Childlessness in the Late Republic and Early Roman Empire

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Summary

This thesis is an interdisciplinary study of childlessness in Roman society from the beginning of the first century BCE to the early part of the second century CE. Childlessness can be either voluntary or involuntary as a result of infertility. There has been significant research of infertility in the Greek world; regarding the Roman world, there has been limited investigation, and there has been no investigation into voluntary childlessness in antiquity.

Part one of the thesis is a social analysis, exploring perceptions and attitudes through the lens of the Augustan legislation and Roman satire. I argue that the new imperial state had anxiety about childlessness; that it felt that some people were deliberately choosing not to have children and strove to regulate conduct through punitive law making. Through the lens of legacy hunting, a trope of Roman satire, childlessness was highlighted in the Roman world. Those who were childless seemingly wielded significant power which, in turn, likely enhanced the impression that some voluntarily chose not to have children. Part two explores involuntary childlessness, infertility. I show that there was discussion amongst medical writers, physicians, and philosophers of the reasons why some women and men had difficulty in conceiving. Also, I examine the various treatments advocated to assist conception. As infertility is also defined as the inability to carry a pregnancy to a live birth, I argue that Roman foetuses were at great risk due to malaria, premature birth and from difficult or obstructed childbirth. I conclude that childlessness was an issue during the era, indicated by the visibility of the topic across a wide spectrum of sources.

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Abbreviations and Translations

The only abbreviations found in this work are as follows:

CIL = Corpus Inscriptionum Latinarum

ILS = Inscriptiones Latinae Selectae

PGM = Papyri Graecae Magicae

In terms of translations, I use the latest Loeb Classical Library edition accessed through the Loeb Digital Library. Where they have required modification, I have noted my intervention. The translation of Soranus' missing chapter on 'Infertility and the Inability to Conceive', recorded by Caelius Aurelianus in his *Gynaecia,* is my own. Other non-Loeb translations, as well as Latin or Greek editions of works are summarised below:

Caelius Aurelianus. Gynaecia. Fragments of a Latin Version of Soranus' Gynaecia, from a Thirteenth Century Manuscript. Edited by M.F. Drabkin & I.E. Drabkin. (Baltimore: John Hopkins University Press, 1951).

Catullus. Poems. Translated by G. Lee. (Oxford: Oxford University Press, 2008).

Corpus Inscriptionum Latinarum (*CIL*) (2021) [Online]. Available at: https://arachne.uni-koeln.de/Tei-Viewer/cgi-bin/teiviewer.php?manifest=BOOK-ZID1315254 (Accessed 15/05/22).

Digesta Iustiniani augusti. Edited by T. Mommsen & P. Krueger. (Berlin: Apud Weidmannos, 1870).

Diocles of Carystus. A Collection of the Fragments with Translation and Commentary, *Volume 1: Text and Translation*. Translated by P. J. van der Eijk. (Leiden: Brill, 2000).

Dioscorides. De Materia Medica Libri Quinque. Edited by M. Wellman. (Berlin: Weidmann, 1907).

Dioscorides. Materia Medica. Translated by L.Y. Beck. (Hildesheim: Olms-Weidmann, 2017).

Homer. The Odyssey. Translated by R. Lattimore. (New York: Harper Perennial Modern Classics, 2007).

Inscriptiones Latinae Selectae (ILS). Edited by H. Dessau. (Berlin: Apud Weidmannos, 1906).

Justinian's Institutes. Translated by P. Birks & G. McLeod. (London: Duckworth, 1987).

Juvenal. Satire 6. Edited by L. Watson & P. Watson. (Cambridge: Cambridge University Press, 2014).

Laudatio Turiae. *ILS 8393*. Translated by E. Wistrand, in M.R. Lefkowitz & M.B. Fant, (eds) *Women's Life in Greece & Rome*. (London: Duckworth, 2005): 135–139.

Lucilius. Saturae, fragmenta. Edited by F. Marx. (New York: B.G. Teubner, 1904).

Scribonius Largus. Compounding of Drugs. Translated by I.T. Jocks. (PhD thesis, Glasgow: University of Glasgow, 2020).

Sorani. Gynaeciorum Libri IV. Edited by J. Ilberg. (Leipzig: B.G. Teubner, 1927).

Sorani. Gynaeciorum Vetus Translatio Latina. Edited by V. Rose. (Leipzig: B.G. Teubner, 1882).

Soranus. Gynaecology. Translated by O. Temkin. (Baltimore: John Hopkins University Press, 1991).

Tertullian. Ad Nationes Libri Duo. Edited by J.G.P. Borleffs. (Leiden: Brill, 1929).

The Civil Law: Including the Twelve Tables, The Institutes of Gaius, the Rules of Ulpian, The Opinion of Paulus, The Enactments of Justinian and The Constitutions of Leo. Translated by S.P. Scott. (New York: AMS Press, 1973).

The Commentaries of Gaius and Rules of Ulpian. Translated by J.T. Abdy & B. Walker. (Cambridge, MA: Harvard University Press, 1876).

The Digest of Justinian: Volumes 1–4. Translated by A. Watson. (Philadelphia: University of Pennsylvania Press, 1985).

The Greek Magical Papyri in Translation: Including the Demotic Spells. Translated by H.D. Betz. (Chicago: University of Chicago Press, 1986).

The Institutes of Gaius. Translated by W.M. Gordon & O.F. Robinson. (London: Duckworth, 1988).

The Institutes of Justinian. Translated by J.B. Moyle. (Oxford: Clarendon Press, 1913).

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Introduction

fue(ru)nt optati liberi, quos aliqua(mdiu sors invi)derat. si fortuna procede(re e)sset passa sollemnis inservie(ns quid utrique no)strum defuit? procedens a(et)as spem (f)iniebat. quid agitav(eris propter hoc quae)que ingredi conata sis, f(or)sitan in quibusdam feminis (conspicua et admirabi)lia, in te quidem minime a(dmi)randa conlata virtutibu(s tuis reliquis, iam eloquar).

Diffidens fecunditati tuae (et d)olens orbitate mea, ne tenen(do in matrimonio) te spem habendi liberos (dep)onerem atque eius caussa ess(em infelix, de divertio).

It is true that we did wish to have children, who had for a long time been denied to us by an envious fate. If it had pleased Fortuna to continue to be favourable to us as she should have been, what would have been lacking for either of us? But Fortuna took a different course and our hopes were sinking. What you planned and what you attempted because of this, would perhaps be remarkable and praiseworthy in some other women, but in you they are nothing to wonder at when compared to your great qualities and I will not go into them.

When you despaired of your ability to bear children and grieved over my childlessness, you became anxious that by retaining you in marriage I might lose all hope of having children and be distressed for that reason.

(*ILS 8393*, 2.25–33; translation by Wistrand, with minor modifications).

I begin my thesis with some lines of a first-century BCE funeral speech (*laudatio*) from a husband to his deceased wife, which was subsequently inscribed on her tomb

on large marble slabs.[1] It is known as the *Laudatio Turiae*, as attempts have been made to identify the deceased with a woman named Turia, who hid her husband, Lucretius, between the ceiling and the roof of their bedroom after he was proscribed by the Triumvirs (Valerius Maximus, *Memorable Doings and Sayings* 6.7.2). However, the inscription is now generally thought to refer to someone else.[2]

The *Laudatio Turiae* is the longest known private Roman inscription. It was originally in two long columns, the first of which is lost but most of the second survives.[3] Its form resembles that of the customary eulogy read aloud at a funeral from an aristocratic Roman husband to his deceased wife, after forty years of marriage. The wife is very much presented as the ideal Roman matron for her husband lauds her virtues: graciousness (*comitatis*); affability (*facilitatis)*; industry in working wool (*lanificiis tuis adsiduitatis*); religion without superstition (*religionis sine superstitione*); and generosity (*liberalitatem*) amongst others (*ILS 8393*, 1.30–31 & 1.42). The inscription provides a great deal of historical information about the Triumviral period, particularly the proscriptions: it specifically details how the wife saved her husband and went on to secure his rehabilitation during those difficult times (*ILS 8393*, 2.2a–25).

Notably, the inscription details the couple's childlessness (*orbitate*), despite their desire for children (*optati liberi*). The *laudatio* clearly notes that the couple's situation was a result of infertility, and specifically, the wife's inability to bear children (*diffidens fecunditati tuae*). Of course, infertility can lie with either the woman or the man, yet in this case, the husband clearly holds the wife responsible. Moreover, it seems as if

[1] Parts of the marble slabs, along with transcriptions, began emerging during the Renaissance from across the city of Rome because, by late antiquity, the tomb had been dismantled and the marble put to new uses (Osgood, 2014, 3).

[2] Shackleton Bailey, 2000, 73 (note 2); Badian, 2012; Osgood, 2014, 5. Josiah Osgood maintains the title 'Turia' of his book *Turia: A Roman Woman's Civil War* to ensure that those interested in the *Laudatio Turiae* may find the book more easily (2014, 5).

[3] Badian, 2012. In Erik Wistrand's translation the surviving fragments are referred to as either the left-hand column or the right-hand column and I have noted them as 1 and 2 accordingly.

she attempted to remedy their situation, for the husband refers to 'what you planned and what you attempted because of this' (*quid agitaveris propter hoc quae que ingredi conata sis*). It can be inferred that the wife sought help or treatment as they had difficulties in conceiving, before they resigned themselves to their childlessness. By implication, it suggests that she went to great lengths, for the husband notes that her plans and attempts 'would perhaps be remarkable and praiseworthy in some other women' (*forsitan in quibusdam feminis conspicua et admirabilia*); a characteristic of her indomitability which is a trait that runs throughout the *laudatio.*

The point to note is that the husband is clearly stating to his Roman audience that the couple longed for and tried to have children; that they were not deliberately avoiding parenthood. Indeed, this is a particularly important point to make because the inscription dates from the end of the first century BCE, in the early years of Emperor Augustus' reign, around the time when he introduced his pronatalist legislation which rewarded those who had three or more children and penalised those who did not have children.[4] At the time, as shall be discussed in chapter 1, there was a perception amongst the emperor and others that many Romans deliberately remained childless. In this case the couple, and the husband in particular, sought to assure the political establishment, and indeed the emperor himself, that they were unintentionally childless, or what is now referred to as involuntary childless. Those who deliberately avoid parenthood, even for a specific time period, are now referred to as voluntary childless. The terms 'voluntary' and 'involuntary childless' have been coined more recently.[5]

Childlessness in modern Western society has become the focus of sociologists, demographers and researchers in recent times. Since the mid-twentieth century,

[4] Augustus (63 BCE–14 CE) reigned from 27 BCE until his death in 14 CE. Chapter 1 discusses in detail the penalties inflicted on those who were childless by the Augustan legislation.

[5] Pohlman, 1970*,* 2–12; Veevers, 1973, 199–205; Veevers, 1974, 32–37; Heller *et.al,* 1986, 95–110; Miall, 1986, 268–282; Kiernan, 1989, 387–398. See below for a fuller explanation of terminology.

many western European countries have seen radical changes in demographic behaviour, including increasing shares of permanently childless women and men.[6] Such change has seen policymakers introduce pronatalist measures which, in some instances, have led to a rise in births in the short-term, but generally have proved unsuccessful in encouraging people to have children in the long-term.[7] The general opinion, according to Michaela Kreyenfeld & Dirk Konietzka, is to presume that the rise in the numbers of those without children is a distinctly new and modern occurrence; that previous generations were pressed into parenthood by the influence of social norms and religious doctrines, and by the lack of efficient birth control methods.[8]

For those discussing childlessness in the modern era, the increasing numbers who have intentionally chosen to remain child-free may be attributed to various reasons. Some suggest that it is due to a feminist perspective as the decision to remain childless is as an expression of a self-determined life for women; in previous generations a woman's life had been constructed around the roles of wife and mother.[9] More recently, some are citing environmental reasons for childlessness. Overpopulation of the planet is seen as a reason to not have children or, in the least, reduce the numbers of children a woman has.[10] Journalists, writing on the subject, argue that individualism has grown significantly in the late twentieth and twenty-first century and that society has become more egocentric.[11] For those who are

[6] Kreyenfeld & Konietzka, 2017, 4.

[7] McAllister & Clarke, 2004, 232. In Sweden in the early 1990s, generous parental leave policies were associated with an immediate rise in the birth rate but in the long-term, fertility rates have dropped to below the levels of the late 1980s. France and the former West Germany have both provided considerable financial incentives for parenthood: favourable tax rates for couples with children; increased child allowance for third children; generous maternity leave and benefits; state-subsidised education and childcare services; yet the birth rates have dropped (McAllister & Clarke, 2004, 232).

[8] Kreyenfeld & Konietzka, 2017, 4. Such a view was stated as early as the 1970s, see Veevers, 1973, 203.

[9] Veevers, 1973, 203; Gillespie, 2003; Kreyenfeld & Konietzka, 2017, 3; Hill, 2020.

[10] Cruz, 2013, 916–935.

[11] Siegel, 2013; Kirchgaessner, 2015; Sherwood, 2022.

involuntarily childless as a result of infertility, it is often implied that this too is linked to modern Western lifestyles: that it is related to delayed childbearing, resulting from an increase in education and professional opportunities for women; the dissolution of established patterns of marriage and household formation.[12]

Thus, the belief is that childlessness, either voluntary or involuntary is a modern phenomenon. Yet the *laudatio* reveals an ancient couple who were involuntarily childless due to infertility. Furthermore, it can also be inferred that because the husband was keen to disclose such information and particularly their attempts to conceive, there were others who were intentionally avoiding parenthood during the era. The view that childlessness is distinctly modern may be borne out of the fact that there was no research into the subject until the latter part of the twentieth century: the 1970s saw a rising scholarly profile of the topic, although analysis of it in history and particularly in antiquity remains underdeveloped. There has been widespread and ongoing interest in infertility since the birth of Louise Joy Brown in 1978, through in vitro fertilisation.[13] This modern interest very much positions it as if there was no treatment prior to this.[14]

More recently, scholarship has shown that infertility is an age-old problem and that there were treatments for both women and men throughout history. There has been investigation into infertility in antiquity which has shown that reproductive difficulties have been experienced, and indeed treated, throughout history; thus, infertility and involuntary childlessness are modern terms for age-old issues. That said, research into infertility in antiquity has predominantly focused on classical Greek material, particularly the *Hippocratic Corpus*. Regarding the Roman world, there has been limited investigation into infertility, and for those that have touched on the subject the discussion tends to focus on the *Laudatio Turiae.* Most notably, there has been no comprehensive study of Roman medical texts on the issue of infertility, neither in

[12] Loughran & Davis, 2017, 2.

[13] Sandelowski & de Lacey 2002, 34–35.

[14] Pfeffer, 1993,1.

terms of suspected causes nor treatments. Nor has scholarship analysed how Roman society viewed those who were childless.[15]

The main aim of this thesis is to fill this gap in scholarship and explore childlessness in ancient Roman society, in particular during the late Republic and early imperial era.[16] The topic is not one in which the sources lend themselves to statistical analysis, but we can ascertain attitudes and perceptions of childlessness within Roman society. Thus, I aim to explore how childlessness was perceived in ancient Roman society and what attitudes there were towards the subject. I seek to understand how ancient Roman sources characterise childlessness, what different perspectives are evident and how representative they may be. My interest lies in understanding what evidence exists for deliberate childlessness in Roman society. More so, I aim to establish in what ways difficulties in conceiving were formulated and what various types of fertility treatments existed for those struggling to conceive. The suggestion on the *Laudatio Turiae* is that it was the wife who was infertile, so I also seek to understand the Roman perspective on male infertility. To do this I shall conduct a thorough review of the causes and treatments recommended for infertility for both women and men, and the principles on which they were founded. Infertility is not simply about the inability to conceive; it is much more complex. It is also defined as the inability to carry a pregnancy to a live birth; thus women, whose pregnancies result in miscarriage or stillbirth, having never had a live birth, present with infertility.[17] Within this thesis I seek to establish the Roman perspective of these pregnancy complications.

Literature Review

There have been two main fields of research which have led me to my investigation: the field of Roman demography, particularly the sub-field of fertility, of which infertility

[15] For a full critical historiography of scholarship into childlessness and infertility both in the modern era and antiquity, see below.

[16] For a more specific time frame see below.

[17] See below for a full definition of infertility.

follows on from; the medical focus on the female body in both Roman and Greek society. These fields belong to the study of social history in general, which investigates the past from a sociological viewpoint and emphasises large numbers of people in the past rather than just elites or leading individuals; furthermore, according to Neville Morley, it 'focuses on the organisation of human relationships and on the structures, both natural (families, up to a point) and artificial (clubs, associations), both formal and informal, within which people interact'.[18] Within the field of demography, there has been much analysis on population size in Roman society because census figures are available from the Roman Republic to the early imperial era, along with census records of Roman Egypt from 11/12 CE to 357/8 CE.[19] Moreover, there has been significant discussion on whether Rome, and in particular the upper echelons of Roman society, experienced population decline, which developed out of interest in Roman fertility; the consensus is that there was population decline amongst elite families.[20] Some even suggest that senatorial families disappeared at an average rate of 75% per generation.[21] Most notably, such decline was happening despite Roman society being strongly pronatalist.[22] The implication is that some in Roman society were either limiting their family size, deliberately remaining child-free or possibly experiencing infertility. Walter Scheidel

[18] Parkin & Pomeroy, 2007, 1; Morley, 2009, 113. As a field, social history was increasingly defined in the 1930s in France as part of the *Annales* school and was a major growth field in the 1960s and 70s amongst scholars (Kocka, 1999, 276; Parkin & Pomeroy, 2007; Morley, 2009, 114). Common categories of social history include social classes, gender, race and ethnic groups, subfields include the family and childhood, patronage and friendship, leisure and consumerism, health and disease, crime, and agriculture, and the list continues to grow as historians respond to changing social patterns and needs. In general, it is history without the politics (Morley, 2009, 112). Significantly, it seeks to redress the balance between the history of the elite, who produced the vast majority of written sources and so have shaped our understanding of antiquity, and the vast, silent, exploited numbers of the rest of the population (Morley, 2009, 113).

[19] Brunt documents and analyses all the Roman census figures from 508 BCE to 14 CE (1971, 13–14). The following scholars have also discussed and debated the census figures: Beloch, 1886; Frank, 1924; Bagnall & Frier, 1994; Lo Cascio, 1994; Scheidel, 1996; Scheidel, 2001; Scheidel, 2008; Scheidel, 2010; Hin, 2008 & Hin, 2013.

[20] Parkin, 1992, 119; Hopkins & Burton, 2006a, 195; Hin, 2013; 206; Garnsey & Saller, 2015, 145.

[21] Garnsey & Saller, 2015, 145.

[22] Brunt 1971, 565; Treggiari, 1991, 60; Parkin, 1992, 111–112; Evans Grubbs, 2002, 83; Rawson, 2003, 6; Hin, 2008, 187–238; Hin 2013, 204.

asserts that it will never be known whether Roman senatorial or equestrian couples produced fewer legitimate children than others, but it is hard to see how scholarship can ever advance beyond the position that they may have done so.[23]

There has been significant investigation into the extent to which Romans limited family size and controlled fertility, using contraceptives and abortion, infanticide and exposure.[24] Scholars agree that contraception and abortion were available in ancient Rome; some argue that they may have been used to limit fertility, but differ on the extent of their use.[25] Exposure and infanticide of infants has been discussed as another alternative to limiting the size of families, although it is accepted that there may have been other reasons for the rejection of an infant: illegitimacy; a child conceived in rape or because of an adulterous relationship; those born to widows or divorcees; disabled or those born deformed; poverty; the fact that the infant was female.[26] Most recently, Rebecca Flemming sums up the position in Roman society: she states that Romans had the means to 'have and not to have children, to limit and increase offspring', and 'to shape families in different ways' through the use of contraceptives, abortion, exposure and infanticide.[27]

Such scholarship also falls under the broader field of women's studies. A desire to recover the place of women and the family in antiquity, of which family limitation is part, was as a result of the rise of 'second-wave' feminism.[28] In one of the first

[23] Scheidel, 2001, 35.

[24] The following have investigated controlling family size through the use of abortion and contraception, infanticide and exposure: Hopkins, 1965; Eyben, 1980; McLaren, 1992; Riddle, 1992; Frier, 1994; Harris, 1994; Corbier, 2001; Evans Grubbs, 2013; Flemming, 2021a. Infanticide also covers exposure because it is difficult to ascertain what actually happened in specific cases (Sallares, 2012a).

[25] Hopkins, 1965, 149–50; Eyben, 1980, 77–81; Riddle, 1992, 15; Frier, 1994, 332–333; King, 1998, 142; Flemming, 2000, 162.

[26] Harris, 1994, 1; Evans Grubbs, 2013, 85–93; Flemming, 2021a, 903.

[27] Flemming, 2021a, 896.

[28] Foxhall, 2013, 6.

publications about women in antiquity, the 1973 special issue of the American journal *Arethusa,* Sarah Dickison wrote an article entitled 'Abortion in Antiquity'.[29] A few years later, Sarah Pomeroy published the first significant feminist work in ancient history *Goddesses, Whores, Wives and Slaves* in 1975. This is not to say that women in ancient society were completely ignored up until this point, as there was a small amount of scholarship on women in the early part of the twentieth century.[30] Such works however, were atypical and it was only in the 1970s that women in antiquity were subjected to any detailed analysis. This led many scholars, especially women, to study aspects of women's lives from the ancient world.[31]

It was also in the 1970s that research into childlessness in the modern era began as scholars began to differentiate between those couples who were childless either voluntarily or intentionally, and those who were unintentionally or involuntarily childless; consequently, the terms 'voluntary' and 'involuntary childless' were coined.[32] Those who are voluntarily childless are: of childbearing age and state that they do not intend to have children; those who are past childbearing age but chose

[29] Volume 6 of *Arethusa,* released in the spring of 1973 was a whole issue on *Women in Antiquity*; the articles were as follows: 'Early Greece: The Origins of the Western Attitude Toward Women' by Marylin Arthur; 'Classical Greek Attitudes to Sexual Behaviour' by Kenneth Dover; 'Plato: Misogynist, Paedophile and Feminist' by Dorothea Wender; 'The Women of Etruria' by Larissa Bonfante Warren; 'The Role of Women in Roman elegy: Counter-cultural Feminism' by Judith Hallett; 'Selected Bibliography on Women in Antiquity' by Sarah Pomeroy; and 'Abortion in Antiquity' by Sheila Dickison (*Arethusa*, 6).

[30] Arnold Gomme published a paper in 1925, *The Position of Women in Athens in the fifth and fourth centuries BC*; Charles Seltman published a book in 1956 *Women in Antiquity;* John Balsdon published the book *Roman Women: Their History and Habits* in 1962.

[31] The following is a list of those whose work on women in antiquity I have referenced in this thesis: Keith Bradley, Maureen Carroll, Elizabeth Craik, Véronique Dasen, Lesley Dean-Jones, Suzanne Dixon, Jane Draycott, Jennifer Evans, Judith Evans Grubbs, Emiel Eyben, Rebecca Fallas, Valerie Fildes, Rebecca Flemming, Danielle Gourevitch, Emma-Jayne Graham, Ann Hanson, Elke Hartmann, Keith Hopkins, Angela Hug, Natalie Kampen, Konstantinos Kapparis, Helen King, Christian Laes, Rebecca Langlands, Julie Laskaris, Angus McLaren, Josiah Osgood, Tim Parkin, Matthew Perry, John Riddle, Beryl Rawson, Aline Rousselle, Joan Stivala, Beth Severy, Laurence Totelin, Susan Treggiari, Tara Welch, Serena Witzke.

[32] Pohlman, 1970*,* 2–12; Veevers, 1973, 199–205; Veevers, 1974, 32–37; Heller *et.al,* 1986, 95–110; Miall, 1986, 268–282; Kiernan, 1989, 387–398.

not to have children; in addition, the term also includes those who do not currently have children but want children in the future. Involuntary childlessness, on the other hand, is the end result for couples who suffer infertility, which is the most commonly used and socially accepted phrase for people who cannot have children; 'fertility' is the most common term for women's reproductive capacity. The association of the terms with the inability, or ability to conceive children, however, is fairly recent. The terms are centuries old and initially related to soil and agriculture; in the twentieth century they became more associated with human reproduction.[33] Predecessors to these terms were 'fecund' for 'fertile', and 'barren' or 'sterile' to denote an inability to become pregnant or bear children. In the largely agrarian communities prior to the industrial revolution, daily life revolved around the rhythms of planting, harvesting crops, and tending animals; consequently, according to Robin Jensen, metaphorical descriptions of childbearing and childless women corresponded with communities' overarching interests and values.[34] Through the lens of the natural, organic world, childbearing women were described as fruitful and nourishing the seed, metaphors that could be traced back to the *Hippocratic Corpus* where pregnancy results from the successful combination of male and female seed.[35] Through the same lens, the term 'barren' framed a woman's inability to bear children.

With the industrial revolution, discourses on human generation were referenced as 'reproduction', a metaphor that framed conception and birth as elements of a manufacturing process.[36] Correspondingly, the metaphor 'barrenness' was traded for

[33] 'Fertility' is defined as 'the quality of being fertile; fecundity, fruitfulness, productiveness'; referring initially to producing an abundance of plants and crops (OED, s.v. fertility). 'Infertility' is the quality or condition of being 'unfruitful, unproductive or barren'; initially in respect of soil and agriculture (OED, s.v. infertility). 'Fertility' dates to the 15th century, whilst 'infertility' dates to the early sixteen hundreds (OED, s.v. fertility). 'Fertility' was first used in 1866 to reference women who gave birth to numerous children (OED. s.v. fertility). However, it was not until the end of the twentieth century that physicians, scientists, and lay persons alike, routinely enlisted the term 'fertile' to describe women with many offspring, or the potential for many offspring; conversely 'infertile' was employed to describe married women who remained childless (Jensen, 2015, 26).

[34] Jensen, 2015, 28–29.

[35] Flemming, 2000, 119.

[36] Jensen, 2015, 35; Jensen, 2016, 28; Hopwood, 2018, 299–300.

'sterility', and with the advent of mechanical aids in the medical profession, it contributed to the perception that the human body, in particular female bodies, were machines in need of repair and as such, could be fixed by medical intervention.[37] Thus, terminology changed in line with the changing society. In slight contrast to 'barren' and 'sterile', the contemporary word 'infertility' is not simply about the inability to conceive, it is much more complex, for it includes the inability to sustain a pregnancy and give birth to a live infant. The clinical definition of infertility is 'a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after twelve months or more of regular unprotected sexual intercourse'.[38] Yet, Maya Mascarenhas *et al* assert that it is births, rather than pregnancies which are the preferred outcome and included in their study of infertility those women who conceived but did not give birth to a live infant.[39] Thus, the World Health Organisation also has an expanded definition of infertility for women as follows:

> When a woman is unable to ever bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth, she would be classified as having primary infertility. Thus, women whose pregnancy spontaneously miscarries, or whose pregnancy results in a stillborn child, without ever having had a live birth would present with primary infertility (WHO, 2020).

'Miscarriage' is the colloquial term for a spontaneous abortion.[40] In medical terms, it is defined as the spontaneous loss of a pregnancy before 24 weeks of gestation and is further categorised into an early miscarriage, if it occurs before 13 weeks of

[37] Jensen, 2015, 27–35; Jensen, 2016, 19.

[38] WHO, 2020.

[39] Mascarenhas *et al,* 2012, 2–3.

[40] 'Abortion' is defined as the expulsion or removal from the womb of a developing foetus occurring as a result either of natural causes, spontaneous abortion, or of a deliberate act, an induced abortion (OCMD, s.v. abortion & miscarriage).

gestation, or a late miscarriage, if it occurs between 13 and 24 weeks of gestation.[41] Any loss after the first six months of pregnancy is commonly referred to as a 'stillbirth' in contemporary society; the term also includes infants who die during childbirth.[42]

Infertility can be further categorised. Some women can experience infertility even after undergoing a pregnancy and delivering a healthy child; they experience secondary infertility, defined by the World Health Organisation as follows:

> When a woman is unable to bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth, following either a previous pregnancy or a previous ability to carry a pregnancy to a live birth, she would be classified as having secondary infertility. Thus, those who repeatedly spontaneously miscarry, or whose pregnancy results in a stillbirth following a previous pregnancy or a previous ability to do so, are then unable to carry a pregnancy to a live birth, would present with secondary infertility (WHO, 2020).

From the outset, the conclusion of many has been that voluntary childlessness is a phenomenon of modern western society, and that, for women, it has feminist links: Veevers concluded as early as 1973, that the 'incidence of childlessness in western society might be expected to increase' due to 'the changing status and role of women, the improvement in birth control technology, the persistent trends toward

[41] NICE, 2022.

[42] Depending on the medical source, a stillbirth is defined as an infant born with no signs of life, or is the loss of a pregnancy after 24 weeks or 28 weeks of gestation; it includes those who die just before birth or during childbirth (NHS, 2021 & WHO, 2023a). The reason for the variation seems to be the difference in when countries collect data on foetal deaths: some countries such as the UK report deaths from 24 weeks, but in most developing countries there is very little data on losses prior to 28 weeks gestation (Fretts, 2011, 3).

greater urbanisation and the growing awareness of population pressures'.[43] Early studies also showed that married women were choosing voluntary childlessness rather than parenthood, at least for a time, to gain economic and career advantages.[44] As research into the topic continued during the late twentieth century, some even suggested that those who voluntarily remained childless had a unique set of personality and behavioural characteristics.[45] At the beginning of the new century, Gayle Letherby argued that the experience of voluntarily and involuntarily childless women could be characterised as 'complex' and 'not, as is often presented and understood, as selfish and thoughtless, or as desperate and powerless'.[46] More recently, Kreyenfeld & Konietzka have presented detailed European country reports on childlessness, analysing its contexts, causes and consequences.[47] According to Kreyenfeld & Konietzka, twenty per cent of women living in Germany, Switzerland and Austria now reach the end of their reproductive period childless; other European countries such as the UK and Finland also report high levels of childlessness whilst eastern and southern European countries, which did not have high levels of childlessness a decade ago, are now seeing steady increases.[48] The conclusion is that social, economic and cultural trends in the last forty-five years appear to steer women away from having children: easy access to contraception; educational attainment for women; and participation in the labour market which sometimes forces some women to choose between having a career and being a parent.[49]

The 1970s also saw radical technological advances in the treatment of infertility with the birth of Louise Joy Brown in 1978 through in vitro fertilisation (IVF). So, alongside the investigations into voluntary childlessness, there was a growing interest in

[43] Veevers, 1973, 203. Investigations into the topic and its links with feminism may have been borne out of the 'second-wave' feminism movement which began in the early 1960s.

[44] Callan, 1983, 188.

[45] Heller *et.al,* 1986, 95–110.

[46] Letherby, 2002, 17.

[47] Kreyenfeld & Konietzka, 2017.

[48] Kreyenfeld & Konietzka 2017, Preface v.

[49] Sobotka, 2017, 17–18.

infertility, and it too has been linked to modern lifestyles. The impression perpetuated was that infertility was linked to a number of factors: sexual promiscuity leading to venereal infection and damage to the fallopian tubes; women delaying pregnancy until past their fertile peak in order to pursue a career; and environmental pollutants which are especially toxic to sperm.[50] However, more recent research has shown that, for women, an inability to conceive can result from a variety of factors. It can occur due to anovulation, where the ovaries do not release an ovum; symptoms of which are irregular or infrequent menstruation (oligomenorrhoea) or absent menses (amenorrhoea) caused by conditions such as Polycystic Ovary Syndrome, obesity, low body weight or excessive exercise.[51] Infertility may result from blocked fallopian tubes due to pelvic inflammatory disease.[52] Uterine fibroids (leiomyomata) have also been associated with problems in conceiving.[53]

Involuntary childlessness also results from repeated miscarriage or stillbirth, without ever giving birth to a live child. Recent research has shown that a cause of stillbirth is premature labour.[54] Premature birth is defined today as one which occurs before 37 weeks of pregnancy.[55] More so, nearly half of all stillbirths occur during labour due to childbirth related complications.[56] Younger women, and in particular teenage girls, are susceptible to difficult labour; those aged ten to fourteen face a higher risk of complication and death as a result of pregnancy than other women, and infants born

[50] Pfeffer, 1993, 1.

[51] OCMD, s.v. anovulation; Parihar, 2003, 120; Archer & Chang, 2004, 737; Farquhar, 2007, 11; Pasquali *et al,* 2007, 482; Collins *et al*, 2013, 508 & 570–571; McVeigh *et al*, 2013, 46 & 70 & 118–119; Talmor & Dunphy, 2015, 504; Broughton & Moley, 2017, 840.

[52] Collins *et al*, 2013, 561–562; McVeigh *et al*, 2013, 110; Brunham *et al*, 2015, 2039.

[53] Doherty *et al*, 2014, 1067–1092; Harris & Styer, 2020, 50–53.

[54] Goldenberg *et al*, 2000, 1500; Romero *et al*, 2003, 1668S; Vaishali & Pradeep, 2008, 315. Most stillbirths are concentrated in those infants born before thirty-two weeks, eight months (Goldenberg *et al*, 2000, 1500).

[55] WHO, 2022b.

