conquest, able to be displayed and exploited for their rootedness to another land. Their transplanting showed the total conquest of a land, and the gardens created from these spoils advertised the extent of a general's conquered lands. For the Arval brethren, the grove was a shadowy home of their ritual activity, which could be conducted in the cloaking shade. Shade is a common feature of trees, from the plane tree Pliny identifies as being imported solely for the luxury of its shade, to the beech tree that Tityrus rests under at the opening of Vergil's *Eclogues*, to the protective shade of the forest Decebalus hides in on Trajan's Column. The protection of trees is found throughout the Roman world, right from the foundation of the city, when Romulus and Remus were washed up against the roots of a fig tree and suckled at the she-wolf underneath the Ruminal's protective branches.

Future Directions

As is apparent, this thesis offers studies, as opposed to a continuous narrative, and puts sources together which would otherwise be kept separated within more traditional scholarship. A central axis of this was the linking of Pliny's *Natural History*, the trees carved on Trajan's Column, and the civic crown of a compital shrine. With these sources, the thesis was able to frame the utilisation of trees' attributes as an exploitation of them, and through combining this evidence, I aim to encourage a cross-disciplinary engagement with the ancient world. The thesis did not have the room to engage with garden archaeology, and future investigations of the role of trees in the Roman world, a role not limited to religious engagement, should involve this discipline.

In terms of individual chapters, with the development of the *RTD* as a resource, it could be linked to digital humanities projects such as Pleiades, and would ideally be expanded to visual sources and to Greek literature. This would both expand the database's scope, and aid its application in the real world. Through this, the survey offered in Chapter One could be expanded, and offer a more holistic view of literary engagement with trees across the ancient world. The *RTD* also offers the opportunity to explore intertextualities, such as in the construction of pyres, consistent across Ennius, Vergil, Seneca, Silius Italicus, and Statius. An expanded *RTD* would allow for considerations of Latin-Greek intertextualities as well. The second chapter, on Pliny the Elder's approach to trees, will benefit from a more detailed genre study, which this thesis simply did not have the room to offer. 'Trajan's Trees' represents a slightly expanded version of an article already published, but it could be expanded further into a survey of Trajanic architecture, and of stylised trees in other Roman reliefs. In Trajanic architecture, the role of trees can be used to identify locations, as in the Plutei of Trajan, which

were not included in this chapter due to them not being triumphal architecture, and not depicting a Dacian or German landscape. A further study could include these reliefs, and other non-imperially commissioned reliefs, such as one identified as depicting Amalthea and a baby Zeus underneath a tree (MV 9510), which does not follow the identification types laid out by Stoiculescu, despite being an oak tree. These variations in style could be examined in greater depth, and could reveal some diagnostic features for Trajanic artwork beyond the triumphal architecture discussed in this thesis. A final future direction for this thesis would be the inclusion of discussions of architecture, and tree's roles in architecture across the city of Rome. It would include discussion of building such as the Mausoleum of Augustus, the Isaeum, and the Porticus Philippi, and how trees within the city would function on a practical and archaeological level, as opposed to the more theoretical, media-driven level often offered in this thesis. By including these engagements with architecture and trees, I aim to expand my inter-disciplinary approach within the already broad church of landscape studies, and engage more closely in the physical fabric of Rome's arboreal cosmopolis.

Appendix 1 – The Roman Trees Database

For the full database, including the ‘Notes’ section, see www.nottingham.ac.uk/Roman_Trees.

Latin term	Author	Text	Reference	Era	Topic
<i>abiegnus</i>	Catullus	<i>Poems</i>	64.7	Republic	Use/ Mythical
<i>abiegnus</i>	Ovid	<i>Ars amatoria</i>	3.469	Augustan	Use
<i>abiegnus</i>	Propertius	<i>Elegies</i>	3.19.12	Augustan	Use/ Mythical
<i>abiegnus</i>	Propertius	<i>Elegies</i>	4.1.42	Augustan	Use/ Mythical
<i>abiegnus</i>	Propertius	<i>Elegies</i>	3.1.25	Augustan	Use/ Mythical
<i>abiegnus</i>	Plautus	<i>Casina</i>	384	Republic	Use/ Timber
<i>abiegnus</i>	Priscianus	<i>De arte grammatica</i>	2.70	5th Century CE	Language
<i>abiegnus</i>	Ennius	<i>Medea</i>	F89	Republic	Use/ Mythical
<i>abiegnus</i>	Quintilian	<i>The Orator's Education</i>	5.10.84	Julio-Claudian	Reference
<i>abiegnus</i>	Accius	<i>Plays</i>	222-3	Republic	Mythical
<i>abiegnus</i>	Livy	<i>Ab urbe condita</i>	21.8.10	Augustan	Use/ Battle
<i>abiegnus</i>	Vitruvius	<i>De architectura</i>	2.9.14	Late Republic/ Augustan	Use
<i>abiegnus</i>	Sidonius	<i>Letters</i>	8.12.5	5th Century CE	Use
<i>abiegnus</i>	Cicero	<i>De natura deorum</i>	3.75	Late Republic	Reference
<i>abiegnus</i>	Cicero	<i>Ad Herennium</i>	2.22	Late Republic	Reference
<i>abiegnus</i>	Cicero	<i>De inventione</i>	1.91	Late Republic	Reference
<i>abiegnus</i>	Cicero	<i>Topica</i>	61	Late Republic	Reference
<i>abiegnus</i>	Cicero	<i>De fato</i>	35	Late Republic	Reference
<i>abiegnus</i>	Varro	<i>De lingua Latina</i>	7.33.4	Late Republic	Reference
<i>abiegnus</i>	Columella	<i>Res Rustica</i>	12.44.4	Julio-Claudian	Use
<i>abiegnus</i>	Columella	<i>Res Rustica</i>	12.47.6	Julio-Claudian	Use
<i>abiegnus</i>	Vitruvius	<i>De architectura</i>	7.3.1	Late Republic/ Augustan	Use
<i>abiegnus</i>	Festus	<i>De verborum significatu</i>	p.414L	Adoptive	Reference
<i>abiegnus</i>	Livy	<i>Ab urbe condita</i>	42.65.10	Augustan	Use/ Battle
<i>abies</i>	Ammianus Marcellinus	<i>Rerum Gestarum</i>	23.4.8	4th Century	Battle/ Use

Latin term	Author	Text	Reference	Era	Topic
<i>abies</i>	Columella	<i>Res Rustica</i>	11.2.13	Julio-Claudian	Timber
<i>abies</i>	Ennius	<i>Annals</i>	6.177 Sk.	Republic	Use/ Battle
<i>abies</i>	Fronto	<i>Epistulae</i>	p.7, 18N	Adoptive	Planting
<i>abies</i>	Juvenal	<i>Satires</i>	3.255	Adoptive	Timber
<i>abies</i>	Livy	<i>Ab Urbe Condita</i>	24.3.4	Augustan	Divinity
<i>abies</i>	Ovid	<i>Metamorphoses</i>	10.94	Augustan	Catalogue
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.187	Flavian	Alternative name
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.38	Flavian	Foreign/ Produce
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.48	Flavian	General
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Flowering
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.125	Flavian	Structure
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.127	Flavian	Roots
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.128	Flavian	Roots
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	17.91	Flavian	Shade
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	16.225	Flavian	Timber
<i>abies</i>	Pliny the Elder	<i>Natural History</i>	12.134	Flavian	Use/ Alternative name
<i>abies</i>	Silius Italicus	<i>Punica</i>	4.682	Adoptive	Battle
<i>abies</i>	Silius Italicus	<i>Punica</i>	4.255	Adoptive	Battle/ Synonym
<i>abies</i>	Silius Italicus	<i>Punica</i>	6.352	Adoptive	Battle/ Use
<i>abies</i>	Statius	<i>Thebaid</i>	6.104	Flavian	Battle/ Use/ Death/ Destruction

Latin term	Author	Text	Reference	Era	Topic
<i>abies</i>	Valerius Flaccus	<i>Argonautica</i>	3.165	Flavian	Battle
<i>abies</i>	Valerius Flaccus	<i>Argonautica</i>	7.405	Flavian	Metaphor
<i>abies</i>	Varro	<i>De Re Rustica</i>	1.6.4	Late Republic	Habitat
<i>abies</i>	Vergil	<i>Eclogues</i>	7.66	Augustan	Habitat
<i>abies</i>	Vergil	<i>Aeneid</i>	8.599	Augustan	Shade
<i>abies</i>	Vergil	<i>Aeneid</i>	2.16	Augustan	Use
<i>abies</i>	Vergil	<i>Aeneid</i>	5.663	Augustan	Use
<i>abies</i>	Vergil	<i>Aeneid</i>	11.667	Augustan	Use
<i>abies</i>	Vergil	<i>Georgics</i>	2.68	Augustan	Use
<i>abies</i>	Vergil	<i>Aeneid</i>	8.91	Augustan	Use/ Synonym
<i>abies</i>	Vitruvius	<i>De Architectura</i>	1.2.8	Late Republic/ Augustan	Timber
<i>abies</i>	Vitruvius	<i>De Architectura</i>	2.9.17	Late Republic/ Augustan	Timber
<i>abies</i>	Vitruvius	<i>De Architectura</i>	5.1.3	Late Republic/ Augustan	Timber
<i>acacia</i>	Celsus	<i>De Medicina</i>	5.1	Augustan	Medicine
<i>acacia</i>	Petronius	<i>Satyricon</i>	23.5	Neronian	Use
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	20.208	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	20.233	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	20.48	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	23.65	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	24.109	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	24.110	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	24.43	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	27.16	Flavian	Medicine
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	30.56	Flavian	Medicine

Latin term	Author	Text	Reference	Era	Topic
<i>acacia</i>	Pliny the Elder	<i>Natural History</i>	30.57	Flavian	Medicine
<i>acer</i>	Ovid	<i>Metamorphoses</i>	10.95	Augustan	Catalogue
<i>acer</i>	Ovid	<i>Amores</i>	1.11.28	Augustan	Divinity
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.119	Flavian	Age
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.97	Flavian	Budding
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	12.56	Flavian	Comparison
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.69	Flavian	Comparison
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.66	Flavian	General
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Seeds
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Use
<i>acer</i>	Pliny the Elder	<i>Natural History</i>	33.146	Flavian	Use
<i>acrifolium</i>	Tarquitius Priscus	<i>Unknown</i>	Macr. Sat. 3.20.3	Late Republic	Omen
<i>acrifolium</i>	Cato	<i>On agriculture</i>	31.1	Late Republic	Use
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	27.63	Flavian	Alternative name
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.91	Flavian	Foliage
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.73	Flavian	Habitat
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	15.101	Flavian	Fruit
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Use
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>acrifolium</i>	Pliny the Elder	<i>Natural History</i>	24.116	Flavian	Use
<i>aesculus</i>	Veranius	<i>fr. 3 GRF 1:431</i> = <i>fr. 1 IAH2.1:6</i> = <i>fr. 5 IAR6</i>	Macr. Sat. 3.20.3	Republic	Omen
<i>aesculus</i>	Calpurnius	<i>Eclogues</i>	5.59	Neronian	Age/ Shade
<i>aesculus</i>	Horace	<i>Odes</i>	3.10.17	Augustan	Timber
<i>aesculus</i>	Ovid	<i>Metamorphoses</i>	10.91	Augustan	Foliage
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	12.3	Flavian	Divinity
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	17.151	Flavian	Similarities/ Planting
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.17	Flavian	Habitat
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Produce
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.19	Flavian	Fruit
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.20	Flavian	Fruit
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.25	Flavian	Fruit/ Animals
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.127	Flavian	Size
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.219	Flavian	Timber
<i>aesculus</i>	Pliny the Elder	<i>Natural History</i>	16.11	Flavian	Use
<i>aesculus</i>	Servius	<i>Commentary on the Georgics</i>	2.291	4th Century	Fruit
<i>aesculus</i>	Silius Italicus	<i>Punica</i>	5.511	Adoptive	Destruction
<i>aesculus</i>	Silius Italicus	<i>Punica</i>	10.165	Adoptive	Destruction
<i>aesculus</i>	Silius Italicus	<i>Punica</i>	5.481	Adoptive	Famous
<i>aesculus</i>	Suetonius	<i>Galba</i>	3	Adoptive	Animals
<i>aesculus</i>	Vergil	<i>Georgics</i>	2.16	Augustan	Divinity
<i>aesculus</i>	Vergil	<i>Georgics</i>	2.291	Augustan	Size

Latin term	Author	Text	Reference	Era	Topic
<i>aesculus</i>	Vitruvius	<i>De Arcitectura</i>	2.9.9	Late Republic	Timber
<i>aesculus</i>	Vitruvius	<i>De Arcitectura</i>	7.1.2	Late Republic	Timber
<i>alnus</i>	Catullus	<i>Poems</i>	17.18	Late Republic	Metaphor
<i>alnus</i>	Cicero	<i>De Legibus</i>	fragment from Book 5 (Dyck)	Late Republic	Shade
<i>alnus</i>	Columella	<i>De re rustica</i>	10.1.1	Julio-Claudian	Destruction
<i>alnus</i>	Isidore of Seville	<i>Origines</i>	17.7.42	6th Century	Etymology
<i>alnus</i>	Ovid	<i>Metamorphoses</i>	13.790	Augustan	Structure/ Comparison
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.108	Flavian	Fruit
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	31.44	Flavian	Habitat
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.77	Flavian	Habitat
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.218	Flavian	Habitat/ Colour
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	24.74	Flavian	Medicine
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	17.68	Flavian	Planting
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	17.90	Flavian	Shade
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.69	Flavian	Structure
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.219	Flavian	Timber
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.210	Flavian	Timber

Latin term	Author	Text	Reference	Era	Topic
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.224	Flavian	Use
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.173	Flavian	Use/ Habitat
<i>alnus</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use/ Produce
<i>alnus</i>	Seneca	<i>Phaedra</i>	10	Neronian	Grove
<i>alnus</i>	Seneca	<i>Oedipus</i>	540	Neronian	Grove/ Use/ Habitat
<i>alnus</i>	Servius	<i>Commentary on the Aeneid</i>	10.189	4th Century	Mythical
<i>alnus</i>	Servius	<i>Commentary on the Eclogues</i>	6.62	4th Century	Mythical
<i>alnus</i>	Servius	<i>Commentary on the Eclogues</i>	9.19	4th Century	Reference
<i>alnus</i>	Servius	<i>Commentary on the Georgics</i>	1.136	4th Century	Use
<i>alnus</i>	Silius Italicus	<i>Punica</i>	4.682	Flavian	Destruction/ Habitat/ Divinity
<i>alnus</i>	Silius Italicus	<i>Punica</i>	14.379	Flavian	Use/ Synonym
<i>alnus</i>	Silius Italicus	<i>Punica</i>	14.481	Flavian	Use/ Synonym
<i>alnus</i>	Silius Italicus	<i>Punica</i>	3.458	Flavian	Use/ Synonym
<i>alnus</i>	Silius Italicus	<i>Punica</i>	12.522	Flavian	Use/ Synonym
<i>alnus</i>	Silius Italicus	<i>Punica</i>	4.491	Flavian	Use/ Synonym/ Habitat/ Destruction
<i>alnus</i>	Statius	<i>Thebaid</i>	6.106	Flavian	Habitat/ Destruction
<i>alnus</i>	Statius	<i>Thebaid</i>	10.13	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Thebaid</i>	3.23	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Thebaid</i>	4.479	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Thebaid</i>	5.370	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Thebaid</i>	8.270	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Thebaid</i>	9.308	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Achilleid</i>	2.19	Flavian	Use/ Synonym
<i>alnus</i>	Statius	<i>Achilleid</i>	1.923	Flavian	Use/ Synonym/ Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>alnus</i>	Valerius Flaccus	<i>Argonautica</i>	1.637	Flavian	Use/ Synonym
<i>alnus</i>	Valerius Flaccus	<i>Argonautica</i>	2.300	Flavian	Use/ Synonym
<i>alnus</i>	Valerius Flaccus	<i>Argonautica</i>	3.536	Flavian	Use/ Synonym/ Habitat
<i>alnus</i>	Varro	<i>Res rusticae</i>	1.7.7	Late Republic	Habitat
<i>alnus</i>	Vergil	<i>Eclogues</i>	10.74	Augustan	Symbolism/ Comparison
<i>alnus</i>	Vergil	<i>Georgics</i>	2.110	Augustan	Habitat
<i>alnus</i>	Vergil	<i>Georgics</i>	2.451	Augustan	Habitat/ Timber
<i>alnus</i>	Vergil	<i>Eclogues</i>	6.63	Augustan	Size
<i>alnus</i>	Vergil	<i>Eclogues</i>	8.53	Augustan	Use
<i>alnus</i>	Vergil	<i>Georgics</i>	1.136	Augustan	Use
<i>alnus</i>	Virgiliana	<i>Culex</i>	55	Tiberian	Animals
<i>alnus</i>	Vitruvius	<i>De architectura</i>	8.1.3	Augustan	Habitat
<i>alnus</i>	Vitruvius	<i>De architectura</i>	2.9.10	Augustan	Use/ Habitat/ Timber
<i>alnus</i>	Lucan	<i>De bello civili</i>	3.441	Neronian	Habitat/ Destruction
<i>alnus</i>	Lucan	<i>De bello civili</i>	5.596	Neronian	Use
<i>alnus</i>	Lucan	<i>De bello civili</i>	4.422	Neronian	Use
<i>alnus</i>	Lucan	<i>De bello civili</i>	2.486	Neronian	Use/ Destruction
<i>alnus</i>	Lucan	<i>De bello civili</i>	3.597	Augustan	Use/ Synonym
<i>alnus</i>	Lucan	<i>De bello civili</i>	2.427	Neronian	Use/ Synonym
<i>alnus</i>	Lucan	<i>De bello civili</i>	3.520	Neronian	Use/ Synonym
<i>alnus</i>	Lucan	<i>De bello civili</i>	3.562	Neronian	Use/ Synonym
<i>betulla</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Origin
<i>betulla</i>	Pliny the Elder	<i>Natural History</i>	16.75	Flavian	Origin

Latin term	Author	Text	Reference	Era	Topic
<i>betulla</i>	Pliny the Elder	<i>Natural History</i>	16.175	Flavian	Strength
<i>betulla</i>	Pliny the Elder	<i>Natural History</i>	16.208	Flavian	Use
<i>buxus</i>	Juvenal	<i>Satires</i>	14.194	Adoptive	Comparison
<i>buxus</i>	Apuleius	<i>Apologia</i>	61	Adoptive	Use
<i>buxus</i>	Ennius	<i>Varia</i>	29	Republic	Language/ Destruction
<i>buxus</i>	Ennius	<i>Annals</i>	7.224 Sk.	Republic	Taste
<i>buxus</i>	Martial	<i>Epigrams</i>	12.32	Flavian/ Adoptive	Colour
<i>buxus</i>	Martial	<i>Epigrams</i>	3.20	Flavian/ Adoptive	Habitat
<i>buxus</i>	Martial	<i>Epigrams</i>	1.88	Flavian/ Adoptive	Use
<i>buxus</i>	Martial	<i>Epigrams</i>	14.25	Flavian/ Adoptive	Use
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	10.97	Augustan	Catalogue
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	4.134	Augustan	Colour
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	11.417	Augustan	Colour
<i>buxus</i>	Ovid	<i>Ex Ponto</i>	1.45	Augustan	Use
<i>buxus</i>	Ovid	<i>Fasti</i>	6.229	Augustan	Use
<i>buxus</i>	Ovid	<i>Fasti</i>	6.697	Augustan	Use
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	4.30	Augustan	Use
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	12.158	Augustan	Use
<i>buxus</i>	Ovid	<i>Metamorphoses</i>	14.537	Augustan	Use
<i>buxus</i>	Persius	<i>Satires</i>	3.51	Julio-Claudian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Age
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.92	Flavian	Foliage
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.73	Flavian	Habitat
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	6.77	Flavian	Habitat
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	30.97	Flavian	Medicine