[56] WHO, 2023a. Over 40% of stillbirths occur during labour (WHO, 2023a).

to teenage mothers have a higher rate of infant mortality and morbidity than those born to older mothers.[57]

In men, causes of infertility include decreased numbers of spermatozoa in the semen (oligospermia) or reduced motility of spermatozoa (asthenospermia) or the total absence of spermatozoa in the semen (azoospermia).[58] Rebecca Fallas argues that infertility goes even further and encompasses the inability to perform the act of intercourse necessary for procreation.[59] Thus 'impotence', the inability to attain or sustain an erection to enable vaginal penetration for sexual intercourse, can also be a cause of infertility.[60] If a man is unable to have intercourse with his female partner, they would be rendered infertile without a cure for his impotence. Certainly, there are instances in the modern era where a couple was childless, and subsequently divorced, as a result of impotence.[61] Infertility occurs because couples are unable to complete the entire process of having a child, whether that is the inability to perform penis-in-vagina intercourse, the inability to conceive following unprotected sexual intercourse over a prolonged period of time, or, in women, the inability to retain the foetus in the womb for the entire gestation period and deliver a live child.

A further impression conveyed is that before in vitro fertilisation, doctors could not, and did not treat infertility; the techniques of assisted conception are talked about as if they are new treatments of a new problem.[62] Such opinions are mistaken, for Naomi Pfeffer noted that, throughout the twentieth century, women, and sometimes their male partners, sought medical help for involuntary childlessness; she

[57] Irvine *et al*, 1997, 325; Laskaris, 2020, 85; WHO, 2021.

[58] Gopalkrishnan *et al*, 2000, 102; Sharpe, 2012, 403; McVeigh *et al,* 2013, 134; OCMD, s.v. asthenospermia, azoospermia & oligospermia.

[59] Fallas, 2015, 30.

[60] OCMD, s.v. impotence.

[61] Marie Stopes, the palaeobotanist and women's rights campaigner, who brought the subject of birth control into the wider public discourse, ended her first marriage in 1916 to Reginald Gates with an annulment, on account of his impotence (Neushul, 1998, 250).

[62] Pfeffer, 1993, 1.

specifically reveals some class bias in the treatment of women.[63] Christina Benninghaus discussed the use of surgical treatments to treat sterility in women during the latter part of the nineteenth and early twentieth century.[64] Furthermore, those studying the Roman world have noted that some may have deliberately remained childless, whilst others may have suffered from infertility.

At the same time as investigations into childlessness in the modern era began, Peter Brunt, in his demographic epic *Italian Manpower* published in 1971, first highlighted that childlessness existed in Roman society, across all classes: that it was common among the propertied class, but also, that 'there were freedmen and freedwomen who were childless', and that the 'poor, in general when they had no stable source of income, tended to be unmarried and childless'.[65] Some scholars have inferred that voluntary childlessness was quite common. Suzanne Dixon asserts that there was a perception by imperial times that elite Roman men and women in particular were deliberately avoiding parenthood for 'selfish, materialistic reasons', using abortion and contraception; that such an assumption was specifically put forward by Roman moralists and satirists.[66] More recently, Saskia Hin asserts that the late Republican period witnessed a shift towards avoidance of childbearing.[67]

[63] Pfeffer, 1993, 1 & 41. Some, more affluent women, particularly those of the middle-classes, were advised by doctors to change their habits and environment, such as moving to a quiet country village or a coastal resort, even a foreign spa town to promote a healthier state of mind and body and thereby make them fertile; whilst working-class women would have the structure of their reproductive organs and genitalia realigned by the insertion of a ring pessary which supports the uterus, or surgery (Pfeffer, 1993, 41).

[64] Benninghaus asserts that by the mid-nineteenth century gynaecologists in the western world advocated bimanual examination of the pelvis and use of the speculum and because of the introduction of anaesthetics and antisepsis, gynaecological treatment became more invasive: infertile women found their wombs manipulated by pessaries, probes, massages and surgery (2018, 461–462).

[65] Brunt, 116–117 & 382.

[66] Dixon, 1992, 119 & 2007, 62.

[67] Hin, 2013, 209.

Others have suggested that infertility may have been common in Roman society. Tim Parkin argued that 'a high level of sterility is probably to be assumed', noting the first century social commentator, Pliny the Younger who remained childless despite wanting children and the fact that many emperors did not produce natural heirs.[68] Beryl Rawson in her study, *Children and Childhood in Roman Italy*, asserted that involuntary childlessness should not be underestimated, and that miscarriage, especially, must have been frequent in Roman society citing Pliny the Younger and his wife Calpurnia, rituals and festivals which provided opportunities for childless women to seek fertility and for pregnant women to seek a successful birth, and the many votive offerings associated with pregnancy and childbirth.[69] Sabine Huebner, when studying the family in Roman Egypt through the census records of Roman Egypt from 11/12 CE to 357/8 CE, claimed that in antiquity, 'sterility', along with 'high infant and child mortality, left many people without children in old age'.[70] Whilst many have noted the presence of childlessness either voluntary or involuntary in Roman society, and indeed, some have suggested that it may have been common, there has been no thorough investigation of the topic.

That said, there has been some limited investigation into childlessness or infertility and it has largely centred around the *Laudatio Turiae*. In her article 'La stérilité féminine dans le monde romain: vitium ou morbus, état ou maladie', Danielle Gourevitch considered female sterility in the Roman world, discussing the *Laudatio Turiae*, and focusing on Soranus' missing chapter on 'Infertility and the Inability to Conceive' recorded by Caelius Aurelianus in the fifth century CE.[71] Gourevitch concluded that infertility was considered to be a female condition.[72] Josiah Osgood's book *Turia: A Roman Woman's Civil War*, focuses on the wife of the *Laudatio Turiae*. He dedicated one chapter to the couple's childlessness entitled 'Children Hoped For*'*

[68] Parkin, 1992, 114.

[69] Rawson, 2003, 116–119. There is significant literature on votives (Glinister, 2006; Graham, 2013; Draycott & Graham, 2017; Flemming, 2017; Hughes, 2017).

[70] Huebner, 2013, 163.

[71] Gourevitch, 2013, 219–231.

[72] Gourevitch, 2013, 226.

and argued that childlessness was probably common in ancient Rome by using Lucretius' (*c.*94–*c.*55 BCE) *On the Nature of Things* and Soranus' (late first century–early second century CE) *Gynaecology* along with the *Laudatio Turiae.*[73] Osgood, in contrast to those scholars who have asserted that infertility may have been common in Roman society, argued that complete sterility amongst Roman couples would have been relatively uncommon and instead suggests that childlessness in Roman society was caused by high rates of miscarriage along with high infant mortality.[74]

Angela Hug's doctoral thesis examining the cultural history of the role of fertility, *fecunditas,* in Roman society during the late Republic and imperial era, also refers to infertility. She asked how the Romans chose to understand human fertility, how they sought to preserve and encourage it and how the absence of fertility affected their marriages, their families and their political careers; her thesis is 'an investigation of the place of fertility in the Roman cultural consciousness'.[75] Within her thesis, Hug investigates those couples who were not able to have children and asks what methods were available to the Romans to overcome involuntary childlessness. It is not an in-depth study of fertility or infertility in the medical sources; instead, it engages in a detailed study of three alternative ways of building a family: adoption; the use of 'substitute' children; and divorce. Hug argued that the Romans had no means of overcoming infertility if they were committed to the marriage and that the outlook for women who were perceived by their society to be infertile, was particularly bleak.[76] Most recently, in her discussion on *Fertility Control in Ancient Rome*, Flemming discussed some non-medical courses of action available to those struggling to have children: remarriage; dream interpreters, astrologers and fortune-

[73] Osgood, 2014, 65–86.

[74] Osgood, 2014, 67–68. Notably, Osgood uses Bongaarts and Potter's contemporary guide to fertility analysis rather than any ancient Roman sources (2014, 67). Infant mortality is believed to be very high: at least 200 deaths in the first year of life per thousand live births (Hopkins & Burton, 2006b, 72).

[75] Hug, 2014, 4.

[76] Hug, 2014, 302–348. Hug defines the following as child substitutes: *vernae*, slave children born in a household; *delicia*, slave children viewed as pets; and *alumni,* foster children who may or may not have been slaves; also, nieces and nephews or children of friends (2014, 323–329).

tellers; appealing to the gods; and adoption.[77] Thus, scholarship has noted that infertility is an age-old problem and that there were treatments throughout history.

Indeed, there have been several in-depth investigations into infertility from an ancient Greek perspective. LaurenceTotelin, in the fifth chapter of her 2009 publication *Hippocratic Recipes: Oral and Written Transmission of Pharmacological Knowledge in Fifth and Fourth-Century Greece*, shows that the *Hippocratic Corpus* provides advice on promoting fertility for both men and women but concluded that many plants were used in purges both to prepare a woman for a fertility treatment and to get rid of a foetus; that promoting fertility and curbing it were both sides of the same coin in the ancient Greek world.[78] Flemming in her 2013 article, 'The Invention of Infertility in the Classical Greek World: Medicine, Divinity and Gender', explores some of the causes and treatments for infertility in the *Hippocratic Corpus* and examines the connection between religion and infertility in the ancient world. One of Flemming's aims was to challenge the claim made by Margarete Sandelowski and Sheryl de Lacey that infertility first began to be thought of as a treatable condition in the late 1970s following the birth of Louise Joy Brown through IVF; instead, Flemming argued that infertility has a history that goes back thousands of years to the ancient Greeks, by highlighting the repertoire of treatments stated in the *Hippocratic Corpus,* for those suffering from procreative disruption and non-procreation, despite regular intercourse.[79]

Following on from the research of Totelin and Flemming, Fallas' PhD thesis in 2015, thoroughly investigated infertility in the ancient Greek world, focusing on the causes and treatments of infertility, as detailed in the *Hippocratic Corpus*. Fallas investigated what the concept of infertility meant to the writers of the *Hippocratic Corpus* and how it fitted into the wider understanding of the body in antiquity. She reviewed both the causes of, and treatments recommended for, infertility; then used this information to

[77] Flemming, 2021a, 896–914.

[78] Totelin, 2009, 197–219.

[79] Flemming, 2013, 589–590.

analyse the relationship between infertility and the concepts of blame and responsibility in ancient Greece. When analysing infertility in the ancient world, the focus has predominantly been on classical Greek material, in particular the *Hippocratic Corpus*. My thesis aims to extend understanding of infertility in Roman society. I seek to examine in what ways difficulties in conceiving were formulated and what types of fertility treatments existed in the medical texts and for whom. As infertility is also defined as the inability to carry a pregnancy to a live birth, I also seek to establish the Roman perspective on the factors which prevented the birth of a live infant: spontaneous abortion, colloquially termed a miscarriage, and stillbirth. A premature birth puts the infant at great risk of death too: the earlier an infant is delivered, the less likely it is to survive.[80] Thus, I aim to investigate Roman understanding of the length of pregnancy and what constituted a premature birth in the Roman world.

There has also been some discussion of male infertility in history, although the extent to which it was understood is debated. Susan Treggiari asserted that, if a Roman couple failed to have children, it was usual to assume sterility in the wife.[81] Sue Blundell suggested that there was 'little recognition on the part of medical writers (of the *Hippocratic Corpus*) that failure to conceive may be caused by infertility in the male partner', although she acknowledged that there was advice to would-be fathers on diet and general health.[82] These assumptions are seen clearly on the *Laudatio Turiae*, as the wife was believed to be the one who was infertile, not the husband. Yet more recent research has shown that male infertility was recognised in history and in antiquity. Catherine Rider asserted that in medieval society male sterility was taken seriously especially by medical writers.[83] Hug argued that ancient Roman understanding was that male infertility was primarily associated

[80] Goldenberg *et al*, 2000, 1500; Romero *et al*, 2003, 1668S; Vaishali & Pradeep, 2008, 315. Most stillbirths are concentrated in those infants born before thirty-two weeks, eight months (Goldenberg *et al*, 2000, 1500).

[81] Treggiari, 1991, 427.

[82] Blundell, 1995, 105.

[83] Rider, 2016, 245.

with impotence, but, using Lucretius' *On the Nature of Things*, showed that it could also be down to some physical fault of the man.[84] Osgood asserted that medical writers and scientific writers, dating back to the Greeks, located the cause of sterility in the male as well as the female.[85] Indeed, Fallas showed that it was discussed by medical writers of the *Hippocratic Corpus*, but by no means on the same level of detail as female infertility.[86] I shall expand on Hug's investigation, as one of the wider aims of this thesis is to examine the evidence for treatment of male infertility in Roman society.

The scholarship that explores issues relating to fertility and infertility in antiquity has developed out of an interest in the gynaecological treatises of the *Hippocratic Corpus*, which began in the middle of the twentieth century. The study of ancient gynaecology is now a well-established area of scholarship. The field was led by Lesley Dean-Jones, Ann Hanson and Helen King in the 1980s and 90s; Aline Rousselle was also contributing to the field of studying women's bodies as was Danielle Gourevitch from a Roman woman's perspective.[87] These scholars examined the ancient gynaecological texts within the *Hippocratic Corpus* and also used these texts to discuss the lives of women in antiquity more broadly. In general, discussions on the female body have focused on the importance of menstruation and reproduction and the treatments for diseases which can be caused by a suppression of the menses or lack of reproduction in the female body. This approach has been driven by the contents of the *Hippocratic Corpus*. When a woman is mentioned, the condition she is suffering from is more often than not either caused by, or at least manifests itself through the abundance or lack of three things: menstruation,

[84] Hug, 2014, 76–80.

[85] Osgood, 2014, 67.

[86] Fallas, 2015, 247.

[87] Examples include: Dean-Jones (1989, 1991, 1992, 1994a, 1994b, 1995); Hanson (1987, 1990, 1991, 1998); King (1983, 1990, 1993, 1994, 1995a,1995b,1998). These focus on the presence of women and their afflictions within the ancient medical texts. Rousselle looks at women in the ancient world (1988). Gourevitch (1984; 1994).

pregnancy, or sexual intercourse. More often, the treatments and cures for any diseases can also be linked to these three areas.

Menstruation has been one of the key discussions in the field of gynaecology and how ancient medicine understood its role. It was generally believed that it was not only a sign of fertility in a woman, but was also thought to be essential to overall health.[88] The general consensus in the *Hippocratic Corpus* was that if women were of an age where menstruation should occur and were not pregnant or breast feeding, then they should be regularly menstruating. Women were believed to differ from their male counterparts primarily in the texture of flesh, which is loose and spongy in comparison to a man's more 'solider flesh'; this results in women retaining more fluid which is then removed through menstruation (*Diseases of Women* 1.1.14). If menstruation does not regularly occur, then menstrual blood is retained in the body which leads to illness or even death (*Diseases of Women* 1.2).

Attention initially centred on the classical Greek perspective, but Flemming's publication in 2000 entitled *Medicine and the Making of Roman Women: Gender, Nature and Authority from Celsus to Galen* extended such work, focusing on the imperial Roman period. More so, it investigated the women who practised medicine as well as the women who had it practised on them. Her book is about the concerns with, and the literary and organisational responses to health and disease, and how they played out around women in the Roman Empire. Flemming investigated the Roman medical texts of Celsus, Scribonius Largus, Pliny the Elder, Dioscorides, Soranus and Galen. In her conclusion, Flemming noted that there was some change in the understandings of the medical woman in the Roman era, especially as noted in Soranus on menstruation: Soranus, rejected the generally held idea that

[88] Dean-Jones, 1989, 179; Dean-Jones, 1991, 120; Dean-Jones, 1994a, 185–6; Dean-Jones, 1994b, 55–56; Dean-Jones, 2018, 253; Hanson, 1990, 317; King, 1993, 30; King, 1994, 107–108; King, 1995a, 211; King, 1995b, 136; King, 1998, 29–39 & 79; Flemming, 2000, 116–117 & 236.

menstruation was essential to the overall health of a woman and believed that non-menstruating women could be perfectly healthy.[89]

Most notably, the belief in antiquity was that the most favourable time for a woman to become pregnant was just at the end of menstruation (*Nature of the Child* 4.494; Soranus, *Gynaecology* 1.36). Thus, the necessity of menstruation either for overall health, or to facilitate pregnancy meant ancient women suffering irregular menses, a late period, or amenorrhea might take an emmenagogue simply to promote their menses.[90] Such discussion on the use of emmenagogues, disagrees with John Riddle's interpretation of them. Riddle, when discussing emmenagogues, always refers to them as abortifacients; in his view, the two words are interchangeable, so, anything expulsive is an abortifacient.[91] King especially, argues that such a conclusion reduces all gynaecology to abortion; that Riddle fails to appreciate the importance of menstruation in its model of the female body.[92] Consequently, one aim is to examine the evidence for less potent emmenagogues which simply promote the menses rather than kill and expel foetuses. For those women wishing to become pregnant, such evidence, I will argue, may have been taken to enhance fertility and been a form of fertility treatment.

[89] Flemming, 2000, 369. Soranus states in his *Gynaecology* that menstruation does not contribute to women's health but is only necessary for conception (1.29). Ann Hanson and Monica Green noted Soranus' radically different views on menstruation and other things such as foetal anatomy and the female nature in their article on the physician (1994, 988).

[90] King, 1998, 145; Flemming, 2000, 162–163. King, in her discussion, refers to Angus McLaren's argument that those women in pre-industrial England whose menses had stopped may have taken a 'herbal potion' an emmenagogue, to promote menstruation, implying that the same applies to ancient Roman women (King, 1998, 145, McLaren, 1984, 102). An emmenagogue is defined as an agent or substance which increases or stimulates the menstrual discharge (OED, s.v. emmenagogue).

[91] Abortifacient is used as an alternative word for emmenagogue by Riddle throughout his book (1992, 23; 28; 29; 31; 32; 36; 39; 45; 47; 50; 52; 54; 70; 81; 83; 85; 86; 89; 102; 103; 104; 105; 116; 154; 159; 165).

[92] King, 1998, 145.

Methodology and Sources

My thesis is not a demographic study, because the data available does not lend itself to a statistical analysis.[93] Rather it is a thematic and interdisciplinary study: references to childlessness are found in a rich and varied range of Roman literature for different reasons; and as has been shown, there is also mention of the topic in the uniquely exceptional *Laudatio Turiae*, a first century BCE piece of epigraphy.[94] Studying a subject through the lens of different disciplines is not without its challenges, none more so than the vast amount of literature available, across numerous genres. Furthermore, we are constrained by what has survived and come down to us from antiquity. As Christian Laes states, as an ancient historian 'one has to use what one has in order to sketch an overall picture'.[95]

My research concentrates on Roman society predominantly in Roman Italy, but also across the empire, from the beginning of the first century BCE to the early part of the second century CE, a period of over two hundred years. Some of the written evidence I use is from later periods of Roman history because they provide information about the time under discussion. One medical source comes from the Roman physician Caelius Aurelianus (fifth century CE) whose work *Gynaecia* features a lost chapter on infertility from Soranus' *Gynaecology* and the legal literature comes from the sixth century CE.[96] I reference Aulus Gellius' (*c.*125–*c.*180 CE) compilation of topics, *Attic Nights* and I include historiographical evidence from Dio Cassius (*c*.164–*c.*229 CE). At times, I also reference archaeological evidence

[93] The statistical data available, which in itself is very limited, is on the sizes of families, particularly, the numbers of children Roman women bore, which has been gathered from the census records of Roman Egypt from 11/12 CE to 357/8 CE. Bagnall & Frier thoroughly investigated the 300 census records, documenting 1,100 people from the Roman province (1994).

[94] See pages 1–3 for discussion of the topic on the *Laudatio Turiae*. Childlessness is mentioned in historiography, jurisprudence, philosophy, poetry, satirical literature, and medical literature, The *Laudatio Turiae* is uniquely exceptional because it is the longest known private Roman inscription (Badian, 2012).

[95] Laes, 2011b, 465.

[96] Soranus' lost chapter 3.51: 'Infertility and the Inability to Conceive' (*περί ἀγονίας καί ἀσυλληψίας*) is preserved in *Gynaecia* 2.64–65 (Soranus, *Gynaecology* 3.51; Aurelianus, *Gynaecia* 2.64–65).

from later periods in the Roman world and, on one occasion, from earlier ancient Egyptian times for such findings are rare and, in some instances, unique.[97] Such evidence possibly indicates the existence of certain diseases, practices and the presence of a gynaecological problem in antiquity, which would likely indicate presence and practice during the period under discussion. Most of the ancient authors I refer to wrote in Latin, although a number, especially some medical writers, wrote in ancient Greek. The evidence I use covers a very broad scope in terms of genre but also in terms of chronology, which requires a great deal of care.

I begin with jurisprudence evidence relating specifically to the Augustan legislation: the *lex Julia de maritandis ordinibus,* the Julian Law on the marrying of the social orders and the *lex Julia de adulteriis coercendis,* the Julian Law concerning the repression of adultery, which were both passed by Augustus in 18 BCE; it also includes another law, the *lex Papia Poppaea,* which was passed twenty-seven years later in 9 CE. The nature of this evidence is somewhat problematic because, unfortunately, the precise text of the statutes has not been preserved. Most of what survives is commentary on the legislation, in the form of legal excerpts written by jurists from the *Corpus Juris Civilis,* commissioned by Emperor Justinian (527–565 CE) in 527 CE, to restate the whole of Roman law in a consistent and convenient form. It comprised of the *Codex, Digest* and *Institutes*.[98] The *Codex* was a practical handbook for ancient judges, officials and litigators and contained the most important Roman laws in one place.[99] The *Digest,* intended to be more comprehensive and more detailed than the *Codex*, is a collection of ancient legal writings from the great

[97] I refer to a fourth century CE archaeological find of a heavily pregnant woman with possible syphilis (see 242–243). I include the find of a mass burial of forty-seven newborns and foetuses from the mid-fifth century CE whose deaths have been attributed to malaria (see 247–248). I reference the finding of the remains of a young woman of fourteen years old from the fourth century CE who likely died in childbirth due to an immature pelvis (see 261). I refer to the only known example of an embryotomy from third-century CE Roman Britain (see 263–264). Also, I reference the mummy of an Egyptian woman of the XIth Dynasty (c.2050 BCE) who seemingly suffered a fistula during childbirth probably as a result of her infant becoming stuck due to a misshapen pelvis (see 281).

[98] Lim, 2006, 117.

[99] Dingledy, 2016, 233.

jurists. They are as follows: Papinian, long regarded as the greatest Roman lawyer from the late second century and early third century CE; Paul, one of Papinian's clerks; Domitius Ulpian and one of his pupil's Modestinus; and Celsus, from the late first and early second century CE.[100] About two-fifths of the *Digest* is formed from the *Rules of Ulpian*, composed by Domitius Ulpianus between 213 and 217 CE.[101] The *Digest* was and is, considered the most important part of the *Corpus Juris Civilis*.[102] The third element of the *Corpus Juris Civilis* was *Institutes*, based on the law teacher Gaius' lectures, from the latter half of the second century CE.[103]

There are several issues in using such material. Firstly, and most importantly, as the evidence is commentary on the legislation, not the statutes themselves, one does not have a comprehensive and detailed account of each law as they were passed. Secondly, the evidence was written hundreds of years after the legislation was passed and only the sections of law relevant to the time of Justinian have been preserved. There is another added problem in that one cannot distinguish exactly what provisions belonged to which law because, for the most part, particularly as the *lex Papia Poppaea* was a modification of the initial legislation, the jurists commonly conflate the laws as the *lex Julia et Papia*. There are only a few occasions within the jurisprudence when the three laws are referred to individually: the *lex Julia de maritandis ordinibus* is only referenced in full once; the *lex Julia de adulteriis* is referenced in full twice; whilst the *lex Papia Poppaea* is referenced individually ten times.[104] This is a very small amount when we consider that the codification runs to over a million words.[105] Nevertheless, in these references of the later law, new

[100] Cooley 2003, 353–354; Corcoran, 2006, 435.

[101] Cooley, 2003, 354.

[102] Dingledy 2016, 236.

[103] Honoré, 2012; Dingledy, 2016, 236–237.

[104] For the *lex Julia de maritandis ordinibus* see *Digest* 37.14.6.4; the *lex Julia de adulteriis* see *Digest* 1.21.1 & 28.1.20.6; for the *lex Papia Poppaea* see *Rules of Ulpian* 1.21; 14.1; 16.1; 18.1; 19.17; 24.12; 24.31; 29.3; 29.5; 29.6.

[105] Honoré, 2012.

provisions relating specifically to the *lex Papia Poppaea* are documented.[106] Consequently, there is an understanding of some new additions or amendments to the original laws. For the most part, particularly as the *lex Papia Poppaea* was a modification of the initial legislation, the jurists commonly combine the laws as the *lex Julia et Papia*, thus making it difficult to distinguish exactly what provisions belonged to which law. Nonetheless, the ancient jurists refer quite extensively to the Augustan legislation throughout the *Digest* and *Institutes*, allowing for reconstruction of a large part of the legislation.

Various works of poetry are used throughout my thesis: I reference poetry from Horace, Propertius, Ovid and Statius.[107] I particularly cite satirical literature which flourished during the late Republican and imperial era, with *Satires* from Horace and Juvenal, two of 'the canonical Roman verse satirists'.[108] Catullus and Martial are also included and whilst they are not satirical poets *per se*, they wrote about their societies in a satirical manner.[109] The first century writer Petronius is also cited as his work, *Satyricon*, is classed as Menippean satire, that is, a form of satire written in prose, which has a length and structure similar to a novel; it treats serious issues in a comic, often moralising fashion.[110]

[106] One of the new financial penalties of the *lex Papia* was that childless people were allowed to receive only half of an inheritance or legacy (Gaius, *Institutes* 2.111 & 2.286a); under the *lex Papia,* the time for remarrying was extended (*Rules of Ulpian* 14).

[107] The dates for these poets are: Horace (65–8 BCE); Propertius (*c.*54–*c.*2 BCE); Ovid (43 BCE–17 CE); Statius (*c*.45–*c*.96 CE).

[108] Hooley, 2007, 2; Juvenal (late first century–early second century CE).

[109] The dates for these poets are: Catullus (*c*.84–*c.*54 BCE); Martial (*c.*38–*c*.104 CE).

[110] Coffey & Panayotakis, 2012. Petronius died 66 CE; The nature of the plot of the *Satyricon* is episodic and because the extant work is constructed of fragments of various lengths the episodes are not always organically connected. Consequently, the outline of the plot is naturally difficult to reconstruct as it does not survive in its entirety; nevertheless, the main characters are the narrator Encolpius and his young slave Giton, who also serves as his boyfriend and together, they undergo various adventures in a southern Italian setting (Schmeling, 2020, Introduction 12).

Satire has its own challenges, by the very fact that it is a genre of work in which vices, follies, abuses and shortcomings are exaggerated and ridiculed, with the intent of mocking individuals, corporations, governments and even society itself.[111] Nevertheless, satire intends, through humour and wit, to offer constructive social criticism and to draw attention to particular issues in a society.[112] Satire specifically targets people and practices within its society of which it disapproves.[113] Thus, the themes and topics parodied by the satirist would have to be relevant to the society, in order for it to resonate with the contemporary audience and be humorous. That said, it must also be noted that the motifs and concerns being mocked may also be based on moralising fantasy. Satire is not a straightforward source of evidence of societal life because the satirist has a stake in exaggerating elements for comedic effect. Nevertheless, it can provide keen insights into a group's collective psyche and reveal its deepest values.[114] As Hug states, Martial and Juvenal certainly exaggerate and distort, but their barbs must be grounded in the realities of elite life in Rome in order to preserve their bite.[115]

The medical texts written in prose form the largest part of my evidence. These include work written by the encyclopaedists Celsus and Pliny the Elder, the

[111] 'Satire', as a poem, a novel, film or other work of art, uses humour, irony, exaggeration, or ridicule, to expose and criticise prevailing immorality or foolishness, especially as a form of social or political commentary (OED, s.v. satire). It was first classified as a literary form in ancient Rome: 'satire, for its part, is entirely ours' boasted the rhetorician Quintilian (*c*.35–*c*.90s CE); and the Roman poet Lucilius (*c*.180–*c.*101 BCE) was the first to achieve 'high renown in this genre' (*The Orator's Education* 10.1.93; Anderson, 1982, 3–13). Ennius (239–169 BCE) wrote the first satire (*saturae*), up to six books in various metres, of which only 31 lines survive, which were miscellanies of Hellenistic culture though noticeably acerbic (Gowers, 2012).

[112] In its gentlest form, satire exaggerates, parodies and mocks people and society; in its strongest form, satire can be strongly ironic, disparaging and contemptuous of people and society.

[113] Hooley, 2007, 10.

[114] Ryan, 1999, 9.

[115] Hug,2014, 7.

pharmacologist Dioscorides, and the physicians Scribonius Largus and Soranus.[116] Scribonius, Dioscorides and Soranus were medical practitioners, thus providing a wealth of information as a result of their knowledge and experience. In contrast, Pliny the Elder was not, whilst it is more ambiguous on whether Celsus was a practising physician. Celsus is not mentioned as having practised in Rome.[117] That said, Celsus suggests that he practises, possibly only on friends and family, for he states that 'nothing adds more to a really rational treatment than experience' (Celsus, *On Medicine, Prooemium* 47). Pliny's work, even though it is extensive, may be somewhat problematic because, according to John Scarborough, there are many curious errors in the facts and observations specifically about drugs.[118] These are put down to rapid reading and compilation of data, a lack of attention to detail and an apparent lack of cross-referencing.[119] In Pliny's own words, *Natural History* presents 20,000 facts obtained from one hundred authors, from 2,000 other works which few readers consulted anymore (Preface 17). He includes information from a plethora of writers: geographers; historians; scholars; encyclopaedists; writers on special topics; local people; Roman commanders in the field in the form of reports and *commentarii*; provincial governors; *equites* and other officials; in addition, there are many facts from unidentified sources.[120]

On the other hand, Scribonius Largus was a practising doctor, who ministered to the elite at Rome and had imperial court connections.[121] He participated in Emperor Claudius' (10 BCE–54 CE) British expedition as either an army doctor or private physician to a general or leading courtier, where he had the opportunity to learn

[116] The dates for these medical writers are: Celsus (*c.*25 BCE–*c*.50 CE); Scribonius Largus (*c*.1–50 CE); Pliny the Elder (*c.*23–79 CE); Dioscorides (*c*.40–*c*.90 CE); Soranus (late first century–early second century CE).

[117] Stok, 2008, 217; Köckerling *et al*, 2013, 610. It is important to note that being a doctor at the time was not considered a mark of status. As Nutton states, it was considered un-Roman, the province of immigrants, foreigners, slaves and ex-slaves; medicine was not a career for a proper Roman (2013, 168).

[118] Scarborough, 1986, 61–62.

[119] Scarborough, 1986, 62.

[120] Healy, 1999, 42.

[121] Flemming, 2000, 140; Nutton, 2013, 175.

about new remedies and plants.[122] Indeed, Scribonius refers to one herb he finds at Luna, Etruria, whilst travelling to Britain with Claudius (*Compounding of Drugs* 163). His pharmacopoeia, *Compounding of Drugs,* is the first recipe book preserved in full after a gap of at least four centuries, following the production of the Hippocratic gynaecological and nosological treatises.[123] Dioscorides too, was a specialist pharmacologist, having studied botany and pharmacology in Tarsus in Asia Minor, a centre for pharmacy and pharmacology, then at Alexandria, before travelling extensively and collecting information about the medicinal uses of herbs, minerals and animal products.[124] When he wrote his pharmacopoeia, *Materia Medica*, Dioscorides would have acquired a long history of pharmacological data. It is not clear when exactly Dioscorides' work *Materia Medica* was published, although it is generally considered not to have been before 77 CE when Pliny's *Natural History* was dedicated to Titus, because Pliny does not reference Dioscorides in his encyclopaedia; Pliny being a 'voracious reader' would have done so had he been aware of Dioscorides' work.[125]

In comparison with Dioscorides, Soranus studied his profession at Alexandria, before practising at Rome from 98–138 CE under Emperors Trajan (53–117 CE) and Hadrian (76–138 CE).[126] He wrote around twenty books on subjects including: gynaecology, internal medicine, materia medica, hygiene, ophthalmology, medical history, and anatomical nomenclature, but also included treatises on embryology and on the soul.[127] He too was an expert in his field, both in knowledge and experience.

[122] Nutton, 2013, 175; Cambiaghi & Sconocchia, 2018, 2466.

[123] Totelin, 2009, 261.

[124] Riddle, 1985, 1–2.

[125] Riddle, 1985, 13; Murphy, 2004, 3.

[126] Hanson & Green, 1994; King, 2012.

[127] Temkin, 1991, Introduction xxiv. Along with his medical text *Gynaecology*, also extant in Greek are short treatises *On Bandages* and *On Fractures*, which may have been part of the lost *Surgery* as well as a *Life of Hippocrates* which is ascribed to Soranus; furthermore, another major work, *On Acute and Chronic Diseases,* has come down to us in the Latin paraphrase of Caelius Aurelianus, who lived in the fifth or sixth century CE (Temkin, 1991, Introduction xxiii–xxiv).

Most of Soranus' work is lost, but his *Gynaecology* has survived, almost in full. One lost chapter from his treatise, 'Infertility and the Inability to Conceive' (*περί ἀγονίας καί ἀσυλληψίας*) is preserved in Caelius Aurelianus' *Gynaecia* (Soranus, *Gynaecology* 3.51; Aurelianus, *Gynaecia* 2.64–65).

Most of the medical evidence is written in prose. However, one work referenced for medical information, is a poem: Lucretius' (*c*.94–*c*.55 BCE) *On the Nature of Things*. Lucretius used his poetry to illuminate philosophy to a Roman audience, specifically, Epicurean philosophy, which was founded around 307 BCE and was based on the teaching of the Greek moral and natural philosopher Epicurus (341–270 BCE).[128] Poetry was a powerful means of communicating philosophical and scientific ideas in the ancient world.[129] Thus, Lucretius sought to make the philosophy of Epicurus available to Romans and inform them that the universe operates according to these physical principles and not the divine intervention of the gods, through the most influential communication medium of his day. Notably, in his discussion of male infertility his opening remark is that 'it is not the divine powers that drive away the genital force from a man' (*On the Nature of Things* 4.1233–1234).

Other philosophical works used are from Cicero, Seneca the Elder and Seneca the Younger.[130] Cicero briefly refers to those without children in his *Stoic Paradoxes* which sets out the most striking ethical doctrines of the Stoic school of philosophy. In other writings Cicero criticises these doctrines, yet here he expresses warm acceptance of them.[131] Seneca the Elder's work *Declamations* are a series of reportedly fictional lawsuits, which were then combined into one substantial, fictional

[128] Sedley, 1998, 203; O'Keefe, 2014, 2–6.

[129] Taub, 2017, 22.

[130] The dates for these writers are: Cicero (106–43 BCE); Seneca the Elder (*c*.50 BCE–*c*.40 CE); Seneca the Younger (*c*.4 BCE–65 CE).

[131] Rackham, 1942, Introduction. For criticism of Stoic doctrine see *On the Ends of Good and Evil* 4.27.74–4.28.77 and *Pro Murena* 60–66.

case.[132] They both champion and challenge accepted Roman cultural beliefs and values.[133] Seneca the Younger's philosophy is that of the school of Stoicism, discussing both ethical theory and practical advice; his moral essays are based on Stoic doctrines, and even though they are particularly moralising, they were meant to serve a paedagogic purpose.[134]

I reference historians and biographers, especially Plutarch, Tacitus and Suetonius.[135] As such these historians and biographers are commenting on events years later and as such are hindered, to an extent, by the reliance on secondary sources rather than first-hand experience. Furthermore, historical literature is just as much of a literary construction as any other genre; one must also exercise caution with such evidence. Nevertheless, the general cultural assumptions found in them must be credible. Other prose sources include: letters and speeches from Cicero; a short work from Tacitus in dialogue form on the art of rhetoric, which follows the tradition of Cicero's speeches; as well as social commentary from Pliny the Younger (*c*.61–*c*.112 CE).[136] Cicero's letters were not published until after his death and seem to be written without any idea of future publication.[137] This is in contrast to Pliny the Younger's *Letters* which Pliny himself published in carefully arranged selections.[138] Therefore, Pliny's *Letters* are a conscious representation of himself, but allowing for that,

[132] According to Michael Winterbottom, they were the main means employed by teachers of rhetoric to train their pupils for public speaking (2012). Winterbottom asserts that it was invented by the Greeks who brought it to Rome and the Roman world generally (2012). Its developed forms were known in Latin as the *controversia*, a speech in character on one side of a fictional law case and the *suasoria*, a deliberate speech advising a course of action in a historical, pseudo-historical or mythological situation; the first trained for the courts, the second for the political assembly or committee room (Winterbottom, 2012).

[133] Hug, 2014, 8.

[134] Reynolds *et al*, 2012.

[135] The dates for these writers are: Plutarch (*c.*50–*c.*120 CE); Tacitus (*c.*56–*c.*118 CE); Suetonius (*c.*69–*c.*130 CE).

[136] Barnes, 1987, 235.

[137] Radice, 1969, 11; Shackleton Bailey, 2001, 1–2. They were probably not published until the middle of the first century CE (Shackleton Baily, 2001, 1–2).

[138] Radice, 1969, 11.

provide a historical and social commentary view of first century and early second century Rome.

One of the key features of my thesis is the diverse range of literary sources. In addition, as has been shown, there is reference to the topic in epigraphic evidence: the *Laudatio Turiae*. I must note that there is an enormous amount of evidence for interest in fertility in the form of votives, healing sanctuaries and oracles, which, in some instances are referred to, but in the large part are beyond the scopes of this thesis. Furthermore, people may find themselves childless, particularly later in life, as a result of infant mortality which was believed to have been high in antiquity.[139] This topic too is beyond the scope of this thesis.

Having detailed the various sources that I will be investigating, I must recognise the limitations of these sources. The jurists commenting on legislation were especially interested in theoretical possibilities rather than social realities, and so one should not be quick to assume that their attitudes speak for Roman society as a whole nor that their considered cases were actual historical examples. One of the greatest challenges of ancient evidence is that it, in the most part, is provided by elite Roman men, and this is the case for all evidence used in my thesis; consequently, this results in a gendered and class bias. Satirical writers, in particular, accentuated elite views of the period. Much of the evidence from the medical texts discuss women's gynaecological issues, or problems encountered in pregnancy, situations to which men may find it difficult to relate. There is mention from a female perspective, for in some instances we hear the view of midwives.[140] Nevertheless, the evidence largely reflects male ideas and there is a lack of direct evidence from a female perspective,

[139] As Osgood points out, 'historical demographers constantly remind us that death was a constant presence in people's lives, afflicting not just the old but the young and especially the very young' (2014, 68). Bradley argues that the conditions which caused a high death rate among infants, particularly in the city were: poor hygiene; dietary insufficiencies; uncontrolled disease; inadequate medical knowledge (1992, 219).

[140] One example is when Soranus notes that 'the majority of the women practising midwifery approve' of severing the umbilical cord using 'glass, a reed, a potsherd, or the thin crust of bread' (*Gynaecology* 2.11).

particularly as a patient or woman in labour.[141] That said, such a lack of direct evidence from a female point of view is not necessarily prohibitive; it does offer insight into the female world to an extent. Much of the discussion and treatment of infertility is specifically tailored to women and there is much discussion of, and treatment for, gynaecological issues and pregnancy complications, even if it is through the lens of elite men. It raises the question on who the medical writers thought they were writing for, although as Flemming points out, the notion of writing for anybody other than their fellow men, of the elite or the profession, probably never occurred to them.[142]

Overview of Structure and Chapter Outlines

My thesis comprises two distinct parts: in the first part I conduct a social analysis of childlessness in Roman society whereby I investigate how it was perceived and what attitudes there were towards the subject. Childlessness, as I have discussed, is perceived as an important phenomenon in the contemporary Western world. I present evidence to show that in Roman society, there was also anxiety about the issue. The second part investigates infertility during the era. I aim to establish in what ways difficulties in conceiving were formulated and what various types of fertility treatment existed for those struggling to conceive. I present evidence of Roman understanding of its causes, and remedies to treat and enhance fertility. In addition, as infertility is also defined as the inability to carry a pregnancy to a live birth, I examine the risk to the Roman foetus during pregnancy and childbirth.

In chapter one, of part one of my thesis, entitled 'Childlessness and the Law: An Analysis of the Augustan Legislation', I investigate childlessness through the lens of Augustus' 18 BCE legislation *lex Julia de maritandis ordinibus,* the Julian Law on the marrying of the social orders, the *lex Julia de adulteriis coercendis,* the Julian Law concerning the repression of adultery and the *lex Papia Poppaea,* which was passed

[141] The difficulties in hearing the voices of Roman women are very well known (Dixon, 2007, Preface ix; Hug, 2014, 10).

[142] Flemming, 2000, 183.

twenty-seven years later in 9 CE. I show how the legislation penalised socially and financially and attempted to thwart the political careers of those who remained unmarried and childless. I argue that Augustus and his imperial state had anxiety about childlessness and strove to deter as strongly as possible citizens from leading a single life without legitimate children. Indeed, I argue that Augustus continued in his pursuit to prevent childlessness, as the *lex Papia Poppaea* introduced harsher penalties against those who did not have children twenty-seven years after his original legislation: his original law targeted only those who remained unmarried; his subsequent law included married couples who were still childless. Furthermore, I present evidence to show that, throughout his reign, Augustus promoted a family agenda to encourage Romans to procreate. I discuss how there was an impression, amongst Augustus and other elite Romans, that some people were intentionally or voluntarily choosing to remain unmarried and childless. However, despite intervention by the state, on at least two occasions, childlessness was, and continued to be, of state concern within Roman society.

Chapter two, of this first part of my thesis, entitled '*Captatio* and Childlessness in Roman Society', builds on this social analysis. By examining the practice of legacy hunting, *captatio*, a trope of Roman satire, I present evidence on why there was a perception amongst some that childlessness was a cause for concern in Roman society. The custom emerged during the era, whereby *captatores* courted, or intimidated wealthy elderly people, in order to get written into their wills for a share or legacy of their estate. Importantly, those who were pursued, or hunted were, in the large part, old, rich and childless because those without children had no immediate family to bequeath their inheritance. The targeting of wealthy childless people made the issue of childlessness amongst the elite more noticeable which, in turn, enhanced and perpetuated the perception that it was a cause for concern in Roman society.

Within the chapter I show how those without children were characterised: those old, wealthy, childless Romans were portrayed as capitalising on the generosity of fortune hunters and benefitted enormously, immediately, and for some, over a long

period of time. Older, wealthy women especially, were depicted as courting young *captatores,* using their fortunes to exact sexual favours along with other rewards. Such women were portrayed as inverting the sexual norms of Roman culture and were able to exert control over men in a traditionally patriarchal society. In Roman society, both men and women of the monied elite, who did not have any children, were characterised as being able to wield a significant amount of power, which may have created an impression that some voluntarily chose not to have children.

In the second part of my thesis, I investigate involuntary childlessness, infertility, in Roman society. In the first chapter of this second section, chapter three, entitled 'Infertility: Roman knowledge and Understanding of Causes', the aim is to establish in what ways difficulties in conceiving were formulated. I present evidence to show that there was detailed discussion and interest in infertility amongst physicians, medical writers, philosophers and other elite Romans. Moreover, the texts show that there was understanding of many different causes of infertility: body size; hirsutism; being impuberal; semen quality; impotence; and disease. Also, it was acknowledged by some that infertility could affect those who had children; people could suffer from secondary infertility.

Along with discussion of the reasons some women and men had difficulties in conceiving, Roman medical writers also discuss ways or treatments that they believed prevented conception and so caused temporary infertility: they gave advice and advocated contraception. In line with previous scholarship, I conclude that contraception was available to try to prevent conception during the era. More so, when discussing the ingredients used in contraceptive treatments, I argue that they were easily and cheaply available: any Roman woman, should they want to, could use contraception. Furthermore, I show that women of all classes seemingly had different reasons to prevent conception. The situation was such that some Roman women may well have experienced difficulty in conceiving; on the other hand, they had the means to try to control their fertility.

Chapter four, entitled ‘Helping the Childless: Roman Fertility Treatments’, explores the substantial assistance available to those struggling to have children during the era. I present evidence on how physicians and medical writers sought to enhance fertility for both women and men, and indeed, treat infertility, through the use of medicines that could be taken orally, applied as an ointment, infused through a sitz bath or worn as an amulet. Alongside these prescriptions, I also show that there was advice on sexual intercourse to increase the chances of conception. My discussion includes Roman understanding of conception and the advice on when to have intercourse to maximise the chances of pregnancy. Importantly, according to ancient medical authors, menstruation was an essential prerequisite for conception and signified the possibility of getting pregnant. Moreover, women wishing to become pregnant could take measures to stimulate menstruation, thereby preparing their bodies for pregnancy; they could use emmenagogues.

In this discussion of emmenagogues, I concur with scholarship that challenged the argument that they were used as fertility inhibitors to abort pregnancies and show that, whilst abortifacient herbs and plants were classified as emmenagogues, not all emmenagogues were believed to cause abortion. In a society where regular menstruation marked the opportunity to get pregnant, certain emmenagogues may well have been taken by some women to regulate their cycles. Such treatments, I will argue, were perceived as fertility enhancers, as they offered women the chance to control their reproductive health and prepare their bodies for pregnancy; they were a form of fertility treatment. The discussion and treatments in these chapters are, in the main, centred around women. That said, there were remedies available for men.

Some women who suffer involuntary childlessness conceive, but cannot carry a pregnancy to a live birth, that is, women whose pregnancies spontaneously miscarry or result in a stillbirth, having never had a live birth. Therefore, in chapter five, entitled ‘Childlessness due to Miscarriage, Stillbirth or Premature Birth in Roman Society’, I examine the factors which prevented the birth of a live infant. I aim to show that the Roman foetus was at great risk in pregnancy, in particular due to the presence of malaria, or as a result of being born prematurely, or should the

expectant mother experience a problematic and obstructed labour. Amongst medical writers and practitioners, there was Roman discourse on miscarriage and premature birth, which suggests that there was anxiety surrounding these issues during the era. Within my discussion, I show that there was an understanding that miscarriage could occur as a result of a fever, which is a usual indicator of infectious disease. This is significant as recent research has concluded that infectious diseases, and in particular malaria, significantly increases the likelihood of miscarriage, particularly in young and first-time mothers. Using such recent conclusions, I argue that as malaria was a common and recognised fever pattern in Roman society, it would likely have impacted the pregnancies of Roman women. Premature birth also posed a threat to the developing foetus in terms of likely death. Even if the infant survived, an early delivery meant the likelihood of malformations which may have led to the exposure or infanticide of the preterm child. Roman couples could still be left without a child despite the infant being born alive. I show that great attempts were made to protect the foetus and sustain a pregnancy through a wide range of methods: advice was issued on regimens for pregnancy; pharmacological treatments were available; and there were many different amulets for women to wear.

One great threat to the foetus in Roman society was a difficult and obstructed labour. Underdeveloped women, either as a result of age or from lack of growth due to malnourishment would likely have experienced a problematic birth. More so, the techniques and methods for dealing with such difficult childbirth reveal the dangers to both the infant and parturient. Such intervention put the infant at great risk; it likely resulted in the death of the child. Roman women who experienced a surgical procedure may then have had difficulties conceiving or sustaining a pregnancy to full-term as a result of damage to their reproductive system. Significantly, recent research indicates that women who spontaneously miscarry, give birth prematurely, or experience obstruction in childbirth in their first pregnancy, are more likely to have the same problems in subsequent pregnancies. Such complications and issues, I argue, may have affected the capacity of some Roman women to ever carry a pregnancy to term and deliver a healthy child.

PART I – A Social Analysis of Childlessness in Roman Society

Chapter 1.

Childlessness and the Law: An Analysis of the Augustan Legislation

Introduction

In this first chapter, I begin a social analysis of childlessness in Roman society by investigating how it was perceived and what attitudes there were towards the subject through the lens of the Augustan legislation of 18 BCE and 9 CE. The first laws, in 18 BCE, consisted of the Julian Law on the marrying of the social orders (*lex Julia de maritandis ordinibus*) and the Julian Law concerning the repression of adultery (*lex Julia de adulteriis coercendis*). Twenty-seven years later, in 9CE, Augustus then passed a further law, that of Papia and Poppaea (*lex Papia Poppaea*) and modified elements of the original legislation. There is resounding agreement amongst scholars, that, on the face of it, these laws were introduced predominantly to increase marriage and childbearing amongst Roman citizens.[143] Indeed, the original law in 18 BCE legally obligated Roman citizens to marry for the purpose of procreation. More importantly, alongside incentives to encourage citizens to wed and have a family there were severe penalties for those who did not marry and have children.

Rewarding childbearing and penalising those who remained unmarried was nothing new in Roman society for throughout Roman history citizens were recompensed for having children and old bachelors were fined. Yet, as shall be shown, Augustus, under his new legislation, rewarded those who had children, but, more importantly, he introduced new and harsher penalties for those who failed to abide by the legal requirement to wed. His laws attempted to exclude the unmarried from Roman society by banning them from the very events that were socially and culturally embedded in Roman life, whilst also discriminating against them in public office jobs

[143] Field, 1945, 399; Syme, 1960, 443; Brunt 1971, 558-565; Frank 1976, 41; Wallace-Hadrill, 1981, 58 & 2018, 95; Treggiari, 1991, 60; Evans Grubbs, 2002, 83.

and provincial roles, in favour of men who were married and had the most children.[144] Ostensibly, such severe penalties suggest that Augustus and his imperial state had concerns about childlessness and strove to deter as strongly as possible citizens from leading a single life without legitimate children.

Amongst some elite men there seems to have been a level of hostility towards this new legislation and, as shall be shown, some used loopholes to avoid the penalties; some actively protested against the measures, even calling for them to be revoked. I shall argue that a number of men wanted to remain single and child-free, so were deliberately avoiding marriage and having a family, at least for a time in their lives. Such antagonism however did not deter Augustus; in fact, it was reportedly seen by the emperor to illustrate how significant childlessness was within Roman society and the necessity of the legislation. As a result, he introduced even harsher penalties against the childless under the *lex Papia Poppaea*. Childlessness continued to be of state concern. The feeling by the state that some men were deliberately avoiding marriage and procreation along with the resentment and hostility towards such legislation, necessitated a propaganda programme by Augustus to promote his new laws and an agenda of family. This was initiated with the holding of the games, the *ludi saeculares,* a year after the original legislation was enacted and continued throughout Augustus' reign.[145] All of this points to the fact that childlessness was of pressing concern for Augustus and his imperial regime.

The focus of my evidence within this chapter is the Augustan legislation. As I have discussed in my introduction, the nature of this evidence is somewhat problematic because the precise text of the statutes has not been preserved, and the evidence which survives is commentary on the legislation, in the form of legal excerpts, written

[144] As shall be discussed the ban is documented on *CIL VI* 32323, line 57 & Dio Cassius, 54.30.5. Discrimination from public roles is documented in Aulus Gellius, *Attic Nights* 2.15.4 & Tacitus *Annals*, 15.19.

[145] As shall be discussed the *ludi saeculares* were postponed until 17 BCE at which time Augustus commissioned the hymn *Song of the Ages* then followed on with the commissioning of poetry; there is also use of the legendary rape of the Sabine women myth.

hundreds of years after the legislation was passed.[146] Nevertheless, the ancient jurists refer quite extensively to the Augustan legislation throughout the *Digest* and *Institutes*, allowing us to reconstruct a large part of the provisions of the legislation.[147] That said, there is a significant amount of other evidence referring to the legislation which survives from the time of Augustus, that complements the jurisprudence. In 17 BCE, Horace celebrated the passing of the laws in his religious hymn, *Song of the Ages*, written to celebrate the centennial games, the *ludi saeculares,* held that year. There is an earlier poem written by another Augustan poet, Propertius, which suggests that there was a failed attempt by Augustus to implement the laws, or at least a similar law, as early as 26 BCE (*Elegies*, 2.7). Whilst these references in Augustan poetry do not provide any specific detail on the legislation, they reference the law's enactment, or failure. There is also epigraphic evidence from the time of Augustus which documents one of the penalties incurred for not complying with the legislation.

I also include references to the legislation from later Roman periods: Tacitus and Dio Cassius both refer to the laws, as does Suetonius in his biography of Augustus; the laws are also noted in Aulus Gellius' *Attic Nights*; whilst Pliny the Younger notes a reward for having children in his *Letters*. However, like the jurists logging the legal writings, the historians and social writers were commenting on the laws years after they had been passed. Nevertheless, such sources, as shall be shown, largely complement the legislative detail; indeed, they expand on the legal information. There is occasion when some evidence differs slightly from the legal writings, therefore muddying the evidence slightly, but generally it provides further valuable insight into how the laws were received by Roman society and how they worked in practice. When discussing the legislation, the laws are referred to in many different ways. Tacitus refers to the legislation as Julian laws or Julian rogations (*lege Iulia* or

[146] See 25–27.

[147] The law relating to marriage and procreation is referred to throughout books 23, 24, 38 and 49 of the *Digest*, *Rules of Ulpian* 14; 16; 17; 18; 19; 24; 28 and 29; and Gaius' *Institutes* 1.194; 286. The law relating to adultery is referred to in book 23 and extensively in book 48 of the *Digest*, as well as in Paul's *Opinions* 2.26.

Iulias rogationes), and the *lex Papia Poppaea* or *lege Papia Poppaea*.[148] Suetonius refers to the laws as those relating to 'adultery and chastity' (*leges de adulteriis et de pudicitia*) and the marriage of the orders (*de maritandis ordinibus)* (*Augustus* 34); Aulus Gellius refers to the legislation as the 'Julian Law' (*legis Iuliae*) (Attic Nights 2.15.4); Dio Cassius refers to Augustus' 'laws' (ἐνομοθέτησε) when discussing the penalties imposed upon those who were unmarried and prizes for marriage and procreation (54.16.1). Despite the statutes not surviving in full, the juristic sources provide details of the laws and the plethora of other evidence, although disjointed and fragmented and from different times in the ancient Roman world, when combined with the jurisprudence provides a great deal of information.

The intention of this chapter is to undertake a social analysis of childlessness through the lens of the Augustan legislation. No one suggests that by investigating the law one can get a whole picture of society. Nevertheless, law is certainly a type of reflection of society.[149] John Crook asserts that it is usually an image of its more conservative aspects.[150] Rebecca Langlands suggests that the law reflects the moral structures of a society and notes that changes to legislation may be responses to mainstream shifts in ideology.[151] Janne Pölönen adds that Roman law was crucial to regulating conduct and conflict.[152] More so, Langlands asserts that laws also work upon the moral sensibilities of members of society and play a role in their ethical development.[153] Thus, in this instance, I will show how the new Augustan law ostensibly reflects an attempt on the part of Rome's first emperor to regulate conduct and curb childlessness through a series of social, occupational and financial

[148] *Lege Iulia* (*Annals* 2.50; 4.42); *Iulias leges* (*Annals* 15.20); *Iulias rogationes* (*Annals* 3.25); *lege Papia Poppaea* (*Annals* 3.25 & 3.28).

[149] Crook, 1967, 7; Langlands, 2006, 24; Pölönen, 2016, 9.

[150] Crook, 1967, 7.

[151] Langlands, 2006, 24.

[152] Pölönen, 2016, 9.

[153] Langlands, 2006, 24.

penalties with the intention of introducing a more conservative, traditional society in which marriage and having children was paramount.

Penalties for Not Marrying and Remaining Childless

A Ban on Attending Games and Spectacles

The Augustan legislation was introduced to increase marriage for the purpose of having children amongst Roman citizens. From reading the jurisprudence, it is understood that all male citizens between the ages of twenty-five and sixty and all women between twenty and fifty were expected to be married and have children (*Rules of Ulpian* 16.1). The *princeps* reinforced the sentiment as he introduced the laws in the Senate, for he repeated a speech made by Metellus Macedonicus, censor in 131 BCE, that 'every man should be compelled to marry in order to increase the population of the state' (Livy, *Summaries* 59). Marriage and procreation constituted the very purpose of women's lives in particular.[154] Indeed, women were obligated by law to be married younger than men, presumably to maximise their chances of having children, whilst those fifty and over were not. Those women of such an age were known in Roman society to be too old to have children.[155] Thus, there was no reason why a woman of that age should need to get married as she would not be able to have children and the law therefore considered any marriage to such a woman improper and not legitimate.[156] On the other hand, men too were required by the state to get married and have children, and were required to do so until they reached sixty. Women owed the state children and young men had the duty of maintaining the male line and the family name, *nomen*.[157]

Death of a spouse or divorce did not make one exempt for the law required both to remarry, although there was a period of mourning allowed for those women whose

[154] Laes & Strubbe, 2014, 213.

[155] Pliny the Elder notes that 'a woman does not bear children after the age of fifty and with the majority menstruation ceases at 40' (*Natural History* 7.14.61).

[156] The jurisprudence reads, 'but if a woman over fifty married a man under sixty the marriage is classed as unequal' (*Rules of Ulpian* 16.4).

[157] Treggiari, 1991, 84.

husbands had died, and a grace period for those who were divorced. Jurisprudence notes a grace period of a year after their husband's death and six months after a divorce.

> *Feminis lex Julia a morte viri anni tribuit vacationem a divortio sex mensium; lex autem Papia a morte viri biennii a repudio anni et sex mensium.*

> The *lex Julia* granted exemption from its penalties to women for a year after the death of their husbands and for six months after a divorce had taken place; the *lex Papia* granted them two years from the death of their husbands and a year and six months after a divorce (*Rules of Ulpian* 14).

This law is specifically related to women, rather than men, who do not seem to be offered any period of mourning should they have suffered the death of a wife. Notably, the jurisprudence shows that such grace periods for women were extended under the new law in 9 CE. There is further evidence which corroborates that there was an extension under the revised law, but it contradicts the new grace period: Suetonius states that widows were granted an extension of 'three years' (*Augustus* 34). The exact length of the extension cannot be conclusively stated, but what is clear, is that under the new *lex Papia,* widowed women were given a longer time to grieve. More importantly though, it seems that it did not matter how long a woman had been married, nor how many times she had been married previously, nor indeed whether she already had children. Under the new legislation, providing she was under fifty years of age, she was required by law to remarry and obligated to continue having children.

Men and women who failed to marry, or remarry, before they reached the ages of sixty and fifty respectively, were liable, under the new legislation, to some form of punishment. The jurisprudence does not detail the penalties; it simply states that those who fail to comply are 'always liable to penalties' (*Rules of Ulpian* 16.3). However, epigraphic evidence from the time of Augustus extends our knowledge by

revealing that one penalty was being banned from attending public games and banquets. Fragments, which survive from a marble inscription commissioned to record the proceedings of the *ludi saeculares* of 17 BCE, state clearly that 'men who wish to watch the games are bound by law to be married' (*vir spectare liceat ieis qui lege de maritandis ordinibus tenetur*).[158] Whilst serving to mark such a significant event, it also served to continually remind citizens of their legal obligation to marry in order to have children and the penalty for not complying. Augustus' penalty is somewhat harsh, for spectacles and games were a major cultural aspect of Roman life. Such public games (*ludi*) originally centred on formal religious festivals.[159] The earliest games were chariot races, allegedly starting from Rome's foundation.[160] Alongside the *ludi* to mark religious occasions, additional games were held to mark particular events, such as memorials, or the celebration of a military victory.[161] Over time, the scale and frequency of shows increased steadily so that Rome's inhabitants had ample opportunity to participate in a variety of public

[158] *CIL VI* 32323, line 57. Inscriptions honoured major events, important people or were meant to keep elements or aspects considered important in society in the memory of the *communitas* (Rantala, 2017, 7-8). This one in particular was an important monument, marking a momentous occasion: the *ludi saeculares* were an extremely important religious festival, involving sacrifices and theatrical performances to mark the end of a *saeculum*, a period of about one hundred or one hundred and ten years (Taylor & Price, 2012; Edmondson, 2014, 497). It was a significantly large monument, around four metres high (Cooley, 2003, 271). It was possibly inaugurated by Augustus himself: the monument was suggested to the Senate by consul Gaius Silanus, although, more than likely, encouraged by Augustus to preserve the festivities in the memory of those who attended and also to set down the format for future generations, for the major details of Augustus' festivities remain unmodified in Severus' *Acta* of his games in 204 CE (Orlin, 2019, 3).

[159] Beacham, 1999, 2. *Ludi* were held in honour of the following: Jupiter (*ludi magni, ludi Romani*, *ludi Plebeii*); Apollo (*ludi Apollinares*); the Great Mother (*ludi Megalenses*); the goddess Flora (*ludi Florales*); and the grain goddess Ceres (*ludi Ceriales*) (Beacham, 1999, 2; Futrell, 2006, 2–3).

[160] Beacham, 1999, 2; Futrell, 2006, 2; Purcell, 2013, 447. Alison Futrell asserts that Romulus was credited with the first circus games on the site of the Circus Maximus in Rome (2006, 68).

[161] The first recorded gladiatorial show, consisting of three pairs of combatants, took place in 264 BCE as a memoriam (Hopkins, 1983, 17). Marcus Fulvius Nobilior celebrated his triumph over the Aetolians in 187 BCE with ten days of impressive games (Livy, 39.22.1–2). Julius Caesar (100–44 BCE) also funded public spectacles and a public banquet for his deceased daughter Julia (Suetonius, *Julius Caesar* 26.2).

entertainments.[162] Augustus himself sponsored many lavish spectacles: eight gladiatorial games with up to 10,000 participants; three international athletic contests; twenty-seven other games; twenty-six beast hunts with 3,500 animals from all over the world; a mock sea battle and numerous horse and chariot races in the Circus Maximus (*Res Gestae* 22 & 23).

Rome was tied inextricably to games and spectacles which were central to the fabric of life in the city.[163] By the time Tacitus was writing, the games had become a fundamental part of what it meant to be Roman for he records that

> *Iam vero propria et peculiaria huius urbis vitia paene in utero matris concipi mihi videntur, histrionalis favor et gladiatorum equorumque studia.*

> there are peculiar and characteristic vices of this metropolis of ours, taken on, as it seems to me, almost in the mother's womb: the passion for play actors and the mania for gladiatorial shows and horse-racing (*A Dialogue on Oratory* 29.3).

Such events, both religious and social, united Romans in a shared experience.[164] In the large part, it seems that Romans loved the games, indicated by the vast amount of material evidence featuring images of gladiators and their combats.[165] Spectators

[162] The aedile for 65 BCE, Julius Caesar, offered spectacles which became legendary for their rich and exciting production values (Plutarch, *Lives. Caesar* 5; Suetonius, *Julius Caesar* 10; Dio Cassius, 37.8.1).

[163] Purcell, 2013, 441–445.

[164] Hopkins, 1983, 22.

[165] Examples include a Roman terracotta lamp decorated with gladiators in combat, featuring their names: FVRIVS and COLVMBV, held at the British Museum; Graffito of games at Nola on Tomb 14EN, Nuceria Gate cemetery, Pompeii. There are numerous mosaics depicting the circus or gladiatorial combats: there are four mosaic panels depicting the factions of the circus from the early third century CE, held at the Museo Nazionale, Rome; there is a mosaic depicting a gladiatorial contest dated to the fourth century CE from Torre Nuova which is preserved in the Borghese Gallery, Rome.

may have been in attendance for the entire day or just a portion, depending on their tastes and responsibilities; they avoided those parts which they did not enjoy.[166] Moreover, watching the spectacles was just one part of the lure of the games, for they offered a wide range of opportunities for those in the stands to meet new people, possibly a love interest, to engage in conversation, to enjoy free handouts of food or prizes, and to protest or approve recent actions of the emperor or the state.[167] Ovid refers to the chance to meet a love interest at the races in one of his poems.

> *Non ego nobilium sedeo studiosus equorum;*
> *cui tamen ipsa faves, vincat ut ille, precor.*
> *ut loquerer tecum veni, tecumque sederem*
> *ne tibi non notus, quem facis, esset amor.*
> *tu cursus spectas, ego te; spectemus uterque*
> *quod iuvat, atque oculos pascat uterque suos*
>
> I do not sit here because I am interested in horses
> Though I pray your favourite wins.
> I came to speak to you and sit with you
> So that you might not miss knowing the love you stir
> You gaze on the races, I on you
> Let us both gaze on what delights both feast our own eyes (Ovid, *Amours* 3.2.1–6; translation by Showerman, with minor modifications).

The opportunity to meet and strike up conversations with new people at the circus was, in part, down to the seating, which seems to have crammed people in: 'the seating laws of the circus have one advantage – they pack us close' (Ovid, *Amours*

[166] Futrell, 2006, 84. Seneca the Younger arrives to watch the games in the middle of the day, during the entertainment stage in the interval between the wild beast show in the morning and the gladiatorial shows of the afternoon (*Epistles* 7.3).

[167] Futrell, 2006, 84.

3.2.19–20; translation by Showerman, with minor modifications). People were sat so tightly together that they would have had to make polite conversation with those sitting next to them. Such an environment provided men with the chance to get very close and personal with women. Some allegedly found love: Sulla apparently met his last wife at the games (Plutarch, *Lives*. *Sulla* 35).

By excluding those who were unmarried from these distinctly Roman events, Augustus was restricting their religious practice and denying their cultural heritage, thwarting their social interaction and potential for finding a partner, as well as curtailing their enjoyment of entertainment. Furthermore, the ban was an overtly political gesture for, according to Cicero, there were free exchanges between the emperor and people at the games. Cicero asserts that the

> *Etenim tribus locis significari maxime de re publica populi Romani iudicium ac voluntas potest, contione, comitiis, ludorum gladiatorumque consessu.*
>
> opinion and feeling of the Roman people in public affairs can be most clearly expressed on three occasions: at a meeting; at an Assembly; at a gathering for plays and gladiatorial shows (*In Defence of Sestius* 50.106).

Such a ban from the games may have been to exclude those dissenters and thus reduce open protest. To what extent the ban was enforced is unknown and indeed how exactly the ban was enforced is also not recorded. The sheer volume of people attending amphitheatres and the circus would have made it difficult to administer.[168] It may well have been that, as Leo Raditsa asserts, the laws were quixotic.[169] Nevertheless, such legislation attempted to regulate conduct and sent a message about what was right and wrong behaviour within Roman society: marrying and

[168] The Colosseum seated about 50,000 people, whilst the Circus Maximus could have an audience of up to 200,000 (Hopkins, 2006, 2 &16).

[169] Raditsa, 1980, 282.

having children was considered the right way to behave and Augustus attempted to penalise those who did not comply.