Latin term	Author	Text	Reference	Era	Topic
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	34.51	Flavian	Medicine
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	17.163	Flavian	Planting
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	21.83	Flavian	Produce
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.121	Flavian	Structure
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.204	Flavian	Structure
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.226	Flavian	Structure
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.221	Flavian	Taste
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.183	Flavian	Timber
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.172	Flavian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	35.32	Flavian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	35.35	Flavian	Use
<i>buxus</i>	Pliny the Elder	<i>Natural History</i>	16.70	Flavian	Varieties
<i>buxus</i>	Pliny the Younger	<i>Letters</i>	2.17.14	Adoptive	Habitat
<i>buxus</i>	Pliny the Younger	<i>Letters</i>	5.6.16	Adoptive	Use
<i>buxus</i>	Propertius	<i>Elegies</i>	3.23	Augustan	Nature
<i>buxus</i>	Seneca	<i>Agamemnon</i>	358	Neronian	Use
<i>buxus</i>	Seneca	<i>Agamemnon</i>	689	Neronian	Use
<i>buxus</i>	Servius	<i>Commentary on the Aeneid</i>	10.136	4th Century	Comparison
<i>buxus</i>	Servius	<i>Commentary on the Aeneid</i>	9.616	4th Century	Etymology
<i>buxus</i>	Servius	<i>Commentary on the Aeneid</i>	12.766	4th Century	Etymology
<i>buxus</i>	Status	<i>Silvae</i>	5.3.88	Flavian	Use
<i>buxus</i>	Status	<i>Thebaid</i>	2.77	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>buxus</i>	Statius	<i>Thebaid</i>	5.94	Flavian	Use
<i>buxus</i>	Statius	<i>Thebaid</i>	7.222	Flavian	Use
<i>buxus</i>	Statius	<i>Achilleid</i>	1.827	Flavian	Use/ Divinity
<i>buxus</i>	Statius	<i>Thebaid</i>	9.48	Flavian	Use/ Divinity
<i>buxus</i>	Valerius Flaccus	<i>Argonautica</i>	1.319	Flavian	Use
<i>buxus</i>	Valerius Flaccus	<i>Argonautica</i>	2.583	Flavian	Use
<i>buxus</i>	Valerius Flaccus	<i>Argonautica</i>	3.231	Flavian	Use
<i>buxus</i>	Vergil	<i>Aeneid</i>	7.382	Augustan	Mythical/ Comparison
<i>buxus</i>	Vergil	<i>Aeneid</i>	9.619	Augustan	Use
<i>buxus</i>	Vergil	<i>Aeneid</i>	10.136	Augustan	Use
<i>buxus</i>	Vergil	<i>Georgics</i>	2.437; 449	Augustan	Use/ Habitat
<i>buxus</i>	Vitruvius	<i>De Architectura</i>	7.3	Late Republic/ Augustan	Use/ Age
<i>castanea</i>	Columella	<i>Res Rustica</i>	4.33	Julio-Claudian	General
<i>castanea</i>	Columella	<i>Res Rustica</i>	4.30	Julio-Claudian	Use
<i>castanea</i>	Martial	<i>Epigrams</i>	5.78.15	Flavian/ Adoptive	Fruit
<i>castanea</i>	Martial	<i>Epigrams</i>	10.79.6	Flavian/ Adoptive	Grove
<i>castanea</i>	Ovid	<i>Metamorphoses</i>	13.819	Augustan	Fruit
<i>castanea</i>	Petronius	<i>Poems</i>	20	Neronian	Fruit/ Foliage
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	13.11	Flavian	Comparison
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	29.121	Flavian	Comparison
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	15.112	Flavian	Fruit
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	15.92	Flavian	Fruit

Latin term	Author	Text	Reference	Era	Topic
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.20	Flavian	Fruit
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	17.147ff.	Flavian	General
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	17.122	Flavian	Grafting/ Origin
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	17.59	Flavian	Planting/ Grafting
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.138	Flavian	Habitat
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.76	Flavian	Habitat
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	17.150	Flavian	Medicine
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	17.136	Flavian	Planting
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Timber
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	15.28	Flavian	Use
<i>castanea</i>	Pliny the Elder	<i>Natural History</i>	16.206	Flavian	Use
<i>castanea</i>	Servius	<i>Commentary on the Eclogues</i>	1.81	4th Century	Fruit
<i>castanea</i>	Servius	<i>Commentary on the Georgics</i>	2.70	4th Century	Grafting
<i>castanea</i>	Servius	<i>Commentary on the Aeneid</i>	1.646	4th Century	Language
<i>castanea</i>	Servius	<i>Commentary on the Eclogues</i>	2.52	4th Century	Language
<i>castanea</i>	Servius	<i>Commentary on the Eclogues</i>	7.53	4th Century	Language
<i>castanea</i>	Vergil	<i>Eclogues</i>	7.53	Augustan	Foliage
<i>castanea</i>	Vergil	<i>Eclogues</i>	1.81	Augustan	Fruit
<i>castanea</i>	Vergil	<i>Eclogues</i>	2.52	Augustan	Fruit
<i>castanea</i>	Vergil	<i>Georgics</i>	2.71	Augustan	Grafting
<i>castanea</i>	Vergil	<i>Georgics</i>	2.15	Augustan	Planting
<i>cedrus</i>	Celsus	<i>De Medicina</i>	5.11	Julio-Claudian	Medicine
<i>cedrus</i>	Celsus	<i>De Medicina</i>	5.35	Julio-Claudian	Medicine
<i>cedrus</i>	Columella	<i>Res Rustica</i>	7.4.6	Julio-Claudian	Smell

Latin term	Author	Text	Reference	Era	Topic
<i>cedrus</i>	Columella	<i>Res Rustica</i>	6.32.1	Julio-Claudian	Use
<i>cedrus</i>	Horace	<i>Ars Poetica</i>	332	Augustan	Use
<i>cedrus</i>	Martial	<i>Epigrams</i>	3.2.7	Flavian/ Adoptive	Use
<i>cedrus</i>	Martial	<i>Epigrams</i>	5.6.14	Flavian/ Adoptive	Use
<i>cedrus</i>	Martial	<i>Epigrams</i>	8.61.4	Flavian/ Adoptive	Use
<i>cedrus</i>	Ovid	<i>Amores</i>	14.12	Augustan	Size/ Habitat
<i>cedrus</i>	Ovid	<i>Tristia</i>	1.7	Augustan	Use
<i>cedrus</i>	Ovid	<i>Tristia</i>	3.1.13	Augustan	Use
<i>cedrus</i>	Persius	<i>Satires</i>	1.42	Julio-Claudian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	24.54	Flavian	Comparison
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	17.237	Flavian	Cultivation
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.91	Flavian	Foliage
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.137	Flavian	Habitat
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	37.39	Flavian	Habitat
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Lifespan
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Lifespan
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	12.132	Flavian	Produce
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	12.78	Flavian	Smell
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	13.100	Flavian	Smell
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.187	Flavian	Timber
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	27.116	Flavian	Timber
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	12.125	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	13.2	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	14.112	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	15.28	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.203	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.216	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.62	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	24.20	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	28.118	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	34.177	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.197	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	16.198	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	24.17	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	24.18	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	24.19	Flavian	Use
<i>cedrus</i>	Pliny the Elder	<i>Natural History</i>	13.52f.	Flavian	Use/ Timber
<i>cedrus</i>	Quintus Curtius Rufus	<i>History of Alexander</i>	5.5	Julio-Claudian	Use
<i>cedrus</i>	Quintus Curtius Rufus	<i>History of Alexander</i>	8.8	Julio-Claudian	Use
<i>cedrus</i>	Servius	<i>Commentary on the Aeneid</i>	7.178	4th Century	Lifespan
<i>cedrus</i>	Servius	<i>Commentary on the Aeneid</i>	6.180	4th Century	Varieties
<i>cedrus</i>	Statius	<i>Thebaid</i>	3.142	Flavian	Use
<i>cedrus</i>	Statius	<i>Thebaid</i>	4.426	Flavian	Use
<i>cedrus</i>	Vergil	<i>Aeneid</i>	7.13	Augustan	Smell
<i>cedrus</i>	Vergil	<i>Aeneid</i>	11.137	Augustan	Smell
<i>cedrus</i>	Vergil	<i>Georgics</i>	3.414	Augustan	Smell
<i>cedrus</i>	Vergil	<i>Aeneid</i>	7.178	Augustan	Use
<i>cedrus</i>	Vergil	<i>Georgics</i>	2.443	Augustan	Use
<i>cedrus</i>	Vitruvius	<i>On Architecture</i>	2.13	Late Republic/ Augustan	Use

Latin term	Author	Text	Reference	Era	Topic
<i>cerasus</i>	Celsus	<i>De Medicina</i>	2.24	Julio-Claudian	Fruit
<i>cerasus</i>	Persius	<i>Satires</i>	6.36	Julio-Claudian	Use
<i>cerasus</i>	Petronius	<i>Poems</i>	81.3	Neronian	Fruit/ Habitat
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.234	Flavian	Bark
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	12.14	Flavian	Etymology/ Origin/ Foreign
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.104	Flavian	Flowering
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	15.101	Flavian	Fruit
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	15.109	Flavian	Fruit
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	15.112	Flavian	Fruit
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.260	Flavian	Fruit
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	15.57	Flavian	Grafting
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.110	Flavian	Grafting
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.135	Flavian	Grafting
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.99	Flavian	Grafting
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.124	Flavian	Similarities/ Structure
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.125	Flavian	Timber
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.126	Flavian	Bark
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.138	Flavian	Habitat
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	17.65	Flavian	Habitat
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	15.102 f.	Flavian	Origin
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	13.67	Flavian	Produce
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.181	Flavian	Produce

Latin term	Author	Text	Reference	Era	Topic
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	24.106	Flavian	Produce
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	37.42	Flavian	Produce
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.183	Flavian	Structure/ Fruit
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.210	Flavian	Timber
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	16.219	Flavian	Timber
<i>cerasus</i>	Pliny the Elder	<i>Natural History</i>	13.105	Flavian	Varieties
<i>cerasus</i>	Propertius	<i>Elegies</i>	4.2	Augustan	Divinity
<i>cerasus</i>	Servius	<i>Commentary on the Aeneid</i>	7.662	4th Century	Comparison
<i>cerasus</i>	Servius	<i>Commentary on the Georgics</i>	2.18	4th Century	Origin
<i>cerasus</i>	Vergil	<i>Georgics</i>	2.18	Augustan	Foliage
<i>ceratium</i>	Columella	<i>Res Rusticae</i>	25.1	Julio-Claudian	Seeds
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	13.95	Flavian	Habitat/ Deforestation
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	13.91	Flavian	Habitat/ Use
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	16.130	Flavian	Structure
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	13.2	Flavian	Use
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	16.185	Flavian	Value
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	16.66	Flavian	Value
<i>citrus</i>	Pliny the Elder	<i>Natural History</i>	37.204	Flavian	Value
<i>citrus</i>	Pomponius Mela	<i>De Chorographia</i>	3.104	Julio-Claudian	Habitat
<i>citrus</i>	Servius	<i>Commentary on the Georgics</i>	2.130	4th Century	Confusion
<i>citrus</i>	Servius	<i>Commentary on the Georgics</i>	2.126	4th Century	Use
<i>citrus</i>	Servius	<i>Commentary on the Georgics</i>	2.127	4th Century	Use
<i>citrus</i>	Varro	<i>Menippean Satires</i>	182.1	Late Republic	Use
<i>citrus</i>	Lucan	<i>De Bello Civile</i>	9.428	Neronian	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>cornus</i>	Festus	<i>De Verborum Significatu</i>	p.33L	Adoptive	Use
<i>cornus</i>	Ovid	<i>Metamorphoses</i>	7.678	Augustan	Use
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	21.72	Flavian	Animals
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.103	Flavian	Budding
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.97	Flavian	Budding
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.105	Flavian	Fruit
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.183	Flavian	Structure
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.211	Flavian	Timber
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.186	Flavian	Use
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.206	Flavian	Use
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.226	Flavian	Use
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	16.228	Flavian	Use
<i>cornus</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Use
<i>cornus</i>	Seneca	<i>Phaedra</i>	547	Neronian	Use
<i>cornus</i>	Servius	<i>Commentary on the Georgics</i>	2.18	4th Century	Comparison
<i>cornus</i>	Servius	<i>Commentary on the Aeneid</i>	9.695	4th Century	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	2.124	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	4.142	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	4.550	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	7.615	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	8.549	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	10.37	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>cornus</i>	Silius Italicus	<i>Punica</i>	13.204	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	13.235	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	14.442	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	15.441	Flavian	Use
<i>cornus</i>	Silius Italicus	<i>Punica</i>	10.118, 121	Flavian	Use
<i>cornus</i>	Statius	<i>Thebaid</i>	2.624	Flavian	Use
<i>cornus</i>	Statius	<i>Thebaid</i>	7.647	Flavian	Use
<i>cornus</i>	Statius	<i>Thebaid</i>	8.680	Flavian	Use
<i>cornus</i>	Valerius Flaccus	<i>Argonautica</i>	3.156	Flavian	Use
<i>cornus</i>	Veranius	<i>libri de rebus sacris</i>	Macr. Sat. 3.20.2	Julio-Claudian	Symbolism
<i>cornus</i>	Vergil	<i>Aeneid</i>	9.695	Augustan	Use
<i>cornus</i>	Vergil	<i>Aeneid</i>	12.267	Augustan	Use
<i>cornus</i>	Vergil	<i>Georgics</i>	2.448	Augustan	Use
<i>cupressus</i>	Seneca	<i>Oedipus</i>	532	Neronian	Death/ Omen
<i>cupressus</i>	Suetonius	<i>Vespasian</i>	5	Adoptive	Omen
<i>cupressus</i>	Tacitus	<i>Histories</i>	2.78	Adoptive	Omen
<i>cupressus</i>	Cato	<i>On agriculture</i>	48.1	Republic	Planting
<i>cupressus</i>	Cato	<i>On agriculture</i>	151.1	Republic	Produce
<i>cupressus</i>	Cato	<i>On agriculture</i>	151.2	Republic	Produce
<i>cupressus</i>	Cato	<i>On agriculture</i>	28.1	Republic	Replanting
<i>cupressus</i>	Catullus	<i>Poems</i>	64.291	Republic	Mythical
<i>cupressus</i>	Columella	<i>De Re Rustica</i>	11.2.13	Julio-Claudian	Timber
<i>cupressus</i>	Columella	<i>De Re Rustica</i>	4.26.1	Julio-Claudian	Use
<i>cupressus</i>	Ennius	<i>Annals</i>	7.223 Sk.	Republic	Structure/ Foliage
<i>cupressus</i>	Festus	<i>De Verborum Significatu</i>	p.56L	Adoptive	Death

Latin term	Author	Text	Reference	Era	Topic
<i>cupressus</i>	Horace	<i>Ars Poetica</i>	19	Augustan	Death
<i>cupressus</i>	Horace	<i>Epodes</i>	5.18	Augustan	Death
<i>cupressus</i>	Horace	<i>Odes</i>	2.14.23	Augustan	Death
<i>cupressus</i>	Horace	<i>Odes</i>	4.6.10	Augustan	Death
<i>cupressus</i>	Horace	<i>Odes</i>	1.9.11	Augustan	Strength
<i>cupressus</i>	Horace	<i>Ars Poetica</i>	332	Augustan	Use
<i>cupressus</i>	Martial	<i>Epigrams</i>	6.49	Flavian/ Adoptive	Age
<i>cupressus</i>	Martial	<i>Epigrams</i>	6.73	Flavian/ Adoptive	Age
<i>cupressus</i>	Ovid	<i>Metamorphoses</i>	10.106	Augustan	Catalogue/ Mythical/ Origin
<i>cupressus</i>	Ovid	<i>Tristia</i>	3.13.21	Augustan	Death
<i>cupressus</i>	Ovid	<i>Metamorphoses</i>	3.155	Augustan	Divinity
<i>cupressus</i>	Petronius	<i>Satyricon</i>	120	Neronian	Death
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	11.77	Flavian	Animals
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	17.236	Flavian	Cultivation
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.236	Flavian	Famous
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.104	Flavian	Foliage
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.79	Flavian	Foliage
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	12.78	Flavian	Foreign
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.115	Flavian	Fruit
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.139ff.	Flavian	General
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.125	Flavian	Structure
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.128	Flavian	Roots
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.76	Flavian	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.31	Flavian	Produce
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	22.97	Flavian	Produce
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	13.53	Flavian	Seeds
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	17.89	Flavian	Shade
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	17.60	Flavian	Timber
<i>cupressus</i>	Pliny the Elder	<i>Natural History</i>	16.211ff.	Flavian	Timber
<i>cupressus</i>	Pliny the Younger	<i>Letters</i>	5.6.33	Adoptive	Use
<i>cupressus</i>	Seneca	<i>Thyestes</i>	654	Neronian	Grove/ Death/ Mythical
<i>cupressus</i>	Servius	<i>Commentary on the Aeneid</i>	2.714	4th Century	Death
<i>cupressus</i>	Servius	<i>Commentary on the Aeneid</i>	4.507	4th Century	Death
<i>cupressus</i>	Servius	<i>Commentary on the Aeneid</i>	6.216	4th Century	Death
<i>cupressus</i>	Servius	<i>Commentary on the Aeneid</i>	3.681	4th Century	Divinity
<i>cupressus</i>	Servius	<i>Commentary on the Aeneid</i>	3.64	4th Century	Origin/ Colour/ Death
<i>cupressus</i>	Silius Italicus	<i>Punica</i>	10.534	Adoptive	Death
<i>cupressus</i>	Statius	<i>Thebaid</i>	6.854	Flavian	Comparison
<i>cupressus</i>	Statius	<i>Silvae</i>	5.1.136	Flavian	Death
<i>cupressus</i>	Statius	<i>Silvae</i>	5.5.30	Flavian	Death
<i>cupressus</i>	Statius	<i>Thebaid</i>	4.460	Flavian	Death
<i>cupressus</i>	Statius	<i>Thebaid</i>	6.54	Flavian	Death
<i>cupressus</i>	Statius	<i>Thebaid</i>	6.99	Flavian	Death
<i>cupressus</i>	Statius	<i>Thebaid</i>	4.177	Flavian	Use
<i>cupressus</i>	Statius	<i>Thebaid</i>	7.676	Flavian	Use
<i>cupressus</i>	Valerius Flaccus	<i>Argonautica</i>	1.774	Flavian	Shade
<i>cupressus</i>	Varro	<i>De Re Rustica</i>	1.41.4	Late Republic	Structure
<i>cupressus</i>	Varro	<i>De Re Rustica</i>	1.37.5	Late Republic	Roots
<i>cupressus</i>	Varro	<i>De Re Rustica</i>	1.15	Late Republic	Use

Latin term	Author	Text	Reference	Era	Topic
<i>cupressus</i>	Varro	<i>De Re Rustica</i>	1.26	Late Republic	Use
<i>cupressus</i>	Vergil	<i>Aeneid</i>	3.64	Augustan	Death
<i>cupressus</i>	Vergil	<i>Aeneid</i>	6.216	Augustan	Death
<i>cupressus</i>	Vergil	<i>Eclogues</i>	10.26	Augustan	Divinity
<i>cupressus</i>	Vergil	<i>Georgics</i>	1.20	Augustan	Divinity
<i>cupressus</i>	Vergil	<i>Eclogues</i>	1.25	Augustan	Metaphor
<i>cupressus</i>	Vergil	<i>Aeneid</i>	2.714	Augustan	Sacred
<i>cupressus</i>	Vergil	<i>Georgics</i>	2.443	Augustan	Timber
<i>cupressus</i>	Vitruvius	<i>De architectura</i>	5.1.3	Late Republic/ Augustan	Structure
<i>cupressus</i>	Vitruvius	<i>De architectura</i>	1.2.8	Late Republic/ Augustan	Timber
<i>cupressus</i>	Vitruvius	<i>De architectura</i>	2.9.12	Late Republic/ Augustan	Timber
<i>cupressus</i>	Vitruvius	<i>De architectura</i>	2.9.13	Late Republic/ Augustan	Timber
<i>cupressus</i>	Vitruvius	<i>De architectura</i>	7.3.1	Late Republic/ Augustan	Use
<i>cupressus</i>	Lucan	<i>De Bello Civili</i>	3.442	Julio-Claudian	Death
<i>cyparissus</i>	Valerius Flaccus	<i>Argonautica</i>	7.405	Flavian	Comparison
<i>cyparissus</i>	Vergil	<i>Aeneid</i>	3.680	Augustan	Comparison
<i>cyparissus</i>	Vergil	<i>Georgics</i>	2.84	Augustan	Varieties
<i>ebenus</i>	Ovid	<i>Metamorphoses</i>	11.610	Augustan	Use
<i>fagei</i>	Pliny the Elder	<i>Natural History</i>	16.242	Flavian	Grove
<i>fagus</i>	Veranius	<i>De verbis pontificalibus</i>	Macr. Sat. 3.20.2	Julio-Claudian	Omen
<i>fagus</i>	Catullus	<i>Poems</i>	64.289	Republic	Habitat
<i>fagus</i>	Festus	<i>De Verborum Significatu</i>	p.77L	Republic	Grove
<i>fagus</i>	Ovid	<i>Metamorphoses</i>	10.92	Augustan	Catalogue
<i>fagus</i>	Ovid	<i>Fasti</i>	5.522	Augustan	Use
<i>fagus</i>	Ovid	<i>Metamorphoses</i>	8.669	Augustan	Use
<i>fagus</i>	Ovid	<i>Heroides</i>	5.21	Augustan	Use/ Mythical
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.185	Flavian	Timber
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.218	Flavian	Timber
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.229	Flavian	Use
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.35	Flavian	Use
<i>fagus</i>	Pliny the Elder	<i>Natural History</i>	16.36	Flavian	Use
<i>fagus</i>	Propertius	<i>Elegies</i>	1.18.20	Flavian	Use/ Mythical/ Divinity
<i>fagus</i>	Seneca	<i>Hercules Oetatus</i>	1619	Neronian	Destruction
<i>fagus</i>	Seneca	<i>Troades</i>	1082	Neronian	Use
<i>fagus</i>	Seneca	<i>Phaedra</i>	510	Neronian	Use/ Mythical/ Paradise
<i>fagus</i>	Servius	<i>Commentary on the Eclogues</i>	1.1	4th Century	Symbolism
<i>fagus</i>	Statius	<i>Thebaid</i>	6.98	Flavian	Destruction
<i>fagus</i>	Varro	<i>De Lingua Latina</i>	5.152	Republic	Grove
<i>fagus</i>	Vergil	<i>Eclogues</i>	1.1	Augustan	Shade
<i>fagus</i>	Vergil	<i>Eclogues</i>	2.3	Augustan	Shade
<i>fagus</i>	Vergil	<i>Georgics</i>	4.566	Augustan	Symbolism
<i>fagus</i>	Vergil	<i>Eclogues</i>	3.12	Augustan	Use
<i>fagus</i>	Vergil	<i>Georgics</i>	1.173	Augustan	Use
<i>fagus</i>	Vergil	<i>Eclogues</i>	5.13	Augustan	Use/ Mythical
<i>fagus</i>	Vitruvius	<i>De architectura</i>	2.9.9	Republic/ Augustan	Timber
<i>fagus</i>	Vitruvius	<i>De architectura</i>	7.1.2	Republic/ Augustan	Timber
<i>ficus</i>	Pliny the Elder	<i>Natural History</i>	17.244	Flavian	Omen
<i>ficus</i>	Tacitus	<i>Annals</i>	13.58	Adoptive	Famous/ Omen
<i>ficus</i>	Juvenal	<i>Satires</i>	10.145	Adoptive	Destruction
<i>ficus</i>	Cato	<i>On agriculture</i>	94	Republic	Fruit