In Roman society there was continual interest in demography: censuses were taken at regular intervals throughout the Republic and early imperial era, documenting the total citizen population size.[170] Penalising those who remained unmarried, without legitimate citizen offspring, was nothing new. In 403 BCE, 'Censors Camillus and Postumius ordered those who had reached old age unmarried (*caelibes*), to pay copper coins (*aera*) to the treasury as a penalty'.[171] This was, according to the first century CE author Valerius Maximus, further imitated by Censors M. Valerius Maximus and C. Junius Brutus Bubulcus in 307 BCE.[172] Valerius Maximus' use of material varies greatly in extent and accuracy.[173] Thus, such information must be treated with a degree of caution. That said, such fines may well have been used by the state to penalise childless men at various times in Roman history. Notably, these penalties may well have been symbolic, as they were not necessarily huge fines. On inaugurating his legislation, Augustus allegedly reminded citizens that he was not the first to introduce such laws: 'it was never permitted to any man', to 'neglect marriage and the begetting of children' and that 'when the government was first established, strict laws were made regarding these matters and subsequently many decrees were passed by both the senate and the people' (Dio Cassius, 56.6.4). Despite making such claims Augustus apparently refused to confirm any of the legislation to which he referred, stating that 'it would be superfluous to enumerate here' (Dio Cassius, 56.6.4). It may well be that he referred to the paying of fines by bachelors introduced in 403 BCE and re-enacted in 307 BCE, or it may be that he referred to other legislation now lost. Either way, penalising those who were unmarried in Roman

[170] Brunt documents and analyses all the Roman census figures from 508 BCE to 14 CE (1971, 13–14). The census was normally taken every five years (Brunt, 1971, 15).

[171] Valerius Maximus, *Memorable Doings and Sayings* 2.9.1. Valerius Maximus does not record the dates, but Livy (59 BCE-17 CE) notes that Camillus and Postumius were censors in 403 (5.1.2).

[172] Valerius Maximus, *Memorable Doings and Sayings* 2.9.1; again, the dates for when Valerius Maximus and Junius Bubulcus were censors is recorded by Livy (9.43.25).

[173] Rose, 1996, 356; Whittick & Levick, 2012.

society was not an invention under Augustus' regime; he simply attempted a new approach to the issue.[174]

Despite the exclusion from public games and spectacles, on very special occasions, such a ban was temporarily revoked: Dio Cassius refers to 'bachelors and spinsters' being allowed, by order of the Senate, to watch 'spectacles and to attend banquets' (54.30.5). The *ludi saeculares* was one such occasion when Augustus himself lifted the ban: the marble inscription, as noted above, details the ban and also chronicles that Augustus allowed those who were not yet married to watch the *ludi saeculares* (*permittendum videri dorum eorum diebus qui nondum sunt maritati)* (*CIL VI* 32323, lines 54–55). Lily Taylor and Simon Price state that the games were incredibly rare; previous celebrations had taken place in 249 BCE and 146 BCE.[175] Such games only ever occurred once in a person's lifetime or, for many people, not at all, which may account for the *princeps'* act of revoking his own ban on those unmarried attending. One cannot categorically state how often a ban was revoked; it seems that it may have been on very special occasions.[176] What is clear is that Augustus' new laws attempted to position those who remained unmarried as outsiders in Roman society; they were, by law, normally excluded from the games, unless the occasion was of great importance.

Financial and Occupational Penalties for those Unmarried and Childless

Along with the attempt to exclude those who were unmarried from Roman society by banning them from the very events that were socially and culturally embedded in Roman life, there is evidence which suggests that they were further discriminated against financially and in terms of their political lives. Dio Cassius records that under the Augustan legislation in 18 BCE, 'heavier assessments' were imposed upon those unmarried (54.16.1). Dio Cassius does not elaborate on these heavier assessments;

[174] Brunt, 1971, 560.

[175] Taylor & Price, 2012. These games were known as the *ludi tarentini* (Taylor & Price, 2012).

[176] Dio Cassius records another event in 12 BCE when Augusts lifted the ban on unmarried people attending games to allow them to attend his birthday celebrations (54.30.5).

nonetheless, jurisprudence shows that men and women who did not get married and so were childless (*caelibes*), were forbidden from receiving estates and legacies (Gaius, *Institutes* 2.111 & 2.286). Anything left to such people was termed *caduca* and went to the testator's other heirs, assuming they qualified under the Augustan laws; if there were no other heirs, the *caduca* went to the public treasury, the *aerarium.*[177] Tacitus also makes this point: 'if men shrank from the privileges of fatherhood, the state as universal parent might possess their ownerless properties' (*Annals* 3.28; translation by Moore & Jackson, with minor modifications). These financial penalties were considerably harsher than the fines (*aera*) imposed upon unmarried bachelors in 403 BCE and 307 BCE.

Along with financial penalties, there was further discrimination when it came to jobs in public offices: those who were not married and therefore did not have legitimate children were overlooked in favour of those men who were married with children, and indeed those with the most children. Tacitus asserts that fathers were favoured over childless men, not only for government positions, but also when provinces were assigned which led to some childless men, during the reign of Nero, adopting sons to procure a position (*Annals* 15.19). Indeed, according to Tacitus, many of these adoptions were false and once the position had been acquired the adopted persons were then released from their care (*Annals* 15.19). Notably, it seems that such abuse was widespread enough to warrant action. Tacitus records that 'an appeal was made to the Senate' by genuine 'heads of families' against such fraudulent actions and as a result this loophole was closed: a senatorial decree was passed 'ruling that a feigned adoption should not be a qualification for public office in any form, nor even a valid title for acquiring an inheritance' (*Annals* 15.19). Aulus Gellius also records that 'greater deference was shown to men who had a wife and to those who had children, in chapter seven of the Julian law'; that 'power is given not to the elder of the consuls but to the one who has more children' (*Attic Nights* 2.15.3–4).

[177] *Rules of Ulpian* 17.1 & 28.7; Gaius *Institutes* 2.150. A testator is someone who has made a will or given a legacy (OED, s.v. testator).

The Augustan legislation rewarded those who were married over those who were unmarried and then favoured those with more children. In one of his *Letters*, Pliny the Younger refers to the 'privileges granted to parents of three children' (*ius trium liberorum*), but he does not elaborate on the specifics of the privileges (2.13). Dio Cassius states that there were 'prizes for childbearing' under the new law, although he does not elaborate on the specific rewards (54.16.1). The granting of rewards to citizens who had three children, or more, was not an Augustan invention. In 59 BCE, Julius Caesar issued lands in Campania to freemen who had more than three children (Suetonius, *Julius Caesar* 20.3; Dio Cassius, 38.7.3 & 43.25.3). In both these pronatalist policies the magic number was three, suggesting that the number represented what the Romans thought was necessary for increasing the population, hence the need for incentives. It seems that the more children one had, the bigger the rewards. That said, under order of the emperor, some childless men could be granted the same privileges awarded to those with three or more children. Pliny writes that Trajan granted the privileges to his friend Voconius Romanus, having been petitioned by Pliny and that he himself was awarded the *ius trium liberorum* by the emperor even though he was childless despite being married three times (*Letters* 2.13 & 10.2). It does seem that such gestures were quite rare for Pliny also notes that the privileges were granted 'sparingly' and 'after careful consideration' (Pliny, *Letters* 2.13). By and large, childless men were discriminated against in favour of those who had children, and those with three or more children were the most favoured.

Whilst it is not clear what the rewards for men were for having three children, there is a legal excerpt revealing specifically how women benefitted from the *ius trium liberorum:* they were freed from the need for legal guardianship (Gaius, *Institutes* 1.194). Women, whose *pater familias* was dead, were required to have a legal tutor or guardian to oversee certain legal and business activities, to safeguard their paternal inheritance in the interests of her father's relatives, who would be heirs when she died.[178] The tutor was not a watchdog over the woman and neither did

[178] Evans Grubbs, 2002, 23–24.

they control the woman's private behaviour.[179] More so, the tutor was required to authorise the making of a will, to sell certain types of property, to emancipate a slave and to constitute a dowry.[180] Interestingly, the ancient juror Gaius seems to downplay the role of the tutor insisting that in reality their authorisation was interposed merely as a formality (*Institutes* 1.190). That said, this is a man's perspective, not that of a woman; tutors were, in some capacity, exercising an element of control over the woman's actions and Augustan legislation removed this for fecund women. Having several children seemingly made a woman better equipped to make good decisions or form sensible opinions, for, according to Gaius, the reason commonly cited for the necessity of the guardian was because women were unreliable in their judgement (Gaius, *Institutes* 1.190).

Moreover, there were class distinctions between freeborn and freedwomen: freeborn women were released from guardianship by the rights of three children, whilst freedwomen were only released from guardianship by the rights of four children (*libertinae vero quattuor*) (Gaius, *Institutes* 1.194). This is an interesting feature of the law in that it seems to encourage even more childbearing amongst formerly enslaved women, which contradicts Suetonius' assertion that it was 'of great importance to keep the people pure and unsullied by any taint of foreign or servile blood' (*Augustus* 40). Notably, neither the *ius trium liberorum* nor the *libertinae vero quattuor* freed a woman from the obligation of remarrying and having more children should she become widowed or divorced: as previously stated, all widows and divorcees were expected to marry again within a specified time period.[181] In the eyes of Augustan law, Roman women were expected to continue having as many legitimate children as possible for the sake of the state.

[179] Evans Grubbs, 2002, 24.

[180] Domingo, 2018, 133.

[181] According to the *Rules of Ulpian* 14; see 44–45.

A Desire for More Roman Citizens

Augustan legislation set specific rules and regulations on whom one could marry, and in the large part these were related to social class. The *lex Julia de maritandis ordinibus* specifically regulated 'classes', *ordinibus* translates as class or rank.[182] Senators especially, were not allowed to marry freedwomen. The *Digest* records that 'if a senator's daughter marries a freedman, the marriage will be void' (23.2.16). Also 'that all freeborn men, apart from senators and their children, can marry freedwomen' (*Digest* 23.2.23). The legislation went further, prohibiting senators, their children and later descendants from marrying freedwomen or freedmen and from marrying actors or the children of actors (*Digest* 23.2.44). Marriage was a question of social status, emphasising birth, background, wealth and family connections.[183] Yet the law did more than this, it proscribed matches which greatly transgressed the boundaries of Rome's social classes. Beth Severy argues that this was meant to prevent senators from disgracing themselves or their class by marrying beneath them.[184] However, the law went much further than simply protecting them from scandal. Augustus was demarcating the senatorial class in Roman society.[185] By placing restrictions on those whom senators could marry, Augustus was reinforcing the class system, differentiating the senatorial class from others within Roman society. Augustus was seemingly trying to specifically encourage marriage and reproduction of the highest echelon, the senatorial class, but as has just been noted, freed slaves were encouraged to have more children too. Augustus' plan was about encouraging the procreation of Roman citizens, with an emphasis on distinguishing and reinforcing the class system. It was, as Flemming asserts, about enabling and encouraging the reproduction of some groups more than others.[186]

[182] *Digest* 38.11.1; OLD, s.v. *ordinibus*.

[183] Laes & Strubbe, 2014, 198; Parkin, 2018, 84.

[184] Severy, 2003, 52.

[185] Cooley, 2003, 373.

[186] Flemming, 2021a, 896.

Such an agenda may have been necessary following the civil wars of the first century BCE which had inflicted terrible damage on the fabric of its society. There may have been a real fear of population decline, particularly amongst the elite. Hug argues that Augustus' pronatalist legislation may have been linked to the enormous death tolls of the civil wars.[187] According to Dio Cassius, Augustus himself stated that it was necessary to increase the birth rate, because it was impossible for the city to maintain itself unless its population was continually renewed by births, due to high mortality from disease or war (56.8.1). Estimates of the casualties from the civil wars are high. Pitirim Sorokin suggests a figure of some three hundred thousand people being killed.[188] Such casualties must have severely impacted the numbers of Roman citizens and therefore Roman society. Moreover, it seems that the higher echelons of Roman society were adversely affected by the civil wars. The ranks of the senatorial and equestrian orders, the Roman governing classes, were severely depleted by death and the ruin of family fortunes.[189] Indeed, these were the ranks that particularly suffered under the proscriptions: Sulla (*c.*138–79 BCE) ordered ninety senators, fifteen consuls and two thousand six hundred knights be killed or banished in 82 BCE, whilst three hundred senators and two thousand knights were sentenced to death by the Second Triumvirate of Octavian, Antony and Lepidus in 43 BCE.[190] Augustus' legislation pertained to a depleted and therefore much weakened society and in particular the aristocracy, as a result of the civil conflict during the first century BCE. Thus, demographically, the need to have citizen children and in particular aristocratic children to strengthen the Roman state for the future was paramount.

Other scholars have argued that the legislative programme was part of a broader effort by Augustus to promote himself as a moral reformer, who had saved Rome by

[187] Hug, 2014, 43.

[188] Sorokin, 2010, 91.

[189] Cooley, 2003, 353.

[190] Appian (*c*.95–*c.*165 CE) records that Sulla was 'responsible for the deaths among his enemies of ninety senators, some fifteen consuls and two thousand six hundred knights' (*Civil Wars* 1.103.483). Also, that under the Second Triumvirate 'the number of senators who were sentenced to death and confiscation of property was about three hundred and of those known as knights about two thousand' (Appian, *Civil Wars* 4.5.20).

invigorating ancient traditions and restoring a sense of continuity with the past.[191] The *lex Julia de adulteriis coercendis,* enacted along with the marriage law in 18 BCE, certainly had a moral agenda for it made adultery a criminal offence for the first time. The law criminalized Roman citizens who had intercourse outside marriage. Roman men were not able to have intercourse with Roman women other than within the confines of marriage. The law applied to adultery, *adulterium,* defined as sexual relations between a married woman and a man other than her husband, and *stuprum,* a range of sexual offences from illicit intercourse with a respectable unmarried virgin, divorced woman or widow, to homosexual rape of a freeborn man (*Digest* 48.5.6 & 48.5.35.1).

The law was not about protecting women for it penalised just as harshly those women, whether married, unmarried virgins, divorced or widowed, who had sexual intercourse outside marriage, consensual or not: they could be killed legally by their fathers if found in a compromising position. A father was granted the right of killing a daughter whom he had in his power along with the adulterer, although this had to happen both at once and immediately on finding the two lovers together (*Digest* 48.5.21 & 48.5.24.4). In some exceptional circumstances, the woman was punished more harshly than the man with whom she had illicit intercourse, even if it was, what would now be considered rape: the Vestal Virgin Cornelia was buried alive for violating her vows of chastity, but the senator with whom she had committed *stuprum*, Licinianus, was only sent into exile (Pliny, *Letters* 4.11). The adultery law also allowed husbands to kill with impunity, but only adulterers caught in the marital home; they could not kill their adulterous wives (*Digest* 48.5.25). Instead, the new law required them to divorce their wives without delay (*Digest* 48.5.25.1).

For those convicted of *adulterium* or *stuprum*, the punishment was extremely severe: adulterous women lost half of their marriage settlement, a third of their goods and exile; adulterous men were punished with the loss of half of their property and exiled

[191] Brunt, 1971, 559; Frank, 1976, 47; Raaflaub & Toher 1990, 267; Gallia, 2012, 41; Wallace-Hadrill, 2018, 62.

to a different island. (Paul, *Opinions* 2.26.14). Adulterous women were also branded with *infamia*, meaning 'bad reputation or disgrace' a label which was meant to damage one's esteem and social standing; it was usually reserved for sex workers.[192] Simply being accused of adultery tarnished a woman for a considerably long time, possibly the rest of her life; she too was branded with *infamia* and could not marry during the lifetime of her husband (*Digest* 23.2.26 & 23.2.43.12). Previously, during the Republic, the chastisement of women, whether they were adulterous wives, sexually active unmarried daughters, or widows, had been the role of the *pater familias*, not the state.[193] Now, under the new law, *adulterium* and *stuprum* were, for the first time, being punished as public crimes.

The law converted both these sexual offences from private misdemeanours with undisclosed punishment into serious crimes with extremely harsh penalties, and it criminalized Roman women who had intercourse outside marriage. Roman men were not able to have intercourse with Roman women, other than in the confines of marriage, but were legally able to have intercourse with those who were enslaved. The jurisprudence notes that the '*lex Julia* applies only to free persons who have committed *adulterium* or *stuprum*' and that 'sexual intercourse with female slaves', unless 'an attempt is made against their mistress through them, is not considered an injury' *(Digest* 48.5.6; Paul, *Opinions* 2.26.16). However, if a Roman woman had intercourse with anyone other than her husband, or anyone before she was married, or as a widow, she could be legally killed, or at best banished and left impoverished. It did not matter whether the woman consented or not. Augustus legislated against citizen women having any heterosexual sex outside marriage. Ostensibly, the emperor attempted to curb and control the sexual behaviour of Roman women especially, with the intention of introducing a more traditional society in which marriage and having citizen children was paramount.

[192] *Digest* 23.2.43.4 & 23.2.43.12; OLD, s.v. *infamia*.

[193] Evans Grubbs, 2002, 84.

Roman Attitudes to the Legislation

There was seemingly a strong defiance against the legislation and a sense that some purposely avoided marriage and having a family, at least for a time. There is evidence that some Romans were negatively inclined towards the introduction of legislation enforcing marriage. A poem written by Propertius reveals that Augustus tried, but failed, to introduce a marriage law prior to the passing of the *lex Julia de maritandis ordinibus* in 18 BCE, and importantly there was hostility, at least from Propertius, against such a law. The seventh poem from his second book of *Elegies*, opens with the following lines.

> *Nos uxor numquam, numquam seducet amica:*
> *semper amica mihi, semper et uxor eris.*
> *gavisa's certe sublatam, Cynthia, legem*
>
> Never shall wife, never shall mistress part us:
> you shall ever be mistress, ever be wife to me.
> How you must have rejoiced, Cynthia at the repeal of that law (Propertius, *Elegies* 2.7.1–3).

Propertius is discussing his relationship with his mistress Cynthia and, defiantly stating that he will not get married, which points towards some kind of marriage enforcement. Nor indeed will he take another mistress because Cynthia fulfils both roles, seemingly more than adequately. Notably, the third line of the poem reads: 'how you must have rejoiced, Cynthia at the repeal of that law' which lays bare that the law failed to become statute, or possibly became statute and was later abolished for *sublatam* translates as removed or abolished.[194] Propertius wrote the poem sometime during 26 BCE, 8 years before Augustus introduced his *lex Julia de maritandis ordinibus*.[195] Augustus, it seems, tried, but failed, to implement the laws,

[194] Propertius, *Elegies*, 2.7.3; OLD, s.v. *sublatam*.

[195] Lyne, 2004, 574.

or at least a similar law legislating for marriage, in either 27 or 26 BCE.[196] Unfortunately, this failed legislation is otherwise unrecorded.[197] The lack of further evidence means that it cannot be certain that this relates specifically to a failed attempt to introduce the legislation which became statute in 18 BCE, or whether it relates to a different piece of legislation, which in some way also penalised those who were unmarried. Nevertheless, the reference certainly evokes a context of state intervention in a lifestyle choice of remaining unmarried in either 27 or 26 BCE, and the poem suggests that some, in this instance Propertius and his mistress, were unhappy with such a proposal.

The poem reveals how distraught the couple were at the prospect of the legislation: 'it caused us to weep for many an hour in case it parted us' (Propertius, *Elegies* 2.7.3–4). Yet such distress quickly gives way to a more belligerent and confrontational stance.

> *non queat invitos Iuppiter ipse duos.*
> *'at magnus Caesar'. sed magnus Caesar in armis:*
> *devictae gentes nil in amore valent*
>
> Still, not even Jove himself can part two lovers against their will.
> Yet Caesar is mighty. True, but mighty in warfare
> in love the defeat of nations counts for naught (Propertius, *Elegies* 2.7.4–6).

The implication is that, if the most powerful of gods, Jupiter, cannot part lovers, then a mere mortal such as Augustus certainly cannot. Even though Propertius asserts that Augustus (Caesar) is powerful, it is only in war, and such military power is useless as far as love is concerned. In Roman elegy, love is the main force that

[196] Raditsa, 1980, 295; Cooley, 2003, 115; Lyne, 2004, 574. Raditsa asserts that such a suggestions was made as early as 1894 (1980, 295).

[197] Cooley, 2003, 115.

controls everything and cannot be resisted; love cannot be controlled by anyone, especially Augustus.

In the poem, Propertius continues in his defiant stance, outlining his opposition to marriage and children. He paints an image of marriage as a fate worse than death, for he professes he would sooner die than abandon his lover for a wife.

> *nam citius paterer caput hoc discedere collo*
> *quam possem nuptae perdere more faces,*
> *aut ego transirem tua limina clausa maritus,*
> *respiciens udis prodita luminibus*
>
> For sooner should I let my head be severed from my neck
> than I could quench the torch of love to humour a bride's whim,
> or as a married man pass by your barred threshold,
> looking back with tearful eyes at the house I had betrayed (Propertius, *Elegies* 2.7.7–10).

Marriage, according to Propertius, is something to be dreaded rather than celebrated and it seems it could not possibly be anything like the lustful relationship Propertius experiences with his lover. In addition, the poet's love for his mistress is also more important than being a father, for he says

> *tu mihi sola places: placeam tibi, Cynthia, solus:*
> *hic erit et patrio nomine pluris amor*
>
> you are my only joy; be I your only joy, Cynthia:
> this love means more to me than the name of father (Propertius, *Elegies* 2.7.19–20).

The necessity of producing heirs is not a priority for the poet; he is only interested in an erotically charged relationship. However, the relief and celebration of the failure of the law at that time and the defiant stance taken against state interference are from an affluent, relatively young man: Propertius was still only about twenty-eight years old in 26 BCE. His rejection of authoritarian politics, particularly laws on marriage and procreation, may be accounted for by his youth and a desire to enjoy all life's excesses before he settles down with a wife and children. It may simply have been typical poetic attitudes, for, as shall be discussed, Catullus displayed similar tendencies. Indeed, in later poetry Propertius states that his infatuation with Cynthia was youthful folly: 'Venus had taken hold of me and was roasting me in a savage cauldron', but 'finally', 'I have regained my senses' (*Elegies* 3.24.13–19; translation by Goold, with minor modifications).

Propertius' poetry cannot be taken simply as a record of actual events, for the signs of contrived artificiality are too obvious.[198] He follows the conventions of love poetry and projects a poetic persona: that of the masochistic subjugation to an imperious female figure.[199] Oliver Lyne and Stephen Heyworth assert that Propertius did the most to develop the poetry of obsessive love.[200] The poet characterises himself as an exemplary elegiac poet-lover, a man of modest means devoted to the pleasures of the flesh and unfit by ancestry and temperament alike to the traditional Roman pursuits of politics and war.[201] He is inspired by love in one instance, but warns against it in another; he is lyrically happy, then bitterly miserable.[202] Propertius'

[198] Williams, 1962, 43.

[199] By early Augustan times, elegy emerges as the medium for cycles of first-person poems describing the tribulations, mostly erotic, of a male poet who figuratively enslaves himself to a single (pseudonymous) mistress, distances himself from the duties associated with public life (Kenny & Hinds, 2012).

[200] Lyne & Heyworth, 2012.

[201] Keith, 2008, 10.

[202] Williams, 1962, 43. In one poem Propertius talks of him being so blissfully in love he can write plenty of love poetry: he is 'busied with love poetry' (Propertius, *Elegies* 1.7.5).

poetic persona is that of someone who is completely at the mercy of Cynthia: he is blissfully happy in one poem in her company, 'O happy me' he writes (*Elegies* 2.15.1). Then, he is upset and jealous in the next when she is with another client, for the elegiac love interest is usually a courtesan: 'the praetor has just returned from Illyria, Cynthia, enormous prey for you, enormous worry for me'.[203] That said, there is a sense of balance in his poems, so, just as he was infatuated with Cynthia in *Elegies* 2.7, he balances it out by professing to be over her in *Elegies* 3.24. Nevertheless, a poetic persona could well mask youthful opposition. Eventually though, it seems that Propertius did eventually embrace the marriage legislation of 18 BCE and go on to marry and have children, for Pliny the Younger twice refers to a descendant of his, Paulus (*Letters* 6.15 & 9.22).

As well as the failure to implement some form of marriage law in or around 27/26 BCE, it seems that Augustus had to make some concessions to eventually get his legislation enacted, further highlighting the hostility felt by some to his agenda. Suetonius notes that there was some antagonism towards parts of the law and that Augustus had to make changes in order to get it passed.

> *Leges retractavit et quasdam ex integro sanxit, ut sumptuariam et de adulteriis et de pudicitia, de ambitu, de maritandis ordinibus. Hanc cum aliquanto severius quam ceteras emendasset, prae tumultu recusantium perferre non potuit nisi adempta demum lenitave parte poenarum et vacatione trienni data auctisque praemiis.*
>
> He revised existing laws and enacted some new ones, for example, on extravagance, on adultery and chastity, on bribery and on the encouragement of marriage among the various classes of citizens. Having made somewhat more stringent changes in the last of these than in the others, he was unable to carry it out because of an open revolt against its provisions, until he had

However, two poems on he is suffering from its effects: 'suffering and tears have deservedly gained me the title of expert: would, that I could lay love aside' (Propertius, *Elegies* 1.9.7–8).

[203] Propertius, *Elegies* 2.16.1–2. Sharon James discusses the social status of Cynthia, and other love interests of other Roman elegists (2003, 36–41).

> abolished or mitigated a part of the penalties, besides increasing the rewards and allowing a three years' exemption from the obligation to marry after the death of a husband or wife (Suetonius, *Augustus* 34).

It is difficult to understand whether Suetonius' notes are related to Augustus' first set of legislation in 18 BCE or the modified law in 9 CE, but whatever round of legislature it refers to, it shows that a level of opposition existed particularly to his marriage law.

Such resistance to marriage laws may be attributed to a culture amongst some young men of deliberately avoiding getting married and having children, in favour of a single life, partying with friends. It seems that such a life may have developed in the late Republican era. Catullus, in his poetry a generation earlier, advocates a single, hedonistic life. In several of his poems he refers to parties and visits from his friends. In one, Catullus tells an acquaintance that he will 'dine well, my Fabullus, at mine one day soon if the Gods are kind to you' (13.1–2). There will be food and drink a plenty, and of course 'a pretty girl' (Catullus, 13.4–9). Then, there is mention of another soirée in which a napkin is stolen from Catullus' house: 'you misuse your left hand, while we joke and drink you lift the napkins of the careless' (Catullus, 12.1–3). At yet another party in Catullus' house, one of the party-goers also steals some of his Spanish napkins, along with his cloak (Catullus, 25.6–7). Such thefts may well have been a practical joke played amongst these men.[204] Whatever the reasons for the antics, the poetry shows that Catullus has a home into which he often invites people to spend time with, eating and enjoying each other's company. Indeed, Harri Kiiskinen argues that there was a cultural stereotype of the young elite man living alone in the late Republic.[205] Moreover, those young men who still lived at home with their parents were ridiculed. Catullus mocks one Furius, who still lived with his father and stepmother.

[204] Kiiskinen, 2019, 129.

[205] Kiiskinen, 2019, 128.

Furi, cui neque seruus est neque arca
nec cimex neque araneus neque ignis
uerum est pater et nouerca quorum
dentes uel silicem comesse possunt
est pulcre tibi cum tuo parente
et cum coniuge lignea parentis

Furius, you've no slave, or cash box,
You've no spider, bug or fire,
But a father and stepmother
Whose teeth can even chew through flint.
A splendid time you have with father
And with father's wooden wife (Catullus, 23.1–6).

For those who had moved out of their parents' homes a practice of socialising and partying together in each other's houses had developed. They were, according to Laes and Strubbe, part of a youth culture, one that was limited to those of families with significant financial resources and specifically to young men.[206] Such young men, were, it seems, deliberately avoiding marriage and having a family, at least for a time in favour of such a life. Delaying marriage and parenthood has a history that goes back thousands of years to the ancient Romans.

Indeed, leading a single, hedonistic life looks to have continued with Propertius and other elite men during the era under discussion: other elegiac poets such as Tibullus (*c*.55–19 BCE) and Ovid came to express a new sense of vitality in their poetry, evoking a desire to live freely.[207] Such men advocated an unmarried, pleasure-seeking life over settling down in marriage and having a family. One Republican poet

[206] Laes & Strubbe, 2014, 139.

[207] Laes & Strubbe, 2014, 230.

who particularly enjoyed such an unrestrained and unattached life was Horace. According to Suetonius, he had a penchant for intercourse with sex workers and was particularly lascivious and lewd with them: ‘he was immoderately lustful’ and had ‘a room lined with mirrors’ where he took these women, so that ‘whichever way he looked, he saw a reflection’ of sexual indulgence (*Poets. Horace*). Notably, some men did go on to get married and have children, like Propertius, whilst others, like Horace, did not.

Other sources give a sense that some elite men were intentionally remaining single, at least for a time, even after the legislation was introduced. There was a legal loophole in which betrothed men were afforded the same privileges granted to married men. Some, it seems, took advantage of this and undertook long engagements, as they were getting engaged to very young girls in order to benefit from the marriage act (Suetonius, *Augustus* 34; Dio Cassius, 54.16.7). Such abuse of the law, according to Dio Cassius, led to an order by Augustus ‘that no betrothal should be valid if the man did not marry within two years of such betrothal’ and that ‘the girl must in every case be at least ten years old’ because girls were considered to reach ‘marriageable age’ at twelve years old (54.16.7). Previously, it seems, men could have been engaged to girls for up to three years before they were required to wed (Dio Cassius, 56.7.3). Augustus continued in his attempt to curb behaviour and amended the legislation.

The sense of hostility towards the marriage legislation is quite evident when, in 9 CE, a group of knights, *equites*, reportedly called for the law to be revoked during public games (Dio Cassius, 56.1.2). As unmarried men were normally excluded from the games under the legislation, this may have been a special occasion when the law was temporarily revoked, allowing the knights in; perhaps they were exploiting the laws and entering the games as engaged men. On the other hand, this may also indicate that whilst a ban was enshrined in law, it was difficult to enact. In response to the protest and to illustrate the necessity of his legislation, Augustus allegedly separated the *equites* into two groups: unmarried men and those who were married with children (Dio Cassius, 56.1.2). The group of knights who were married and had

children were supposedly much fewer in number than the *equites* who were unmarried (Dio Cassius, 56.1.2). Augustus is said to have turned to the childless and warned them that they were 'destroying the state by disobeying its laws' and 'betraying their country by rendering her infertile and childless; more so, they were laying her even with the dust by making her destitute of future inhabitants' (Dio Cassius, 56.5.3; translation by Cary & Foster, with minor modifications). Augustus' perception, according to Dio Cassius, was that some *equites* were deliberately avoiding marrying and having children. The picture painted by the historian may not tell us the real extent of this practice, but it does stress the perceived reality, at least as it was believed several centuries after the event.[208]

It seems that some elite men may have avoided marriage and led a single life, at least for a time. That said, some of the highest-ranking elite men may well have had some difficulties marrying because, as has been noted, there were strict laws for whom senators could marry: they were only allowed to marry elite Roman women. Moreover, historiography records that there was a great imbalance of men and women amongst the Roman elite (Dio Cassius, 54.16.2). The disparity between the numbers of men and women may have been a generalisation on Dio Cassius' part. The historian was writing over two hundred years later and even though there were population figures available, following the census in 28 BCE, there were no statistics on what percentage of the population were men compared to women, so his comment could not have been qualified.[209] Nevertheless, such generalisation may have been, in part, because of the practice of infant exposure, particularly of infant girls which may have led to there being more men than women.[210] It may well have been that some elite men did not marry for lack of elite women.

[208] Parkin, 1992, 120.

[209] The census taken in 28 BCE simply details a total Roman citizen population of 4,063,000 (*Res Gestae* 8).

[210] Thomas McGinn argues there were far fewer women than men, as a result of the more frequent exposure or infanticide of females (1991, 338). John Boswell argues exposure was not uncommon because there was a designated place, the *columna lactaria*, in the Forum Olitorium, where infants were abandoned (1988, 110). There are no figures on the practice other than from wet-nursing contracts from Roman Egypt which detail 14 contracts whereby

However, the *equites* do not seem to have been governed by the same restrictions as senators, for in terms of their social ranking, *equites* were below the senatorial class, despite being, on average in terms of wealth, on a par with them.[211] *Equites*, were, it seems, able to marry freedwomen, unlike senators: the jurisprudence states that 'all freeborn men, apart from senators and their children, can marry freedwomen' (*Digest* 23.2.23). Some may have deliberately avoided getting married, preferring the single life instead of marriage with all its responsibilities: the financial care of a house or property; managing the dowry; and in some instances, living with, and looking after extended family.[212]

All the discussion has centred around men, for it was very different for women. Roman girls were expected to 'guard their chastity'.[213] Young, unmarried citizen women would probably never have been allowed to live alone, as girls in elite families were not allowed to tarnish their reputations before marriage. Indeed, Huebner asserts that there is an impression that, apart from Vestal Virgins, there were hardly any single women in Roman society.[214] Huebner goes on to suggest that such a perception arises because it only applies to citizen women; it excludes those women who would have been barred from entering into legal marriages.[215] Sex workers would have been branded with *infamia* and could not legitimately marry (*Rules of Ulpian* 16.2). Indeed, Catullus refers to a woman, Ipsitilla, presumably a sex worker because he visits her for sex, who seemingly lives alone (32). For such women, however, their living arrangements were not necessarily a lifestyle choice, unlike the aforementioned elite men who deliberately avoided marriage.

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the infant is documented as abandoned and the sex of the child is preserved; they record more girls than boys were exposed (Parca, 2017, 213).

[211] Brunt, 1983, 43.

[212] Laes, 2011a, 34; Laes & Strubbe, 2014, 209.

[213] Laes & Strubbe, 2014, 203.

[214] Huebner, 2019, 38.

[215] Huebner, 2019, 38.

Nevertheless, some women in Roman society may well have lived alone during the era. Unfortunately, all surviving evidence is documented by elite men, taking a male perspective, so, it is difficult to establish the extent to which this may have been the case.