Latin term	Author	Text	Reference	Era	Topic
<i>figus</i>	Cato	<i>On agriculture</i>	40.1	Republic	Grafting
<i>figus</i>	Cato	<i>On agriculture</i>	40.2	Republic	Grafting
<i>figus</i>	Cato	<i>On agriculture</i>	8.1	Republic	Habitat
<i>figus</i>	Cato	<i>On agriculture</i>	50	Republic	Pruning
<i>figus</i>	Cato	<i>On agriculture</i>	28.1	Republic	Replanting
<i>figus</i>	Cicero	<i>De Oratore</i>	2.278	Republic	Use
<i>figus</i>	Columella	<i>De Re Rustica</i>	5.10.9	Julio-Claudian	Habitat
<i>figus</i>	Columella	<i>De Re Rustica</i>	5.11.8	Julio-Claudian	Produce
<i>figus</i>	Columella	<i>De Re Rustica</i>	5.10.10	Julio-Claudian	Pruning
<i>figus</i>	Columella	<i>De Re Rustica</i>	Praef. 27	Julio-Claudian	Varieties
<i>figus</i>	Ennius	<i>Annals</i>	Incertaine 448 Sk.	Republic	Produce
<i>figus</i>	Festus	<i>De Verborum Significatu</i>	p.170L	Adoptive	Famous
<i>figus</i>	Festus	<i>De Verborum Significatu</i>	p.170L	Adoptive	Famous
<i>figus</i>	Festus	<i>De Verborum Significatu</i>	p.326L	Adoptive	Famous
<i>figus</i>	Festus	<i>De Verborum Significatu</i>	p.332L	Adoptive	Famous
<i>figus</i>	Horace	<i>Satires</i>	1.8.47	Augustan	Divinity
<i>figus</i>	Livy	<i>Ab Urbe Condita</i>	1.4.5	Augustan	Famous
<i>figus</i>	Livy	<i>Ab Urbe Condita</i>	10.23.12	Augustan	Famous
<i>figus</i>	Ovid	<i>Fasti</i>	2.253	Augustan	Animals/ Mythical
<i>figus</i>	Ovid	<i>Fasti</i>	2.412	Augustan	Famous
<i>figus</i>	Paulus	<i>Epitome de 'De Verborum Significatu'</i>	p.333L	8th Century	Famous
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.104	Flavian	Flowering
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	15.77	Flavian	Famous
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	15.78	Flavian	Famous
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	12.40	Flavian	Foliage
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage

Latin term	Author	Text	Reference	Era	Topic
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	23.117ff	Flavian	General
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.137	Flavian	Grafting
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.84	Flavian	Foliage/ Fruit
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	14.133	Flavian	Habitat
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.232	Flavian	Habitat
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	18.188	Flavian	Habitat
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.241	Flavian	Lifespan
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.155	Flavian	Lifespan
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.95	Flavian	Lifespan
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.114	Flavian	Fruit
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.181	Flavian	Produce
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.103	Flavian	Produce
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.84	Flavian	Replanting
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.87	Flavian	Replanting
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.88	Flavian	Replanting
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	17.89	Flavian	Replanting
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	7.21	Flavian	Size
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.121	Flavian	Structure
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.126	Flavian	Structure
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	16.127	Flavian	Structure
<i>figus</i>	Pliny the Elder	<i>Natural History</i>	12.22	Flavian	Varieties

Latin term	Author	Text	Reference	Era	Topic
<i>ficus</i>	Pliny the Elder	<i>Natural History</i>	13.138	Flavian	Varieties
<i>ficus</i>	Pliny the Younger	<i>Letters</i>	2.17.5	Adoptive	Habitat
<i>ficus</i>	Ps. Aurelius Victor	<i>Origo Gentis Romanae</i>	20.3	4th Century	Famous
<i>ficus</i>	Servius	<i>Commentary on the Aeneid</i>	8.90	4th Century	Famous
<i>ficus</i>	Varro	<i>De Lingua Latina</i>	5.54	Late Republic	Famous
<i>ficus</i>	Varro	<i>De Re Rustica</i>	2.11.5	Late Republic	Famous
<i>ficus</i>	Varro	<i>De Re Rustica</i>	1.7.6	Late Republic	Foliage
<i>ficus</i>	Varro	<i>De Re Rustica</i>	1.41.6	Late Republic	Foreign
<i>ficus</i>	Varro	<i>De Re Rustica</i>	1.41.3	Late Republic	Grafting
<i>ficus</i>	Varro	<i>De Re Rustica</i>	1.6.4	Late Republic	Habitat
<i>fraxinus</i>	Columella	<i>De Re Rustica</i>	11.2.19	Julio-Claudian	Cultivation
<i>fraxinus</i>	Columella	<i>De Re Rustica</i>	5.6.5	Julio-Claudian	Habitat
<i>fraxinus</i>	Columella	<i>De Re Rustica</i>	11.2.13	Julio-Claudian	Timber
<i>fraxinus</i>	Columella	<i>De arboribus</i>	16.1	Julio-Claudian	Use
<i>fraxinus</i>	Columella	<i>De Re Rustica</i>	5.6.4	Julio-Claudian	Use
<i>fraxinus</i>	Columella	<i>De arboribus</i>	16.2	Julio-Claudian	Use/ Planting
<i>fraxinus</i>	Ennius	<i>Annals</i>	6.177 Sk.	Republic	Destruction
<i>fraxinus</i>	Horace	<i>Odes</i>	3.25.16	Augustan	Size
<i>fraxinus</i>	Lucius Accius	<i>Annals</i>	Morel-Buchner, FPL fr.4	Republic	Use
<i>fraxinus</i>	Maecenas	<i>Quint. Inst.</i>	9.4.28	Julio-Claudian	Death
<i>fraxinus</i>	Ovid	<i>Metamorphoses</i>	10.93	Augustan	Catalogue
<i>fraxinus</i>	Ovid	<i>Metamorphoses</i>	5.143	Augustan	Use
<i>fraxinus</i>	Ovid	<i>Metamorphoses</i>	7.677	Augustan	Use
<i>fraxinus</i>	Ovid	<i>Metamorphoses</i>	12.122	Augustan	Use
<i>fraxinus</i>	Ovid	<i>Metamorphoses</i>	12.324	Augustan	Use
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	2.240	Flavian	Burning

Latin term	Author	Text	Reference	Era	Topic
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	13.117	Flavian	Comparison
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.62f.	Flavian	General/ Use
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Seeds
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.83	Flavian	Foliage/ Flowering
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	17.78	Flavian	Flowering
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	17.81	Flavian	Replanting
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	11.77	Flavian	Habitat
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.69	Flavian	Habitat
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	17.67	Flavian	Propagation
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.210	Flavian	Timber
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.219	Flavian	Timber
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	15.67	Flavian	Use
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.228	Flavian	Use
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.229	Flavian	Use
<i>fraxinus</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Use
<i>fraxinus</i>	Pliny the Younger	<i>Letters</i>	8.8.4	Adoptive	Habitat
<i>fraxinus</i>	Silius Italicus	<i>Punica</i>	4.341	Adoptive	Use
<i>fraxinus</i>	Silius Italicus	<i>Punica</i>	5.549	Adoptive	Use
<i>fraxinus</i>	Statius	<i>Thebaid</i>	4.281	Flavian	Mythical/ Produce
<i>fraxinus</i>	Statius	<i>Thebaid</i>	9.494	Flavian	Battle
<i>fraxinus</i>	Statius	<i>Thebaid</i>	6.103	Flavian	Destruction
<i>fraxinus</i>	Statius	<i>Thebaid</i>	8.716	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>fraxinus</i>	Vergil	<i>Aeneid</i>	11.136	Augustan	Destruction
<i>fraxinus</i>	Vergil	<i>Eclogues</i>	7.65; 68	Augustan	Nature
<i>fraxinus</i>	Vergil	<i>Georgics</i>	2.66	Augustan	Shade/ Myth
<i>fraxinus</i>	Vitruvius	<i>De architectura</i>	2.9.11	Late Republic/ Augustan	Timber
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	6.197	Flavian	Habitat
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	24.89	Flavian	Medicine
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	12.17	Flavian	Reference
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	16.204	Flavian	Timber
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Timber
<i>hebenus</i>	Pliny the Elder	<i>Natural History</i>	16.213	Flavian	Use
<i>hebenus</i>	Vergil	<i>Georgics</i>	2.116	Augustan	Habitat
<i>hebenus</i>	Lucan	<i>De Bello Civili</i>	10.304	Julio-Claudian	Shade and Habitat
<i>hebenus</i>	Lucan	<i>De Bello Civili</i>	10.117	Julio-Claudian	Use
<i>ilex</i>	Suetonius	<i>Divus Augustus</i>	92.2	Adoptive	Omen
<i>ilex</i>	Veranius	<i>libri de rebus sacris</i>	Macr. Sat. 3.20.2	Julio-Claudian	Omen
<i>ilex</i>	Ennius	<i>Annals</i>	6.176 Sk.	Republic	Destruction
<i>ilex</i>	Horace	<i>Odes</i>	4.4.57	Augustan	Comparison
<i>ilex</i>	Horace	<i>Epodes</i>	16.47	Augustan	Paradise
<i>ilex</i>	Horace	<i>Epodes</i>	2.23	Augustan	Shade
<i>ilex</i>	Horace	<i>Epodes</i>	10.8	Augustan	Strength
<i>ilex</i>	Martial	<i>Epigrams</i>	6.64.3	Flavian/ Adoptive	Famous
<i>ilex</i>	Martial	<i>Epigrams</i>	14.92.1	Flavian/ Adoptive	Use
<i>ilex</i>	Ovid	<i>Metamorphoses</i>	10.94	Augustan	Catalogue
<i>ilex</i>	Ovid	<i>Metamorphoses</i>	7.586	Augustan	Comparison
<i>ilex</i>	Ovid	<i>Fasti</i>	2.165	Augustan	Grove

Latin term	Author	Text	Reference	Era	Topic
<i>ilex</i>	Ovid	<i>Heroides</i>	12.67	Augustan	Grove
<i>ilex</i>	Ovid	<i>Metamorphoses</i>	11.109	Augustan	Mythical
<i>ilex</i>	Ovid	<i>Amores</i>	2.6.49	Augustan	Mythical/ Habitat
<i>ilex</i>	Ovid	<i>Metamorphoses</i>	1.112	Augustan	Paradise
<i>ilex</i>	Ovid	<i>Amores</i>	3.5.3	Augustan	Shade
<i>ilex</i>	Persius	<i>Satires</i>	2.24	Julio-Claudian	Destruction
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	17.236	Flavian	Bark
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.186	Flavian	Colour
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.237	Flavian	Famous
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.242	Flavian	Famous
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.95	Flavian	Flowering
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.107	Flavian	Fruit
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.19	Flavian	Fruit
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.73	Flavian	Habitat
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.32	Flavian	Fruit
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.19	Flavian	Similarities
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Similarities
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.206	Flavian	Timber
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.229	Flavian	Use
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.229	Flavian	Use
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Use
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use
<i>ilex</i>	Pliny the Elder	<i>Natural History</i>	16.19	Flavian	Varieties

Latin term	Author	Text	Reference	Era	Topic
<i>ilex</i>	Prudentius	<i>Cathemerinon (Hymns)</i>	11.74	4th Century	Paradise
<i>ilex</i>	Sallust	<i>Jugurthine War</i>	93.4	Republic	Size/ Use
<i>ilex</i>	Seneca	<i>Hercules Oetatus</i>	1640	Neronian	Death
<i>ilex</i>	Seneca	<i>Oedipus</i>	530	Neronian	Grove
<i>ilex</i>	Seneca	<i>Thyestes</i>	654	Neronian	Grove
<i>ilex</i>	Silius Italicus	<i>Punica</i>	10.532	Flavian	Destruction
<i>ilex</i>	Sisenna	<i>Histories</i>	8	Republic	Shade
<i>ilex</i>	Statius	<i>Thebaid</i>	4.164	Flavian	Death
<i>ilex</i>	Vergil	<i>Aeneid</i>	4.505	Augustan	Death
<i>ilex</i>	Vergil	<i>Aeneid</i>	6.180	Augustan	Death
<i>ilex</i>	Vergil	<i>Aeneid</i>	11.851	Augustan	Death
<i>ilex</i>	Vergil	<i>Georgics</i>	3.146	Augustan	Habitat
<i>ilex</i>	Vergil	<i>Aeneid</i>	6.209	Augustan	Mythical
<i>ilex</i>	Vergil	<i>Aeneid</i>	9.379	Augustan	Shade
<i>ilex</i>	Vergil	<i>Eclogues</i>	6.54	Augustan	Shade
<i>ilex</i>	Vergil	<i>Eclogues</i>	7.1	Augustan	Shade
<i>ilex</i>	Vergil	<i>Georgics</i>	3.334	Augustan	Shade
<i>ilex</i>	Vergil	<i>Aeneid</i>	5.129	Augustan	Use
<i>ilex</i>	Lucan	<i>De Bello Civili</i>	3.440	Neronian	Grove/ Destruction
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	15.91	Flavian	Etymology
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	15.90	Flavian	Foreign
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.116	Flavian	Fruit
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.76	Flavian	Habitat
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	24.1	Flavian	Habitat
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	17.59	Flavian	Propagation
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	17.89	Flavian	Shade
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	17.91	Flavian	Shade

Latin term	Author	Text	Reference	Era	Topic
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Timber
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.218	Flavian	Timber
<i>iuglans</i>	Pliny the Elder	<i>Natural History</i>	16.223	Flavian	Timber
<i>iuglans</i>	Varro	<i>De Lingua Latina</i>	5.102	Late Republic	Etymology
<i>iuglans</i>	Varro	<i>Res Rusticae</i>	1.16.6	Late Republic	Shade
<i>iuniperus</i>	Pliny the Elder	<i>Natural History</i>	8.99	Flavian	Foliage
<i>iuniperus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>iuniperus</i>	Pliny the Elder	<i>Natural History</i>	12.26	Flavian	Similarities
<i>iuniperus</i>	Pliny the Elder	<i>Natural History</i>	13.52	Flavian	Similarities
<i>iuniperus</i>	Pliny the Elder	<i>Natural History</i>	16.198	Flavian	Similarities
<i>iuniperus</i>	Vergil	<i>Eclogues</i>	7.53	Augustan	Fruit
<i>iuniperus</i>	Vergil	<i>Eclogues</i>	10.76	Augustan	Shade
<i>iuniperus</i>	Vitruvius	<i>De Architectura</i>	2.9.13	Augustan	Similarities
<i>larix</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>larix</i>	Pliny the Elder	<i>Natural History</i>	16.187	Flavian	Timber
<i>larix</i>	Pliny the Elder	<i>Natural History</i>	13.100	Flavian	Use
<i>larix</i>	Pliny the Elder	<i>Natural History</i>	16.43ff.	Flavian	Use
<i>larix</i>	Vitruvius	<i>De Architectura</i>	2.9.15	Augustan	Origin
<i>larix</i>	Vitruvius	<i>De Architectura</i>	2.9.16	Augustan	Origin
<i>larix</i>	Vitruvius	<i>De Architectura</i>	2.9.14	Augustan	Timber
<i>larix</i>	Lucan	<i>De Bello Civili</i>	9.920	Neronian	Use
<i>laurus</i>	Tibullus	<i>Elegies</i>	2.5.83	Republic	Omen
<i>laurus</i>	Augustus	<i>Res Gestae</i>	4	Augustan	Crown
<i>laurus</i>	Augustus	<i>Res Gestae</i>	34	Augustan	Crown
<i>laurus</i>	Aulus Gellius	<i>Attic Nights</i>	5.6.7	Antonine	Crown

Latin term	Author	Text	Reference	Era	Topic
<i>laurus</i>	Caius Julius Caesar Strabo	<i>Fragments</i>	1	Republic	Sacred
<i>laurus</i>	Calpurnius	<i>Eclogues</i>	4.57	Neronian	Symbolism
<i>laurus</i>	Cato	<i>On agriculture</i>	51	Republic	Planting
<i>laurus</i>	Cato	<i>On agriculture</i>	133.2	Republic	Varieties
<i>laurus</i>	Catullus	<i>Poems</i>	64.289	Republic	Habitat
<i>laurus</i>	Cicero	<i>Letters to Friends</i>	2.16.2	Republic	Crown
<i>laurus</i>	Columella	<i>De Re Rustica</i>	10.217	Julio-Claudian	Crown
<i>laurus</i>	Columella	<i>De Re Rustica</i>	4.26.1	Julio-Claudian	Use
<i>laurus</i>	Florus	<i>Epitome of Roman History</i>	2.13.2	Adoptive	Crown
<i>laurus</i>	Horace	<i>Odes</i>	2.1.15	Augustan	Crown
<i>laurus</i>	Horace	<i>Odes</i>	2.2.22	Augustan	Crown
<i>laurus</i>	Horace	<i>Odes</i>	3.14.2	Augustan	Crown
<i>laurus</i>	Horace	<i>Odes</i>	3.30.16	Augustan	Foreign/ Crown/ Divinity
<i>laurus</i>	Horace	<i>Odes</i>	3.4.19	Augustan	Sacred
<i>laurus</i>	Horace	<i>Odes</i>	2.7.19	Augustan	Shade
<i>laurus</i>	Lucretius	<i>De Rerum Natura</i>	6.154f.	Republic	Burning
<i>laurus</i>	Lucretius	<i>De Rerum Natura</i>	1.739	Republic	Sacred
<i>laurus</i>	Martial	<i>Epigrams</i>	9.35.6	Flavian/ Adoptive	Synonym
<i>laurus</i>	Martial	<i>Epigrams</i>	7.6.10	Flavian/ Adoptive	Use
<i>laurus</i>	Ovid	<i>Fasti</i>	1.344	Augustan	Burning
<i>laurus</i>	Ovid	<i>Fasti</i>	4.742	Augustan	Burning
<i>laurus</i>	Ovid	<i>Metamorphoses</i>	10.92	Augustan	Catalogue
<i>laurus</i>	Ovid	<i>Amores</i>	2.12	Augustan	Crown
<i>laurus</i>	Ovid	<i>Amores</i>	1.11.25	Augustan	Crown
<i>laurus</i>	Ovid	<i>Amores</i>	1.7.36	Augustan	Crown