New Legislation: Harsher Penalties for those Married yet still Childless

Following on from the showdown with the knights at the games and having illustrated his belief that many were deliberately avoiding marrying and having children, instead of revoking the marriage legislation Augustus introduced another modified law: he 'increased the penalties for the disobedient' so that 'through fear of becoming liable to them', they 'might be brought to (their) senses' (Dio Cassius, 56.6.5). This new law was introduced in 9 CE under the two consuls for that year M. Papius Mutilus and Q. Poppaeus Secundus (Dio Cassius, 56.10.3). Ronald Syme asserts that they were chosen because of their Italian descent and that such traditional Italian names suggested the law upheld traditional values: Papius Mutilus was descended from a noble Samnite family, whilst Poppaeus Secundus was Picenum.[216] This was very much in line with Augustus' return to *mos maiorum*. Moreover, both men were reportedly unmarried and childless, which allegedly symbolised the state's need for legislation (Dio Cassius, 56.10.3).

Under the initial legislation, those who remained unmarried were forbidden from receiving estates and legacies.[217] However, under the modified law of the *lex Papia*, those who remained childless, seemingly even within marriage, were forbidden from receiving more than half of an inheritance or legacy (Gaius *Institutes* 2.111 & 2.286a). One of these pieces of jurisprudence clearly shows the distinction between the original law in 18 BCE and the revised legislature of 9 CE: unmarried people were forbidden by the *lex Julia* from receiving estates or legacies, then, under the *lex Papia*, those without children were prohibited from taking more than half of an estate

[216] Syme, 1960, 452.

[217] See 51–52.

or legacy (Gaius *Institutes* 2.111). This is one of the few occasions when the laws are referred to individually and where there is an understanding of an amendment to the original legislation. By making such a revision, Augustus' message was now loud and clear, getting married did not suffice; married couples were legally required to have children. Unfortunately, those people who were infertile and therefore could not have children were penalised in the same way as those who voluntarily remained unmarried and childless.

To enforce the law, the state relied on informers reporting childless or unmarried people who had received illegal legacies and who, for their part, were then rewarded with a share of the confiscated property.[218] Tacitus notes that 'spies were set over us, stimulated by rewards under the Papia Poppaea law'.[219] Tacitus paints a rather bleak picture of mistrust amongst communities and neighbours as he asserts that 'every household was undermined by the insinuations of informers' and states that such actions were really about 'enriching the exchequer' (*Annals* 3.25; translation by Moore & Jackson, with minor modifications). It was not quite so bleak, because the state offered an incentive to anyone who voluntarily declared that they had been left property which they were not eligible to receive: they still received half of the property in question, with the other half going to the treasury (*Digest* 49.14.13.1). It must be noted that the law applied only to unmarried or childless people who received legacies from someone who was not related to them within six degrees.[220] Those who were unmarried and those married but still childless could still legally inherit from their parents, grandparents, aunts, uncles, cousins, even second cousins. What the law did was to restrict inheritance rights of friends, lovers or clients.[221]

[218] Evans Grubbs, 2019, 107.

[219] Tacitus, *Annals* 3.28; translation by Moore & Jackson, with minor modifications. Further evidence of such 'informers' is noted by Suetonius, who recorded that Nero 'reduced the rewards paid to informers against violators of the *lex Papia* to one quarter of the former amount' (*Nero* 10).

[220] *Rules of Ulpian* 28.7; Evans Grubbs, 2019, 108.

[221] Evans Grubbs, 2019, 108.

Andrew Wallace-Hadrill argues that this is the main reason why Augustus initiated the law: 'to encourage the family, in order to stabilise the transmission of property, and consequently of status, from generation to generation'.[222] Specifically, he states that Augustus wanted to break the cycle of rich people generally leaving at least some of their estate outside the family.[223] He argues that, because the childless were courted for their estate, the custom flourished in Roman society and so more people left property to non-family.[224] Augustus' original legislation attempted to regulate conduct and introduce a society in which marriage and having children was paramount. His revised legislation introduced harsher financial penalties for those who remained childless even within marriage by restricting their inheritance rights; he was seemingly unrelenting in his attempt to curb childlessness.

Promoting the law: Augustan Propaganda

Introducing new legislation, making it a legal requirement to be married and punishing more severely those who now remained unmarried, against a culture, amongst some, of remaining single and hostile to such regulation, necessitated a creative propaganda programme. It seems that such an initiative started a year after the introduction of the original legislation, in 17 BCE, with the holding of the *ludi saeculares*. As has been noted, these games were a momentous occasion marking the end of a *saeculum*, a period of about one hundred years.[225] These games were originally expected to take place around 46 BCE, but none took place.[226] The advent of a new millennium had long passed and yet, according to Syme, Augustus still

[222] Wallace-Hadrill, 1981, 59.

[223] Wallace-Hadrill, 1981, 64.

[224] Wallace-Hadrill, 2014, 260. The courting of wealthy childless Romans, *captatio,* is discussed in chapter 2.

[225] Taylor & Price, 2012; Edmondson, 2014, 497.

[226] Taylor & Price, 2012. The first authentic games were held in 249 BCE and the next celebration took place in 146 BCE, so it was expected that games should take place around 46 BCE but none were held (Taylor & Price, 2012).

postponed holding the festivities in 22 BCE.[227] They eventually only took place, as Karl Galinsky points out, after the legislation on marriage and adultery had been passed.[228] Melvin Cooley argues that the legislation of 18 BCE was conspicuously present in the background of the games.[229]

More so, as has already been noted, Augustus himself temporarily revoked his law banning those who were unmarried from attending games because the *ludi saeculares* marked such a momentous occasion.[230] Augustus' concern over the issue of childlessness may well have prompted him to invite everyone in society to celebrate, or rather promote the enactment of his new legislation, and to show those who did not obey his new law the types of entertainment that they would miss out on in the future. For these games were not simply a revival of a previous Republican festival. Augustus reinvented it somewhat, putting his own mark on proceedings, for Michèle Lowrie argues that the inauguration of a new, golden age, was aligned with a new century.[231] The festivities did indeed symbolize the dawn of a new era: an imperial era, the Augustan era. His delay of the games may have been deliberate and an act of propaganda to serve his own agenda.

The importance of these games was such that it was noted several times on marble inscriptions, coins and in literature.[232] It was further marked by a hymn, *Song of the*

[227] Syme, 1960, 443.

[228] Galinsky, 1996, 100.

[229] Cooley, 2003, 266.

[230] See 51.

[231] Lowrie, 2009, 123. Eric Orlin notes that the celebrations of 17 BCE took place in honour of the gods Apollo and Diana, as well as the deities Dis and Proserpina and sacrifices were held on the Capitoline and Palatine hills, as well as the Campus Martius (2019, 3).

[232] Cooley discusses the games both under Augustus and before (2003, 266–273). It is recorded on the marble inscription *CIL VI* 32323. The games are recorded on the following: Augustus' *Res Gestae* (22); in Ovid's *Sorrows* 2.26; and on coins illustrating Augustus and the *suffimenta* ceremony (Cooley, 2003, 32, 169 & 270).

Ages, which Augustus specifically commissioned Horace to write.[233] This was seemingly another part of his propaganda programme. As Maria Wyke asserts, Augustan poetry enabled the social, political and economic changes that were taking place under the new regime.[234] Indeed, Horace's hymn praises Augustus' new legislation, giving thanks for the new marriage law and calling on the gods to ensure its success. It hopes more children will be born and raised in time for the next *ludi saeculares,* to ensure that they will be full of people.

Rite maturos aperire partus
lenis, Ilithyia, tuere matres
sive tu Lucina probas vocari
seu Genitalis:
diva, producas subolem, patrumque
prosperes decreta super iugandis
feminis prolisque novae feraci
lege marita,
certus undenos decies per annos
orbis ut cantus referatque ludos

You whose gentle function it is to open the way for
births in due season, protect our mothers, o Ilithyia, or
Lucina if you prefer that name,
or Genitalis.
O goddess,
be pleased to rear our young and to grant success to the
Father's edicts on the yoking together of men and
women and on the marriage law

[233] Suetonius notes that Augustus rated Horace's writing highly, so much so that he 'appointed him to write the *Song of the Ages*' (*Poets. Horace*).

[234] Wyke, 2014, 359.

for rising a new crop of children so that the unfailing cycle of ten times eleven years

may bring round singing and games that are thronged with people (Horace, *Song of the Ages* 13–22).

The point was symbolically made for the Roman audience when Horace had the hymn sung by children.

virgines lectas puerosque castos
dis, quibus septem placuere colles,
dicere carmen

girls and boys of good character should sing a hymn to
the gods who look with favour on the Seven Hills (Horace, *Song of the Ages* 6–8).

This point was also recorded on the aforementioned marble inscription which documents the games and actually states the number of children who sang Horace's hymn.[235]

Horace, in the poem, also notes Augustus' agenda of reviving the legendary past, for it honours Rome's mythical foundation, the Trojan Aeneas and Romulus, Rome's founder.

Roma si vestrum est opus, Iliaeque
litus Etruscum tenuere turmae,

[235] 'Twenty-seven boys to whom it had been announced, with father and mother living and the same number of girls sang a song, the hymn composed by Horace' *(CIL VI* 32323 lines 147–148).

iussa pars mutare Lares et urbem
sospite cursu
cui per ardentem sine fraude Troiam
castus Aeneas patriae superstes
liberum munivit iter daturus
plura relictis:
di, probos mores docili iuventae,
di, senectuti placidae quietem
Romulae genti date remque prolemque
et decus omne

If Rome is indeed your creation, if the squadrons
that settled the Etruscan shore came from Troy – a
remnant bidden to change their home and city in a
voyage that brought salvation, for whom the righteous
Aeneas, a Trojan survivor, built unscathed through the
blazing city a road to freedom, destined, as he was, to
give them more than they had left behind – then,
gods, give sound character to a young generation.
enabling them to learn; give rest to the old ensuring
their contentment and to the people of Romulus as a
whole give wealth and children and every blessing (Horace, *Song of the Ages* 37–48).

Notably, it calls upon the gods to bless the great descendants of these legends with ‘wealth and children’. The importance of children is continually reinforced; moreover, the necessity of having children to secure the position of Rome is put on an equal footing with the need for wealth, to secure its future. The implication is that Rome can only prosper with both wealth and children in equal measure.

Horace also refers to the *princeps*, as 'father' in the poem, implying that he is the father of Rome, long before Augustus was granted the title of *pater patriae.*[236] This evokes the notion that he is a loving parent, who, when introducing his legislation, is trying to do the best for his country.[237] Horace is hugely congratulatory of Augustus, his agenda and his legislation. The *ludi saeculares* were far from ordinary games and the honour afforded the poet to write the hymn was huge, which may account for his flattery of the emperor and celebration of his legislation. More so, it may have been about maintaining his position under the patronage of Maecenas, Augustus' long serving friend and ally. Horace had been on the losing side of the civil wars and, under Octavian's confiscations, suffered the entire loss of his family's property; indeed, he counted himself lucky to be able to return to Italy, unlike many of his comrades-in-arms and to obtain a respectable position when he gained the patronage of Maecenas.[238] Horace's praise of the emperor, his legislation and moral reform may well have been to ensure his own survival.

Augustus would have been aware of Horace's financial position following his confiscations and, as such, was calculating in selecting him as the state's eminent poet on this occasion. It paid off, because Horace went further than simply praising the new marriage law; he propagated Augustus' image as being a descendant of the gods and legendary figures.

quaeque vos bobus veneratur albis

[236] Horace, *Song of the Ages* 17. Augustus was not given the title of pater patriae until 2 BCE (Ferrary, 2014, 123).

[237] Indeed, the term *pater patriae* was a phrase that was eloquently suggestive of the protecting but coercive authority of the *pater familias* and had been conferred on Cicero against the Catilinarian conspirators and on Caesar after the battle of Munda (Stevenson, 2009, 97).

[238] Syndikus, 2004, 355. Propertius too was on the losing side of the civil wars, but, unlike Horace, his property was only diminished by the confiscations, and not so much that he needed to earn a living (Lyne, 2004, 574). He too enjoyed the patronage of Maecenas, but, unlike Horace, Propertius was never economically dependent on Maecenas (Lyne, 2004, 574). Such financial independence allowed Propertius to maintain a political independence and even display an element of irreverence towards the state.

clarus Anchisae Venerisque sanguis,
impetret, bellante prior, iacentem
lenis in hostem

What the glorious descendant of Anchises and Venus asks of
you with white oxen, may he obtain; may he be
victorious in battle over his foes yet merciful once they
are down (Horace, *Song of the Ages* 49–52).

By reinforcing the idea that Augustus was the descendant of a god, Horace gives the law divine status and cements the legislation as a moral and religious act. Overall, Horace's hymn acts as a great promotional tool for Augustus, his new regime and new legislation.

Following on from *Song of the Ages,* Horace's fourth book of *Odes* was also commissioned by Augustus who had been so pleased with the hymn that he insisted Horace add another book to his collection: the original three books were published in 23 BCE; this fourth book was published in 17 BCE.[239] This poem also serves as a propaganda tool for Augustus, as Horace is even more complimentary of the emperor and his legislation, focusing this time on the adultery law. In the poem Horace commends this new law and its focus on the morality of Roman society.

nullis polluitur casta domus stupris
mos et lex maculosum edomuit nefas
laudantur simili prole puerperae

the home is pure, unstained by any lewdness, custom and law have
gained control over the plague of vice, mothers are
praised for having similar children (Horace, *Odes* 4.5.21–23).

[239] Suetonius, *Poets. Horace;* Syndikus, 2004, 357.

Horace claims that Roman homes are no longer stained by lasciviousness, thanks to the new legislation. The 'law' he refers to must be the Augustan adultery legislation of 18 BCE. His comment that mothers are now having 'similar children' implies that they were previously having children by different fathers, probably as a result of adulterous affairs, as the children did not look alike. In making such a statement, Horace propagates the agenda of having legitimate children. Despite his praise for the law, he never felt compelled to furnish the state with his own children, for he remained unmarried and childless, leaving his entire estate to the *princeps* when he died: 'he named Augustus as his heir' (Suetonius, *Poets. Horace*).

Augustus was very adept in the art of propaganda. When addressing the *equites* at the public games who were calling for his marriage legislation to be revoked, he allegedly used someone else's children to make his point about marriage and family. He is recorded as sending

> *accitos Germanici liberos receptosque partim ad se partim in patris gremium ostentavit, manu vultuque significans ne gravarentur imitari iuvenis exemplum.*

> for the children of Germanicus and exhibiting them, some in his own lap and some in their father's, intimating by his gestures and expression that they should not refuse to follow that young man's example (Suetonius, *Augustus* 34).

In addition, he is also recorded as invoking a legendary myth, that of the rape of the Sabine women, to further make his point. Dio Cassius records him saying that 'our fathers even fought the Sabines to obtain brides' so that they may have children.[240] The story stands as a positive *exemplum* of marriage and childrearing and thus symbolically represents Augustus' new law which encouraged marriage and

[240] Dio Cassius, 56.5.6. Livy recorded the story (1.9 & 1.13).

procreation. Augustus, it seems, was putting pressure on those not adhering to the law, by emphasising the lengths to which their forefathers went to have children and strengthen the Roman state. He positions the situation as a moral obligation, on the part of present-day Roman men, to follow in the footsteps of those early citizens. It must be noted that the reference to the myth may have been embellished by Dio Cassius in the same way as Thucydides, in his *History of the Peloponnesian War,* recorded what he felt occasions demanded because he was unable to recollect speeches word for word.[241] In similar fashion, Dio Cassius would not have directly heard Augustus' speech, writing so many years later, so may have added the reference to the Sabine myth because it was a positive *exemplum* which had been particularly prominent during the reign of Augustus.[242] Like Thucydides, Dio Cassius may have felt that the severity of the situation, the fact that the knights were still refusing to marry and have children, demanded an elaborative comparison.

That said, the legend was something Augustus used to promote and reinforce his legislation, for it was immortalised on a frieze on the Basilica Aemilia in the Roman Forum, the heart of the city of Rome. Scholars debate whether the frieze does in fact date to the Augustan era or belongs to an earlier period. According to scholarship, the Basilica Aemilia was built in Rome in 179 BCE, restored in 78 BCE and *c*.54 BCE and rebuilt again by Augustus after a fire in 14 BCE.[243] The frieze was part of the Augustan restoration of the Basilica, but its original date of composition is under dispute. Filippo Coarelli argues that the frieze belongs to one of the Republican

[241] Thucydides notes that 'as to the speeches that were made by different men, either when they were about to begin the war or when they were already engaged therein, it has been difficult to recall with strict accuracy the words actually spoken, both for me as regards that which I myself heard and from those who from various other sources have brought me reports. Therefore the speeches are given in the language in which, as it seemed to me, the several speakers would express, on the subjects under consideration, the sentiments most befitting the occasion, though at the same time I have adhered as closely as possible to the general sense of what was actually said' *(*1.22).

[242] The rape of the Sabine women was retold in Augustan literature (Livy, 1.9; Ovid, *The Art of Love* 1.4).

[243] McDaniel, 1928, 176; Albertson, 1990, 801.

restoration phases of the Basilica.[244] Tara Welch is more specific, arguing that the frieze was part of the restoration of the building begun at Julius Caesar's behest and funded by him *c.*54 BCE.[245] In contradiction, Natalie Kampen argues that the frieze is a product of the years just after 14 BCE, when interest in the foundation myths was at its highest.[246] Notably, according to Welch, the Freyberger group, who, she states were in charge of excavations at her time of writing, also date the frieze to the Augustan era.[247] Either way, if it was not initiated by Augustus himself, it was rebuilt and refurbished by him and was in the public sphere during his reign, and it came to symbolise the new laws. Moreover, the representation of the Sabine women on the Basilica Aemilia was extremely important, especially as the portrayal of women in Roman art, with the exceptions of deities and personifications, was extremely rare.[248] The representations of these allegedly real women sent a crucial message to Roman society to marry and procreate.

Conclusion

In this first chapter of part one of my thesis, I have undertaken a social analysis of childlessness through the lens of the Augustan legislation. Historically, Roman society took an interest in its population size: Roman citizens were recompensed for having children and old bachelors were fined. Yet, Augustus' new legislation in 18 BCE went further than previous state measures. In particular, he took a different and somewhat harsher stance against those who failed to abide by his new legal requirement to wed, in order to have citizen children. The new emperor attempted to exclude those who were single from Roman society by banning them from the very events that were socially and culturally embedded in Roman life. In addition, he attempted to thwart their political careers, discriminating against unwedded men for government and provincial posts in favour of those who were married and had the

[244] Coarelli, 2007, 101.

[245] Welch, 2015, 164.

[246] Kampen, 1991, 458.

[247] Welch, 2015, 129.

[248] Kampen, 1991, 448.

most children. Augustus' attitude seems to have been that those who remained unmarried were outsiders; marrying and having children was considered the correct Roman way to behave. On the face of it, such severe penalties suggest that Augustus and his imperial state had anxiety about childlessness.

There was a perception by the state that some elite men were deliberately avoiding marriage and having children. Indeed, some likely did prefer to lead a single life, at least for a time. Delaying marriage and parenthood has a history that goes back thousands of years to the ancient Romans. Moreover, there was antagonism from some regarding the legislation which, allegedly, led to the emperor himself being confronted and a call for the new laws to be revoked. Nevertheless, such opposition did not deter Augustus. Instead of bowing to such hostility, his attitude was to introduce even harsher penalties against those without children, even within marriage, twenty-seven years after his original legislation. The new law penalised those involuntarily childless and those who chose not to have children in equal measure. Augustus was seemingly so anxious about the perceived problem of childlessness that he promoted his legislation and the message of marriage and procreation at every opportunity. Throughout his reign, childlessness continued to be of state concern.

There is, of course, no way of statistically knowing if childlessness was more widespread during the period under discussion as compared to earlier times. That said, the new emperor's ongoing interest in the issue throughout his reign, his punitive measures and his propaganda campaign, indicate that it was a great cause of concern for the state. The next chapter goes some way to explain why the Roman state perceived childlessness as a problem. Through the lens of legacy hunting, a trope of Roman satire, satirists drew attention to childlessness.

Chapter 2.

Captatio and Childlessness in Roman Society

Introduction

In the previous chapter, I noted that Andrew Wallace-Hadrill argued that Augustus' legislation to encourage procreation was specifically meant to break the cycle of rich people leaving some of their estate outside the family.[249] As part of his argument, he asserts that those who were childless were courted for their estate, which, in turn, led to childlessness flourishing during the era, which meant that more people left property outside the family.[250] When Wallace-Hadrill refers to the courting of those without children for their estate, he is referring to the practice of legacy hunting, *captatio*, which had emerged in Roman society.[251] *Captatores* courted, or intimidated wealthy, elderly people, in order to get written into their wills for a share or legacy of their fortune.[252] Importantly, as shall be shown, those who were pursued, or hunted were, in the large part, old, rich and childless because those without children had no immediate family to bequeath their inheritance. The fact that legacy hunters targeted childless people in the main highlights childlessness which, in turn, enhanced and perpetuated the perception that childlessness was a cause for concern in Roman society.

Reference to hunting legacies is found across many genres of Roman literature. Philosophers, historians and writers of social commentary refer to the custom, from

[249] Wallace-Hadrill, 1981, 64; see 71.

[250] Wallace-Hadrill, 1981, 64; Wallace-Hadrill, 2014, 260.

[251] OLD, s.v. *captatio*.

[252] Champlin 1991, 24–25. A *captator* is someone who hunts for legacies, is a legacy hunter; it is defined as someone who eagerly strives or endeavours to obtain something (OLD, s.v. *captator*).

the middle of the first century BCE to the early part of the second century CE.[253] Notably, satirical literature is the genre in which *captatio* is mentioned the most; it became a standard trope of Roman satire throughout the same time, a period of nearly two hundred years. As has been noted, satirical literature flourished during the late Republican and imperial era.[254] Indeed, it was the Romans who made a literary genre out of satire for it enshrined a national characteristic: that of blunt free speech, and in the imperial era, a reminder of the republican past.[255] The challenges of using satire as evidence have been discussed.[256] In short, satire says things that are not allowed in polite discourse; it transgresses, steps over the limit and provokes.[257] In its gentlest form, satire exaggerates, parodies and mocks people and society; in its strongest form, satire can be strongly ironic, disparaging and contemptuous of people and society. Nevertheless, it does draw attention to particular issues and especially those matters which were of concern to elite Romans for Roman satirists accentuated elite views of the period.

It was through satire that the term *captatio*, 'legacy hunting', was coined.[258] There has been much debate around the extent to which *captatio* was a reality, particularly as a large part of the evidence for the practice is found in satirical literature.[259]

[253] References to those who searched for legacies, legacy hunters, first appear with great regularity in Roman literature from the late first century BCE and continues through the first two centuries CE (Hartmann, 2012, 606; Pan, 2020, 2).

[254] See 27.

[255] Hooley, 2007, 2; Gowers, 2012.

[256] See 27–28.

[257] Hooley, 2007, 8.

[258] OLD, s.v. *captatio*; Roberts, 1984, 428; Champlin, 1991, 87; Hartmann, 2012, 606.

[259] Henry Rushton Fairclough, in his notes on Horace's *Satires* 2.5 asserts that the 'practice of seeking legacies, especially from those who had no family connections, seems to have been common in Rome at the beginning of the imperial period' (1926, 196). Champlin, asserts that, whilst the practice of legacy hunting existed in Roman society, and that Roman writers were deeply concerned by it, there is no evidence that *captatio* existed as a widespread social practice (1991, 100). Hopkins argues that the very existence of a special word for them in Latin is evidence enough that their activities became a well-established element in Roman life, (2006, 239). Hartmann argues that legacy hunting was a significant phenomenon during the first century BCE and the first two centuries CE (2012, 606).

Legacy hunting is a custom that can easily be condemned in writing, particularly in satirical literature, but it is difficult to identify in reality. Moreover, as Edward Champlin points out, the only difference between a true friend and a *captator* is his motive.[260] As will be discussed, friendships in the ancient world required the exchanging of gifts and favours. Therefore, it would be difficult to differentiate between true friendship and legacy hunting. Even today, when friendship does not require the exchanging of gifts, it can be hard for the wealthy to differentiate between true friendship and those who may simply be after money or influence.[261] Unless the *captator* uses intimidation in order to gain a bequest, and allegedly one hunter, Regulus, does so on one occasion, it would be difficult to ascertain whether someone is a genuine friend or simply duplicitous, with the hope of securing a fortune.[262] In a similar vein, I show how some benefactors exploited their position with only the promise of a reward after their death. That said, the extent of the practice is not the focus of this chapter. The continued reference to the custom over the course of nearly two hundred years shows that there was discourse about the issue on the part of some Roman authors. Furthermore, as hunters mainly targeted those people without children, the issue of childlessness was perpetuated.

Within my discussion, I note how those without children were characterised; they were not necessarily victims: being courted by *captatores* with gifts, favours and rewards gave them a certain amount of power and influence. I also discuss intergenerational relationships with a particular focus on women testators. In such instances, older, wealthy women were characterised as courting young *captatores* using their fortunes to exact sexual favours along with other rewards. I show how these older, childless women were portrayed as inverting the sexual norms of Roman culture. In Roman society, both men and women of the monied elite, who did not have any children, were characterised in some literature as being able to wield a

[260] Champlin, 1991, 90.

[261] Cockrell, 2021.

[262] Regulus forces Aurelia to leave her clothes to him (Pliny, *Letters* 2.20). For a full discussion of Regulus and his legacy hunting see 86–87.

significant amount of power. This likely created the impression that some voluntarily chose not to have children.

Legacy Hunting, *Captatio,* Defined

The practice of legacy hunting may have developed out of the custom of leaving bequests to those to whom one was unrelated. It was traditional to leave some form of legacy to friends or acquaintances. Cicero boasts that his accounts show that he received more than twenty million *sesterces* in bequests (*Philippic* 2.16.40). Mark Antony received legacies too, and, allegedly, of considerable sum. Having noted that he himself received such a large amount, Cicero asserts that Antony had 'better luck in this area', which implies that he received more bequests than Cicero (*Philippic* 2.16.40). Pliny the Younger also refers to receiving a legacy from an acquaintance (*Letters* 5.1). Augustus personally benefited from many legacies: as has been noted, Horace named 'Augustus as his heir' to his entire estate; Maecenas too bequeathed Augustus everything, including his magnificent house and grounds on Rome's Esquiline Hill.[263] In his final two decades the emperor received fourteen hundred million *sesterces* in bequests (Suetonius, *Augustus*, 101). Indeed, he profited enormously, for, according to Keith Hopkins, the amount he received in bequests amounted to almost ten per cent of the total state revenue from the whole empire.[264]

Some Romans were even beneficiaries of complete strangers. Much of the fortune that Mark Antony was bequeathed, according to Cicero, came from people Antony did not know: Cicero details one Lucius Rubrius of Casinum, who disinherited his nephew and made Mark Antony his heir, despite having never set eyes on him (*Philippic* 2.16.41). Such a practice of gift giving in wills may not seem unusual and, as Richard Saller points out, it is pervasive in human cultures.[265] In the ancient world, the act of gift giving was particularly important; it is seen in the earliest

[263] See 78; Griffin asserts that Maecenas 'bequeathed the emperor everything, including his magnificent house and grounds on Rome's Esquiline Hill (2004, 439). Indeed, Dio Cassius records that Maecenas, 'left him (Augustus) as his heir' (55.7.5).

[264] Hopkins, 2006, 237.

[265] Saller, 1982, 123.

surviving works of Greek poetry, the Homeric poems.[266] Importantly, no one ever gave anything in the ancient world, whether goods or services or honours, without proper recompense, real or wishful, immediate or years away; the act of gift giving was always the first half of a reciprocal action, the other half of which was a counter-gift.[267] Thus, a gift rendered the recipient indebted, and so, set in motion a reciprocity mechanism. In the Roman world, this act of gift giving forms the basis of legacy hunting whereby *captatores* initiate and perpetuate a friendship, particularly with someone without children, through the act of giving gifts and favours, in the belief that they will receive an inheritance in the future from that person. What makes the practice exceptional in Roman society is the fact that legacies made important contributions to people's fortunes; many were afforded a wealthy standard of living as a result. Such opportunity to make significant financial gain encouraged some within Roman society to actively search for legacies, particularly from old, wealthy people and use various tactics to ensure they were added as a beneficiary.

There are numerous incidents noted in Roman literature in which the practice of hunting for legacies is mentioned. Pliny the Younger notes three occasions in one of his *Letters* when Regulus, who was of aristocratic background and patron of Martial, deliberately pursued people to benefit upon their death.[268] In the first instance, Pliny notes that Regulus worms his way into the affections of the widow Verania, whom he visits on her death-bed. 'What impudence' he writes, as Regulus had been Verania's late husband, Piso's, 'deadly enemy and she hated the sight of him' (Pliny, *Letters* 2.20). Then, Pliny notes another occasion when Regulus courted Velleius Blaesus, 'a well-known ex-consul and rich man' on his death-bed, and 'implores the doctors to prolong' his life so that he could change his will (*Letters* 2.20). Finally, Pliny notes Regulus turning his attention to one noble lady Aurelia who, at the signing of her will, 'forced her' to leave her clothes to him (*Letters* 2.20). According to Pliny, Regulus had risen out of 'poverty and obscurity' to such great wealth that he had bragged to

[266] Homer, *Iliad*, 6.215–220; Homer, *Odyssey*, 4.589–591 & 24.271–279.

[267] Finley, 2002, 63.

[268] Pliny, *Letters* 2.20; Marchesi, 2013, 102.

Pliny that it would not be long before he would be worth sixty million *sesterces*.[269] Regulus is portrayed as particularly unscrupulous: it was the 'kind of scandalous thing' Regulus 'always' did; indeed, in other *Letters,* Regulus is depicted in a particularly negative way.[270] Regulus was Pliny's main adversary in the Centumviral court, which probably accounts for Pliny's invective tone.[271] Nonetheless, legacy hunting was allegedly extremely profitable for Regulus.

Crucially, it seems that many others made a living out of hunting inheritances. Seneca the Younger names Arruntius and Haterius as legacy hunters and states that many follow the same 'art' (*On Benefits* 6.4). In Roman satire, Martial refers to one Mancinus, who boasted that he had 'come into a legacy of three hundred thousand and another hundred thousand this morning and another this afternoon' (*Epigrams* 4.61). He also mocks Africanus who had a 'hundred million' but still continued to fish for legacies (*Epigrams* 12.10). The amounts detailed may be overly exaggerated but the practice is seemingly so lucrative that some satirists humorously suggest that one should give up their regular job in favour of *captatio*: Petronius wrote that 'if you are a businessman, change your plans' for if you 'can lie incessantly, you are running straight on the road to riches' (*Satyricon* 116). Notably, Martial asserts that he himself acts as a *captator* and that he has several potential benefactors: in one instance he asserts that he showered one, Charinus, with gifts and money with the hope of gaining a bequest in Charinus' will (*Epigrams* 5.39). In another of his *Epigrams*, Martial claims that he has been promised by Garricus a quarter of his estate upon his death; thus, he continually sends gifts, one of which was a large Laurentian boar.[272] Furthermore, Martial feigns friendship and adulation with

[269] Pliny, *Letters* 2.20. To add some context to how lucrative this was for Regulus, the monetary qualification to become a senator was 1,000,000 *sesterces* and a knight 400,000 *sesterces* (Hopkins, 2012, 198–208; Temin, 2013, 73).

[270] Pliny, *Letters* 1.5; 1.20; 2.11; 2.20; 4.2; 4.7; 6.2.

[271] Marchesi, 2013, 102; Gibson & Morello, 2012, 31. The *centumviri* was a special civil court at Rome and whilst the jurisdiction of the court is obscure, it is known that it did cover claims concerning inheritances (Nicholas, 2012).

[272] Martial, *Epigrams* 9.48. In the ancient world, Laurentian was a forest situated along the coastline of Latium from Ostia to Antium (Tilly, 1974, 12).

Pontilianus in an attempt to get written into his will and he notes two other instances where he is hoping for a bequest.[273] Petronius and Martial dramatise the rewards of legacy hunting for comic effect and there is a strong moralising tone. Nonetheless, the other evidence from Pliny the Younger and Seneca the Younger suggests that some may well have earned a living as *captatores*; for a few it may have been very lucrative.

One of the earliest references to the practice is found in Lucilius, the man considered the first Roman satirist. Unfortunately, his work, *Satires*, only survives in fragments, either in isolated lines or small verses.[274] In one piece which has the tagline '*Damnare* means to disinherit', he refers to

> *Cassius Gaius hic operarius, quem Cephalonem*
> *dicimus, sectorem furemque; hunc Tullius Quintus*
> *index heredem facit, et damnati alii omnes*
>
> Gaius Cassius, an odd-job man whom we call Cephalo,
> this cut-purse and thief. Him, does Quintus Tullius
> the betrayer make the heir, and all the others lose their cases
> (Lucilius, *Satires* 11.445–447).

With such little evidence, it is difficult to understand the context, but it is clear that Lucilius criticises Quintus Tullius for making an odd-job man, Cephalo, the heir and disinheriting everyone else. Further, there seems to be a sinister undertone: Lucilius' disparaging description of Cephalo as a 'cut-purse and thief' suggests that he pressurised or possibly deceived Quintus Tullius into making him the heir. Quintus

[273] Martial, *Epigrams* 12.40. The 2 other instances where Martial hopes for a bequest are *Epigrams* 11.67 & 12.73.

[274] Coffey & Manuwald, 2012.