Latin term	Author	Text	Reference	Era	Topic
<i>laurus</i>	Ovid	<i>Tristia</i>	3.1.39f.	Augustan	Crown
<i>laurus</i>	Ovid	<i>Fasti</i>	4.953	Augustan	Habitat
<i>laurus</i>	Ovid	<i>Metamorphoses</i>	1.552	Augustan	Origin
<i>laurus</i>	Ovid	<i>Amores</i>	2.13.18	Augustan	Sacred
<i>laurus</i>	Ovid	<i>Ars Amatoria</i>	2.496	Augustan	Sacred
<i>laurus</i>	Ovid	<i>Fasti</i>	5.677f.	Augustan	Sacred
<i>laurus</i>	Ovid	<i>Metamorphoses</i>	1.450	Augustan	Sacred
<i>laurus</i>	Ovid	<i>Ars Amatoria</i>	3.690	Augustan	Smell
<i>laurus</i>	Ovid	<i>Ars Amatoria</i>	2.401	Augustan	Symbolism
<i>laurus</i>	Persius	<i>Satires</i>	6.43	Neronian	Symbolism
<i>laurus</i>	Plautus	<i>Mercator</i>	677	Republic	Use
<i>laurus</i>	Pliny the Elder	<i>Natural History</i>	15.133	Flavian	General
<i>laurus</i>	Pliny the Elder	<i>Natural History</i>	2.146	Flavian	Habitat
<i>laurus</i>	Pliny the Younger	<i>Panegyricus</i>	14.1	Adoptive	Foreign/ Synonym
<i>laurus</i>	Propertius	<i>Elegies</i>	2.13.3	Flavian	Death
<i>laurus</i>	Propertius	<i>Elegies</i>	2.28.36	Flavian	Use
<i>laurus</i>	Seneca	<i>Agamemnon</i>	356	Neronian	Crown
<i>laurus</i>	Seneca	<i>Agamemnon</i>	779	Neronian	Crown
<i>laurus</i>	Seneca	<i>Oedipus</i>	538	Neronian	Fruit
<i>laurus</i>	Seneca	<i>Agamemnon</i>	313	Neronian	Sacred
<i>laurus</i>	Seneca	<i>Apocolocyntosis</i>	4.1.4	Neronian	Sacred
<i>laurus</i>	Seneca	<i>Oedipus</i>	453	Neronian	Sacred
<i>laurus</i>	Seneca	<i>Troades</i>	1082	Neronian	Use
<i>laurus</i>	Servius	<i>Commentary on the Eclogues</i>	8.12	Augustan	Etymology
<i>laurus</i>	Silius Italicus	<i>Punica</i>	6.661	Adoptive	Crown
<i>laurus</i>	Silius Italicus	<i>Punica</i>	11.484	Adoptive	Crown
<i>laurus</i>	Silius Italicus	<i>Punica</i>	15.100	Adoptive	Crown
<i>laurus</i>	Silius Italicus	<i>Punica</i>	9.546	Adoptive	Synonym

Latin term	Author	Text	Reference	Era	Topic
<i>laurus</i>	Sisenna	<i>Histories</i>	60	Republic	Habitat
<i>laurus</i>	Status	<i>Silvae</i>	1.2.181	Flavian	Crown
<i>laurus</i>	Status	<i>Silvae</i>	4.2.9	Flavian	Crown
<i>laurus</i>	Status	<i>Silvae</i>	4.3.110	Flavian	Crown
<i>laurus</i>	Status	<i>Silvae</i>	4.1.14	Flavian	Foreign/ Synonym
<i>laurus</i>	Status	<i>Silvae</i>	4.8.19	Flavian	Sacred
<i>laurus</i>	Status	<i>Silvae</i>	5.3.9	Flavian	Sacred
<i>laurus</i>	Status	<i>Achilleid</i>	1.16	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	1.2.227	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	1.2.99	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	4.4.47	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	4.6.98	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	5.5.28	Flavian	Symbolism
<i>laurus</i>	Status	<i>Silvae</i>	5.1.88	Flavian	Synonym
<i>laurus</i>	Status	<i>Thebaid</i>	4.279	Flavian	Mythical/ Produce
<i>laurus</i>	Tacitus	<i>Annals</i>	13.9.3	Adoptive	Symbolism
<i>laurus</i>	Tibullus	<i>Elegies</i>	2.5.81	Republic	Burning
<i>laurus</i>	Tibullus	<i>Elegies</i>	1.7.7	Republic	Crown
<i>laurus</i>	Tibullus	<i>Elegies</i>	2.5.117	Republic	Crown
<i>laurus</i>	Tibullus	<i>Elegies</i>	2.5.5	Republic	Crown
<i>laurus</i>	Tibullus	<i>Elegies</i>	2.5.63	Republic	Sacred
<i>laurus</i>	Valerius Flaccus	<i>Argonautica</i>	4.334	Flavian	Crown
<i>laurus</i>	Valerius Flaccus	<i>Argonautica</i>	1.209	Flavian	Sacred
<i>laurus</i>	Valerius Maximus	<i>Memorable deeds and sayings</i>	2.2.3	Julio-Claudian	Crown
<i>laurus</i>	Vergil	<i>Aeneid</i>	12.522	Augustan	Burning
<i>laurus</i>	Vergil	<i>Eclogues</i>	8.82	Augustan	Burning
<i>laurus</i>	Vergil	<i>Aeneid</i>	5.246	Augustan	Crown
<i>laurus</i>	Vergil	<i>Aeneid</i>	5.539	Augustan	Crown
<i>laurus</i>	Vergil	<i>Eclogues</i>	8.13	Augustan	Crown
<i>laurus</i>	Vergil	<i>Eclogues</i>	10.13	Augustan	Empathy

Latin term	Author	Text	Reference	Era	Topic
<i>laurus</i>	Vergil	<i>Aeneid</i>	2.513	Augustan	Famous
<i>laurus</i>	Vergil	<i>Georgics</i>	2.18	Augustan	Habitat/ Shade
<i>laurus</i>	Vergil	<i>Eclogues</i>	6.83	Augustan	Habitat
<i>laurus</i>	Vergil	<i>Aeneid</i>	6.658	Augustan	Mythical/ Habitat
<i>laurus</i>	Vergil	<i>Aeneid</i>	7.59	Augustan	Origin
<i>laurus</i>	Vergil	<i>Georgics</i>	1.306	Augustan	Fruit
<i>laurus</i>	Vergil	<i>Aeneid</i>	3.360	Augustan	Sacred
<i>laurus</i>	Vergil	<i>Aeneid</i>	3.81	Augustan	Sacred
<i>laurus</i>	Vergil	<i>Aeneid</i>	3.91	Augustan	Sacred
<i>laurus</i>	Vergil	<i>Eclogues</i>	3.63	Augustan	Sacred
<i>laurus</i>	Vergil	<i>Eclogues</i>	2.54	Augustan	Smell
<i>laurus</i>	Lucan	<i>De Bello Civili</i>	1.287	Neronian	Crown
<i>laurus</i>	Lucan	<i>De Bello Civili</i>	6.409	Neronian	Crown
<i>laurus</i>	Lucan	<i>De Bello Civili</i>	5.144	Neronian	Sacred
<i>laurus</i>	Lucan	<i>De Bello Civili</i>	5.155	Neronian	Sacred
<i>morus</i>	Columella	<i>De Re Rustica</i>	5.10.20	Julio-Claudian	Planting
<i>morus</i>	Horace	<i>Satires</i>	2.4.22	Augustan	Colour
<i>morus</i>	Hyginus	<i>Fabulae</i>	136.3	Augustan	Comparison/ Colour
<i>morus</i>	Isidore of Seville	<i>Etymologies</i>	17.7.19	6th Century	Etymology
<i>morus</i>	Martial	<i>Epigrams</i>	1.72.5	Flavian/ Adoptive	Colour
<i>morus</i>	Martial	<i>Epigrams</i>	8.64.7	Flavian/ Adoptive	Colour
<i>morus</i>	Ovid	<i>Metamorphoses</i>	4.127	Augustan	Colour/ Origin/ Fruit
<i>morus</i>	Ovid	<i>Metamorphoses</i>	4.90	Augustan	Colour/ Origin/ Habitat/ Structure/ Fruit
<i>morus</i>	Pliny the Elder	<i>Natural History</i>	12.25	Flavian	Comparison

Latin term	Author	Text	Reference	Era	Topic
<i>morus</i>	Pliny the Elder	<i>Natural History</i>	13.56	Flavian	Comparison
<i>morus</i>	Pliny the Elder	<i>Natural History</i>	15.112	Flavian	Fruit
<i>morus</i>	Pliny the Elder	<i>Natural History</i>	15.96	Flavian	Fruit
<i>morus</i>	Pliny the Elder	<i>Natural History</i>	16.102	Flavian	Budding
<i>morus</i>	Pliny the Younger	<i>Letters</i>	2.17.15	Adoptive	Habitat
<i>morus</i>	Propertius	<i>Elegies</i>	4.2.16	Flavian	Colour
<i>morus</i>	Vergil	<i>Eclogues</i>	6.22	Augustan	Colour
<i>olea</i>	Pliny the Elder	<i>Natural History</i>	16.234	Flavian	Age
<i>olea</i>	Varro	<i>De Re Rustica</i>	1.2.19	Late Republic	Animals
<i>olea</i>	Vergil	<i>Georgics</i>	1.18	Augustan	Divinity
<i>oliva</i>	Juvenal	<i>Satires</i>	13.99	Adoptive	Crown
<i>oliva</i>	Juvenal	<i>Satires</i>	14.144	Adoptive	Habitat
<i>oliva</i>	Catullus	<i>Poems</i>	34.8	Republic	Divinity
<i>oliva</i>	Cicero	<i>De Natura Deorum</i>	2.22	Republic	Metaphor
<i>oliva</i>	Cicero	<i>De Natura Deorum</i>	3.45	Republic	Origin
<i>oliva</i>	Columella	<i>De Re Rustica</i>	27.3	Julio-Claudian	Grafting
<i>oliva</i>	Columella	<i>De Re Rustica</i>	5.11.14	Julio-Claudian	Grafting
<i>oliva</i>	Columella	<i>De Re Rustica</i>	5.11.2	Julio-Claudian	Grafting
<i>oliva</i>	Columella	<i>De Arboribus</i>	17.1	Julio-Claudian	Habitat
<i>oliva</i>	Horace	<i>Odes</i>	1.7.7	Augustan	Crown
<i>oliva</i>	Horace	<i>Epodes</i>	16.45	Augustan	Planting
<i>oliva</i>	Isidore of Seville	<i>Etymologies</i>	17.7.62	6th Century	Etymology
<i>oliva</i>	Martial	<i>Epigrams</i>	9.35.9	Flavian/ Adoptive	Use/ Crown
<i>oliva</i>	Ovid	<i>Heroides</i>	11.67	Augustan	Colour
<i>oliva</i>	Ovid	<i>Tristia</i>	4.10.95	Augustan	Crown
<i>oliva</i>	Ovid	<i>Metamorphoses</i>	8.295	Augustan	Destruction
<i>oliva</i>	Ovid	<i>Metamorphoses</i>	7.277	Augustan	Death
<i>oliva</i>	Ovid	<i>Fasti</i>	4.683	Augustan	Habitat
<i>oliva</i>	Ovid	<i>Metamorphoses</i>	7.470	Augustan	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>oliva</i>	Ovid	<i>Metamorphoses</i>	6.81	Augustan	Mythical
<i>oliva</i>	Ovid	<i>Epistulae Ex Ponto</i>	1.1.31	Augustan	Symbolism
<i>oliva</i>	Ovid	<i>Metamorphoses</i>	7.498	Augustan	Symbolism
<i>oliva</i>	Ovid	<i>Heroides</i>	11.67	Augustan	Use
<i>oliva</i>	Phaedrus	<i>Fables</i>	3.17.9	Augustan	Fruit
<i>oliva</i>	Pliny the Elder	<i>Natural History</i>	8.204	Flavian	Animals
<i>oliva</i>	Pliny the Elder	<i>Natural History</i>	13.139	Flavian	Habitat
<i>oliva</i>	Servius	<i>Commentary on the Georgics</i>	1.12	4th Century	Divinity
<i>oliva</i>	Servius	<i>Commentary on the Georgics</i>	2.119	4th Century	Foliage
<i>oliva</i>	Servius	<i>Commentary on the Aeneid</i>	8.128	4th Century	Symbolism
<i>oliva</i>	Servius	<i>Commentary on the Aeneid</i>	2.249	4th Century	Use
<i>oliva</i>	Servius	<i>Commentary on the Aeneid</i>	12.120	4th Century	Use
<i>oliva</i>	Servius	<i>Commentary on the Eclogues</i>	8.65	4th Century	Use
<i>oliva</i>	Silius Italicus	<i>Punica</i>	13.69	Adoptive	Symbolism
<i>oliva</i>	Statius	<i>Thebaid</i>	6.7	Flavian	Crown
<i>oliva</i>	Statius	<i>Thebaid</i>	12.621	Flavian	Habitat
<i>oliva</i>	Statius	<i>Achilleid</i>	1.727	Flavian	Symbolism
<i>oliva</i>	Statius	<i>Thebaid</i>	2.389	Flavian	Symbolism
<i>oliva</i>	Statius	<i>Thebaid</i>	2.478	Flavian	Symbolism
<i>oliva</i>	Statius	<i>Thebaid</i>	12.492	Flavian	Symbolism
<i>oliva</i>	Statius	<i>Thebaid</i>	2.99	Flavian	Use
<i>oliva</i>	Statius	<i>Thebaid</i>	3.466	Flavian	Use
<i>oliva</i>	Statius	<i>Thebaid</i>	8.89	Flavian	Use
<i>oliva</i>	Statius	<i>Silvae</i>	5.3.231	Flavian	Use/ Crown
<i>oliva</i>	Statius	<i>Thebaid</i>	4.217	Flavian	Use/ Symbolism
<i>oliva</i>	Valerius Flaccus	<i>Argonautica</i>	5.361	Flavian	Symbolism
<i>oliva</i>	Valerius Flaccus	<i>Argonautica</i>	3.424	Flavian	Use
<i>oliva</i>	Vergil	<i>Aeneid</i>	5.309	Augustan	Crown

Latin term	Author	Text	Reference	Era	Topic
<i>oliva</i>	Vergil	<i>Aeneid</i>	5.309	Augustan	Crown
<i>oliva</i>	Vergil	<i>Aeneid</i>	5.494	Augustan	Crown
<i>oliva</i>	Vergil	<i>Georgics</i>	3.21	Augustan	Crown
<i>oliva</i>	Vergil	<i>Georgics</i>	2.3	Augustan	Structure
<i>oliva</i>	Vergil	<i>Eclogues</i>	5.16	Augustan	Habitat/ Colour
<i>oliva</i>	Vergil	<i>Georgics</i>	2.181	Augustan	Lifespan/ Grove/ Divinity
<i>oliva</i>	Vergil	<i>Aeneid</i>	8.116	Augustan	Symbolism
<i>oliva</i>	Vergil	<i>Georgics</i>	2.425	Augustan	Symbolism
<i>oliva</i>	Vergil	<i>Aeneid</i>	5.774	Augustan	Use
<i>oliva</i>	Vergil	<i>Aeneid</i>	6.230	Augustan	Use
<i>oliva</i>	Vergil	<i>Aeneid</i>	6.808	Augustan	Use
<i>oliva</i>	Vergil	<i>Aeneid</i>	7.418	Augustan	Use
<i>oliva</i>	Vergil	<i>Aeneid</i>	7.751	Augustan	Use
<i>oliva</i>	Vergil	<i>Eclogues</i>	8.16	Augustan	Use
<i>palma</i>	Caesar	<i>Civil War</i>	3.105.6	Late Republic	Famous/ Omen
<i>palma</i>	Livy	<i>Ab Urbe Condita</i>	24.10.7	Augustan	Omen
<i>palma</i>	Livy	<i>Ab Urbe Condita</i>	43.13.5	Augustan	Omen
<i>palma</i>	Livy	<i>Ab Urbe Condita</i>	43.13.6	Augustan	Omen
<i>palma</i>	Ovid	<i>Fasti</i>	3.31	Augustan	Omen
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	17.244	Flavian	Omen
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	17.244	Flavian	Omen
<i>palma</i>	Quintilian	<i>The Orator's Education</i>	6.3.77	Julio-Claudian	Omen
<i>palma</i>	Suetonius	<i>Life of Augustus</i>	94.11	Adoptive	Omen
<i>palma</i>	Valerius Maximus	<i>Memorable Doings and Sayings</i>	1.6.12	Tiberian	Omen
<i>palma</i>	Vergil	<i>Georgics</i>	4.20	Augustan	Omen
<i>palma</i>	Cicero	<i>De Legibus</i>	1.2	Late Republic	Mythical

Latin term	Author	Text	Reference	Era	Topic
<i>palma</i>	Cicero	<i>On Old Age</i>	19	Late Republic	Synonym
<i>palma</i>	Cicero	<i>In Verrem II</i>	5.131	Late Republic	Use
<i>palma</i>	Cicero	<i>In Verrem II</i>	5.99	Late Republic	Use
<i>palma</i>	Cicero	<i>In Verrem II</i>	5.87	Late Republic	Use/ Habitat
<i>palma</i>	Columella	<i>De Re Rustica</i>	3.1.2	Julio-Claudian	Habitat
<i>palma</i>	Horace	<i>Satires</i>	2.4.83	Augustan	Use
<i>palma</i>	Livy	<i>Ab Urbe Condita</i>	28.41.8	Augustan	Synonym
<i>palma</i>	Martial	<i>Epigrams</i>	12.94.10	Flavian/ Adoptive	Synonym
<i>palma</i>	Martial	<i>Epigrams</i>	14.82.1	Flavian/ Adoptive	Use
<i>palma</i>	Ovid	<i>Metamorphoses</i>	15.396	Augustan	Animals
<i>palma</i>	Ovid	<i>Metamorphoses</i>	6.335	Augustan	Divinity
<i>palma</i>	Ovid	<i>Metamorphoses</i>	10.102	Augustan	Symbolism/ Structure
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	12.134	Flavian	Confusion
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	8.29	Flavian	Structure
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	16.125	Flavian	Structure
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	16.223	Flavian	Structure
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	13.111	Flavian	Habitat
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	17.65	Flavian	Habitat
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	13.26f.	Flavian	Habitat
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	17.60	Flavian	Propagation
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	31.41	Flavian	Synonym
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	16.89	Flavian	Use
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	19.31	Flavian	Use
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	23.99	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	28.118	Flavian	Use
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	28.255	Flavian	Use
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	23.98	Flavian	Use/ Habitat
<i>palma</i>	Pliny the Elder	<i>Natural History</i>	13.138	Flavian	Varieties
<i>palma</i>	Quintilian	<i>The Orator's Education</i>	1.2.24	Julio-Claudian	Synonym
<i>palma</i>	Seneca	<i>Thyestes</i>	1097	Neronian	Synonym
<i>palma</i>	Silius Italicus	<i>Punica</i>	4.390	Adoptive	Synonym
<i>palma</i>	Silius Italicus	<i>Punica</i>	16.503	Adoptive	Synonym
<i>palma</i>	Silius Italicus	<i>Punica</i>	16.573	Adoptive	Synonym
<i>palma</i>	Valerius Maximus	<i>Memorable Doings and Sayings</i>	1.8.2	Tiberian	Divinity/ Structure
<i>palma</i>	Valerius Maximus	<i>Memorable Doings and Sayings</i>	8.1. absol. 8	Tiberian	Synonym
<i>palma</i>	Varro	<i>De Re Rustica</i>	1.41.5	Augustan	Structure
<i>palma</i>	Varro	<i>De Re Rustica</i>	1.7.7	Late Republic	Habitat
<i>palma</i>	Varro	<i>De Re Rustica</i>	1.22.1	Late Republic	Use
<i>palma</i>	Varro	<i>Unknown</i>	frg. Serv. Aen. 3.444	Late Republic	Use
<i>palma</i>	Varro	<i>Unknown</i>	frg. Serv. Aen. 6.74	Late Republic	Use
<i>palma</i>	Varro	<i>Logistorici</i>	frg. Non. 483M, 34	Late Republic	Use
<i>palma</i>	Vergil	<i>Georgics</i>	2.67	Augustan	Structure
<i>palma</i>	Vergil	<i>Aeneid</i>	5.339	Augustan	Synonym
<i>picea</i>	Isidore of Seville	<i>Etymologicae</i>	17.7.31	6th Century	Etymology
<i>picea</i>	Ovid	<i>Metamorphoses</i>	10.101	Augustan	Catalogue
<i>picea</i>	Ovid	<i>Heroides</i>	12.67	Augustan	Grove
<i>picea</i>	Ovid	<i>Heroides</i>	16.54	Augustan	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>picea</i>	Ovid	<i>Metamorphoses</i>	3.155	Augustan	Habitat
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	3.122	Flavian	Alternative name
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.40	Flavian	Death
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.95	Flavian	Flowering
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.91	Flavian	Foliage
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.138	Flavian	Habitat
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.40	Flavian	Habitat
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	15.36	Flavian	Fruit
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.30	Flavian	Produce
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.46	Flavian	Produce
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.61	Flavian	Similarities
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.224	Flavian	Timber
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.35	Flavian	Use
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	16.42	Flavian	Use
<i>picea</i>	Pliny the Elder	<i>Natural History</i>	17.91	Flavian	Shade
<i>picea</i>	Servius	<i>Commentary on the Aeneid</i>	9.86	4th Century	Shade/ Pitch
<i>picea</i>	Servius	<i>Commentary on the Aeneid</i>	6.180	4th Century	Varieties
<i>picea</i>	Silius Italicus	<i>Punica</i>	1.83	Adoptive	Shade
<i>picea</i>	Statius	<i>Thebaid</i>	6.100	Flavian	Death
<i>picea</i>	Statius	<i>Thebaid</i>	4.426	Flavian	Use
<i>picea</i>	Valerius Flaccus	<i>Argonautica</i>	3.165	Flavian	Battle
<i>picea</i>	Valerius Flaccus	<i>Argonautica</i>	3.533	Flavian	Divinity