Tullius is referred to by Lucilius, as 'the betrayer' (*index*).[275] Lucilius was a personal poet who wrote scathing satire, often attacking his enemies by name, in very much the same way as Catullus.[276] In this instance, Lucilius seems to be attacking Quintus Tullius for betraying the rightful heirs by disinheriting them and leaving everything to Cephalo. That said, in another version of this text, the manuscript reads *iudex* rather than *index*, which translates as 'judge' which does not seem to be quite so offensive.[277]

On this occasion, the rightful heirs were disinherited, something that happened in ancient Rome.[278] Indeed, it seems that Pliny the Younger was a recipient of a legacy following the disinheritance of a son. Pliny refers to receiving a legacy from one Pomponia Galla who disinherited her son Asudius Curianus and divided her estate between Pliny, an ex-praetor Sertorius Severus and several distinguished Roman knights (*Letters* 5.1). The letter goes on to reveal that the son then requested an inquiry into his disinheritance, of which Pliny was one of the three judges; the judgement was that the mother had just reason for disinheriting her son. Subsequently, Asudius Curianus brought a criminal charge against the heirs, although not Pliny.[279] Before the case reached court the heirs asked Pliny to intervene and speak to Curianus on their behalf to reach an out of court settlement. It is not clear how the case was resolved or whether the heirs relinquished their legacies.[280] What is clear is that the disinherited son had a right of appeal through

[275] Lucilius, *Satires* 11.447; Eric Warmington has translated *index* as 'the informer', although equally it could translate as 'the betrayer' (OLD, s.v. *index*).

[276] Hooley, 2007, 71; Coffey & Manuwald, 2012.

[277] Lucilius, *Saturae* 11.424; OLD, s.v. *iudex*.

[278] Fathers had the power to disinherit children with good cause (Saller, 1994, 119; Hopkins & Burton, 2006b, 77; Garnsey & Saller, 2015, 160).

[279] Pliny, *Letters* 5.1. Notably, a disinherited child could bring an action for an 'undutiful will' (*Digest* 5.2.3).

[280] What is recorded by Pliny is that he offered Curianus a sum of money equivalent to the share he was left by Curianus' mother, to negotiate with the other heirs. Such an offer must have been accepted by Curianus as there is no mention of the case going to court; indeed there must have been a satisfactory outcome for Curianus as he subsequently repays Pliny by leaving him a legacy upon his own death (*Letters* 5.1).

the courts. Notably, he was not the only one to bring such an appeal.[281] What the case shows is that acquiring legacies from those with children was not always straight forward: those who acquired a bequest could be brought to court by rightful heirs who had been cut off and face criminal charges.

Captatio and the Childless

A better approach, it seems, and especially one where the possibility of landing in court facing criminal charges was ruled out, was to hunt legacies from those who did not have children. Moreover, Hopkins asserts that the childless could best afford to disperse their estates widely.[282] Indeed, evidence reveals that they were the prime focus for those hunting an inheritance: Cicero notes that those hoping for a legacy befriend rich old men without children (*Stoic Paradoxes* 5.39). Catullus, in one of his long poems, briefly notes how hunters curried favour with those who were childless but soon disappeared if, by chance, an heir was born. He writes

> *una caput seri nata nepotis alit,*
> *qui, cum divitiis vix tandem inventus avitis*
> *nomen testatas intulit in tabulas,*
> *impia derisi gentilis gaudia tollens*
> *suscitat a cano vulturium capiti*
>
> of late-born grandson nursed by an only daughter,
> who, lighted on at long last for grandfather's fortune,
> His name inserted in the witnessed will,
> Ends the ungodly joy of a fooled distant kinsman
> And shoos the vulture from the white-haired head (Catullus, 68.120–124).

[281] Cicero notes a relative who was disinherited in a will in favour of a stranger and brought such action to court (*In Defence of Cluentius* 59.162). Pliny also refers to one Attia Viriola who sued for her patrimony (*Letters* 6.33).

[282] Hopkins, 2006, 240.

The image of the legacy hunters as vultures circling the white-haired man as their prey, waiting in anticipation for death and the ability to feast on his will, is menacing. With the use of such imagery, Catullus is criticising legacy hunters and portraying those who are elderly and childless as vulnerable. Then, when the old man finally becomes a grandfather, the new grandson's name is 'inserted in the witnessed will' and as a result, the vulture, the legacy hunter, is 'shooed' away. The legacy hunters quickly recede, presumably to hunt out another testator.

Horace dedicates a whole poem to the practice of befriending and courting wealthy childless people in the hope of acquiring a legacy. In *Satires* 2.5, Ulysses seeks the help and advice from the seer Tiresias on how to be wealthy. The poem takes the form of a light-hearted, humorous dialogue between the pair, and continues on from the famous scene in Homer's *Odyssey*, in which Odysseus, in the underworld, learns from the seer that he will return home to Ithaca but find an impoverished household, wrecked by the extravagance of the suitors (11.90–149). The hero, now the Romanised Ulysses, seeks to ascertain how he may become rich again and asks: 'tell me how I am to rake up wealth and heaps of money?' (Horace, *Satires* 2.5.22–23). The seer, Tiresias, then instructs Ulysses in the lucrative ways of inheritance hunting.

Firstly, Tiresias tells Ulysses to search for testators

> *captes astutus ubique*
> *testamenta senum, neu, si vafer unus et alter*
> *insidiatorem praeroso fugerit hamo,*
> *aut spem deponas aut artem illusus omittas*

> fish craftily in all waters for old men's wills and though one or two shrewd ones escape your wiles after nibbling off the bait, do not give up hope or drop the art (Horace, *Satires* 2.5.23–26).

The verb used by Horace, *capto*, can be translated as 'to seek to catch' and originally applied to bait-fishing and snare-hunting.[283] The metaphor is that of hunting or fishing, whereby the wealthy old men are the prey or fish, whilst the bait is the means by which to befriend such old men and eventually get hold of their inheritance.[284] Hunting was used in literature as a metaphor for the pursuit or capture of a lover, enemy or plan.[285] Therefore, in a similar vein, the metaphor is used in relation to capturing inheritances; the phrase, *captes testamenta*, which was first introduced by Horace, literally means 'to seek to catch wills' and later became the term used to describe legacy hunters who lured rich testators into their trap.[286] Such imagery, according to Champlin, is picked up and developed by subsequent Roman writers when discussing legacy hunting.[287] Importantly, later on in the poem, Tiresias' advice is to 'fish' for those who are both wealthy and especially, without children, rather than those who have a son at home or a fruitful wife (Horace, *Satires* 2.5.28–31).

Horace's fishing metaphor is somewhat different to Catullus' menacing metaphor of birds of prey circling a potential victim. The image of hunters fishing is more light-

[283] Hartmann, 2012, 606; Pan, 2020, 1; OLD, s.v. *capto*.

[284] Roberts, 1984, 428; Champlin, 1991, 87; Hartmann, 2012, 606.

[285] Mackinnon, 2014, 203.

[286] OLD, s.v. *captes testamenta*; Roberts, 1984, 428; Champlin, 1991, 87; Hartmann, 2012, 606

[287] Champlin, 1991, 87-88. Horace himself uses the same metaphor when referring to those 'with titbits and fruits' who try to 'net old men to stock their preserves' (Horace, *Epistles* 1.1.78–79). Seneca the Younger uses the same metaphor when referring to legacy hunting: he refers to one who sits at the bedside of a sick man because he is going to make a will, as a 'fisher for legacies', 'just dropping his hook' (*On Benefits* 4.20.3).

hearted. Horace's satire is quite mild in tone.[288] He 'rejects the venom of traditional satire'; his satires are never aggressive nor contemptuous; instead, he presents a more genial and jovial form of satire.[289] On the surface, it seems as if Horace is gently ridiculing legacy hunting, mocking those who seek to become heirs apparent by satirically laying down rules to guide them. That said, Tiresias specifically advises Ulysses to fish craftily (*captes astutus*). There is an undertone that the hunter needs to be unscrupulous and cunning. Odysseus had a reputation for being crafty and wily, so this behaviour is in keeping with what one would expect from him.[290] The necessity of being deceitful in a clever way is crucial in avoiding detection as a legacy hunter. Building on the tradition of the *Odyssey*, the trait fits with the character of Odysseus, but is adapted to Roman society. One cunning ploy recommended to Ulysses is that he should befriend someone who already has a child and heir, 'for fear open devotion to a childless man betray you' (Horace, *Satires* 2.5.47). Notably the advice is to befriend someone with a 'sickly son' in 'the hope that you may be named as second heir' (Horace, *Satires* 2.5.45–49). Loyalty to someone with a child masks the true intentions of being a legacy hunter. More so, if the child dies, Ulysses becomes the heir: 'and if some chance sends the child to his grave, you may pass into his place' (Horace, *Satires* 2.5.49–50). Thus, it seems to be a fool proof plan, as stated by Tiresias, 'seldom does this game fail' (Horace, *Satires* 2.5.50).

Legacy hunters were characterised as having to be quite devious in their behaviour towards the testator to befriend and win their trust. Their success, which is whether or not they receive an inheritance, relies on the ability to deceive the victim.[291] That is why the advice for the *captator* is to 'become his (the testator's) advocate'; to 'make common cause with them'; to 'praise them' (Horace, *Satires* 2.5.29–72). In general, Tiresias' advice is that the hunter charms the benefactor; that he shows

[288] Schlegel, 2005, 7.

[289] Gowers, 2012. This may be due to the times in which Horace was writing for, according to Gowers, at the end of the Republic, satire became more constrained; thus, Horace's *Satires* are a sensitive gauge of the political changes through which he lived (2012).

[290] Odysseus is described as cunning: 'he in his craftiness eluded me' (Homer, *Odyssey* 4.251).

[291] Roberts, 1984, 428.

great energy and enthusiasm for anything that the testator likes; better still, that he flatters them, pampers and indulges them (Horace, *Satires* 2.5.88–98). In the same vein, Cicero notes how legacy hunters need to pander to the testator in the hope of a legacy: one should make 'conversation when it suits him, execute all his commissions, follow him about, sit at his side', even 'make him presents' (*Stoic Paradoxes* 5.39). Petronius plainly notes that they need to be able to 'lie incessantly' (*Satyricon* 116).

In essence, the *captator* needs to do whatever it takes to gain affection with the testator, including, if required handing his wife over to a *scortator*: if 'he is a libertine (*scortator*), see that he has not to ask you', 'obligingly hand over Penelope'.[292] The comic effect is heightened because it is the virtuous Penelope who is being prostituted out. Importantly, the legacy hunter must not give up, the advice is to persevere and persist (Horace, *Satires* 2.5.39). There is a similarity here with a stock character originating from Greek comedy: the parasite (παράσιτος). Parasites attached themselves to social superiors for their own advantage, above all for free meals; in return they flattered or entertained their patron, ran errands and suffered much ill-treatment.[293] The subtle difference is that for parasites the benefit is acquired in the short-term, a free meal, whereas for *captatores*, the bequest is acquired in the medium to long-term, depending on how long the benefactor lives.

Notably, there is no sympathy for the testators on the part of Tiresias; his attitude is that they are gullible. As Michael Roberts points out, the typical old person does not seem to have a mind or will of their own; they are ciphers, nonentities, to be manipulated at will.[294] There seems to be a sense of disrespect for the testator; they are impudently described as bladders which need to be inflated with honeyed words and adulation: 'blow-up the swelling bladder with turgid phrases' (Horace, *Satires*

[292] Horace, *Satires* 2.5.75–76. *Scortator* translates as whoremonger or fornicator, which Fairclough has translated as libertine (OLD, s.v. *scortator*).

[293] McCarthy Brown, 2012.

[294] Roberts, 1984, 428.

2.5.98). The testators like the exaggerated flattery of the *captatores*. There are no morals in Tiresias' world and there is an element of contempt for the testator. Indeed, they are not portrayed as victims; instead, the image projected in the poem is that they are complicit in the practice by the very fact that they are easily duped or like the attention; a successful *captatio* relies not only on a cunning and persistent hunter, but also a complacent victim.[295]

That said, there is mention in the poem of some testators who are not so easily fooled: Coranus, leaves nothing to the hunter Nasica.[296] Specifically, there is the old woman of Thebes who seems to be introduced by Tiresias as an example of the need to act carefully with testators, because excessive zeal can have unpleasant consequences. Firstly, the woman is referred to as 'a wicked old crone', so, again, there is no respect for this testator, who, it seems, is quite an elderly woman. Tiresias then goes on to say that

> *ex testamento sic est elata: cadaver*
> *unctum oleo largo nudis umeris tulit heres,*
> *scilicet elabi si posset mortua; credo,*
> *quod nimium institerat viventi*
>
> by the terms of her will, was buried thus: her corpse,
> well oiled, her heir carried on his bare shoulders.
> She wanted, of course, to see whether she could give him the slip when dead. I suppose,

[295] Roberts, 1984, 427.

[296] The story, according to Fairclough, is now obscure but would have been familiar to the readers of Horace's own day; it is as follows: Nasica probably owed money to Coranus and gave him his daughter in marriage hoping that the son-in-law would, in his will, free him from his debt (the implication is that the son-in-law was older than the father-in-law). Of course, Horace's satire tells the reader that this turned out not to be the case (Horace, *Satires,* 2.5.64–69; Fairclough, 1926, 204–205 (footnote a)).

> when she was living, he had borne too hard upon her (Horace, *Satires* 2.5.85–87).

The old woman of Thebes clearly was aware of the hunter's intentions and took revenge after death by imposing such an unpleasant condition on her *captator*: that of carrying her dead body on his bare shoulders having presumably been embalmed in oil. As Roberts states, she sought literally to slip away.[297]

Horace's reference to legacy hunting, on the surface, looks to be a light-hearted take on the custom, but there is a sense that the practice is being projected as immoral, for the hunters are unscrupulous and resort to cunning tactics to gain an inheritance. Roberts argues that it paints a squalid picture of Roman society which contrasts starkly with the epic Greek backdrop in which it is set.[298] Alternatively, Heather Woods argues that Horace makes epic and in particular Odysseus funny by mixing Greek epic with comedy.[299] Horace's poem provides a rich setting and emphasises how the trait that was useful for the Greek hero Odysseus is now an essential element in what seems to be a wholly Roman activity.

Over half a century later Martial, in one of his *Epigrams*, also satirically interconnects legacy hunting and the childless. In this instance, the legacy hunter, Lupus, urges the testators to have children whilst secretly hoping that they do not take his advice; Lupus embodies the duplicitous tactics *captatores* will resort to in order to get a bequest (Martial, *Epigrams* 11.55). Indeed, Martial refers to such tactics as 'the art of legacy hunting' (*Epigrams* 11.55). Statius, writing around the same time as Martial, also associates the custom with those who are childless. In one of his poems, he urges Romans to 'avoid childlessness with every effort' for it attracts 'unfriendly heirs' and 'greedy survivors' who do not shed tears at the funeral. (Statius, *Raw Material*

[297] Roberts, 1984, 427.

[298] Roberts, 1984, 432.

[299] Woods, 2012, 44.

4.7.34–40; translation by Shackleton Bailey, with minor modifications). The implication is that these ‘unfriendly heirs’ and ‘greedy survivors’ are legacy hunters.

Juvenal, in his *Satires*, suggests that *captatores* do not waste any time on those with children; instead, they concentrate all their efforts on those who are childless. He discusses the sacrifices that are made by hunters in the hope of gaining an inheritance. He asserts that no sacrifices are ever made to those with children, whereas those who are wealthy and childless have many sacrifices made on their behalf

> *tam sterili; verum haec nimia est inpensa, coturnix*
> *nulla umquam pro patre cadet. sentire calorem*
> *si coepit locuples Gallitta et Pacius orbi,*
> *legitime fixis vestitur tota libellis*
> *porticus, existunt qui promittant hecatomben*
>
> No-one ever kills even a quail for a man with children.
> If wealthy and childless Gallitta and Pacius have a hint of fever, the entire colonnade is clothed in petitions stuck up in the proper way.
> There are people who will promise a hundred oxen
> (Juvenal, *Satires* 12.96–101).

Juvenal overstates the lengths some legacy hunters will go to, in order to gain a bequest: if some have ‘an Iphigeneia of marrying age at home’ they will ‘offer her too on the altar’ that a ‘thousand ships are nothing compared with a will’.[300] Juvenal’s satirical use of the epic Greek poem the *Iliad* and the suggestion that *captatores* would sacrifice their own daughters in the hope of an inheritance, is exaggerated and sarcastic. Most satire overemphasises something for comic effect. Here, Juvenal

[300] Juvenal, *Satires* 12.119–122. Iphigeneia was the daughter of Agamemnon who was sacrificed by her father at the start of the Trojan war. In some versions of the myth she is killed, but in other versions she is saved by the goddess Artemis (March, 2014, 268–269).

takes things further: he dramatically exaggerates the custom of legacy hunting and the lengths some *captatores* will go to in order to gain a bequest. Juvenal's satire, is, as Hooley argues, a 'genre characterised by big, dramatic effects, setting out to please a large audience.[301] In particular, there seems to be an underlying sneering and acerbic tone. Juvenal adopts, as Emily Gowers asserts, a posture of savage indignation.[302] Nevertheless, the point is that some hunters will go to great lengths to get an inheritance from someone wealthy and childless.

Poetry, and in particular satirical poetry, from the late Republican era through to the early second century dramatises wealthy childless people as prey for *captatores*. Certainly, those who were childless were warned to be wary of friendships that they had made since acquiring any fortune.

> *Orbus es et locuples et Bruto consule natus:*
> *esse tibi veras credis amicitias?*
> *sunt verae, sed quas iuvenis, quas pauper habebas.*
> *qui novus est, mortem diligit ille tuam*
>
> You are childless and rich and born in Brutus' consulship. Do you believe you have true friendships? You do have them, but only those you used to have when you were young and poor. Any one of your new friends is fond of your death (Martial, *Epigrams* 11.44).

In particular, they were advised to beware of anyone who continually bestows gifts or praise on them for they may be after an inheritance: 'he who with persevering devotion confers his bounty's benefits on one who will perceive them, may be fishing for a legacy' (Martial, *Epigrams* 8.38).

[301] Hooley, 2007, 115.

[302] Gowers, 2012.

Whilst the majority of evidence is found in satirical literature, there is also historiographical evidence of legacy hunters who targeted wealthy old childless people for bequests. Tacitus refers to a Roman senator Publius Suillius (early first century CE), quaestor of Germanicus' (*c.*15 BCE–19 CE) who, allegedly acquired a vast fortune from legacies and usury: 'within four years' Suillius had acquired 'three hundred million *sesterces*' (*Annals* 13.42). Tacitus notes that, in Rome, Suillius specifically targeted those without children: 'his nets were spread for the childless and their testament' (*Annals* 13.42). In the same vein as Horace, and as Champlin has pointed out, the fishing metaphor is picked up and developed by subsequent Roman writers when discussing legacy hunting, for Tacitus uses 'nets' to symbolise the practice of searching for fortunes.[303] Thus, there was social discourse surrounding *captatio*, across different genres of literature, during the late Republic and early imperial era. More importantly, the discussion suggests that those targeted were, most often, childless, which draws attention to the issue of childlessness. This, in turn, enhanced and perpetuated the perception that childlessness was a cause for concern in Roman society.

Childless, yet Powerful

In some instances, as targets of the *captatores,* the childless have been portrayed as vulnerable victims. However, Horace suggested that testators shared some of the blame for the custom, because they were either easily duped, or that they liked the adulation from *captatores*. The implication is that those who were rich and childless courted the attention of hunters for gain. The rewards that elderly people could acquire are seen in Roman society from as early as the third century BCE. The Roman playwright Plautus, writing *c*.200–*c.*184 BCE, refers to elderly people being courted and rewarded (*The Braggart Soldier* 705–715). An old man in the play, Periplectomenus, notes that 'they sacrifice and bring me the innards'; 'they invite me to lunch and dinner'; 'they look after me' and 'visit me to see how I am' (Plautus, *The Braggart Soldier* 707–712). The potential heirs, it seems, go to great lengths and

[303] Champlin, 1991, 87–88.

compete amongst each other with their gifts in the hope of receiving an inheritance: ‘they’re staring at my possessions with mouths wide open; they’re cherishing me and giving me gifts as if it were a competition’ (Plautus, *The Braggart Soldier* 713–715).

There is further evidence, in Petronius’ *Satyricon,* that some wealthy childless people courted attention from *captatores*, particularly for favours and gifts; notably, they revelled in their power to do so. In the seventh and final episode of the novel, Encolpius and Giton travel to Croton with Eumolpus, an aged, impoverished poet. Petronius’ Croton is a place with many wealthy people and many legacy hunters. The ‘men you will see in this city are divided into two classes: those who are hunted for their fortunes and the legacy hunters themselves’ (Petronius, *Satyricon* 116). During the life of Petronius, Croton was a Roman colony, having originally been a Greek colony, and was virtually uninhabited in the first century.[304] Nevertheless, it had been a place of great wealth and luxury, flourishing in the seventh and sixth centuries BCE.[305] Even though it shares its name with an authentic Italian city, Petronius’ Croton is a literary construct. It is a ‘hyper-realistic’ city because it is produced by the literary illusion of reality; it arises not directly from reality but from an idea of realism.[306] Petronius takes a real place which, in earlier times to his writing, had many prosperous people so that his ancient audience understood the wealth of the city.

Croton is further described in the novel as a place where

[304] In a footnote in his translation of the *Satyricon*, Schmeling notes that Croton was virtually uninhabited by the first century CE (2020, 327).

[305] Lomas, 2012; Santacroce *et al*, 2019, 500. Pythagoras migrated to Croton and founded a society that bore his name (Santacroce *et al,* 2019, 500). According to William Smith, Croton seems to have rapidly risen to great prosperity (1854, 266). Indeed, in the *Satyricon* it is described as ‘a very old city and once the foremost in Italy’ (Petronius, *Satyricon* 116).

[306] Teixeira *et al*, 2008, 46.

> *nemo liberos tollit, quia quisquis suos heredes habet, non ad cenas, non ad spectacula admittitur, sed omnibus prohibetur commodis, inter ignominiosos latitat.*
>
> no-one raises children because whoever has his own heirs is not invited to dinners nor admitted to public performances, but he is deprived of all advantages and is hidden away among the people who live in disgrace (Petronius, *Satyricon* 116).

Significantly,

> *qui vero nec uxores umquam duxerunt nec proximas necessitudines habent, ad summos honores perveniunt, id est soli militares, soli fortissimi atque etiam innocentes habentur.*
>
> those who have never taken wives and have no close relatives reach the highest positions: they alone are regarded as men having the qualities of soldiers, they alone are courageous and even blameless (Petronius, *Satyricon* 116).

Petronius satirises Croton as a place where those who are respected and, more importantly, excel, are without natural heirs; thus, there are benefits to be gained from being childless.

In the story, Eumolpus decides to take advantage of the generosity of legacy hunters, by posing as a childless, sickly man of wealth. In contrast to Horace's satire, where Ulysses is advised to court the rich to gain reward, Eumolpus devises a scheme of getting rich on the benefits and gifts doled out by legacy hunters. He pretends to be a very rich, childless man who has been shipwrecked and is awaiting new ships that are bringing some of his money and slaves; his travelling companions Encolpius and Giton are to act as his servants (Petronius, *Satyricon* 117). To make

the ruse more credible, and give the impression to the *captatores* that Eumolpus may not be long for the world, he is told

> *plurimum tussiat, ut sit (modo astrictioris) modo solutioris stomachi cibosque omnes palam damnet; loquatur aurum et argentum fundosque mendaces et perpetuam terrarum sterilitatem; sedeat praeterea quotidie ad rationes tabulasque testamenti omnibus (astantibus) renovet. et ne quid scaenae deesset, quotienscumque aliquem nostrum vocare temptasset, alium pro alio vocaret, ut facile appareret dominum etiam eorum meminisse qui praesentes non essent.*

> to cough a lot, to suffer from constipation at one time and the next time diarrhoea and to complain openly about all his food. He was to talk about gold and silver, about farms which had not met expectations and about the continued unproductivity of the soil. Moreover, every day he was to sit and work at his accounts and revise the terms of his will in front of everyone. To make the scene on the stage complete he was to call us by the wrong names whenever he tried to summon any one of us to make it abundantly clear that our master was also thinking of slaves who were absent (Petronius' *Satyricon* 117).

Indeed, on entering Croton, the trio of characters are quickly met by a crowd of legacy hunters, and the group implement their ruse (Petronius, *Satyricon* 124). Upon hearing the story, the *captatores* then compete to win favour with Eumolpus in order to gain a bequest: 'all the legacy hunters vied to win Eumolpus' favour by offering him gifts' (Petronius, *Satyricon* 124).

However, Croton is also portrayed as a place 'in which there is nothing other than corpses being torn to pieces and crows doing the tearing' (Petronius, *Satyricon* 116). Here again, the scavenger metaphor is used in relation to legacy hunting: Petronius describes *captatores* as crows feasting on the carcasses of the old, wealthy, childless. This parallels Catullus' description of legacy hunters as vultures, birds of prey, feasting on the remains of the dead. Along with the fishing metaphor, such a

poetic technique is used throughout Roman literature in relation to legacy hunting.[307] Crucially, such symbolism darkens the mood of this section of the novel and creates a picture of a city that is sinister and ruthless, where one should be especially vigilant. Indeed, Encolpius worries that their ruse may be found out and that they will be hounded out of Croton.[308] Nevertheless, the ploy works; Eumolpus is given vast amounts of money, which he shares with Encolpius and Giton. Such deception and gift giving continues for 'a long time' according to the story, so much so that Eumolpus was 'flushed with success' and that he, Encolpius and Giton 'could act with impunity if they committed any wrongdoings in the city' (Petronius, *Satyricon* 125). This implies that it is not only money, gifts and favours that a benefactor could be guaranteed, but also influence, in this instance immunity from criminal prosecution; the advantages were enormous.

The benefits that childless people could expect are not only dramatised in Roman comedic and satirical literature. Seneca the Younger professes the benefits of being childless in some of his philosophical works. He asserts that

> *in civitate nostra plus gratiae orbitas confert quam eripit, adeoque senectutem solitudo, quae solebat destruere, ad potentiam ducit, ut quidam odia filiorum simulent et liberos eiurent, orbitatem manu faciant.*

> in this city of ours childlessness bestows more influence than it takes away, and the loneliness that used to be a detriment to old age now leads to so much power that some old men pretend to hate their sons and disown their children, and by their own act make themselves childless (Seneca, *Consolations to Marcia* 19.2–3).

[307] Seneca the Younger also uses the metaphor when discussing legacy hunting (*On Benefits* 4.20.3).

[308] Encolpius worries that 'some cunning legacy hunter sends an investigator to Africa and finds out about our lies' which would mean they would have to flee (Petronius, *Satyricon* 125).

This philosophical, consolatory work takes the form of an essay, but it is a personal correspondence to Marcia, the daughter of A. Cremutius Cordus following the death of her son.[309] It must be noted that, because Marcia has lost her child, Seneca could well be overemphasising a point to offer some comfort for Marcia's tragic situation. In the same way that satire exaggerates for comedic effect, Seneca elaborates out of sympathy. Nevertheless, as is the case with satire, there must be some truth in the reference, or the point would be rendered moot. Indeed, Seneca refers to the benefits of being childless and the leverage that brings in another of his works. He notes that 'any rich man' 'wields the power conferred by a childless old age' (Seneca, *On the Firmness of the Wise* 6.1). The power and influence that one gained from being childless is also reiterated by Tacitus. He notes one Roman who has many visitors to his house because of his reputation, rather than his wealth, or the fact that he did not have children, or the fact that he held some high-ranking office, thereby suggesting that these are the usual reasons which attract attention (Tacitus, *A Dialogue on Oratory* 6.2). The wealthy childless were portrayed in Roman literature as esteemed and that many people sought their company. Elite people without children, were, it seems, able to extend their networks and widen one's circle of influence.[310]

The rich and childless could expect many advantages from legacy hunters, which often led to *captatores* competing with others in the hope of a bequest. Such competition meant that there was an enormous amount of pressure on *captatores* to give as much as they could; so much so that Cicero suggests that those obsessively seeking an inheritance are, to an extent, enslaved by the benefactor to continually offer benefits (*Stoic Paradoxes* 5.39). Moreover, such gifts may well have been expensive for there is evidence of the types of gifts that one could expect as a benefactor. Testators could, and should, expect the best wine: 'let not Caecuban vintage nourish only the childless' (Martial, *Epigrams* 6.27). Caecuban and Falernian

[309] Reynolds *et al*, 2012.

[310] Hartmann 2012, 619; Pan, 2020, 3.

wines were considered to be the best.[311] Some *captatores* offered free rent as a way of wooing a bequest from a benefactor: ‘nobody lives in your house free of charge unless he is rich and childless’ (Martial, *Epigrams* 11.83).

Such gift and favour giving would have placed huge financial burden on *captatores*, particularly when a testator lived to old age. Martial claims to be in a state of poverty as a result of sending one of his potential benefactor’s cakes; although they were seemingly expensive cakes.[312] Such generosity, according to Martial, has meant that he has ‘emptied’ his ‘cashboxes’ and his ‘purse’ (*Epigrams* 5.39). He professes that he had been as rich as Croesus (*c.*560–546 BCE), but now is as poor as Irus, the Ithacan beggar in the *Odyssey*.[313] As a result of his apparent impoverished state, Martial simply wants his benefactor to hurry up and die, in order for him to acquire his bequest: ‘do once and for all what your mendacious cough continually promises’ (*Epigrams* 5.39).

Captatores were completely at the mercy of benefactors regarding the value of any bequest and indeed whether they received a legacy at all. Any legacy they hoped for could be reduced or potentially removed due to the benefactor changing their will. Certainly, Martial ridicules one of his potential benefactors, Charinus, for continually changing his will: ‘you seal your testament thirty times a year’, despite Martial sending him his expensive cakes (*Epigrams* 5.39). There may be several reasons why someone may alter a will: it may be that their estate is diminishing in value which warrants a change in bequests; the benefactor could be adding or removing inheritors; or possibly altering the share of the estate some will get, based on the gifts or favours they receive. Whatever the reason for alteration, the potential legacy for the hunter is completely subject to the whims of the testator. *Captatores* needed

[311] Thibodeau, 2016, 527. Pliny the Elder considers Caecuban the best wine, above Falernian (*Natural History* 14.8.61–62).

[312] Martial, *Epigrams* 5.39. The cakes are freshly made with thyme from Sicily: Hybla thyme. Hybla is the name of no less than three cities of Sicily which are often confounded with each other (Smith, 1854, 1099–1100).

[313] Homer, *Odyssey* 18.25; Martial, *Epigrams* 5.39; March, 2014, 270.

to continue with their gifts and favours with only the hope of receiving a reward. They were, as Alisia Pan states, 'trapped'.[314] In this case, the continued adjustment antagonises the *captator*, Martial, who possibly fears his bequest may be being reduced.

There is evidence of an estate which allegedly diminished. This was the case for Scaevinus, one of the alleged conspirators of the failed Pisonian plot of 65 CE which sought to assassinate Nero, whose wealth purportedly decreased.[315] According to Tacitus,

> *tabulas testamenti saepius a se et incustodita dierum observatione signatas. Pecunias et libertates servis et ante dono datas, sed ideo tunc largius, quia tenui iam re familiari et instantibus creditoribus testamento diffideret.*

> the tablets of his will he had quite often signed and without taking any particular notice of the days. He had previously made grants of money or freedom to his slaves, only at that time he was more generous, now because in reality his means were now slender and with his creditors pressing he had misgivings about his will (*Annals* 15.55; translation by Jackson, with minor modifications).

In some satirical literature testators were portrayed as wealthy, with the intention of gaining gifts and favours, but were possibly not, in reality, that rich. Juvenal refers to Aurelia who sells the gifts that she receives from fortune hunters, presumably because she needs the money (*Satires* 5.98). In another instance, Martial refers to Bithynicus who 'used to give six thousand a year' to Fabius, but upon Fabius' death was only left 'six thousand a year' (*Epigrams* 9.8). Bithynicus was no better off and

[314] Pan, 2020, 4.

[315] Malitz, 2005, 82.

thus gained no real advantage from hunting Fabius and showering him with his money. Testators exploited *captatores* for their own gain. There is further evidence that some testators may have feigned being close to death in order to extract benefits. Seneca the Younger, in one of his philosophical and moral essays, ponders 'how many men sham sickness for the purpose of exciting the greed of the legacy hunters?' (*On the Shortness of Life* 7.7).

It is apparent that legacy hunters duped testators with their flattery, charm and giving of gifts and favours to ensure a bequest, whilst testators could dupe *captatores* for their own benefit. Legacy hunting, as Elke Hartmann says, was some kind of game: the hunter's goal was to secure a large sum of money as quickly as possible, making gestures such as paying a visit to the testator and showering them with gifts; whilst the testator's goal was to receive a great deal of attention and live as long as possible.[316] Yet it was a game that was only lucrative for *captatores* on receipt of a generous bequest, which was not in any way guaranteed.[317] On the other hand, even allowing for exaggeration on the part of the satirists, testators could benefit significantly, immediately, and continually, in the form of adulation, favours, gifts and influence. Those who were wealthy and childless were characterised as wielding a considerable amount of power over *captatores* which, in turn, created an impression that some voluntarily remained childless.