Latin term	Author	Text	Reference	Era	Topic
<i>picea</i>	Vergil	<i>Aeneid</i>	6.180	Augustan	Death
<i>picea</i>	Vergil	<i>Aeneid</i>	9.87	Augustan	Timber
<i>pinus</i>	Accius	<i>Tragedies</i>	249	Republic	Habitat
<i>pinus</i>	Aulus Gellius	<i>Attic Nights</i>	8.4	Antonine	Bark/ Destruction
<i>pinus</i>	Calpurnius	<i>Eclogues</i>	4.16	Neronian	Shade
<i>pinus</i>	Cato	<i>On agriculture</i>	17.1	Republic	Produce
<i>pinus</i>	Cato	<i>On agriculture</i>	28.1	Republic	Replanting
<i>pinus</i>	Catullus	<i>Poems</i>	64.106	Republic	Death
<i>pinus</i>	Catullus	<i>Poems</i>	64.1	Republic	Use/ Mythical/ Habitat
<i>pinus</i>	Columella	<i>De Re Rustica</i>	9.4.2	Julio-Claudian	Foliage
<i>pinus</i>	Columella	<i>De Re Rustica</i>	11.2.13	Republic	Timber
<i>pinus</i>	Columella	<i>De Re Rustica</i>	9.5.6	Julio-Claudian	Use
<i>pinus</i>	Ennius	<i>Annals</i>	6.178 Sk.	Republic	Death
<i>pinus</i>	Ennius	<i>Annals</i>	Incertae 490 Sk.	Republic	Structure
<i>pinus</i>	Grattius	<i>Cynegeticon</i>	130	Augustan	Habitat/ Use
<i>pinus</i>	Horace	<i>Odes</i>	4.6.10	Augustan	Death
<i>pinus</i>	Horace	<i>Odes</i>	2.10.10	Augustan	Structure
<i>pinus</i>	Horace	<i>Odes</i>	3.22.5	Augustan	Sacred
<i>pinus</i>	Horace	<i>Odes</i>	2.11.14	Augustan	Shade
<i>pinus</i>	Horace	<i>Odes</i>	2.3.9	Augustan	Shade
<i>pinus</i>	Horace	<i>Odes</i>	1.14.11	Augustan	Use/ Habitat
<i>pinus</i>	Horace	<i>Epodes</i>	16.57	Augustan	Use/ Mythical
<i>pinus</i>	Isidore of Seville	<i>Etymologicae</i>	17.7.31	6th Century	Etymology
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	7.450	Neronian	Habitat
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	1.573	Neronian	Use
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	10.103	Augustan	Catalogue
<i>pinus</i>	Ovid	<i>Fasti</i>	1.412	Augustan	Divinity
<i>pinus</i>	Ovid	<i>Heroides</i>	5.137	Augustan	Divinity
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	1.699	Augustan	Divinity
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	14.638	Augustan	Divinity
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	7.442	Augustan	Mythical

Latin term	Author	Text	Reference	Era	Topic
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	12.267	Augustan	Sacred
<i>pinus</i>	Ovid	<i>Amores</i>	2.9.21	Augustan	Use
<i>pinus</i>	Ovid	<i>Ars Amatoria</i>	2.424	Augustan	Use
<i>pinus</i>	Ovid	<i>Fasti</i>	4.493	Augustan	Use
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	5.442	Augustan	Use
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	13.782	Augustan	Use
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	14.535	Augustan	Use
<i>pinus</i>	Ovid	<i>Metamorphoses</i>	14.88	Augustan	Use
<i>pinus</i>	Ovid	<i>Amores</i>	2.11.2	Augustan	Use/ Mythical
<i>pinus</i>	Ovid	<i>Ars Amatoria</i>	2.9	Augustan	Use/ Mythical
<i>pinus</i>	Ovid	<i>Heroides</i>	6.47	Augustan	Use/ Mythical
<i>pinus</i>	Petronius	<i>Satyricon</i>	123	Julio-Claudian	Use
<i>pinus</i>	Phaedrus	<i>Fables</i>	3.17.4	Augustan	Sacred
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.39	Flavian	Alternative name
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.95	Flavian	Flowering
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.38	Flavian	Foreign
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.107	Flavian	Fruit
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.223	Flavian	Timber
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.224	Flavian	Use
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Use
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	24.32	Flavian	Use
<i>pinus</i>	Pliny the Elder	<i>Natural History</i>	17.91	Flavian	Shade
<i>pinus</i>	Pliny the Younger	<i>Letters</i>	6.16.5	Adoptive	Comparison
<i>pinus</i>	Propertius	<i>Elegies</i>	1.18.20	Flavian	Sacred
<i>pinus</i>	Propertius	<i>Elegies</i>	2.19.19	Flavian	Sacred
<i>pinus</i>	Propertius	<i>Flavian</i>	3.13.37	Flavian	Shade
<i>pinus</i>	Propertius	<i>Elegies</i>	3.22.14	Flavian	Use/ Mythical
<i>pinus</i>	Seneca	<i>Epistles</i>	90.9	Neronian	Timber
<i>pinus</i>	Seneca	<i>Hercules Furens</i>	101	Neronian	Use
<i>pinus</i>	Seneca	<i>Hercules Oetatus</i>	1727	Neronian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>pinus</i>	Seneca	<i>Medea</i>	38	Neronian	Use
<i>pinus</i>	Seneca	<i>Medea</i>	111	Neronian	Use
<i>pinus</i>	Seneca	<i>Phaedra</i>	1223	Neronian	Use
<i>pinus</i>	Seneca	<i>Medea</i>	336	Neronian	Use/ Mythical
<i>pinus</i>	Seneca	<i>Troades</i>	71	Neronian	Use/ Sacred
<i>pinus</i>	Servius	<i>Commentary on the Georgics</i>	4.141	4th Century	Fruit
<i>pinus</i>	Servius	<i>Commentary on the Aeneid</i>	9.115	4th Century	Sacred
<i>pinus</i>	Silius Italicus	<i>Punica</i>	13.331	Adoptive	Divinity
<i>pinus</i>	Silius Italicus	<i>Punica</i>	6.522	Adoptive	Use
<i>pinus</i>	Silius Italicus	<i>Punica</i>	9.336	Adoptive	Use
<i>pinus</i>	Silius Italicus	<i>Punica</i>	14.303	Adoptive	Use
<i>pinus</i>	Sisenna	<i>Histories</i>	60	Republic	Habitat
<i>pinus</i>	Statius	<i>Silvae</i>	5.3.143	Flavian	Crown
<i>pinus</i>	Statius	<i>Thebaid</i>	7.263	Flavian	Divinity
<i>pinus</i>	Statius	<i>Silvae</i>	5.1.151	Flavian	Structure
<i>pinus</i>	Statius	<i>Thebaid</i>	2.598	Flavian	Use
<i>pinus</i>	Statius	<i>Thebaid</i>	4.381	Flavian	Use
<i>pinus</i>	Statius	<i>Thebaid</i>	8.538	Flavian	Use
<i>pinus</i>	Statius	<i>Thebaid</i>	8.661	Flavian	Use
<i>pinus</i>	Statius	<i>Thebaid</i>	9.410	Flavian	Use
<i>pinus</i>	Tibullus	<i>Poems</i>	1.3.37	Republic	Use
<i>pinus</i>	Valerius Flaccus	<i>Argonautica</i>	2.105	Flavian	Use
<i>pinus</i>	Valerius Flaccus	<i>Argonautica</i>	1.123	Flavian	Use/ Death
<i>pinus</i>	Valerius Flaccus	<i>Argonautica</i>	1.687	Flavian	Use/ Mythical
<i>pinus</i>	Varro	<i>De Re Rustica</i>	1.15.1	Late Republic	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	11.136	Augustan	Death
<i>pinus</i>	Vergil	<i>Georgics</i>	2.389	Augustan	Divinity
<i>pinus</i>	Vergil	<i>Eclogues</i>	7.65	Augustan	Habitat/ Structure
<i>pinus</i>	Vergil	<i>Eclogues</i>	8.22	Augustan	Mythical
<i>pinus</i>	Vergil	<i>Aeneid</i>	3.659	Augustan	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	5.153	Augustan	Use

Latin term	Author	Text	Reference	Era	Topic
<i>pinus</i>	Vergil	<i>Aeneid</i>	7.397	Augustan	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	9.72	Augustan	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	10.206	Augustan	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	10.230	Augustan	Use
<i>pinus</i>	Vergil	<i>Eclogues</i>	4.38	Augustan	Use
<i>pinus</i>	Vergil	<i>Eclogues</i>	7.24	Augustan	Use
<i>pinus</i>	Vergil	<i>Georgics</i>	1.256	Augustan	Use
<i>pinus</i>	Vergil	<i>Georgics</i>	2.443	Augustan	Use
<i>pinus</i>	Vergil	<i>Aeneid</i>	9.522	Augustan	Use/ Habitat
<i>pinus</i>	Vergil	<i>Aeneid</i>	9.116	Augustan	Use/ Sacred
<i>pinus</i>	Vitruvius	<i>De Architectura</i>	1.2.8	Late Republic/ Augustan	Timber
<i>pinus</i>	Vitruvius	<i>De Architectura</i>	10.14.3	Late Republic/ Augustan	Timber
<i>pinus</i>	Vitruvius	<i>De Architectura</i>	2.9.12	Late Republic/ Augustan	Timber
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	2.695	Neronian	Use
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	3.531	Neronian	Use
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	6.351	Neronian	Use
<i>pinus</i>	Lucan	<i>De Bello Civili</i>	6.400	Neronian	Use
<i>pirum</i>	Cato	<i>On agriculture</i>	40.1	Republic	Grafting
<i>pirum</i>	Cato	<i>On agriculture</i>	41.1	Republic	Grafting
<i>pirum</i>	Columella	<i>De Re Rustica</i>	5.10.18	Julio-Claudian	Habitat
<i>pirum</i>	Pliny the Elder	<i>Natural History</i>	17.111	Flavian	Grafting
<i>pirum</i>	Pliny the Elder	<i>Natural History</i>	17.17	Flavian	Habitat
<i>pirum</i>	Pliny the Elder	<i>Natural History</i>	17.59	Flavian	Planting
<i>pirum</i>	Pliny the Elder	<i>Natural History</i>	17.131	Flavian	Planting
<i>pirum</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Produce
<i>pirus</i>	Cato	<i>On agriculture</i>	131	Republic	Flowering
<i>pirus</i>	Cato	<i>On agriculture</i>	149.1	Republic	Flowering
<i>pirus</i>	Cato	<i>On agriculture</i>	48.3	Republic	Planting
<i>pirus</i>	Columella	<i>De Re Rustica</i>	7.9.6	Julio-Claudian	Animals
<i>pirus</i>	Columella	<i>De Arboribus</i>	1.2	Julio-Claudian	General

Latin term	Author	Text	Reference	Era	Topic
<i>pirus</i>	Columella	<i>De Re Rustica</i>	3.11.5	Julio-Claudian	Habitat
<i>pirus</i>	Columella	<i>De Arboribus</i>	24	Julio-Claudian	Planting
<i>pirus</i>	Columella	<i>De Re Rustica</i>	3.21.11	Julio-Claudian	Planting
<i>pirus</i>	Columella	<i>De Re Rustica</i>	9.4.3	Julio-Claudian	Animals
<i>pirus</i>	Martial	<i>Epigrams</i>	1.117.6	Flavian/ Adoptive	Famous
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	18.243	Flavian	Flowering
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	18.244	Flavian	Flowering
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	12.56	Flavian	Foliage
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.84	Flavian	Foliage
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.92	Flavian	Foliage
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.114	Flavian	Grafting
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.97	Flavian	Budding
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	18.34	Flavian	Habitat
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.136	Flavian	Planting
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.71	Flavian	Planting
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.88	Flavian	Planting
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	11.118	Flavian	Animals
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Fruit
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.114	Flavian	Fruit
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.245	Flavian	Produce
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.77	Flavian	Fruit
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.253	Flavian	Fruit
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	13.104	Flavian	Similarities
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	13.117	Flavian	Similarities

Latin term	Author	Text	Reference	Era	Topic
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	13.60	Flavian	Similarities
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.205	Flavian	Timber
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	16.211	Flavian	Timber
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	17.221	Flavian	Timber
<i>pirus</i>	Pliny the Elder	<i>Natural History</i>	23.116	Flavian	Use
<i>pirus</i>	Propertius	<i>Elegies</i>	4.2.18	Augustan	Grafting
<i>pirus</i>	Servius	<i>Commentary on the Georgics</i>	3.394	4th Century	Similarities
<i>pirus</i>	Varro	<i>De Re Rustica</i>	1.37.5	Augustan	Flowering
<i>pirus</i>	Varro	<i>De Re Rustica</i>	1.40.5	Augustan	Grafting
<i>pirus</i>	Varro	<i>De Re Rustica</i>	3.16.25	Augustan	Fruit/ Produce
<i>pirus</i>	Vergil	<i>Eclogues</i>	1.73	Augustan	Grafting
<i>pirus</i>	Vergil	<i>Eclogues</i>	9.50	Augustan	Grafting
<i>pirus</i>	Vergil	<i>Georgics</i>	2.34	Augustan	Grafting
<i>pirus</i>	Vergil	<i>Georgics</i>	2.72	Augustan	Grafting
<i>pirus</i>	Vergil	<i>Georgics</i>	4.145	Augustan	Planting
<i>pirus</i>	Vergil	<i>Georgics</i>	2.88	Augustan	Varieties
<i>pirus</i>	Ovid	<i>Nux</i>	29	Augustan	Omen/ Divinity
<i>pirus</i>	Veranius	<i>Macrobius, Saturnalia</i>	3.20.2	Julio-Claudian	Omen
<i>platanus</i>	Calpurnius	<i>Eclogues</i>	4.2	Neronian	Habitat/ Shade
<i>platanus</i>	Cato	<i>On agriculture</i>	51	Republic	Planting/ Similarities
<i>platanus</i>	Cato	<i>On agriculture</i>	133.2	Republic	Propagation
<i>platanus</i>	Catullus	<i>Poems</i>	64.290	Late Republic	Size
<i>platanus</i>	Cicero	<i>De Divinatione</i>	2.63	Late Republic	Nature
<i>platanus</i>	Cicero	<i>De Divinatione</i>	2.63	Late Republic	Shade
<i>platanus</i>	Cicero	<i>De Oratore</i>	1.28	Republic	Shade
<i>platanus</i>	Cicero	<i>De Legibus</i>	2.7	Republic	Shade/ Habitat
<i>platanus</i>	Horace	<i>Odes</i>	2.11.13	Augustan	Size
<i>platanus</i>	Horace	<i>Odes</i>	2.15.4	Augustan	Size
<i>platanus</i>	Martial	<i>Epigrams</i>	9.61.6	Flavian/ Adoptive	Famous
<i>platanus</i>	Martial	<i>On Spectacles</i>	3.58.3	Flavian/ Adoptive	Nature
<i>platanus</i>	Ovid	<i>Nux</i>	17	Augustan	Famous
<i>platanus</i>	Ovid	<i>Metamorphoses</i>	10.95	Augustan	Nature

Latin term	Author	Text	Reference	Era	Topic
<i>platanus</i>	Ovid	<i>Ars Amatoria</i>	2.697	Augustan	Shade
<i>platanus</i>	Ovid	<i>Metamorphoses</i>	13.794	Augustan	Size
<i>platanus</i>	Ovid	<i>Remedies of Love</i>	141	Augustan	Use
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.235	Flavian	Bark
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.240	Flavian	Famous
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	12.9ff	Flavian	Famous
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	33.51	Flavian	Famous/ Use
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	4.9	Flavian	Foliage
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	12.128	Flavian	Foliage
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	15.57	Flavian	Grafting
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.121	Flavian	Grafting
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.99	Flavian	Grafting
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.96	Flavian	Habitat/ Planting/ Reference
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.30	Flavian	Produce
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.127	Flavian	Roots
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	16.129	Flavian	Roots
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.90	Flavian	Shade
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	12.6	Flavian	Shade/ Origin
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	15.29	Flavian	Use
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.66	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	24.44	Flavian	Use
<i>platanus</i>	Pliny the Younger	<i>Letters</i>	5.6.20	Adoptive	Shade
<i>platanus</i>	Pomponius Mela	<i>De chorographia</i>	2.34	Julio-Claudian	Foliage
<i>platanus</i>	Propertius	<i>Elegies</i>	2.32.13	Augustan	Habitat
<i>platanus</i>	Quintilian	<i>The Orator's Education</i>	5.10.56	Julio-Claudian	Language
<i>platanus</i>	Quintilian	<i>The Orator's Education</i>	8.3.8	Julio-Claudian	Nature
<i>platanus</i>	Scribonius Largus	<i>Compositions</i>	2.1	Julio-Claudian	Use
<i>platanus</i>	Seneca	<i>Oedipus</i>	452	Neronian	Foliage
<i>platanus</i>	Varro	<i>Menippean Satires</i>	390	Late Republic	Destruction
<i>platanus</i>	Varro	<i>De Re Rustica</i>	1.7.6	Late Republic	Habitat
<i>platanus</i>	Varro	<i>De Lingua Latina</i>	9.80	Late Republic	Language
<i>platanus</i>	Varro	<i>De Re Rustica</i>	1.37.5	Late Republic	Roots
<i>platanus</i>	Vergil	<i>Georgics</i>	2.70	Augustan	Grafting
<i>platanus</i>	Vergil	<i>Georgics</i>	4.146	Augustan	Shade/ Use
<i>platanus</i>	Petronius	<i>Satyricon</i>	131.8	Neronian	Omen
<i>platanus</i>	Pliny the Elder	<i>Natural History</i>	17.242	Flavian	Omen
<i>populus</i>	Cato	<i>On agriculture</i>	6.3	Republic	Use
<i>populus</i>	Cicero	<i>De Legibus</i>	1.15	Republic	Size
<i>populus</i>	Columella	<i>De Re Rustica</i>	11.2.19	Julio-Claudian	Planting
<i>populus</i>	Columella	<i>De Re Rustica</i>	11.2.13	Julio-Claudian	Timber
<i>populus</i>	Columella	<i>De Arboribus</i>	16.1	Julio-Claudian	Use
<i>populus</i>	Columella	<i>De Re Rustica</i>	5.6.5	Julio-Claudian	Use
<i>populus</i>	Quintus Curtius Rufus	<i>History of Alexander</i>	5.4.8	Julio-Claudian	Habitat
<i>populus</i>	Horace	<i>Odes</i>	2.3.9	Augustan	Shade
<i>populus</i>	Horace	<i>Epodes</i>	2.10	Augustan	Size/ Use
<i>populus</i>	Horace	<i>Epistles</i>	2.2.170	Augustan	Use
<i>populus</i>	Isidore of Seville	<i>Etymologicae</i>	17.7.45	6th Century	Etymology
<i>populus</i>	Laberius	<i>Fragments</i>	131	Republic	Foliage

Latin term	Author	Text	Reference	Era	Topic
<i>populus</i>	Ovid	<i>Heroides</i>	9.64	Augustan	Crown
<i>populus</i>	Ovid	<i>Remedy of Love</i>	141	Augustan	Habitat
<i>populus</i>	Ovid	<i>Ex Ponto</i>	1.2.32	Augustan	Mythical
<i>populus</i>	Ovid	<i>Metamorphoses</i>	10.555	Augustan	Shade
<i>populus</i>	Ovid	<i>Heroides</i>	5.27	Augustan	Use/ Habitat
<i>populus</i>	Phaedrus	<i>Fabulae</i>	3.17.4	Augustan	Sacred
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.126	Flavian	Bark
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.97	Flavian	Budding
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	17.242	Flavian	Colour
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	2.108	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	2.108	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.86	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.87	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.91	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	18.266	Flavian	Foliage
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.108	Flavian	Fruit
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	37.38	Flavian	Habitat
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	37.31	Flavian	Mythical
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	17.78	Flavian	Planting
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	12.3	Flavian	Sacred
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	17.90	Flavian	Shade
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	13.58	Flavian	Similarities
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.18	Flavian	Similarities

Latin term	Author	Text	Reference	Era	Topic
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	13.141	Flavian	Size
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.209	Flavian	Timber
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	14.10	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	15.67	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.173	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.176	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.209	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	24.47	Flavian	Use
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.85	Flavian	Varieties
<i>populus</i>	Propertius	<i>Elegies</i>	4.9.29	Flavian	Use
<i>populus</i>	Seneca	<i>Hercules Furens</i>	894	Neronian	Crown
<i>populus</i>	Seneca	<i>Hercules Oetatus</i>	578	Neronian	Crown
<i>populus</i>	Servius	<i>Commentary on the Aeneid</i>	5.134	4th Century	Use/ Sacred
<i>populus</i>	Silius Italicus	<i>Punica</i>	4.684	Adoptive	Death
<i>populus</i>	Silius Italicus	<i>Punica</i>	10.531	Adoptive	Death
<i>populus</i>	Statius	<i>Silvae</i>	2.3.52	Flavian	Foliage
<i>populus</i>	Tertullian	<i>De Corona</i>	7.4	3rd Century	Crown
<i>populus</i>	Tibullus	<i>Elegies</i>	1.4.30	Republic	Foliage
<i>populus</i>	Varro	<i>De Re Rustica</i>	1.46	Late Republic	Foliage
<i>populus</i>	Varro	<i>De Re Rustica</i>	1.46	Late Republic	Foliage
<i>populus</i>	Varro	<i>De Re Rustica</i>	1.6.4	Late Republic	Habitat
<i>populus</i>	Varro	<i>De Re Rustica</i>	1.24.4	Late Republic	Planting
<i>populus</i>	Varro	<i>De Re Rustica</i>	1.24.3	Late Republic	Use
<i>populus</i>	Vergil	<i>Aeneid</i>	8.276	Augustan	Crown
<i>populus</i>	Vergil	<i>Eclogues</i>	9.41	Augustan	Foliage
<i>populus</i>	Vergil	<i>Georgics</i>	2.13	Augustan	Planting

Latin term	Author	Text	Reference	Era	Topic
<i>populus</i>	Vergil	<i>Eclogues</i>	7.66	Augustan	Habitat
<i>populus</i>	Vergil	<i>Eclogues</i>	7.61	Augustan	Sacred
<i>populus</i>	Vitruvius	<i>De Arcitectura</i>	1.2.8	Augustan	Timber
<i>populus</i>	Vitruvius	<i>De Arcitectura</i>	2.9.5	Augustan	Timber
<i>populus</i>	Vitruvius	<i>De Arcitectura</i>	2.9.9	Augustan	Timber
<i>populus</i>	Pliny the Elder	<i>Natural History</i>	16.133	Flavian	Omen/ Destruction/ Pruning
<i>quercus</i>	Juvenal	<i>Satires</i>	6.387	Adoptive	Crown
<i>quercus</i>	Juvenal	<i>Satires</i>	14.184	Adoptive	Fruit
<i>quercus</i>	Calpurnius	<i>Eclogues</i>	4.67	Neronian	Mythical
<i>quercus</i>	Catullus	<i>Poems</i>	64.106	Republic	Nature
<i>quercus</i>	Cicero	<i>De Legibus</i>	1.1	Late Republic	Cultural lifespan
<i>quercus</i>	Cicero	<i>De Legibus</i>	1.2	Late Republic	Cultural lifespan
<i>quercus</i>	Cicero	<i>De Legibus</i>	1.2	Late Republic	Cultural lifespan
<i>quercus</i>	Cicero	<i>De Legibus</i>	1.1	Late Republic	Famous
<i>quercus</i>	Cicero	<i>Letters to Atticus</i>	2.4.5	Republic	Famous
<i>quercus</i>	Cicero	<i>De Legibus</i>	1.3	Republic	Planting
<i>quercus</i>	Cicero	<i>Letters to Atticus</i>	13.28.2	Republic	Use
<i>quercus</i>	Columella	<i>De Arboribus</i>	17.3	Julio-Claudian	Animals
<i>quercus</i>	Columella	<i>De Re Rustica</i>	7.9.6	Julio-Claudian	Habitat
<i>quercus</i>	Columella	<i>De Re Rustica</i>	4.33.5	Julio-Claudian	Planting
<i>quercus</i>	Columella	<i>De Re Rustica</i>	5.8.7	Julio-Claudian	Roots
<i>quercus</i>	Columella	<i>De Re Rustica</i>	7.3.24	Julio-Claudian	Size/ Divinity/ Strength
<i>quercus</i>	Columella	<i>De Re Rustica</i>	4.26.1	Julio-Claudian	Use
<i>quercus</i>	Ennius	<i>Annals</i>	6.176 Sk.	Republic	Destruction
<i>quercus</i>	Horace	<i>Odes</i>	4.13.10	Augustan	Divinity
<i>quercus</i>	Horace	<i>Epistles</i>	1.16.9	Augustan	Habitat
<i>quercus</i>	Horace	<i>Odes</i>	3.23.10	Augustan	Habitat
<i>quercus</i>	Horace	<i>Odes</i>	1.12.12	Augustan	Mythical/ Catalogue
<i>quercus</i>	Livy	<i>Ab Urbe Condita</i>	3.25.7, 8	Augustan	Habitat/ Divinity

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Livy	<i>Ab Urbe Condita</i>	1.10.5	Augustan	Trophaea
<i>quercus</i>	Lucan	<i>On the Civil War</i>	1.358	Neronian	Crown
<i>quercus</i>	Lucan	<i>On the Civil War</i>	3.179	Neronian	Destruction
<i>quercus</i>	Lucretius	<i>De Rerum Natura</i>	5.939	Late Republic	Fruit
<i>quercus</i>	Martial	<i>Epigrams</i>	4.1.6	Flavian/ Adoptive	Crown
<i>quercus</i>	Martial	<i>Epigrams</i>	4.54.1	Flavian/ Adoptive	Crown
<i>quercus</i>	Martial	<i>Epigrams</i>	8.82.7	Flavian/ Adoptive	Crown
<i>quercus</i>	Martial	<i>Epigrams</i>	9.23.5	Flavian/ Adoptive	Crown
<i>quercus</i>	Ovid	<i>Fasti</i>	4.953	Augustan	Crown
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	1.563	Augustan	Crown
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	11.158	Augustan	Crown
<i>quercus</i>	Ovid	<i>Fasti</i>	4.400	Augustan	Divinity
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	13.716	Augustan	Famous
<i>quercus</i>	Ovid	<i>Ars Amatoria</i>	2.541	Augustan	Famous/ Divinity
<i>quercus</i>	Ovid	<i>Fasti</i>	5.382	Augustan	Habitat
<i>quercus</i>	Ovid	<i>Tristia</i>	4.9.14	Augustan	Metaphor
<i>quercus</i>	Ovid	<i>Amores</i>	3.8.40	Augustan	Mythical
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	8.620	Augustan	Mythical
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	3.91	Augustan	Mythical/ Rigidity
<i>quercus</i>	Ovid	<i>Amores</i>	3.10.9	Augustan	Fruit
<i>quercus</i>	Ovid	<i>Ars Amatoria</i>	2.622	Augustan	Shade/ Fruit
<i>quercus</i>	Ovid	<i>Amores</i>	3.7.57	Augustan	Strength
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	12.328	Augustan	Strength
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	13.799	Augustan	Strength
<i>quercus</i>	Phaedrus	<i>Fabulae</i>	2.4.1	Augustan	Animals
<i>quercus</i>	Phaedrus	<i>Fabulae</i>	3.13.1	Augustan	Animals
<i>quercus</i>	Phaedrus	<i>Fabulae</i>	3.17.2	Augustan	Divinity
<i>quercus</i>	Phaedrus	<i>Fabulae</i>	2.4.9	Augustan	Strength

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	17.235	Flavian	Bark
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	17.236	Flavian	Bark
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.11	Flavian	Crown
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.81	Flavian	Famous
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	24.130	Flavian	Foliage
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	25.106	Flavian	Foliage
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	25.43	Flavian	Foliage
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	4.18	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	8.81	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	13.63	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.17	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.5	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	18.34	Flavian	Habitat
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	13.137	Flavian	Habitat/ Use
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.238	Flavian	Mythical
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.239	Flavian	Mythical
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	17.130	Flavian	Planting
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	24.1	Flavian	Planting

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	11.32	Flavian	Produce
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	11.77	Flavian	Produce
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	12.108	Flavian	Produce
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.116	Flavian	Fruit
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.19	Flavian	Fruit
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.20	Flavian	Fruit
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.245	Flavian	Produce
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.31	Flavian	Produce
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.130	Flavian	Roots
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	17.89	Flavian	Shade
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	9.48	Flavian	Similarities
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.218	Flavian	Timber
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	16.22	Flavian	Timber
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	14.126	Flavian	Use
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	31.107	Flavian	Use
<i>quercus</i>	Pliny the Elder	<i>Natural History</i>	31.83	Flavian	Use
<i>quercus</i>	Propertius	<i>Elegies</i>	1.9.31	Augustan	Strength
<i>quercus</i>	Propertius	<i>Elegies</i>	2.13.5	Augustan	Strength/ Habitat
<i>quercus</i>	Quintilian	<i>Declamationes Maiores</i>	12.5	Julio-Claudian	Use
<i>quercus</i>	Quintus Curtius Rufus	<i>History of Alexander</i>	6.4.22	Julio-Claudian	Similarities
<i>quercus</i>	Scribonius Largus	<i>Compositions</i>	106.11	Julio-Claudian	Foliage
<i>quercus</i>	Scribonius Largus	<i>Compositions</i>	82.7	Julio-Claudian	Medicine

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Scribonius Largus	<i>Compositions</i>	214.12	Julio-Claudian	Medicine
<i>quercus</i>	Seneca	<i>Oedipus</i>	534	Neronian	Age/ Mythical
<i>quercus</i>	Seneca	<i>Hercules Oetatus</i>	1635	Neronian	Destruction
<i>quercus</i>	Seneca	<i>Hercules Oetatus</i>	1473	Neronian	Famous
<i>quercus</i>	Seneca	<i>Hercules Oetatus</i>	1624	Neronian	Famous
<i>quercus</i>	Seneca	<i>Hercules Oetatus</i>	1052	Neronian	Mythical
<i>quercus</i>	Seneca	<i>Natural Questions</i>	3.27.5	Neronian	Fruit
<i>quercus</i>	Seneca	<i>Thyestes</i>	656	Neronian	Size/ Mythical
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	1.305	4th Century	Alternative name
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	6.772	4th Century	Crown
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	3.681	4th Century	Divinity
<i>quercus</i>	Servius	<i>Commentary on the Eclogues</i>	1.17	4th Century	Divinity
<i>quercus</i>	Servius	<i>Commentary on the Eclogues</i>	7.13	4th Century	Divinity
<i>quercus</i>	Servius	<i>Commentary on the Eclogues</i>	7.24	4th Century	Divinity
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	3.332	4th Century	Divinity
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	1.8	4th Century	Famous
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	2.16	4th Century	Famous
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	3.466	4th Century	Habitat
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	1.173	4th Century	Language
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	1.11	4th Century	Mythical
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	1.308	4th Century	Mythical

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Servius	<i>Commentary on the Eclogues</i>	4.30	4th Century	Nature
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	1.348	4th Century	Fruit
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	9.678	4th Century	Size
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	10.423	4th Century	Trophaea
<i>quercus</i>	Silius Italicus	<i>Punica</i>	5.508	Flavian	Destruction
<i>quercus</i>	Silius Italicus	<i>Punica</i>	10.165	Flavian	Destruction
<i>quercus</i>	Silius Italicus	<i>Punica</i>	3.680	Flavian	Famous
<i>quercus</i>	Silius Italicus	<i>Punica</i>	3.680	Flavian	Famous
<i>quercus</i>	Silius Italicus	<i>Punica</i>	3.689	Flavian	Famous
<i>quercus</i>	Silius Italicus	<i>Punica</i>	5.485	Flavian	Famous
<i>quercus</i>	Silius Italicus	<i>Punica</i>	7.669	Flavian	Foliage
<i>quercus</i>	Silius Italicus	<i>Punica</i>	10.533	Flavian	Habitat/ Destruction
<i>quercus</i>	Silius Italicus	<i>Punica</i>	6.192	Flavian	Size
<i>quercus</i>	Silius Italicus	<i>Punica</i>	7.190	Flavian	Use
<i>quercus</i>	Statius	<i>Silvae</i>	1.1.70	Flavian	Crown
<i>quercus</i>	Statius	<i>Silvae</i>	5.3.231	Flavian	Crown
<i>quercus</i>	Statius	<i>Thebaid</i>	9.483	Flavian	Divinity
<i>quercus</i>	Statius	<i>Thebaid</i>	9.606	Flavian	Divinity
<i>quercus</i>	Statius	<i>Thebaid</i>	8.202	Flavian	Famous
<i>quercus</i>	Statius	<i>Thebaid</i>	9.586	Flavian	Mythical
<i>quercus</i>	Statius	<i>Thebaid</i>	4.279	Flavian	Mythical/ Produce
<i>quercus</i>	Statius	<i>Thebaid</i>	9.533	Flavian	Size/ Comparison
<i>quercus</i>	Statius	<i>Thebaid</i>	2.327	Flavian	Strength
<i>quercus</i>	Statius	<i>Thebaid</i>	2.707	Flavian	Trophaea
<i>quercus</i>	Statius	<i>Thebaid</i>	6.351	Flavian	Use

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Statius	<i>Thebaid</i>	7.733	Flavian	Use
<i>quercus</i>	Statius	<i>Thebaid</i>	10.843	Flavian	Use
<i>quercus</i>	Statius	<i>Thebaid</i>	10.926	Flavian	Use
<i>quercus</i>	Statius	<i>Thebaid</i>	12.730	Flavian	Use
<i>quercus</i>	Tibullus	<i>Elegies</i>	1.3.45	Augustan	Mythical
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	1.544	Flavian	Divinity
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	3.299	Flavian	Divinity
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	5.250	Flavian	Divinity
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	1.302	Flavian	Famous
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	1.448	Flavian	Habitat
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	5.230	Flavian	Mythical
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	3.445	Flavian	Mythical/ Use
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	1.70	Flavian	Fruit
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	1.146	Flavian	Use
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	5.66	Flavian	Use
<i>quercus</i>	Valerius Flaccus	<i>Argonautica</i>	6.243	Flavian	Use
<i>quercus</i>	Valerius Maximus	<i>Memorable Deeds and Sayings</i>	2.8.7	Tiberian	Crown
<i>quercus</i>	Valerius Maximus	<i>Memorable Deeds and Sayings</i>	9.12 (ext.) 9	5th Century	Strength
<i>quercus</i>	Varro	<i>Res Rusticae</i>	1.7.6	Late Republic	Famous
<i>quercus</i>	Varro	<i>Res Rusticae</i>	1.40.5	Late Republic	Grafting
<i>quercus</i>	Varro	<i>Res Rusticae</i>	1.16.6	Late Republic	Habitat
<i>quercus</i>	Varro	<i>Res Rusticae</i>	1.6.4	Late Republic	Habitat
<i>quercus</i>	Vergil	<i>Aeneid</i>	6.772	Augustan	Crown
<i>quercus</i>	Vergil	<i>Georgics</i>	1.349	Augustan	Crown
<i>quercus</i>	Vergil	<i>Eclogues</i>	7.13	Augustan	Divinity
<i>quercus</i>	Vergil	<i>Georgics</i>	3.332	Augustan	Divinity
<i>quercus</i>	Vergil	<i>Aeneid</i>	4.441	Augustan	Metaphor

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Vergil	<i>Aeneid</i>	8.616	Augustan	Mythical
<i>quercus</i>	Vergil	<i>Eclogues</i>	4.30	Augustan	Mythical
<i>quercus</i>	Vergil	<i>Georgics</i>	4.510	Augustan	Mythical
<i>quercus</i>	Vergil	<i>Eclogues</i>	8.53	Augustan	Fruit
<i>quercus</i>	Vergil	<i>Georgics</i>	1.159	Augustan	Fruit
<i>quercus</i>	Vergil	<i>Aeneid</i>	9.681	Augustan	Similarities
<i>quercus</i>	Vergil	<i>Aeneid</i>	3.680	Augustan	Size/ Comparison/ Divinity
<i>quercus</i>	Vergil	<i>Aeneid</i>	7.509	Augustan	Strength
<i>quercus</i>	Vergil	<i>Eclogues</i>	6.28	Augustan	Strength
<i>quercus</i>	Vergil	<i>Aeneid</i>	10.423	Augustan	Trophaea
<i>quercus</i>	Vergil	<i>Aeneid</i>	11.5	Augustan	Trophaea
<i>quercus</i>	Virgiliana	<i>Culex</i>	135	Tiberian	Fruit
<i>quercus</i>	Virgiliana	<i>Culex</i>	281	Tiberian	Roots/ Catalogue
<i>quercus</i>	Virgiliana	<i>Elegies on Maecenas</i>	1.33	1st Century	Shade
<i>quercus</i>	Virgiliana	<i>Catalepton</i>	9.17	Augustan	Shade/ Structure
<i>quercus</i>	Virgiliana	<i>Priapea</i>	3.3	Augustan	Use/ Timber
<i>quercus</i>	Vitruvius	<i>De Architectura</i>	2.9.9	Late Republic/ Augustan	Timber
<i>quercus</i>	Vitruvius	<i>De Architectura</i>	7.3.1	Late Republic/ Augustan	Timber
<i>quercus</i>	Vitruvius	<i>De Architectura</i>	2.9.8	Late Republic/ Augustan	Use/ Timber
<i>quercus</i>	Lucan	<i>On the Civil War</i>	3.434	Neronian	Destruction
<i>quercus</i>	Lucan	<i>On the Civil War</i>	1.136	Neronian	Similarities/ Trophaea
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	7.623	Augustan	Omen/ Divinity
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	7.630	Augustan	Omen/ Divinity
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	7.635	Augustan	Omen/ Divinity
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	8.743	Augustan	Size/ Age/ Divinity/ Omen
<i>quercus</i>	Ovid	<i>Metamorphoses</i>	8.758	Augustan	Size/ Age/ Divinity/ Omen

Latin term	Author	Text	Reference	Era	Topic
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	1.230	4th Century	Omen
<i>quercus</i>	Servius	<i>Commentary on the Aeneid</i>	10.177	4th Century	Omen
<i>quercus</i>	Servius	<i>Commentary on the Georgics</i>	4.7	4th Century	Omen
<i>quercus</i>	Silius Italicus	<i>Punica</i>	16.589	Flavian	Omen
<i>quercus</i>	Statius	<i>Thebaid</i>	9.630	Flavian	Omen
<i>quercus</i>	Suetonius	<i>Galba</i>	4.2	Adoptive	Omen
<i>quercus</i>	Suetonius	<i>Vespasian</i>	5.2	Adoptive	Omen
<i>quercus</i>	Veranius	<i>fr. 3 GRF 1:431</i> = <i>fr. 1 IAH2.1:6</i> = <i>fr. 5 IAR6</i>	Macr. Sat. 3.20.3	Julio-Claudian	Omen
<i>quercus</i>	Vergil	<i>Eclogues</i>	1.17	Augustan	Omen
<i>quercus</i>	Vergil	<i>Georgics</i>	2.16	Augustan	Omen
<i>quercus</i>	Virgiliana	<i>Culex</i>	134	Tiberian	Omen
<i>salix</i>	Calpurnius	<i>Eclogues</i>	3.14	Neronian	Shade
<i>salix</i>	Calpurnius	<i>Eclogues</i>	3.19	Neronian	Shade
<i>salix</i>	Calpurnius	<i>Eclogues</i>	2.44	Neronian	Use
<i>salix</i>	Cato	<i>On agriculture</i>	40.2	Republic	Grafting
<i>salix</i>	Cato	<i>On agriculture</i>	40.4	Republic	Grafting
<i>salix</i>	Cato	<i>On agriculture</i>	6.4	Republic	Use
<i>salix</i>	Cato	<i>On agriculture</i>	31.1.2	Republic	Use
<i>salix</i>	Celsus	<i>De Medicina</i>	6.18.10	Julio-Claudian	Medicine
<i>salix</i>	Columella	<i>De Re Rustica</i>	4.33.1	Julio-Claudian	Planting/ Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	4.31.2	Julio-Claudian	Habitat
<i>salix</i>	Columella	<i>De Arboribus</i>	29.1	Julio-Claudian	Planting/ Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	5.7.1	Julio-Claudian	Planting/ Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	4.30	Julio-Claudian	Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	11.2.19	Julio-Claudian	Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	11.2.92	Julio-Claudian	Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	4.13.2	Julio-Claudian	Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	9.6.1	Julio-Claudian	Use
<i>salix</i>	Columella	<i>De Re Rustica</i>	4.30.4	Julio-Claudian	Varieties/ Use
<i>salix</i>	Lucretius	<i>De Rerum Natura</i>	2.361	Republic	Habitat
<i>salix</i>	Ovid	<i>Epistulae ex Ponto</i>	1.3.52	Augustan	Habitat
<i>salix</i>	Ovid	<i>Fasti</i>	6.406	Augustan	Habitat