Intergenerational Legacy Hunting and Women Testators

Along with adulation, favours and gifts, there is specific mention in Petronius' *Satyricon* of young captatores providing sexual gratification to old, wealthy benefactors in the hope of gaining a bequest. Petronius refers to one Philomela, who 'by exploiting the advantages of her youthful sexual allure had often managed to wring out a great many legacies' (*Satyricon* 140). Philomela, it seems, prostituted herself in order to gain bequests. However, now older, and with little attraction to

[316] Hartmann, 2012, 622.

[317] The notorious legacy hunter Regulus courted Velleius Blaesus, a well-known ex-consul and rich man but received nothing (Pliny, *Letters* 2.20).

tempt the men, Philomela uses her children instead to court the elderly. Petronius writes

> *tum anus et floris extincti, filium filiamque ingerebat orbis senibus, et per hanc successionem artem suam perseverabat extendere.*

> but now that the bloom was off the rose and had withered, she imposed her son and daughter on childless old men, and by this use of the next generation, continued to practice her trade (*Satyricon* 140).

In this instance, Philomela, as a young attractive woman, had intergenerational sexual relationships with old men in the hope of a financial reward; when she was older and not so alluring, she encouraged both her son and daughter to do the same.

In Roman satirical literature, attention is paid to intergenerational relationships with a view to acquiring a legacy. More so, the focus is on young men with old, or at least older, wealthy women. Martial refers to one young male *captator* who is expected to provide sexual favours to his older rich female benefactor.

> *Languida cum vetula tractare virilia dextra*
> *coepisti, iugulor pollice, Phylli, tuo.*
> *iam cum me murem, cum me tua lumina dicis,*
> *horis me refici vix puto posse decem.*
> *blanditias nescis: 'dabo' dic 'tibi milia centum*
> *et dabo Setini iugera certa soli;*
> *accipe vina, domum, pueros, chrysendeta, mensas.'*
> *nil opus est digitis: sic mihi, Phylli, frica*

> When you start stroking my slack parts with your ancient hand, I am slaughtered by your thumb, Phyllis; and when you go on to call me 'mouse' or

> ‘light of my eyes’ I hardly think I can recover in ten hours. You don’t know how to cajole. Say, ‘I’ll give you a hundred thousand and I’ll give you some reliable acres of Setine soil; take wine, a house, boys, gold-inlaid dishes, tables’. No need for fingers: that’s the way to rub me, Phyllis (Martial, *Epigrams* 11.29).

The *Epigram* is told from the perspective of the male legacy hunter courting an older woman, Phyllis. Martial mentions a Phyllis several times in his *Epigrams* and crucially often within the context of sex.[318] Phyllis was a common name among sex workers in the ancient world.[319] Thus, it can be deduced that here again, Phyllis is pursuing sex. Notably, the name, Phyllis, derives from the Greek φύλλα meaning ‘leaves’ and has connotations of lushness and freshness.[320] Martial, in this sense, uses the name as a pun on this connotation, for Martial, Phyllis is old: she has an ‘ancient hand’. As a result of her age, the narrator, the *captator*, is seemingly repulsed by the idea of a sexual relationship: ‘I am slaughtered by your thumb’. Nevertheless, the young *captator* can be aroused when he knows that he will be receiving money, or some gift of considerable value.

In contrast to legacy hunters using their sexual allure to extract an inheritance from old benefactors, in this instance, the implication is that the wealthy, older woman uses her fortune to exact sexual favours from a younger man. In another of his *Epigrams* Martial again refers to an old woman trying to procure sex from a younger man.

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[318] ‘When two had come to Phyllis of a morning to fornicate’ (Martial, *Epigrams* 10.81); ‘Fair Phyllis had given herself to me all night long, generously in every way’ (Martial, *Epigrams* 12.65).

[319] Hartmann, 2012, 625.

[320] LSJ, s.v. φύλλα; OED, s.v. Phyllis. Phyllis, in Greek myth, was a Thracian princess who married either one of the sons of Theseus and Phaedra, Acamas, or Demophon. Her husband wished to return home and left Phyllis, who in grief hanged herself and was turned into a leafless almond tree. Some versions of the story have Demophon returning and, learning of his wife’s suicide and metamorphosis, put his arms around the tree in sorrow and kissed it. The tree subsequently burst into leaf, so leaves were ever after called *phylla* (March, 2014, 1–2).

Vis futui gratis, cum sis deformis anusque
res perridicula est: vis dare nec dare vis

You want to have free sex though you are an ugly, old hag
The thing is quite ridiculous: you want to give and not to give (Martial, *Epigrams* 7.75; translation by Shackleton Bailey, with minor modifications).

Martial implies that no-one would want to have sex with the old woman for pleasure; that she would need to give something in return for sex. The suggestion is that *captatores* are looking for bequests.

In a similar vein, Juvenal, in his *Satires*, specifically refers to younger men seducing older women using sex for a share of their estate. He refers to being 'shoved out of the way by men who earn legacies by night work, men who are raised to the skies by what is now the royal road to highest advancement – a rich old woman's snatch' (Juvenal, *Satires* 1.37–39). Furthermore, this is an implication by Juvenal that some women had several lovers who were legacy hunters and that the best lovers were more likely to gain higher bequests. Juvenal notes that 'Proculeius gets one-twelfth but Gillo eleven-twelfths: each heir gets a share of inheritance to match his performance' (*Satires* 1.40–41). As well as showering benefactors with adulation and gifts, young *captatores* used their sexual allure to court wealthy Romans, with the hope of an inheritance.

Martial and Juvenal caricature these wealthy older Roman women as licentious, in contradiction to how they were expected to behave within their society. In Roman culture the ideal woman was expected to be 'chaste'; 'female sexual initiative was associated with wickedness'.[321] In addition, as has been shown in the previous

[321] Dixon, 2007, 33–37.

chapter, the *lex Julia de adulteriis coercendis,* enacted along with the marriage law in 18 BCE, made adultery a criminal offence for the first time.[322] Thus, legislation criminalized Roman women who were caught having intercourse outside marriage; women were not meant to have sexual desires other than within marriage. These wealthy women in Martial and Juvenal are characterised as inverting the sexual norms of Roman culture.[323] Moreover, these older women might be menopausal women and therefore free from the threat of an unwanted pregnancy, which would highlight an adulterous affair. Women could, in some instances, be sexually active without fear of any reprisals.

However, such portrayal of older women may be a satirical trope: according to Dixon, women's sexual behaviour was introduced into appropriate genres to serve specific purposes: in the context of satire, it was to create humour, social parody, moral *exempla* and gossip.[324] Older women were mocked or criticised as inappropriate sex-objects in some genres, yet they were revered in more serious prose genres, moral essays and epitaphs.[325] There is no overwhelming reason to read one view as the true one, according to Dixon.[326] In addition, according to Dixon, whilst women, as a collective, were not accorded the same relative sexual freedom of their male equivalents, 'control mechanisms were weak in the late Republic and early imperial era and seem to have been regarded as options rather than moral imperatives'.[327] Thus, it can be reasoned that some older women may well have conducted adulterous affairs with younger men, although probably not to the extent satirists portray, which were ridiculed and mocked by satirical writers.

[322] *Digest* 48.5. See 57–58.

[323] Hartmann, 2012, 626.

[324] Dixon, 2007, 43.

[325] Dixon, 2007, 39.

[326] Dixon, 2007, 39.

[327] Dixon, 2007, 36. Dixon goes on to argue that divorce and prosecution for adultery seem to have been employed intermittently and half-heartedly (2007, 36).

Some of these older women may have been interested in something more than an affair. In another one of his *Epigrams,* Martial satirises Vetustilla, an old woman who seeks another husband.

> *Cum tibi trecenti consules, Vetustilla,*
> *et tres capilli quattuorque sint dentes,*
> *pectus cicadae, crus colorque formicae,*
> *rugosiorem cum geras stola frontem*
> *et araneorum cassibus pares mammas*
>
> you have three hundred consuls, Vetustilla and three hairs and four teeth with the bosom of a grasshopper and the leg and complexion of an ant. You bear a forehead more wrinkled than a stole and breasts like spiders' webs (Martial, *Epigrams* 3.93).

Seemingly, Vetustilla is considerably old, for Martial harshly exaggerates her life as covering 'three hundred consuls' and disparagingly describes her lack of hair and teeth.[328] Later on in the *Epigram*, the woman is even compared with Sattia, a Roman lady who died during the reign of Claudius aged ninety-nine.[329] Martial writes that 'after burying two hundred husbands you have the impudence to want to marry' again (*Epigrams* 3.93). Martial's comment on Vetustilla having had 'two hundred husbands' is extreme exaggeration, but the point he is making is that she is still looking for something more long-term, possibly, love, even as an elderly lady.

Indeed, along with Vetustilla, Martial refers to several other women, who married younger men. Martial refers to the 'hungry pauper Gellius (who) married a rich, old

[328] Indeed, the name Vetustilla may be a parody on the Latin word *vetus* meaning old (OLD, s.v. *vetus*).

[329] Martial, *Epigrams* 3.93. Sattia was a Roman lady who died in Claudius reign aged 99 years (Seneca*, Epistles* 77.20; Shackleton Bailey,1993, 255). Shackleton Bailey asserts that this is the same woman referred to as Statilia by Pliny the Elder (*Natural History* 7.48.158).

woman. He feeds his wife and has sex with her' (*Epigrams* 9.80; translation by Shackleton Bailey, with minor modifications). Then, Martial refers to Saleianus who, married the wealthy woman he was courting, Secundilla.

> *Cur tristiorem cernimus Saleianum?*
> *'an causa levis est?' inquis, 'extuli uxorem.'*
> *o grande fati crimen! o gravem casum!*
> *illa, illa dives mortua est Secundilla,*
> *centena decies quae tibi dedit dotis?*
> *nollem accidisset hoc tibi, Saleiane*
>
> Why does Saleianus look saddish? Is it a trivial matter? You say, 'I have buried my wife'. Oh, monstrous crime of fate! Oh, grievous chance! Is she dead, she, wealthy Secundilla, who brought you a million dowry? I'm sorry this happened to you Saleianus (Martial, *Epigrams* 2.65).

The implication is that the women were seeking love and sex, and someone to look after them, whilst the men were in pursuit of their money or wealth. Even though they are not named as such, the implication is that both Gellius and Saleianus were *captatores* and married their wives principally for their money. As a husband, the *captator* receives all, or at least most of her assets, more than a bequest if he simply remained her lover. Martial mocks Saleianus for being upset upon her death, especially now that he is extremely wealthy. Martial himself seems to have captured the attentions of an older woman who wanted to make him her husband, or it may simply have been a creation for comic effect. He asserts that 'Paula wants to marry me, I don't want to marry Paula; she's an old woman. I should have wanted, if she were older still' (Martial, *Epigrams* 10.8). The joke is that Paula is not close enough to death to incentivise Martial into marriage.

In other instances, Roman satirical literature dramatises wealthy single women exerting power over *captatores.* These women are not necessarily old; instead, they are portrayed as sickly.

> *Petit Gemellus nuptias Maronillae*
> *et cupit et instat et precatur et donat.*
> *adeone pulchra est? immo foedius nil est.*
> *quid ergo in illa petitur et placet? tussit*
>
> Gemellus is wooing Maronilla. He is eager and insistent, begs her, gives her presents. Is she such a beauty? On the contrary, she couldn't be uglier. So, what is desirable about her, so attractive? Her cough (Martial, *Epigrams* 1.10).

Here, the fortune hunter Gemellus courts Maronilla by giving her gifts and persistently begging her for her hand in marriage which of course would then secure his place as a rightful heir and benefactor. The implication is that she is not aged, although she may be older than Gemellus; instead, the suggestion is that she is unwell and possibly near to death. Thus, if Gemellus can wed her, any assets she may have will come to him as her husband. As a result, Gemellus is 'eager', 'insistent' and 'begs' Maronilla. Maronilla is in complete control of this relationship; she is the one who holds the power.

Martial also refers to another older woman, Naevia, who

> *Quod querulum spirat, quod acerbum Naevia tussit,*
> *inque tuos mittit sputa subinde sinus,*
> *iam te rem factam, Bithynice, credis habere?*
> *erras: blanditur Naevia, non moritur*

> wheezes, she has a distressing cough, she often sends spit into your lap. Bithynicus, do you think you have it made? You're wrong. Naevia is coaxing, not dying (Martial, *Epigrams* 2.26).

Bithynicus could be the same *captator* who courted Fabius, giving him 'six thousand a year' and ending up with a legacy of 'six thousand a year' who is now seemingly courting Naevia (Martial, *Epigrams* 9.8). On the other hand, Bithynicus could have been a stock name: the name refers to the ethnic origin of the man, as it literally translates as 'of Bithynia', which also suggests that this man may have been a freedman.[330] Whether it is the same legacy hunter or a stock character, Naevia, in a similar vein to Maronilla, has a 'cough' and, in this instance, a 'distressing cough'. In slight contrast to Maronilla, Naevia is portrayed as being in a worse condition, for 'she often sends spit into your lap'. Naevia, like Maronilla may not be old; rather she is portrayed as particularly unwell, possibly closer to death than Maronilla. That said, it seems that she is duping Bithynicus: 'Naevia is coaxing not dying'. She is either feigning or exaggerating her illness to manipulate Bithynicus. Again, like Maronilla, Naevia is the one controlling the relationship. She is 'capturing the *captator*'.[331]

The coughs that these women demonstrate could be a sign of the disease tuberculosis (TB). However, as Mathias Schmidt *et al* point out, the absence of knowledge makes retrospective diagnosis difficult and susceptible to speculation and rumour.[332] Moreover, King argues that it can be unhelpful, for 'it is not in observed reality'.[333] One cannot examine the body, nor question the patient of their symptoms which can allow medics to rule in or exclude various other possible diseases. Furthermore, retrospective diagnosis fails to take account of ancient systems and understanding of diseases and the body. That said, the Latin term *phthisis,* detailed

[330] OLD, s.v. Bithynicus.

[331] Hejduk, 2010, 223.

[332] Schmidt *et al*, 2020, 14. Retrospective diagnosis being 'the application of the diagnostic terminology of our times to historical case reports, which have been transmitted either by texts or artefacts' (Leven, 2004, 369–370).

[333] King, 1998, 190.

in several ancient texts, is usually interpreted as tuberculosis, because the symptoms it describes are most distinctive with the disease: consumption and coughing.[334] Whether or not it was a sign of TB, the cough was a marker of someone who was unwell and who could possibly die; it is what makes these women desirable.[335] Indeed, Hartmann argues that Naevia's cough becomes her way of being coquettish.[336] Of course, the ruse on the part of these women is that they may be feigning illness to invite male attention.

It seems that there were several reasons why older women were able to court the attentions of young men. Roman women had a legal right to inherit from their parents and their husbands as well as acquiring testament bequests which meant that they often owned extensive patrimonies.[337] Importantly, clothes and jewellery formed a significant component of women's patrimony which, in essence, projected a luxurious lifestyle as well as being valuable in their own right.[338] Most notably, women had the right to dispose of their own patrimonies.[339] In some instances, women may have been richer than some men, because women were not required to spend large sums on the *cursus honorum*.[340] Thus, older, wealthy women captured the attention of *captatores* with the prospect of a bequest, either monetary or valuable jewellery and clothes, who in turn lavished them with attention and gifts. Crucially, it seems, these women controlled the relationships; they wielded a significant amount of power over their young suitors.

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[334] Nutton, 2013, 29. Pliny the Elder, in his *Natural History* refers to treatments for *phthisis:* 23.80.154; 26.21.38; 26.68.109; 26.68.110; 28.37.138. Oerlemans & Tacoma argue that there is a high degree of probability that TB was present and known in Rome (2014, 228).

[335] Hejduk, 2010, 223.

[336] Hartmann, 2012, 624.

[337] Hartmann, 2012, 609–617.

[338] Hartmann, 2012, 616; Pan, 2020, 3.

[339] Hartmann, 2012, 609.

[340] *Cursus honorum* was the career path for senators; it required a period of military service before taking political office; one aspect of the *aediles* especially was the organisation and financing of public games (Bispham, 2006, 455; Harrison, 2006, 533; Hartmann, 2012, 617).

Childless women were portrayed as formidable in other literature too. Tacitus notes that Calvia Crispinilla became powerful as a result of her childlessness (Tacitus, *Histories* 1.73). The insinuation is that her status and power resulted from competing legacy hunters showering her with gifts, favours and attention.[341] Juvenal takes things further and mocks the infertile by suggesting that they are better off without children.

> *dominus tamen et domini rex*
> *si vis tum fieri, nullus tibi parvulus aula*
> *luserit Aeneas nec filia dulcior illo.*
> *iucundum et carum sterilis facit uxor amicum*
>
> if you ultimately want to become a lord or overlord, don't have a little Aeneas playing in your hall or a daughter dearer than him. An infertile wife makes your friends pleasant and close (Juvenal, *Satires* 5.138–140).

The sneering suggestion is that there is a benefit in having a wife who is infertile because it will attract *captatores* who will court them with gifts and benefits. Juvenal then becomes even more acerbic, suggesting that many elite women chose to remain childless through the availability of contraceptives to induce sterility, or abortions to terminate the pregnancy.

> *sed iacet aurato vix ulla puerpera lecto.*
> *tantum artes huius, tantum medicamina possunt,*
> *quae steriles facit atque homines in ventre necandos*
> *conducit*

[341] Clifford Moore asserts this in a footnote in his translation of Tacitus' *Histories* (1925, 125).

> Hardly any woman lies in labour on a gilded bed. So powerful are the skills and drugs of the woman who manufactures infertility and takes contracts to kill humans inside the belly (Juvenal, *Satires* 6.594–597).

Such power and influence, along with the availability of contraceptives and abortives leads to the impression that some women may have chosen voluntarily to not have children. However, Juvenal was a staunch moralist and misogynist, or at least his creative persona was such.[342] Such savage indignation may simply be exaggerated for fear of women being able to take control of their lives, by managing their own fertility and acting in a way contrary to the way that they should behave. Once again, such women are characterised as inverting Roman social norms and threatening the status quo. Juvenal may have exaggerated childlessness as a lifestyle choice for elite women to try and promote marriage and family.

Conclusion

In the Roman world, acquiring legacies from friends and acquaintances seems to have been commonplace, and for some, led to an increase in wealth. Such opportunity to improve one's financial standing considerably, and maintain a high standard of living, reportedly incentivised some to actively pursue or hunt legacies and inheritances among the monied elite. As a result, such a practice was coined *captatio* and it became a trope of Roman satire for a period of nearly two hundred years. There was, however, discussion of the custom across other genres of Roman literature throughout the same period. Importantly, those who were pursued, or hunted were, in the large part, old, rich and childless because those without children had no immediate family to bequeath their inheritance. The targeting of childless people accentuated the issue of childlessness which, in turn, enhanced and perpetuated the perception that it was a cause for concern in Roman society.

[342] Watson & Watson, 2014, 35. Watson & Watson argue that Juvenal's misogyny is literary and tralaticious (2014, 35).

Within my discussion I noted that older, wealthy, childless Romans were portrayed as capitalising on such generosity and benefitting enormously, immediately, and for some, over a long period of time. Older, wealthy women especially, were depicted as courting young *captatores,* using their fortunes to exact sexual favours along with other rewards. Such women were characterised as inverting the sexual norms of Roman culture and were able to exert control over men in a traditionally patriarchal society. Thus, in Roman society, both men and women of the monied elite who did not have any children were characterised as being able to wield a significant amount of power, which may have created an impression that some voluntarily chose to remain childless.

This first part of my thesis has been a social analysis of childlessness. It has shown that there was anxiety surrounding the issue amongst some in Roman society, and the continual highlighting of childlessness because of its association with *captatio* by satirists goes some way to explain why the Roman state perceived it as a problem. Evidence suggests that there was an impression, amongst some, that many Romans were deliberately avoiding having children. Yet, the *Laudatio Turiae* highlights a couple who were involuntarily childless as a result of infertility. Therefore, in the next part of the thesis I explore infertility in the Roman world. In the first instance I examine Roman knowledge and understanding of the causes of infertility.

PART II – An Investigation of Involuntary Childlessness, Infertility, in Roman Society

Chapter 3.

Infertility: Roman Knowledge and Understanding of Causes

Introduction

There has been some limited investigation of infertility in Roman society, but there has been no comprehensive study of the subject.[343] Through an investigation of medical texts, literature containing medical information and other literary genres that refer to infertility, I begin by discussing the ways difficulties in conceiving were formulated in Roman society.[344] Building on Rebecca Flemming's argument that infertility has a history that goes back thousands of years to the ancient Greeks, I will present evidence to show that there was discourse on the subject amongst Roman physicians, medical writers and philosophers.[345] Moreover, there was understanding that there were many different causes of infertility. In women, body size especially was considered a major factor; some of those who were considerably overweight or undernourished did not conceive; additionally, neither did some women with hirsutism or those with some illness or disease. Most importantly, it was recognized that menstruation was necessary for conception and that those who did not menstruate were unlikely to conceive. Thus, the importance of menarche for girls was recognised amongst medics and medical writers.

Infertility was not only attributed to women. There was understanding that men too could be infertile, as a result of the quality of their semen, or because of impotence, or if they did not go through puberty. It was also acknowledged that people could experience difficulties in conceiving despite having had children; people could suffer from what is now called secondary infertility. Such interest in infertility by health-giving professionals and intellectuals, and especially a desire to understand the

[343] See 16–20.

[344] See 28–31 for a full list of the texts I have investigated.

[345] Flemming, 2013, 589–590. See 19.

causes, also suggests that there was an element of empathy towards those who were struggling to conceive.

In some instances, Roman medical writers discuss ways or treatments that purportedly prevent conception and so cause temporary infertility. These are contraceptives. There has been much discussion on contraception in Roman society and, whilst all agree on its availability, there is disagreement amongst some scholars on the extent and level of use across the social spectrum.[346] I aim to show that contraception was easily and cheaply available in Roman society; any Roman woman across the class spectrum, should they want to, could use contraception. Furthermore, I shall discuss how women of different status may have had different reasons to prevent conception. Moreover, contraception was recommended by some during the era; indeed, similar contraceptives to those recommended in Roman society were still being practised and advocated in the early part of the twentieth century. Thus, some births may well have been checked in ancient Rome. The situation was such that some Roman women may well have experienced difficulty in conceiving; on the other hand, they also had the means to control fertility.

Roman Definitions and Terminology

Before discussing Roman understanding of infertility and its causes, it is important to note the different terminology used by Greek and Latin authors, especially as in Greek there were a variety of different terms used. The Latin noun *sterilitas* and the adjective *sterilis* are used by Roman authors to define those who are unable to have children. Lucretius uses *sterilis* when discussing the incapability of some men to father children (*On the Nature of Things* 4.1235–1240). Seneca the Elder discusses several possible reasons why some women may not conceive, using *sterilitas* and *sterilis* in one of his *Declamations* (2.5). Pliny the Elder asserts that those who do not go through puberty are *sterilis* (*Natural History* 11.94.230). Notably, Pliny, in his *Natural History*, lists various plants and a river that purportedly prevent women and,

[346] Hopkins, 1965; Eyben, 1980; Riddle, 1992; Frier, 1994; Flemming, 2021a.

in some instances, men from having children using *sterilitas* and *sterilis*.[347] He then lists cures for *sterilitas.*[348] Specifically, the noun *sterilitas* has been translated as 'barrenness' or 'sterility'; the adjective *sterilis* has been translated as 'barren' or 'sterile'.[349] Thus, when referring to people whom we now term infertile, or who suffer from infertility, Romans writing in Latin, use either *sterilitas* or *sterilis*.

For Greek-speaking medics practising in Rome, generally, the noun ἀγονία and adjective ἄγονος are used to define the inability to have children. Dioscorides asserts that several plants and substances render people incapable of having children using ἄγονος and ἀγονία.[350] When discussing why some women do not conceive, Soranus notes that those who are undernourished, very fat, too old or too young are ἀγόνους (*Gynaecology* 1.35). The Greek philosopher Aristotle (384–322 BCE), who was one of Pliny the Elder's sources, refers to those men who grow up congenitally impuberal as ἄγονος (*History of Animals* 9.581b22–24). He also notes that the thickness of semen is a test of whether men are ἄγονον (Aristotle, *Generation of Animals* 2.747a4–10). The noun ἀγονία has been translated as 'sterility'; the adjective ἄγονος, translated as 'unfruitful' or 'sterile'.[351] The etymology of ἀγονία is such that it is the privative ἀ, to express negation or absence, and γόνος meaning 'offspring' or 'child'.[352] Thus, ἀγονία*,* literally translates as 'without offspring' or 'without child'.

In some instances, Soranus uses the noun στεῖρα to denote a woman who cannot conceive. He asserts that women who are στεῖρα do not menstruate, along with those who are too young, too old, pregnant, manly, and those who are professional singers and athletes (*Gynaecology* 1.29 & 3.7). Thus, the noun στεῖρα has been

[347] Pliny, *Natural History* 20.44.114 (both men and women); 25.33.70 (men); 27.17.34 (women); 27.55.80 (women); 31.7.10 (the river).

[348] Pliny, *Natural History* 28.13.52; 28.27.97–98; 28.77.253; 31.4.9.

[349] OLD, s.v. sterilitas & sterilis.

[350] Dioscorides, *Materia Medica* 2.179.2; 4.14.2; 4.20.2.

[351] LSJ, s.v. ἀγονία & ἄγονος.

[352] LSJ, s.v. γόνος.

translated as ‘barren’.[353] As I have discussed in my introduction, ‘barren’ was used to denote those unable to have children in agrarian communities, and then ‘sterile’ became the preferred terminology following the industrial revolution.[354] In translation, when discussing the inability to conceive in the ancient world using any of the aforementioned Latin and Greek terms, I shall use the contemporary term ‘infertility’. Elsewhere in his treatise, Soranus discusses what is necessary for conception (σύλληψις): he has a lengthy discourse on menstruation, specifically stating that it is necessary for conception and discusses factors which he believed prevented conception.[355]

There is an instance when Lucretius refers to a sexual position which purportedly prevents conception (*prohibet se concipere*) (*On the Nature of Things* 4.1269). Also, Pliny the Elder claims that an amulet made up of little worms from a specific spider ensures women do not conceive (*ne concipiant*) (*Natural History* 29.27.85). In these instances, the Latin writers seem to be discussing ways and treatments that they believe prevent conception and so cause infertility temporarily; they are contraceptives. In a similar vein, medical authors writing in Greek use a number of other terms when discussing substances which cause infertility: the noun ἀσυλληψία, or the adjective ἀσύλληπτος, or another adjective ἀτόκιος. Dioscorides asserts that certain substances cause ἀσυλληψία or ἀσύλληπτος, particularly when drunk at certain times in a woman’s menstrual cycle, or applied as a pessary before sexual intercourse.[356] Soranus too details pessaries made from various products which, when applied before intercourse, cause ἀσυλληψία (*Gynaecology* 1.61.2). The implication is that, when women take these substances particularly at certain times in

[353] LSJ, s.v. στεῖρα.

[354] See 10–11.

[355] Soranus specifically states that ‘it is a mistake that some women conceive without ever menstruating’ (*Gynaecology* 1.28). He claims that ‘one must judge the majority from the ages of 15 to 40 to be fit for conception if they are not mannish, compact and oversturdy, or too flabby and very moist’ (Soranus, *Gynaecology* 1.34). He claims that obesity and malnourishment affects the ability to conceive (Soranus, *Gynaecology* 1.35 & 3.7). As shall be discussed menstruation is affected because of these factors, which in turn prevents conception.

[356] Dioscorides, *Materia Medica* 1.104; 3.34.2; 4.19; 4.185; 5.80.1; 5.146.

their menstrual cycle, or apply the pessaries before coitus, they will not conceive. Indeed, the noun ἀσυλληψία has been translated as the 'inability to conceive'.[357] The etymology of the terms ἀσυλληψία and ἀσύλληπτος are the privative α and either σύλληψις which means 'conception' or 'pregnancy', or συλληπτικός which means 'promoting conception'.[358] Thus, ἀσυλληψία and ἀσύλληπτος literally translate as 'without conception or pregnancy' or 'without promoting conception'.

On other occasions, Dioscorides notes oral treatments, ointments and pessaries which are prescribed to be drunk during certain times of a woman's menstrual cycle, or applied to the genitalia or inserted into the vagina, either prior to or following intercourse; all of which are detailed as ἀτόκιος.[359] One pessary in particular noted as ἀτόκιος, is instructed to be applied after birthing (Dioscorides, *Materia Medica* 2.120.3). In addition, there is an amulet which is noted as ἀτόκιος (Dioscorides, *Materia Medica* 3.134.2). The suggestion again, is that these treatments will prevent conception. Ατόκιος has been translated as 'causing barrenness' and especially, 'a medicine causing barrenness'.[360] In terms of etymology, the term ἀτόκιος is the privative α and τόκος meaning 'offspring' and also 'childbirth', or 'period of gestation'.[361] Thus, ἀτόκιος literally translates as 'without offspring', 'without childbirth' or 'without a period of gestation'.

By using the terms, ἀσυλληψία, ἀσύλληπτος, or ἀτόκιος the implication is that pregnancy or conception can be prevented: the treatments act as contraceptives. Indeed, in the first century CE, Soranus defines ἀτόκιος as meaning 'contraceptive': he notes that 'ατόκιον', 'does not let conception take place' (Soranus, *Gynaecology* 1.60). This interpretation by Soranus fits the modern definition of contraceptive which

[357] LSJ, s.v. ἀσυλληψία.

[358] LSJ, s.v. σύλληψις & συλληπτικός.

[359] Dioscorides *Materia Medica* 1.77.2; 1.81; 2.19; 2.75.1–2; 2.159.3; 2.179.3; 3.130.

[360] LSJ, s.v. ατόκιος.

[361] LSJ, s.v. τόκος.

is defined as ‘a method, device or drug serving to prevent pregnancy’.[362] Such treatments prescribed by the medical writers are a means of preventing conception and controlling fertility rather than rendering a woman permanently infertile. They cause temporary infertility, so are contraceptives.

Roman Discussion and Understanding of the Difficulties in Conceiving

Amongst the Roman population there was, it seems, a general assumption that fertility, and therefore infertility, was determined by the gods. Hug asserts that there was a general belief amongst Romans in divine control over both the universe and the fates of individuals.[363] In particular, she argues that infertility could be a result of divine displeasure.[364] Martial describes childlessness as that which the goddess ‘Fortuna forbids’ (*Epigrams* 2.91). Indeed, following his wife’s miscarriage, Pliny the Younger writes that the gods ‘will surely grant us children later on’ (*Letters* 8.10). Then, in another letter, he also writes that his friend Suetonius has been denied children through the ‘cruelty of Fortuna’ (Pliny, *Letters* 10.94). Both Martial and Pliny the Younger refer to Fortuna, the goddess of fate, chance and luck, as the one responsible for people’s childlessness.[365]

The *Laudatio Turiae* also refers to this notion

> *fue(ru)nt optati liberi, quos aliqua(mdiu sors invi)derat. si fortuna procede(re e)sset passa sollemnis inservie(ns quid utrique no)strum defuit? procedens a(et)as spem (f)iniebat.*

[362] OED, s.v. contraceptive.

[363] Hug, 2014, 6.

[364] Hug, 2014, 80.

[365] March, 2014, 198; Miano, 2018, 12.

> It is true that we did wish to have children, who had for a long time been denied to us by an envious fate. If it had pleased Fortuna to continue to be favourable to us as she should have been, what would have been lacking for either of us? But Fortuna took a different course and our hopes were sinking.
>
> (*ILS 8393*, 2.25–27; translation by Wistrand, with minor modifications).

Here, the husband also cites Fortuna as the one responsible for their childless situation.

Menstruation

Even though the wider Roman public would probably have believed that the gods influenced their ability or inability to have children, there was also understanding amongst some that difficulties in conceiving were linked to the body.[366] Medics and philosophers recognised the importance of menstruation with the ability to have children. Importantly, they understood that absent menses caused infertility. Pliny the Elder noted that women have monthly periods but in 'certain women it never occurs at all'; those women, he states, 'do not have children' (*Natural History* 7.15.66). Soranus, who provides the most detail on the subject, noted that menstruation first appeared around the age of fourteen and was necessary for conception, for he states that 'conception does not take place without menstruation' (*Gynaecology* 1.20 & 1.29). In Soranus' missing chapter entitled 'Infertility and the Inability to Conceive' which survives in Caelius Aurelianus' Latin work *Gynaecia*, it is noted that infertility results where there is no menstruation (2.64).

In his *Gynaecology*, Soranus specifically refers to how nature created menstruation for childbearing (παιδοποιίαν).

[366] Secular and religious healing worked in tandem in the ancient world. Divine and human healing was complementary (Nutton, 2013, 286).

> ἔνθεν οὔτε ταῖς μήπω συλλαμβάνειν δυναμέναις, οἷον ὡς νηπίαις, παρέσχε τὴν κάθαρσιν οὔτε ταῖς μηκέτι, καθάπερ ταῖς παρήλιξιν; ἀλλὰ τῇ περιγραφῇ τῆς χρείας συναπέσβεσε τὸ ἔργον.
>
> Therefore, she did not bestow menstruation on those who are not yet able to conceive, like infants, nor on those who are no longer able to conceive, as is the case in women past their prime, but extinguished this activity upon the termination of its usefulness (Soranus, *Gynaecology* 1.28).

There was understanding that menstruation occurred monthly: Pliny states that 'this pernicious mischief occurs in a woman every month' (*Natural History* 7.15.66). Soranus, too notes its monthly occurrence and also that it could last a few days or even up to a week.