Latin term	Author	Text	Reference	Era	Topic
<i>salix</i>	Ovid	<i>Metamorphoses</i>	5.594	Augustan	Habitat
<i>salix</i>	Ovid	<i>Metamorphoses</i>	8.336	Augustan	Habitat/ Timber
<i>salix</i>	Ovid	<i>Metamorphoses</i>	10.96	Augustan	Habitat/ Catalogue
<i>salix</i>	Ovid	<i>Fasti</i>	2.466	Augustan	Habitat/ Shade
<i>salix</i>	Ovid	<i>Fasti</i>	3.17	Augustan	Shade
<i>salix</i>	Ovid	<i>Metamorphoses</i>	13.800	Augustan	Strength
<i>salix</i>	Petronius	<i>Satyricon</i>	132	Neronian	Structure
<i>salix</i>	Plautus	<i>Fragments</i>	Unknown, 17 (Fest. 80L)	Republic	Habitat
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.110	Flavian	Flowering
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Flowering
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	2.108	Flavian	Foliage
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.87	Flavian	Foliage
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.99	Flavian	Grafting
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.175	Flavian	Pruning
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.147	Flavian	Budding
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.68	Flavian	Planting
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.173	Flavian	Habitat
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.77	Flavian	Habitat
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.28	Flavian	Habitat
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	31.44	Flavian	Habitat
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Habitat/ Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.95	Flavian	Lifespan

Latin term	Author	Text	Reference	Era	Topic
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	18.267	Flavian	Nature
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.136	Flavian	Planting
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	18.240	Flavian	Planting/ Pruning
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.141f.	Flavian	Planting/ Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	11.14	Flavian	Produce
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	14.110	Flavian	Fruit
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	24.56	Flavian	Fruit/ Medicine
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	24.59	Flavian	Similarities
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	25.72	Flavian	Similarities
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.174	Flavian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.209	Flavian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.141	Flavian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.143	Flavian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	17.209	Flavian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.177	Flavian	Varieties
<i>salix</i>	Ps-Ovid	<i>Consolation to Livia</i>	223	Julio-Claudian	Habitat/ Divinity
<i>salix</i>	Scribonius Largus	<i>Compositions</i>	252.2	Julio-Claudian	Use
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	2.112	4th Century	Alternative name
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	1.265	4th Century	Colour
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	2.13	4th Century	Colour
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	4.131	4th Century	Foliage

Latin term	Author	Text	Reference	Era	Topic
<i>salix</i>	Servius	<i>Commentary on the Eclogues</i>	10.40	4th Century	General
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	4.25	4th Century	General
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	2.48	4th Century	Medicine
<i>salix</i>	Servius	<i>Commentary on the Eclogues</i>	3.109	4th Century	Reference
<i>salix</i>	Servius	<i>Commentary on the Eclogues</i>	5.9	4th Century	Reference
<i>salix</i>	Servius	<i>Commentary on the Aeneid</i>	4.486	4th Century	Taste
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	2.435	4th Century	Use
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	4.110	4th Century	Use
<i>salix</i>	Servius	<i>Commentary on the Eclogues</i>	5.16	4th Century	Value
<i>salix</i>	Servius	<i>Commentary on the Georgics</i>	2.434	4th Century	Varieties
<i>salix</i>	Festus	<i>De Verborum Significatione</i>	440L	Adoptive	Etymology
<i>salix</i>	Varro	<i>Res Rusticae</i>	1.46.1	Late Republic	Foliage
<i>salix</i>	Varro	<i>Res Rusticae</i>	1.6.4	Late Republic	Habitat
<i>salix</i>	Varro	<i>Res Rusticae</i>	1.30.1	Late Republic	Planting
<i>salix</i>	Varro	<i>Res Rusticae</i>	1.24.4	Late Republic	Use
<i>salix</i>	Vergil	<i>Eclogues</i>	3.83	Augustan	Animals
<i>salix</i>	Vergil	<i>Georgics</i>	2.110	Augustan	Habitat
<i>salix</i>	Vergil	<i>Georgics</i>	4.26	Augustan	Habitat
<i>salix</i>	Vergil	<i>Georgics</i>	2.434	Augustan	Foliage/ Shade
<i>salix</i>	Vergil	<i>Georgics</i>	2.446	Augustan	Produce
<i>salix</i>	Vergil	<i>Eclogues</i>	3.65	Augustan	Shade
<i>salix</i>	Vergil	<i>Eclogues</i>	10.40	Augustan	Shade
<i>salix</i>	Vergil	<i>Eclogues</i>	5.16	Augustan	Structure/ Habitat
<i>salix</i>	Vergil	<i>Eclogues</i>	1.78	Augustan	Taste
<i>salix</i>	Vergil	<i>Georgics</i>	3.175	Augustan	Use
<i>salix</i>	Vergil	<i>Georgics</i>	4.182	Augustan	Use

Latin term	Author	Text	Reference	Era	Topic
<i>salix</i>	Vergil	<i>Georgics</i>	2.84	Augustan	Varieties
<i>salix</i>	Virgiliana	<i>Culex</i>	55	Tiberian	Animals
<i>salix</i>	Vitruvius	<i>De Architectura</i>	8.1.3	Late Republic/ Augustan	Habitat
<i>salix</i>	Vitruvius	<i>De Architectura</i>	2.9.9	Late Republic/ Augustan	Use
<i>salix</i>	Lucan	<i>The Civil War</i>	4.131	Neronian	Use
<i>salix</i>	Pliny the Elder	<i>Natural History</i>	16.133	Flavian	Omen
<i>tamarix</i>	Celsus	<i>De medicina</i>	2.33.4	Julio-Claudian	Medicine
<i>tamarix</i>	Columella	<i>De re rustica</i>	9.14.11	Julio-Claudian	Animals
<i>tamarix</i>	Columella	<i>De re rustica</i>	8.15.4	Julio-Claudian	Animals
<i>tamarix</i>	Columella	<i>De re rustica</i>	7.10.8	Julio-Claudian	Use
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	24.67	Flavian	Alternative name
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	16.90	Flavian	Foliage
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	26.86	Flavian	Foliage/ Similarities
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	28.81	Flavian	Medicine
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	24.102	Flavian	Similarities
<i>tamarix</i>	Pliny the Elder	<i>Natural History</i>	16.108	Flavian	Use/ Produce
<i>tamarix</i>	Scribonius Largus	<i>Compositions</i>	132.4	Julio-Claudian	Medicine
<i>tamarix</i>	Servius	<i>Commentary on the Georgics</i>	4.2	4th Century	Alternative name
<i>tamarix</i>	Servius	<i>Commentary on the Georgics</i>	8.54	4th Century	Alternative name
<i>tamarix</i>	Lucan	<i>De bello civili</i>	9.917	Neronian	Use/ Destruction/ Foliage
<i>taxus</i>	Caesar	<i>The Gallic Wars</i>	6.31.5	Late Republic	Death/ Habitat
<i>taxus</i>	Columella	<i>De re rustica</i>	9.4.3	Julio-Claudian	Animals/ Death
<i>taxus</i>	Columella	<i>De re rustica</i>	10.1.1	Julio-Claudian	Habitat
<i>taxus</i>	Ennius	<i>Varia</i>	29	Republic	Language/ Destruction

Latin term	Author	Text	Reference	Era	Topic
<i>taxus</i>	Grattius	<i>Cynegetica</i>	130	Augustan	Use
<i>taxus</i>	Ovid	<i>Metamorphoses</i>	4.432	Augustan	Death/ Shade/ Habitat
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	16.212	Flavian	Age
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	24.116	Flavian	Animals/ Death
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	16.50	Flavian	Colour/ Structure/ Shade/ Produce
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	22.97	Flavian	Produce
<i>taxus</i>	Pliny the Elder	<i>Natural History</i>	16.51	Flavian	Fruit/ Use/ Death
<i>taxus</i>	Seneca	<i>Oedipus</i>	555	Neronian	Crown/ Death
<i>taxus</i>	Seneca	<i>Hercules furens</i>	690	Neronian	Foliage/ Colour/ Shade/ Symbolism
<i>taxus</i>	Seneca	<i>Thyestes</i>	654	Neronian	Grove
<i>taxus</i>	Servius	<i>Commentary on the Georgics</i>	4.47	4th Century	Death
<i>taxus</i>	Servius	<i>Commentary on the Eclogues</i>	9.30	4th Century	Death/ Habitat
<i>taxus</i>	Servius	<i>Commentary on the Georgics</i>	2.448	4th Century	Habitat
<i>taxus</i>	Silius Italicus	<i>Punica</i>	1.83	Flavian	Grove
<i>taxus</i>	Silius Italicus	<i>Punica</i>	13.596	Flavian	Habitat/ Foliage/ Shade
<i>taxus</i>	Silius Italicus	<i>Punica</i>	4.567	Flavian	Habitat/ Use
<i>taxus</i>	Silius Italicus	<i>Punica</i>	13.210	Flavian	Habitat/ Use
<i>taxus</i>	Statius	<i>Silvae</i>	5.3.8	Flavian	Death
<i>taxus</i>	Statius	<i>Thebaid</i>	6.102	Flavian	Destruction/ Death
<i>taxus</i>	Statius	<i>Thebaid</i>	11.94	Flavian	Shade/ Death
<i>taxus</i>	Statius	<i>Thebaid</i>	4.485	Flavian	Use/ Mythical
<i>taxus</i>	Statius	<i>Thebaid</i>	8.9	Flavian	Use/ Mythical

Latin term	Author	Text	Reference	Era	Topic
<i>taxus</i>	Suetonius	<i>Life of Claudius</i>	16.4	Adoptive	Animals/ Use
<i>taxus</i>	Valerius Flaccus	<i>Argonautica</i>	1.777	Flavian	Crown
<i>taxus</i>	Varro	<i>Menippean Satires</i>	304	Republic	General
<i>taxus</i>	Vergil	<i>Georgics</i>	4.47	Augustan	Animals
<i>taxus</i>	Vergil	<i>Eclogues</i>	9.30	Augustan	Animals/ Habitat
<i>taxus</i>	Vergil	<i>Georgics</i>	2.257	Augustan	Death
<i>taxus</i>	Vergil	<i>Georgics</i>	2.113	Augustan	Habitat
<i>taxus</i>	Vergil	<i>Georgics</i>	2.448	Augustan	Habitat/ Use
<i>taxus</i>	Lucan	<i>De bello civile</i>	6.645	Neronian	Shade/ Divinity/ Structure
<i>taxus</i>	Lucan	<i>De bello civile</i>	3.419	Neronian	Grove/ Omen
<i>terebinthus</i>	Celsus	<i>De medicina</i>	4.27.1D	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Celsus	<i>De medicina</i>	5.27.13B	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Columella	<i>De re rustica</i>	9.4.3	Julio-Claudian	Animals
<i>terebinthus</i>	Ovid	<i>Epistulae ex Ponto</i>	3.3.98	Augustan	Similarities
<i>terebinthus</i>	Petronius	<i>Satyricon</i>	33	Neronian	Use
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.205	Flavian	Colour
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.80	Flavian	Foliage
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.73	Flavian	Habitat
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	11.77	Flavian	Habitat
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	13.54	Flavian	Habitat/ Foliage/ Colour/ Fruit/ Timber/ Flowering
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	24.27	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	24.35	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	27.20	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	28.205	Flavian	Medicine

Latin term	Author	Text	Reference	Era	Topic
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	28.252	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	30.40	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	30.75	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	30.114	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	31.121	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	34.115	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	34.177	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	35.176	Flavian	Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	14.122	Flavian	Produce
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	34.133	Flavian	Produce
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.245	Flavian	Produce
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	24.32	Flavian	Produce
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.58	Flavian	Produce/ Bark
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	24.34	Flavian	Produce/ Habitat
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.55	Flavian	Produce/ Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	23.145	Flavian	Produce/ Medicine
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.106	Flavian	Seeds
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	12.25	Flavian	Similarities
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	13.115	Flavian	Similarities
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	12.56	Flavian	Similarities
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.233	Flavian	Timber

Latin term	Author	Text	Reference	Era	Topic
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	16.231	Flavian	Use
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	14.112	Flavian	Use
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	12.121	Flavian	Use/ Produce
<i>terebinthus</i>	Pliny the Elder	<i>Natural History</i>	13.9	Flavian	Use/ Produce
<i>terebinthus</i>	Pomponius Mela	<i>De Chorographia</i>	3.104	Julio-Claudian	Habitat
<i>terebinthus</i>	Propertius	<i>Elegies</i>	3.7.49	Augustan	Habitat
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	75	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	135	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	157	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	170	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	175	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	216	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	220	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	265	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	270	Julio-Claudian	Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	66	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	82	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	89	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	173	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	201	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	202	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	205	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	209	Julio-Claudian	Produce/ Medicine

Latin term	Author	Text	Reference	Era	Topic
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	223	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	225	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	238	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	241	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	255	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	257	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	260	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	262	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Scribonius Largus	<i>Compositiones</i>	264	Julio-Claudian	Produce/ Medicine
<i>terebinthus</i>	Servius	<i>Commentary on the Aeneid</i>	10.136	4th Century	Habitat/ Foliage/ Colour
<i>terebinthus</i>	Vergil	<i>Aeneid</i>	10.136	Augustan	Habitat
<i>tilia</i>	Columella	<i>De re rustica</i>	9.4.3	Julio-Claudian	Animals
<i>tilia</i>	Columella	<i>De re rustica</i>	12.47.5	Julio-Claudian	Use
<i>tilia</i>	Hyginus	<i>Fabulae</i>	138	Augustan	Origin
<i>tilia</i>	Ovid	<i>Metamorphoses</i>	10.92	Augustan	Catalogue/ Timber
<i>tilia</i>	Ovid	<i>Metamorphoses</i>	8.620	Augustan	Habitat
<i>tilia</i>	Petronius	<i>Satyricon</i>	135.8	Neronian	Use/ Timber
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.126	Flavian	Bark
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	17.234	Flavian	Bark
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	17.235	Flavian	Bark
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.97	Flavian	Budding
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.87	Flavian	Foliage

Latin term	Author	Text	Reference	Era	Topic
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.227	Flavian	Habitat
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Habitat/ Use
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	24.50	Flavian	Medicine
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	11.32	Flavian	Produce
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.30	Flavian	Produce
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	15.68	Flavian	Similarities
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.207	Flavian	Timber
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.65	Flavian	Timber/ Bark/ Flowering/ Colour/ Smell/ Animals/ Structure/ Crown/ Use/ Seeds
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.35	Flavian	Use/ Bark
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	18.266	Flavian	Use/ Foliage
<i>tilia</i>	Pliny the Elder	<i>Natural History</i>	16.209	Flavian	Use/ Timber
<i>tilia</i>	Seneca	<i>Oedipus</i>	538	Neronian	Grove/ Habitat
<i>tilia</i>	Servius	<i>Commentary on the Georgics</i>	4.141	4th Century	Produce
<i>tilia</i>	Servius	<i>Commentary on the Georgics</i>	2.435	4th Century	Similarities
<i>tilia</i>	Vergil	<i>Georgics</i>	4.183	Augustan	Animals
<i>tilia</i>	Vergil	<i>Georgics</i>	4.141	Augustan	Fruit
<i>tilia</i>	Vergil	<i>Georgics</i>	1.173	Augustan	Use/ Timber
<i>tilia</i>	Vergil	<i>Georgics</i>	2.449	Augustan	Use/ Timber
<i>tilia</i>	Vitruvius	<i>De architectura</i>	2.9.9	Augustan	Timber
<i>ulmus</i>	Juvenal	<i>Satires</i>	8.78	Adoptive	Comparison
<i>ulmus</i>	Juvenal	<i>Satires</i>	6.150	Adoptive	Synonym
<i>ulmus</i>	Annianus	<i>Carmina</i>	3.2	Adoptive	Use

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Calpurnius	<i>Eclogues</i>	2.59	Neronian	Divinity/ Use
<i>ulmus</i>	Calpurnius	<i>Eclogues</i>	3.14	Neronian	Shade
<i>ulmus</i>	Cato	<i>De agricultura</i>	40.1	Republic	Habitat
<i>ulmus</i>	Cato	<i>De agricultura</i>	27.1	Republic	Habitat/ Planting
<i>ulmus</i>	Cato	<i>De agricultura</i>	6.3	Republic	Habitat/ Use
<i>ulmus</i>	Cato	<i>De agricultura</i>	28.1	Republic	Planting
<i>ulmus</i>	Cato	<i>De agricultura</i>	17.2	Republic	Pruning
<i>ulmus</i>	Cato	<i>De agricultura</i>	18.9	Republic	Use
<i>ulmus</i>	Catullus	<i>Poems</i>	62.54	Late Republic	Symbolism
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.16	Julio-Claudian	Bark
<i>ulmus</i>	Columella	<i>De re rustica</i>	9.13.2	Julio-Claudian	Flowering/ Animals
<i>ulmus</i>	Columella	<i>De re rustica</i>	10.1.1	Julio-Claudian	Foliage
<i>ulmus</i>	Columella	<i>De re rustica</i>	9.14.17	Julio-Claudian	General
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.3	Julio-Claudian	Planting/ Foliage/ Structure
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.9	Julio-Claudian	Planting/ Roots/ Bark
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.10	Julio-Claudian	Habitat
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.20	Julio-Claudian	Habitat
<i>ulmus</i>	Columella	<i>De arboribus</i>	16.2	Julio-Claudian	Planting
<i>ulmus</i>	Columella	<i>De re rustica</i>	11.2.19	Julio-Claudian	Planting
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.12	Julio-Claudian	Pruning
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.14	Julio-Claudian	Pruning
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.7	Julio-Claudian	Roots
<i>ulmus</i>	Columella	<i>De re rustica</i>	11.2.13	Julio-Claudian	Timber
<i>ulmus</i>	Columella	<i>De re rustica</i>	4.13	Julio-Claudian	Use
<i>ulmus</i>	Columella	<i>De re rustica</i>	1.6.21	Julio-Claudian	Use
<i>ulmus</i>	Columella	<i>De re rustica</i>	11.2.79	Julio-Claudian	Use
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.1	Julio-Claudian	Use
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.19	Julio-Claudian	Use
<i>ulmus</i>	Columella	<i>De arboribus</i>	8.2	Julio-Claudian	Use/ Bark
<i>ulmus</i>	Columella	<i>De arboribus</i>	26.5	Julio-Claudian	Use/ Bark
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.11.6	Julio-Claudian	Use/ Bark

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.18	Julio-Claudian	Use/ Planting/ Habitat
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.5	Julio-Claudian	Use/ Habitat
<i>ulmus</i>	Columella	<i>De arboribus</i>	16.1	Julio-Claudian	Use/ Habitat/ Foliage
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.2	Julio-Claudian	Varieties
<i>ulmus</i>	Columella	<i>De re rustica</i>	5.6.4	Julio-Claudian	Varieties
<i>ulmus</i>	Horace	<i>Odes</i>	1.2.9	Augustan	Mythical
<i>ulmus</i>	Horace	<i>Epistles</i>	1.7.84	Augustan	Use
<i>ulmus</i>	Horace	<i>Epistles</i>	1.16.3	Augustan	Use/ Habitat
<i>ulmus</i>	Horace	<i>Odes</i>	2.15.5	Augustan	Use/ Habitat
<i>ulmus</i>	Hyginus Gromaticus	<i>De generibus controversiarum</i>	94.5	Adoptive	Use/ Habitat
<i>ulmus</i>	Marcus Manilius	<i>Astronomica</i>	3.662	Augustan/ Tiberian	Divinity/ Use
<i>ulmus</i>	Marcus Manilius	<i>Astronomica</i>	5.238	Augustan/ Tiberian	Divinity/ Use
<i>ulmus</i>	Martial	<i>Epigrams</i>	4.13.5	Flavian/ Adoptive	Comparison
<i>ulmus</i>	Martial	<i>Epigrams</i>	6.49.1	Flavian/ Adoptive	Timber/ Use/ Divinity
<i>ulmus</i>	Ovid	<i>Fasti</i>	3.750	Augustan	Animals/ Bark
<i>ulmus</i>	Ovid	<i>Fasti</i>	3.747	Augustan	Animals/ Structure
<i>ulmus</i>	Ovid	<i>Metamorphoses</i>	10.100	Augustan	Catalogue
<i>ulmus</i>	Ovid	<i>Fasti</i>	3.411	Augustan	Crown/ Foliage
<i>ulmus</i>	Ovid	<i>Metamorphoses</i>	2.557	Augustan	Foliage
<i>ulmus</i>	Ovid	<i>Metamorphoses</i>	1.296	Augustan	Mythical
<i>ulmus</i>	Ovid	<i>Metamorphoses</i>	14.661	Augustan	Structure/ Use/ Comparison
<i>ulmus</i>	Ovid	<i>Metamorphoses</i>	14.665	Augustan	Symbolism
<i>ulmus</i>	Ovid	<i>Ex Ponto</i>	3.8.13	Augustan	Use
<i>ulmus</i>	Ovid	<i>Amores</i>	2.16.41	Augustan	Use/ Comparison
<i>ulmus</i>	Ovid	<i>Heroides</i>	5.47	Augustan	Use/ Comparison

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Persius	<i>Satires</i>	3.6	Julio-Claudian	Animals/ Shade
<i>ulmus</i>	Plautus	<i>Amphitryo</i>	1029	Republic	Habitat/ Use/ Comparison
<i>ulmus</i>	Plautus	<i>Epidicus</i>	311	Republic	Use
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.98	Flavian	Budding
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.87	Flavian	Foliage
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.92	Flavian	Foliage
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.108	Flavian	Fruit
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.116	Flavian	Grafting
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.65	Flavian	Habitat
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.74	Flavian	Habitat
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	24.48	Flavian	Medicine
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	18.240	Flavian	Planting
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.78	Flavian	Planting
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	18.243	Flavian	Planting
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.77	Flavian	Planting/ Grove/ Divinity
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	11.14	Flavian	Produce
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.181	Flavian	Produce
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.252	Flavian	Produce
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	13.67	Flavian	Produce/ Animals
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.201	Flavian	Pruning
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.76	Flavian	Seeds
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.90	Flavian	Shade

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	13.55	Flavian	Similarities
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	13.58	Flavian	Similarities
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	21.98	Flavian	Similarities
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.123	Flavian	Structure
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.125	Flavian	Structure
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.218	Flavian	Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.219	Flavian	Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.229	Flavian	Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.230	Flavian	Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.176	Flavian	Use
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.200	Flavian	Use
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	14.12	Flavian	Use/ Famous
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.210	Flavian	Use/ Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.72	Flavian	Varieties/ Planting
<i>ulmus</i>	Seneca	<i>Epistles</i>	86.21	Neronian	Use
<i>ulmus</i>	Servius	<i>Commentary on the Eclogues</i>	2.70	4th Century	Foliage
<i>ulmus</i>	Servius	<i>Commentary on the Georgics</i>	2.446	4th Century	Foliage
<i>ulmus</i>	Servius	<i>Commentary on the Aeneid</i>	5.119	4th Century	Grammar
<i>ulmus</i>	Servius	<i>Commentary on the Eclogues</i>	5.3	4th Century	Grammar
<i>ulmus</i>	Servius	<i>Commentary on the Aeneid</i>	6.283	4th Century	Symbolism

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Servius	<i>Commentary on the Eclogues</i>	1.58	4th Century	Use
<i>ulmus</i>	Servius	<i>Commentary on the Aeneid</i>	11.554	4th Century	Use
<i>ulmus</i>	Siculus Flaccus	<i>De condicionibus agrorum</i>	107.24	Adoptive	Use
<i>ulmus</i>	Silius Italicus	<i>Punica</i>	5.470	Flavian	Age/ Structure
<i>ulmus</i>	Statius	<i>Silvae</i>	5.1.49	Flavian	Comparison
<i>ulmus</i>	Statius	<i>Thebaid</i>	8.545	Flavian	Destruction
<i>ulmus</i>	Statius	<i>Thebaid</i>	8.544	Flavian	Destruction/ Habitat
<i>ulmus</i>	Statius	<i>Thebaid</i>	6.106	Flavian	Destruction/ Use
<i>ulmus</i>	Unknown	<i>Einsideln Eclogues</i>	2.13	Neronian	Shade/ Colour
<i>ulmus</i>	Unknown	<i>Einsideln Eclogues</i>	2.19	Neronian	Use
<i>ulmus</i>	Varro	<i>Res rusticae</i>	1.15.1	Late Republic	Habitat
<i>ulmus</i>	Varro	<i>Res rusticae</i>	1.24.3	Late Republic	Habitat
<i>ulmus</i>	Varro	<i>Res rusticae</i>	1.35.2	Late Republic	Planting
<i>ulmus</i>	Vergil	<i>Eclogues</i>	1.58	Augustan	Animals
<i>ulmus</i>	Vergil	<i>Georgics</i>	1.2	Augustan	Divinity
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.72	Augustan	Grafting
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.221	Augustan	Habitat
<i>ulmus</i>	Vergil	<i>Georgics</i>	4.144	Augustan	Habitat
<i>ulmus</i>	Vergil	<i>Eclogues</i>	5.3	Augustan	Paradise
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.367	Augustan	Pruning
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.83	Augustan	Strength
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.18	Augustan	Structure
<i>ulmus</i>	Vergil	<i>Eclogues</i>	10.67	Augustan	Structure/ Bark
<i>ulmus</i>	Vergil	<i>Aeneid</i>	6.283	Augustan	Symbolism/ Habitat/ Shade
<i>ulmus</i>	Vergil	<i>Eclogues</i>	2.70	Augustan	Use
<i>ulmus</i>	Vergil	<i>Georgics</i>	1.170	Augustan	Use
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.361	Augustan	Use
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.530	Augustan	Use

Latin term	Author	Text	Reference	Era	Topic
<i>ulmus</i>	Vergil	<i>Georgics</i>	3.378	Augustan	Use
<i>ulmus</i>	Vergil	<i>Georgics</i>	2.446	Augustan	Value
<i>ulmus</i>	Virgiliana	<i>Aetna</i>	269	Unknown	Habitat
<i>ulmus</i>	Vitruvius	<i>De architectura</i>	2.9.5	Augustan	Similarities
<i>ulmus</i>	Vitruvius	<i>De architectura</i>	2.9.11	Augustan	Timber/ Use
<i>ulmus</i>	Vitruvius	<i>De architectura</i>	1.2.8	Augustan	Use/ Timber
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	16.132	Flavian	Famous/ Omen/ Divinity/ Habitat
<i>ulmus</i>	Pliny the Elder	<i>Natural History</i>	17.124	Flavian	Omen/ Grafting

Appendix 2 – Categorised List of Contents for Books Twelve to Seventeen of Pliny's *Natural History*

All translations of specific species types are led by those proposed by Jacques André (1985).

Book Twelve.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic: The nature of trees		
1	The grace of trees		
2			
3	On Foreign Trees	Plane	When it first came to Italy, and from where.
4			Its nature
5			Miracles concerning it. Dwarf plane
6		Who was the first to decide to prune tree gardens	
7		The Assyrian apple. How it is planted.	
8		Trees of India	
9		Trees of India	When ebony was first seen in Rome. Of which genera
10			Indian thorn tree
11			Indian fig
12			Forms of Indian trees without names. Flax-bearing Indian trees. The <i>pala</i> (Borassus/Palm). The <i>ariera</i> fruit.
13			Forms of Indian trees without names. Flax-bearing Indian trees. The <i>pala</i> (Borassus/Palm). The <i>ariera</i> fruit.
14			The pepper trees. The genera of peppers. Bregma. Zingheri or Zimpheri.
15			Caryophyllon, Lycium, or Chironian pyxacanthus
16			Achir
17			Sugar
18		The trees of the Abianan people, the same of the Gedrosians, and the Hyreanians	
19		The same of the Bactrianans, Bdelium, or Brochon, or Malacha, or Maldacon. Scordastum. Adulterations used in all the odours and condiments, experiments, values.	
20		Trees of Persis	
21		Trees of the islands of the Persian Sea. The cotton tree.	
22		The tree called <i>cyna</i> (Kapok). From which trees cloth is made in the Orient.	
23		In which places no leaves fall from the trees.	
24		How the fruits of the trees are used.	
25		About the costus.	

26		About the nard. The twelve different types.
27		About the hazelwort.
28		About the cardamom.
29		Cardamomum
30		About a region producing incense
31	About a region producing incense	About which trees bear incense
32		The nature of frankincense and the varieties
33		About myrrh
34	About myrrh	About which trees bear it
35		The nature and types of myrrh.
36		About cashew
37		About pink rock roses, and <i>stobolon</i>
38		Gum procured from the olive tree.
39		The Savin Juniper
40		The stobrum
41		On the happiness of the Arabians
42		On cinnamon, <i>cinnamomum</i> , <i>xylocinnamum</i> .
43		On Chinese Cinnamon
44		Commiphora and Agarwood.
45		Serichatum and gabalium.
46		Moringa
47		The Egyptian Date
48		About the scented reed
49		Hammoniacum
50		Scented moss
51		The Cyprus tree
52		Clovers (with long leaves) or the camel thorn
53		Oriental Oregano?
54		On Balsam (3 types)
55		The styrax officinalis
56		The Galbanum
57		On Opopanax
58		Spignel/Baldmoney
59		Indian Cassia
60		The oil or juice of unripe olives or grapes
61		Moss, wild vine, grapes from wild vines
62		Palmetto or the spathe
63		Cinnamon, or <i>Comacum</i>

Book Thirteen.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic: On foreign trees	
1	On perfumes	When they were introduced
2		The varieties and 21 compositions
3		Scented powder, mixtures. The test of unguents
4		The quantity of luxury in unguents
5		When they were first used by Romans
6	On the palm	
7	On the palm	On their nature
8		How they are planted
9		The varieties of the fruit and 49 signs
10	Syrian trees. The Pistachio, Syrian fig, Damascan prune, the Sebesten	
11	Cedar. Which trees bear three years' worth of fruit simultaneously.	
12	Terebinth	
13	Sumac	
14	Egyptian trees. The Alexandrian fig.	
15	The Cyprian fig.	
16	Plant pod	
17	Persian tree. On which trees fruit regularly grows beneath each other	
18	The doum palm	
19	The Egyptian thorn	
20	The eight varieties of gum. The Astragalus	
21	On Papyrus	On the use of paper. When it was created
22		How it is made
23		Their 9 varieties
24		The testing of paper
25		The defects of paper
26		On the past of paper
27		On the books of Numa
28	Ethiopian trees	
29	A tree of Mount Atlas. On the citrus tree	On citrus tables
30	On the citrus tree	What things are good or bad in these tables
31		The citrus fruit
32	Lotus	
33	The trees of Cyrenaica. The Paliurus	
34	Nine varieties of the Punic apple. The pomegranate	
35	Asian and Greek Trees	The smooth rupturewort. The heather tree. The Cnidian grain or the flax leaved Daphne
36		The <i>tragon</i> , the <i>astragalus gummifer</i>
37		Ephedra, Tamarisk, the Hop Hornbeam
38		<i>Euonymos</i>
39		Broomrape tree

40		The Greek Strawberry tree
41		The Smoketree, the strawberry tree
42		The giant fennel
43		The deadly carrot
44		The caper
45		Nutsedge
46		Mugwort
47		Cytisus (could be moon trefoil)
48	Trees and Fruits in our sea	
49		
50	The same in the Red Sea	
51	The same in the Indian ocean	
52	The same in the Troglodytic sea. Neptune grass, marine algae, the hair of Isis, Charitablepharon	

Book Fourteen.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic: Fruit-bearing trees	
1		
2	On the nature of the vine	
3	How fruits are harvested. On the nature and care of grapes.	
4	91 varieties of vines and grapes	
5	Distinctions regarding the cultivation of vines	
6	On the creation of mead	
7	On the nature of wines	
8	50 distinguished wines	
9	38 noble foreign wines	
10	7 types of salted wines	
11	On 18 types of boiled and sweet wines	
12	3 types of second best wine	
13	When distinguished wines began to be grown in Italy.	
14	Observations on the wine from the reign of Romulus	
15	Which wines were used in antiquity	
16	On Opimian (Falernian) wine. Notable facts around storehouses.	
17	When four types of wine were first served	
18	5 uses from the wild vine. Which wines are, by nature, the coldest.	
19	66 types of fictitious (artificial) wine	
20	Honey mead, or lesser honey mead, or water-mead	
21	Vinegar honey mead	
22	12 types of marvellous wines	
23	On which wines might not be used for the sacred rites	
24	By what means unfermented wine is made	
25	By what means unfermented wine is made.	On the pith, resins
26	On vinegar. On the lees of wine.	
27	On vessels for wine. On store rooms.	
28	On drunkenness	
29	Things with the strength of wine derived from water and fruits.	

Book Fifteen.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic - On the nature of fruit bearing trees	
1	On the olive	For how long it was only in Greece
2		When it first came to Italy, Spain, and Africa. On the nature of the olive and the creation of olive oil
3		On olive oil. Types and excellences of olive oil.
4		15 types of olive
5		On the nature of olive oil
6		The growth of olives. On harvesting olives. How they become olive oil.
7		48 types of artificial olive oil. The Castor tree.
8		On the dregs of oil.
9	The varieties and natures of every fruit.	4 types of pine nut.
10		4 types of soapweed. 4 types of quince.
11		9 types of Carthaginian fruit. 7 types of Persian peach.
12		12 types of prune
13		On the <i>Mimusops</i>
14		30 types of apple. At what time foreign apples came to Italy, and from where.
15		Which are newest
16		41 types of pear
17		On varieties of grafts and repairing lightning
18		On harvesting fruits and grapes
19		29 types of fig.
20		On the history of figs
21		On caprification ⁶⁵⁶
22		3 types of hawthorn
23		4 types of mountain ash
24		9 types of nut
25		8 types of chestnut
26		The Carob tree
27		On the mulberry tree
28		On the strawberry tree
29		On the nature of berries.
30		9 types of cherry.
31		The cornel. The mastic tree
32		13 differences between juices
33		13 differences between juices
34	The varieties and natures of every fruit.	

⁶⁵⁶ The process of caprification, for Pliny, is one in which the unripened fruit of a fig tree (fruit which will never ripen) is used to fertilise other fig trees.

35	On the myrtle	
36	On the myrtle	History of the myrtle
37		11 varieties of it
38		History of the myrtle
39	Laurel. 13 types of it.	
40	Laurel. 13 types of it.	

Book Sixteen.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic - On the nature of forest trees	
1	Countries without trees	
2	Miraculous trees in the northern regions	
3	On acorn bearing trees	On the civic crown
4		On the origin of crowns
5		Which leaves are used for crowns
6		13 types of acorn
7		On the beech
8		On the other acorns. On fuel.
9		On the gall nut.
10		The multitude of other things except acorns that are borne on the same trees
11		The multitude of other things except acorns that are borne on the same trees
12		The multitude of other things except acorns that are borne on the same trees
13		The multitude of other things except acorns that are borne on the same trees
14	Of which trees the bark is used	
15	On shingles	
16	On the pine	
17	On the wild pine	
18	The pitch pine. The fir.	
19	The larch. The pitch pine.	
20	The yew tree	
21	The means in which liquid pitch is made. How cedar oil is made	
22	How thickened pitch is made, which resin is cooked.	
23	Waxy pitch	
24	Of which trees the wood is valued	4 types of ash
25		2 types of lime tree
26		10 types of the maple tree
27		Growths on the maple, and the bladdernut
28		3 types of box
29		6 types of elm
30	The nature of trees according to site.	On mountains, on fields
31	The nature of trees according to site.	Dry soil, wet soil, both equally.
32	Division into species	
33	On which trees leaves don't fall. On the rhododendron on which not all the leaves fall. Places in which there are no trees	
34	On the nature of falling leaves	
35	Trees which have varying colours of leaves. 3 types of poplar. The trees of which leaves change shape	

36	Leaves which turn round every year	
37	The care and use of the leaves from palms	
38	Miraculous facts about leaves	
39	The natural order in crops	
40	Which trees never flower. About the juniper	
41	On the conception of trees. On their germination. On their flowering.	
42	In what order they flower	
43	On the cornel. At what time trees bear fruit	
44	Trees which bear through the whole year. Trees which bear three years' worth of fruit simultaneously	
45	Trees which do not bear fruit. Trees which are reckoned unlucky	
46	Trees which lose their fruit and flowers most easily.	
47	Trees which do not bear fruit in particular places.	
48	How trees bear fruit.	
49	Trees on which the fruit precedes the foliage.	
50	Twice and thrice bearing trees per year	
51	Which trees grow old very quickly and which age very slowly. The Apricot fruit. The late season.	
52	Trees on which several other things are produced. The kernel of the box tree fruit.	
53	Differences between the trunks and branches of trees	Jujube or Greek beans
54	Differences between the trunks and branches of trees	On the branches
55	Differences between the trunks and branches of trees	On the bark
56	Differences between the trunks and branches of trees	On the roots
57	Trees which spontaneously grow from the ground	
58	How trees are born [spontaneously]. The differing natures of trees not growing everywhere.	
59	The differing natures of trees not growing everywhere	Where no trees are born
60	The differing natures of trees not growing everywhere	On the cypress
61	Things often born from the earth that it has not given birth to before.	
62	On ivy. 20 types of it.	
63	Thorny bindweed	
64	On water plants	On reeds. 28 varieties of the reed. On reeds used for writing
65		On reeds used for arrows
66		Reeds used for pipes. Reeds of Orchomenos and reeds used for fowling and fishing
67		On the reeds of vine-dressing. On the alder.
68		On the willow. 8 varieties of it.
69		Trees used except for the willow for binding
70		On rushes, candle-rushes, reeds, and thatching reeds
71		On elder trees, on bramble bushes
72	On the juices of trees	
73	On the nature of materials of the trees	
74	On the felling of trees	
75	On the felling of trees	
76	On the size of trees. On the materials used for building. On the spruce	

77	Methods of obtaining fire from wood.	
78	Trees which do not feel dry rot, trees which do not crack.	
79	Historical facts on the durability of wood.	
80	The types of boring worm	
81		
82	On the materials used by carpenters	
83	On wood glued together	
84	On veneering	
85	The age of trees	A tree planted by Africanus. A 500 year old tree in the city of Rome
86		Trees from the founding of the city
87		Trees older than the city in the suburban districts
88		Trees planted by Agamemnon. Trees from the first year of the Trojan war. Trees from that place called Ilium ad Troy older than the Trojan war
89		The same in Argos. Trees planted by Hercules. Trees planted by Apollo. Trees older than Athens.
90	Which species of trees age the least	
91	Trees that have been rendered famous by events	
92	Plants which do not have a set location for growth.	
93	Plants which live on trees and cannot grow on the earth. 9 varieties of them. The cassytha vine, mistletoe, knapweed. On mistletoe and similar plants.	
94	On the growing of mistletoe.	

Book Seventeen.

Key: **Trees**; **Plant/fruit/other product**; **Historical reference**; **General/Other**

Chapter	Topic - On the nature of cultivated trees	
1	Incredible prices of trees	
2	The effect of weather on trees. Which part of the skies vines ought to see.	
3	What kind of earth is best	
4	On the eight types of the Earth, which are enjoyed by Greeks, Britons and Gauls.	
5	On the use of ashes	
6	On dung	
7	Which crops make the earth more fruitful, what exhausts it	
8	How manure is used	
9	How trees are planted	
10	How trees are planted	Grown by seed
11		Which trees never degenerate
12		Grown by sprout
13		Grown by graft and cuttings
14		About nursery plots.
15		On the growth of the elm
16		On ditches
17		On the intervals to be left between trees
18		On shade
19		On dripping from the leaves
20		Trees which grow slowly, which grow quickly
21		Trees grown from layers
22	On grafting	How it was discovered
23		By inoculation
24		The varieties of grafting
25		On grafting the vine
26		By the insertion of bark
27	Plants born from a branch	
28	Plants which grow from cuttings and how they are planted	
29	The cultivation of the olive	
30	The cultivation of the olive. An enumeration of the work required for producing young shoots throughout the year	
31	On loosening the earth around trees and heaping it up	
32	On willow groves	
33	Reed beds	
34	On others which are cut for poles and stakes.	
35	The culture of vines and of their shrubs	
36	The culture of vines and of their shrubs. The grapes not disturbed by animals	
37	The diseases of trees	
38	Prodigies from trees	
39	Treatment of trees	

40	Treatment of trees	How they are irrigated
41		Miraculous facts about irrigating
42		On incisions made in trees
43		How they are pierced with holes. The gelding of trees
44		Caprification
45		Treatment as a result of pruning
46		Faults found with the manuring of trees
47		Medicaments of trees

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