> χαθαίρονται δέ τινες μὲν ἐπὶ μίαν ἡμέραν, τινὲς δὲ ἐπὶ δύο, τινὲς δὲ μέχρι καὶ τῆς ἑβδόμης καὶ περαιτέρω, αἳ πλεῖσται δὲ μέχρι τριῶν ἢ τεσσάρων. καὶ τοῦτο γίγνεται κατὰ μῆνα, καὶ οὐ πρὸς ἀκρίβειαν ἐπὶ πασῶν ἀλλὰ κατὰ πλατος. ἔστι γὰρ ὅτε καὶ προπαραλαμβάνει τινὰς ἡμέρας ἢ ἐφυστερεῖ. τοῦτο δὲ ἐν ἕκάστῃ κατὰ τὴν ἰδίαν.
>
> Some women menstruate one day, others two days, still others even a week or more, but the majority, three of four days. This occurs monthly, not with precision in all cases, but broadly speaking, for sometimes it is advanced or retarded a few days. For each woman it occurs at a stated time characteristic for her (Soranus, *Gynaecology* 1.21).

Moreover, Soranus argues that for some women, as well as very young girls and elderly ladies, it is 'natural not to menstruate at all': women who are 'engaged in singing contests'; women who are of a 'masculine type'; and women athletes (*Gynaecology* 1.23; 1.28 & 3.7). Soranus argues that menstruation does not contribute to women's health, rather it is only necessary for conception

(*Gynaecology* 1.29). He categorically asserts that 'it is at times natural for menstruation not to take place' and that 'no bad effects follow' (Soranus, *Gynaecology* 1.23). Menstruation, as discussed in my introduction, has been one of the key discussions in the field of ancient gynaecology and the belief, amongst the Hippocratic authors, was that it was essential to the overall health of the woman.[367] The female body was considered to be loose and spongy, with a particular affinity for moisture which is then removed through menstruation, or used to nourish a foetus in the womb should a woman become pregnant (*Diseases of Women* 1.1.14; *Diseases of Women* 1.2). Failure to menstruate would mean that a surplus of blood would continue to build up in the body, putting pressure on different organs until disease or even death occurs.[368] Menstruation was, as Gourevitch states, a necessary evil.[369] Yet, the necessity of menstruation firstly to health and second to conception began to be questioned in ancient Rome.[370] There is no place in Soranus' *Gynaecology* for the Hippocratic theory that menstruation is essential to female health.[371] On the contrary, Soranus even argued that, in some cases, menstruation may actually be detrimental to a woman's health: those whose condition is 'comparatively lax' and those whose natural condition is 'comparatively constricted'.[372] Nonetheless, regularity of menstruation was deemed necessary for fertility, according to Soranus: he asserts that those women most capable of conception have their 'catharsis regularly' (Soranus, *Gynaecology* 1.34).

Even though Soranus disagreed with the opinion that menstruation was essential for the health of women, he still shared the Hippocratic belief that menstruation was an accumulation of excess substance and food for the foetus: he states that it is the

[367] See 22–23.

[368] Dean-Jones, 1991, 120; Dean-Jones, 1994a, 187; Dean-Jones, 1994b, 64; King, 1983, 116; King, 1993, 30; King, 1994, 108; King, 1995a, 211; King, 1995b, 136; King, 1998, 29; Flemming, 2000, 116.

[369] Gourevitch, 1984, 87.

[370] Rousselle, 1988, 38.

[371] King, 1998, 39; Flemming, 2021b, 167.

[372] Soranus, *Gynaecology* 1.29; Hanson & Green, 1994, 988; King, 1998, 39.

excretion of ‘blood from the body like excessive matter’ and that during pregnancy it ‘becomes the food of the embryo’ (*Gynaecology* 1.19). He notes however, that in some women, ‘menstruation appears even after conception’, arguing that ‘blood occurs from that part where the seed has not attached itself’ (Soranus, *Gynaecology* 1.23). As a result, Soranus asserts that ‘some women become pregnant again’ (*Gynaecology* 1.23). This is superfetation: a second conception occurring after a prior one, especially after some time, and before delivery.[373] Superfetation in humans is possible but ‘extremely rare’; when it does occur, modern scholarship asserts that it usually results from the use of artificial reproductive technologies.[374] In the ancient world there was discussion of the ability to conceive again whilst pregnant amongst animals and humans.[375] Importantly, in Roman society, Soranus believed that menstruation could sometimes continue after impregnation which could, in turn, lead to the expectant mother conceiving again.

For those women who did not menstruate, Soranus offers explanation on why they maintained their health. He asserts that those women ‘engaged in singing contests’ do not menstruate because ‘the material is forced to move around and is utterly consumed’ (Soranus, *Gynaecology* 1.23). Also, he argues that women athletes use up all their excess moisture through vigorous exercise: ‘nothing is left over for menstruation; everything is consumed by the exercises’ (Soranus, *Gynaecology* 3.7). In contemporary society, female athletes, gymnasts, dancers and others who are

[373] Superfetation is defined as ‘the presence of foetuses of different gestational ages within the uterus, resulting from fertilisation of eggs produced during different ovulatory cycles’ (OED, s.v. superfetation). It is the occurrence of ovulation, fertilisation and embryo implantation during an ongoing pregnancy, finally resulting in a pregnancy of two foetuses of different gestational ages (Lantieri *et al*, 2010, 664).

[374] Blickstein, 2003, 218; Lantieri *et al*, 2010, 665; Roellig *et al*, 2011, 86. Blickstein & Lantieri *et al* assert that further impregnation usually occurs in the fallopian tubes, thus, there is association of superfetation and ectopic pregnancy (Blickstein, 2003, 218; Lantieri *et al,* 2010, 666).

[375] Herodotus (*c.*484–*c.*425 BCE) asserts that the hare, alone, conceives in pregnancy (*The Persian Wars* 3.108). In the *Hippocratic Corpus*, there is discussion of the concept and an alleged human case is noted in *Epidemics* (*Epidemics* 5.11; *Regimen* 1.31; *Superfetation*). Aristotle discusses it at some length and notes some alleged cases (*History of Animals* 9.585a; *Generation of Animals* 4.773b).

strenuously active can cease to menstruate if the ratio of body fat to total body weight drops below a certain level.[376] Research has shown that over a quarter of elite women athletes experience menstrual irregularity, with one in ten being amenorrhoeic.[377] This, according to Kristin Cobb *et al,* is attributed to disordered eating, specifically limiting calorie and/or fat intake, whilst maintaining high training levels.[378] Despite arguing that non-menstruators were healthy, Soranus recognised that because they did not menstruate, they could not conceive (*Gynaecology* 1.29).

Another factor which ancient sources understood affected a woman's ability to conceive was body size. Soranus argues that women whose bodies 'are in an abnormal state' are infertile, for they 'do not lay hold of the seed injected into them' (*Gynaecology* 1.35). In his discussion, Soranus quotes Diocles, who asserted that those who were 'undernourished, the thin, or the very fat' would be unable to have children (*Gynaecology* 1.35). Notably, Soranus asserts that women who are idle and inactive become fat and ill-proportioned and bring about their own menstrual difficulties (*Gynaecology* 1.22). He argues that 'in very obese and stocky' women, the menstrual blood 'is lessened', with an implication that it may stop altogether the more obese a woman becomes, 'because the material is spent on their good nutritional state' (Soranus, *Gynaecology* 1.22). By the same token, some Roman women may have had difficulties in conceiving due to malnutrition.[379] Soranus notes that those women who are undernourished also do not menstruate because the substance is used up to help the body (*Gynaecology* 1.35 & 3.7). It is never clear when Soranus would consider a woman to be either overweight or undernourished for no weight measurements are discussed. The terms obesity, overweight and fat are subjective.[380] That said, the understanding was that body size redirected

[376] Dean-Jones, 1991, 116. McVeigh *et al* refer to is as 'exercise-related amenorrhoea' (2013, 70). Amenorrhoea is linked to a low BMI (body mass index) (Collins *et al*, 2013, 508).

[377] In one particular study, 26% of women athletes suffered irregular menstruation, whilst 10% were amenorrhoeic (Cobb *et al*, 2003, 713).

[378] Cobb *et al,* 2003, 713.

[379] Huebner, 2013, 164.

[380] Fallas, 2015, 128.

menstrual fluid, hence explaining why such women did not menstruate and therefore were infertile.

Obesity in the ancient world, according to Helen King, was deemed a barrier to conception, since it was thought to cause a narrowing of the mouth of the womb which prevented the male seed from gaining entry.[381] Indeed, there is evidence that some medical professionals carried out tests using suppositories or fumigations which were inserted into a woman's vagina, to ascertain a woman's fertility. The ancients imagined that women had a sort of tube in their body, leading from the vagina to the mouth which could easily get blocked, thus, preventing conception.[382] Soranus refers to Diocles' vaginal suppositories made of such substances as resin, rue, garlic, nosesmart and coriander that upon insertion their property is carried up as far as the mouth, which declared a woman capable of conception; he also cites Euenor and Euryphon placing women on a midwife's stool and making fumigations with the same substances to test a woman's fertility (*Gynaecology* 1.35). The suggestion is that, if a woman is obese, and her passages are therefore too narrow, then the properties would not be carried up and out of the mouth and she would not be able to conceive. Such fumigation procedures are categorically dismissed by Soranus: he states that they are 'all wrong', for he argues that substances will be carried up through invisible ducts even if a woman is unable to conceive (*Gynaecology* 1.35). Instead, Soranus linked weight with menstrual problems.

One of the men with whom Soranus disagrees, Diocles, is presumably Diocles of Carystus, one of the more celebrated medical practitioners of the ancient world. In Athens, he was known as the 'younger Hippocrates' and his fame as a medical practitioner and theorist extended well beyond his lifetime in the fourth century BCE.[383] He may have been a contemporary, even a pupil of Aristotle, but

[381] King, 1998, 31.

[382] Totelin, 2015, 33.

[383] van der Eijk, 2005, 5.

unfortunately his work only survives in quotations and fragments.[384] In the same way that Soranus disagreed with the established view regarding menstruation and its requirement for the health of women, here he is disagreeing with the processes for ascertaining a woman's fertility from one of the most notable physicians in the ancient world.

Modern scholarship has proven a link between infertility and obesity and severe underweight. In obese women, an excess of fat affects reproduction. Specifically, it can lead to menstrual abnormality, which is irregular or absent menses, which in turn leads to difficulty in conceiving and for some women who are very obese, infertility.[385] Being too thin also has an effect on women's infertility for, according to Mandakini Parihar, a minimum amount of body fat is an essential requirement for reproductive efficiency.[386] The eating disorder anorexia nervosa, specifically has serious gynaecological ramifications.[387] The disorder is characterised by a refusal to maintain the minimal normal weight for age and height, an intense fear of gaining weight or becoming fat while being underweight, and amenorrhoea, the absence of the menses for at least three consecutive menstrual cycles.[388] Thus, in obese or severely underweight women menstruation is affected to the extent that it becomes irregular, or indeed absent, which renders conception difficult, and can result in infertility.

[384] van der Eijk, 2000, Introduction, vii–ix.

[385] Parihar, 2003, 120; Pasquali *et al,* 2007, 482; Collins *et al*, 2013, 508; Talmor & Dunphy, 2015, 504; Broughton & Moley, 2017, 840. Specifically, obese women have higher circulating levels of insulin which is a known stimulus for increased ovarian androgen production which manifests as menstrual abnormalities and ovulatory dysfunction (Talmor & Dunphy, 2015, 504; Broughton & Moley, 2017, 840).

[386] Parihar, 2003, 120.

[387] Katz & Vollenhoven, 2000, 707.

[388] Katz & Vollenhoven, 2000, 707; Mitan, 2004, 82; Vyer *et al*, 2008, 254; McVeigh *et al*, 2013, 119.

As well as body size, Soranus also mentions that, to ensure conception, women must not be ‘very moist or dry’ (*Gynaecology* 1.34). Ancient medical tradition was firmly based on the idea of balance of the four qualities of hot and cold, moist and dry.[389] Any imbalance was thought to have physical or psychological consequences; hence Soranus’ view that women must not be too moist or dry. By the same token, it would follow that women who were too hot or too cold might not be able to conceive. Thus, according to Mark Bradley, a body that is neither too fat nor too thin is a physical manifestation of a moderate balance and so represents an ideal state of health.[390] A woman with a normal healthy body, which is not too thin nor too fat, is one where the qualities are in balance and is therefore fertile. This is why Soranus advocates that, ‘as a general rule’, one must look for a woman ‘whose whole body’, is ‘in a normal state’ (*Gynaecology* 1.35). Importantly, having a normal body, according to Soranus, meant having a normal uterus, ‘since the uterus is similar to the whole (body)’ (*Gynaecology* 1.34).

Furthermore, Soranus states that the ‘majority’ of women who do not menstruate are ‘rather robust’ or ‘mannish’ and that those who are fit for conception are not mannish (*Gynaecology* 1.29 & 1.34). One can speculate on what Soranus means by such terms. He may have meant having an athletic figure, and, as has already been discussed, athletes do not menstruate and therefore cannot conceive; more likely, and especially because Soranus discusses women athletes specifically, he may have been suggesting that they had facial hair. Indeed, Pliny the Elder refers to women with hair ‘on the face’ for whom ‘menstruation has ceased’ (*Natural History* 11.94.230). In this instance, Pliny may be referring to postmenopausal women, because they can develop facial hair, or younger women, who have not gone through the menopause. In his treatise, Soranus asserts that older women do not menstruate, so, with his inclusion of being ‘mannish’, he is noting that other factors besides age can sometimes cause menstruation to cease (*Gynaecology* 3.7). In pre-menopausal women, the main cause of facial hair is the over production of

[389] Nutton, 2013, 47–48.

[390] Bradley, 2011, 3–4.

androgens.[391] Polycystic Ovary Syndrome (PCOS) is the main cause of androgen excess and results in anovulation, the cessation of ovulation, which manifests in amenorrhoea, the absence of menstruation.[392] Importantly, one of the characteristics of PCOS is hirsutism, excessive facial hair in a male-like distribution, which is on the upper lip and chin, with hair also appearing on the chest, abdomen and back.[393]

With the caveats that come with diagnosing retrospectively one cannot determine precisely whether Pliny or Soranus were referring to women suffering from PCOS. Consequently, one should not speculate on whether the ancient authors were noting women suffering from PCOS, or indeed noting women who were suffering from some other disease. The only certainty is that a link between having a masculine appearance and, in particular, having facial hair with a lack of menstruation was noted, which the ancient writers understood rendered women infertile.

Menarche

Soranus understood the significance of menstruation for fertility, so much so that he felt that going through menarche, in order for menstruation to begin, was equally important. He suggested trying 'from the thirteenth year on, before the menstrual flux is secreted, to assist the discharge' (Soranus, *Gynaecology* 1.25). To encourage menarche, Soranus advises that a young woman's

> διὸ πρᾷος μὲν ὃ περίπατος ἔστω καὶ ὁμαλός. ἐπιμήκης δὲ ἡ αἰώρα καὶ ἀνειμένα τὰ γυμνάσια καὶ μετὰ πολλοῦ λίπους ἀναβεβλημένη ἡ τρῖψις καὶ καθ' ἡμέραν τὸ λουτρὸν καὶ πᾶσα ψυχῆς διάχυσις.

[391] McVeigh *et a*l, 2013, 58. Androgens are 'a group of naturally occurring hormones and synthetic compounds that are capable of regulating sexual development'; the naturally occurring androgens are produced by the adrenal gland, testis and ovary (OED, s.v. androgens; McVeigh *et al*, 2013, 59).

[392] Archer & Chang, 2004, 737; Farquhar, 2007, 11; Collins *et al*, 2013, 508 & 570–571; McVeigh *et al*, 2013, 46.

[393] Archer & Chang, 2004, 737; Farquhar, 2007, 11; Collins *et al*, 2013, 570; McVeigh *et al*, 2013, 46 & 58. Over 80% of hirsute patients have PCOS (Azziz, 2004, 646).

> walk should be easy and deliberate, passive exercise prolonged, gymnastics not forced, much fat applied in the massage, a bath taken daily and the mind diverted in every possible way. For the body is relaxed together with the soul and bears the discharge without difficulty (*Gynaecology* 1.25).

Notably, Soranus advises against sexual intercourse before menarche: he recommends assisting menstruation 'before defloration' (*Gynaecology* 1.25). There are two reasons why Soranus believes coitus should not take place before menarche. Firstly, he regards menstruation as 'a definite sign that the uterus is already able to fulfil its proper functions', that of 'conception' (Soranus, *Gynaecology* 1.33). Secondly, he considers it dangerous for the foetus, because he believes it increases the possibility of miscarriage.

> κίνδυνος γὰρ τὸ καταβληθὲν σπέρμα συλληφθῆναι, μικρομεγέθους ἔτι τῆς μήτρας ὑπαρχούσης καὶ διὰ τοῦτο θλιβομένου μετὰ τὴν ὄγκωσιν τοῦ ἐμβρύου xol οὕτως ἤτοι φθαρησομένου παντελῶς ἢ τοὺς χαρακτῆρας ἀπολέσαντος ἢ πάντως ἐν τῷ.

> Danger arises when the injected seed is conceived while the uterus is still small in size. The embryo, in consequence, is subject to pressure after its enlargement and will therefore either be entirely destroyed or lose its characteristics (Soranus, *Gynaecology* 1.33).

It is possible for girls to become pregnant even before they have their first menses. Ovulation causes menstruation.[394] Therefore, beginning just before menarche, a girl has her first ovulation. There is no evidence from Soranus, or any other Roman medical writer or practitioner, that there was understanding of ovulation, and even in

[394] Collins *et al*, 2013, 502–504; McVeigh *et al*, 2013, 34–35.

the early twentieth century medical knowledge about reproductive processes was still limited.[395] Soranus believed that menstrual blood became 'the food of the embryo' (Soranus, *Gynaecology* 1.19). Therefore, before menarche and the onset of menstruation, in Soranus' view, a woman would not be creating food for the foetus. The danger, according to Soranus, is that prior to menarche, 'the uterus has not yet been entwined with big vessels but only with small ones incapable of conducting sufficient blood to nourish the foetus' (Soranus, *Gynaecology* 1.33). This could result in possible miscarriage for Soranus asserts that the embryo could be 'entirely destroyed'; if it was not miscarried, it was believed to be born with deformities as Soranus claims it may 'lose its characteristics' (*Gynaecology* 1.33). In a society and culture which was characterized by a pattern of early marriage for women, with girls marrying in their late teens, but somewhat younger, early to mid-teens in the upper classes, Soranus warns of the consequences of intercourse and pregnancy before menarche.[396]

Whilst Soranus understood the necessity of menarche for fertility in women, he did not assess puberty in boys in his preserved writings; his book is entitled *Gynaecology* and discusses women's issues and problems, specifically around pregnancy, childbirth and the early days of child rearing. Pliny the Elder, on the other hand, noted the importance of puberty for fertility in both sexes. He recorded that those boys and girls who did not go through puberty and develop bodily hair, were infertile: 'man alone grows hair on the private parts and if this does not occur is infertile, this applies to both sexes' (Pliny the Elder, *Natural History* 11.94.230).

[395] Benninghaus argues that knowledge of the relationship between menstruation and ovulation, the timing and place of conception and the functioning of the endocrine system was minimal even during the early part of the twentieth century (2018, 464). Indeed, it was not until the 1920s that Kyusaku Ogino, a Japanese gynaecologist and Hermann Knaus from Austria, working independently, each made the discovery that ovulation occurs about 14 days before the next menstrual period (Humadee, 2013, 109).

[396] McLaren, 1992, 54; Parkin, 1992, 123–124; Rawson, 2003, 95; Scheidel, 2007, 390; Laes, 2011a, 30. Laes asserts that brides aged 12 were not unheard of (2011a, 46). Indeed, Dio Cassius asserts that girls are felt to have reached marriageable age at 12 years old (54.16.7). However, Scheidel has suggested that this is a general hypothesis: that the demographic parameters of Roman marriage, in the broadest sense of the term, remain exceedingly poorly known (2007, 402).

Puberty is defined today as ‘the period of life during which a young person reaches sexual maturity and becomes capable of reproduction’.[397] In his discussion, Pliny seems to be echoing the Greek philosopher Aristotle because in his *History of Animals*, he refers to those boys and girls who, having not gone through puberty are infertile.

> γίνονται δέ τινες ἄνηβοι ἐκ γενετῆς καὶ ἄγονοι διὰ τὸ πηρωθῆναι περὶ τὸν τόπον τὸν γόνιμον· ὁμοίως δὲ καὶ γυναῖκες γίνονται ἄνηβοι ἐκ γενετῆς.
>
> Some men grow up congenitally impuberal and infertile because of malformation in the genital region; similarly, there are women who grow up congenitally impuberal (Aristotle, *History of Animals* 9.581b22–24; translation by Balme, with minor modifications).

Both Aristotle and Pliny may have been referring to ‘*androgyni*’ because, as Anthony Corbeill states, ‘androgynous human beings in the ancient world rarely matured beyond puberty’.[398] According to Pliny those ‘*androgyni*’ were renamed ‘hermaphrodites’; the term derives from the name of the mythical creature Hermaphroditos, the son of Hermes and Aphrodite whose youth and beauty attracted the nymph Salmacis.[399] Hermaphrodites in ancient Rome were also attached to a notion of sexual impotence and with the inability to conceive.[400]

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[397] OCMD, s.v. puberty. It is marked by a sequence of structural and functional changes that occur in the body during this time (Bastiani Archibald *et al*, 2005, 28–31; McVeigh *et al*, 2013, 28).

[398] Corbeill, 2015, 166.

[399] Pliny, *Natural History* 7.3.34. According to the most well-known version of the story, after rejecting the advances of Salmacis, Hermaphroditos enters a spring to bathe, where upon the hidden Salmacis leaps into the pool and attempts to rape the resisting young boy. Clinging to the struggling Hermaphroditos, Salmacis prays to the gods that they may never part. Her prayer is granted: their male and female physiologies fuse into a single form (March, 2014, 242–243).

[400] According to Corbeill, ‘there is no mythical account of hermaphroditos producing progeny’; that the consistent associations of this ‘mythical prototype’ were those of an ‘emasculated and infertile being’ (2015, 149–150).

In recent times, terminology has shifted away from hermaphrodite, to ‘intersex’ and more recently, since 2005–2006, another term used is ‘disorders of sex development’ (DSD).[401] The United Nations Office of the High Commissioner for Human Rights defines intersex people as follows:

> Intersex people are born with sex characteristics (including genitals, gonads and chromosome patterns) that do not fit typical binary notions of male or female bodies. Intersex is an umbrella term used to describe a wide range of natural bodily variations. In some cases, intersex traits are visible at birth while in others, they are not apparent until puberty. Some chromosomal intersex variations may not be physically apparent at all (UNFE, 2020).

One such trait or disorder that results in people being classed as intersex is hypergonadotropic hypogonadism, or primary hypogonadism, a clinical syndrome that results in hormone deficiency in men and women which leads to the lack of development at puberty.[402] It is caused by gonadal (testicular or ovarian) failure and one of the primary signs of the condition is that pubic and axillary hair is scant; one of the main consequences of the condition is infertility.[403] The symptoms of scant pubic hair and an inability to conceive fit with Pliny’s observation that those who do not develop bodily hair are infertile (*Natural History* 11.94.230). However, as has been mentioned, it is unwise to diagnose retrospectively as to whether Pliny was observing intersex people, or those that suffered DSD, especially as Graumann states that the modern classification and concepts of DSD are equivocal, summarising a variety of medical diagnoses or intersex syndromes.[404]

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[401] Graumann, 2013, 199; Corbeill, 2015, 154.

[402] McVeigh *et al*, 2013, 30; Richard-Eaglin, 2018, 395; Sugiarto & Soelistijo, 2022, 1.

[403] Fraietta *et al*, 2013, 84–85; McVeigh *et al*, 2013, 9; Richard-Eaglin, 2018, 395; Sugiarto & Soelistijo, 2022, 1.

[404] Graumann, 2013, 202.

Intersex people were viewed as deformed ‘monsters’ in Republican Rome, although this changed during the Roman Empire and they came to be viewed as entertaining curiosities.[405] They were popular in ancient art, but the images represented were an artistic ideal rather than a natural phenomenon.[406] The images depict sensuously reclining figures with female breasts and both male and female genitals.[407] Such figures do not necessarily fit with impuberal men, who typically have small testes and penis’, or indeed impuberal women, who usually do not develop breasts.[408] Notably, it is not clear whether Pliny himself saw those who were impuberal as intersex, for he does not specifically refer to them as ‘hermaphrodites’. All one can conclude is that there was Roman understanding that those people who did not go through puberty were infertile.

Male Infertility

Pliny’s observation that boys could become *sterilis* is noteworthy, because it indicates that there was recognition that men as well as women could be infertile. Ancient medical writers understood that there were two main reasons for male reproductive failure: the inability to produce fertile semen and impotence.[409] Indeed, Lucretius notes that men could be infertile, as a result of the quality of semen. He states that

> *Nec divina satum genitalem numina cuiquam*
> *absterrent, pater a gnatis ne dulcibus umquam*
> *appelletur et ut sterili Venere exigat aevom;*
> *quod plerumque putant, et multo sanguine maesti*

[405] Graumann, 2013, 190–191.

[406] Graumann, 2013, 197.

[407] March, 2014, 243.

[408] Fraietta *et al*, 2013, 85; Sugiarto & Soelistijo, 2022, 1.

[409] Fallas, 2021,120.

conspergunt aras adolentque altaria donis,
ut gravidas reddant uxores semine largo.
nequiquam divom numen sortisque fatigant;
nam steriles nimium crasso sunt semine partim,
et liquido praeter iustum tenuique vicissim

It is not the divine powers that drive away the genital force from a man, so that he is never called father by sweet children and that he passes his days infertile, in marriage; men for the most part think, sorrowfully sprinkling their altars with much blood and making them burn with offerings, that they may make their wives pregnant with abundant seed. It is all vanity that they weary the gods' power and magic lots; for some are infertile because the seed is too thick, others in turn because it is too watery and thin (Lucretius, *On the Nature of Things* 4.1233–1241; translation by Rouse, with minor modifications).

Male infertility is linked to decreased numbers of spermatozoa in the semen (oligospermia) or reduced motility of spermatozoa (asthenospermia) or the total absence of spermatozoa in the semen (azoospermia).[410] Specifically, abnormal semen viscosity has been related to male infertility, mainly as a consequence of mechanical effect on sperm motility.[411] In the Roman world, Lucretius discussed the thickness, the viscosity of semen, and suggested that abnormal viscosity affected the ability to have children. He states that if it is too

tenve locis quia non potis est adfigere adhaesum,
liquitur extemplo et revocatum cedit abortu.
crassius his porro quoniam concretius aequo

[410] Gopalkrishnan *et al*, 2000, 102; Sharpe, 2012, 403; McVeigh *et al,* 2013, 134; OCMD, s.v. asthenospermia, azoospermia & oligospermia.

[411] Gopalkrishnan *et al*, 2000,102.

mittitur, aut non tam prolixo provolat ictu
aut penetrare locos aeque nequit aut penetratum
aegre admiscetur muliebri semine semen

thin, because it cannot stick and adhere to the parts, it flows away at once and departs withdrawn in untimely birth. That which is too thick again, since it is emitted too closely clotted, either does not leap forward with so far-reaching a blow or cannot equally well penetrate the parts; if it does penetrate, it does not easily mix with the woman's seed (Lucretius, *On the Nature of Things* 4.1242–1247).

Lucretius, in a similar vein to Pliny, seems to be reiterating facts from Aristotle, this time from his *Generation of Animals*, in which Aristotle states that infertile men emit a thin, cold fluid, whilst fertile men have firm and thick semen (2.746b30–747a10). In addition, there is another association of male infertility with the quality of sperm.

Διοκλῆς ἀγόνους τούς ἄνδρας ἢ παρά τό μηδ᾽ ὅλως ἐνίους σπέρμα προϊεσθαι ἢ παρά τό ἔλαττον τοῦ δέοντος: ἢ παρά τό ἄγονον εἶναι. Τό σπέρμα ἢ κατά παράλυσιν τῶν μορίων ἢ κατά λοξότητα τοῦ καυλοῦ, μή δυναμένου τόν γόνον εὐθυβολεῖν, ἢ παρά τό ἀσύμμετρον τῶν μορίων πρός τήν ἀπόστασιν τῆς μήτρας.

Diocles holds that infertility in men arises from some of these causes: either that they cannot ejaculate any sperm, of if they do it is less than nature requires; or else there is no generative faculty in the sperm; or on account of a paralysis of the relevant parts; or from the obliquity of the penis (Pseudo-Plutarch, *Doctrines of the Philosophers* 5.13 (43b); translation by van der Eijk with minor modifications).

The *Doctrines of the Philosophers* first appeared in work by Plutarch, but is now known to be pseudo-Plutarch.[412] Furthermore, this particular passage is attributed to Diocles, the aforementioned Greek physician. That said, the inclusion of the quote in a first century work by a Roman citizen indicates that there was Roman understanding of sperm and fertility. Moreover, the suggestion that male infertility may be as a result of a paralysis (παράλυσιν) of the relevant parts, could be a reference to impotence.

There was a link between impotence and an inability to conceive amongst some in ancient Rome: Pliny states that men who become impotent are rendered incapacitated for procreation (*Natural History* 25.37.75). Long before Pliny's statement, Seneca the Elder linked impotence with the inability to conceive in one of his *Declamations*. Seneca debates possible causes of childlessness in a complex case involving torture, divorce and a counter case of litigation.[413] In this case, the question is posed about whether the wife is infertile, which provokes debate on whether it always lies with the woman. Moreover, a desire to understand the causes, suggests that there was an element of empathy towards the woman in particular, and infertility more generally. The declaimer states reasons why childlessness may occur.

> *Non quaecumque quinquennio non peperit sterilis est. Quid enim si vir alicuius afuerit toto paene quinquennio peregrinatione, utri imputabitur? quid si vir aegrotaverit? Si hic maritus a tyranno tortus inutilis in concubitu suae uxoris iacuisset, (utri) imputari debuit quinquennium?*

[412] Donald Russell asserts that the oeuvre of Plutarch includes several works now known to be *spuria*, among these is *Doctrines of the Philosophers*; although little is known about who may have written this pseudepigrapha (2012).

[413] The case centres on a husband and wife. The wife had been tortured a number of years ago by a tyrant to understand whether she knew anything about her husband's plot to kill him. Throughout the torture, she persisted in saying that she did not know anything of the plot. Later, her husband does indeed kill the tyrant, but then divorces her on the grounds of her infertility because she bore no children within five years of marriage, even after everything she had been through; finally, she sues him for ingratitude (Seneca, *Declamations* 2.5).

> Not every woman who has failed to birth a child within a five-year period is infertile. What if a woman's husband has been away travelling abroad for practically the whole period, whose fault is it then? What if the husband has been ill? If this husband had been tortured by the tyrant, and was incapable of having intercourse with his wife, which of the two ought to have been blamed for the five years? (Seneca, *Declamations* 2.5.14; translation by Winterbottom, with minor modifications)

Seneca's reference to the husband being incapable of having intercourse, likely refers to impotence and suggests that difficulties in conceiving can, and in some instances does, lie with the husband; in this instance as a result of physical assault or torture.

Generally, impotence was regarded as failure in being an ideal Roman man. Penetration was central to Roman society's notion of healthy male sexuality.[414] The ideal Roman man penetrated women or indeed, other men, but was not himself penetrated; he was the 'impenetrable penetrator'.[415] Being rendered impotent and not being able to penetrate was a loss of manhood; the flaccid penis represented failure. Such an erosion of Roman masculinity was one reason impotence was a trope in satirical literature. Catullus, in his satirical poetry, refers to impotence although in the sense that it causes women sorrow.[416] Martial mocks impotent men on several occasions.[417] Juvenal ridicules impotent *patroni* whose wives are serviced by their *clientela* and children fathered by them (*Satires* 9.70–85).

[414] As John Clarke points out, the notion that the man must be the penetrator but never penetrated is perhaps the most deeply ingrained Roman sexual construction (2014, 529).

[415] McLaren, 2007, 4–5; Goldberg, 2021, 15–16.

[416] Catullus refers to his girlfriend's sparrow as her plaything in poem 2; then in poem 3 notes that 'my girl's sparrow is dead' (2.1–2; 3.3). In Latin 'sparrow' was a pseudonym for penis (McLaren, 2007, 4). Catullus also refers to impotence in poem 67, although on this occasion he does not use the pseudonym 'sparrow' (67.21–22).

[417] Martial, *Epigrams* 3.73; 3.75; 11.25; 11.46; 12.86

Petronius, in his *Satyricon,* details a scene in which the narrator and principal character Encolpius suffers a bout of impotence in the arms of Circe.

> *ter corripui terribilem manu bipennem, ter languidior coliculi repente thyrso ferrum tremuit quod trepido male dabat usum. nec iam poteram, quod modo conficere libebat; namque illa metu frigidior rigente bruma confugerat in viscera mille operta rugis.*
>
> Three times I seized in hand the dreaded axe, three times fainter than a little cabbage stalk, I feared the steel that served me ill in my panic. So, what I would like to have done just before, by now I could not do. For my penis, colder from fear than freezing mid-winter, had retracted into my groin and was hidden in a thousand wrinkles (Petronius, *Satyricon* 132; translation by Schmeling, with minor modifications).

Encolpius' flaccid penis is very much portrayed as the loss of manhood and the failure to be an ideal Roman man: he laments, 'I do not realise that I am a man, I do not feel it' (Petronius, *Satyricon* 129; translation by Schmeling, with minor modifications). In addition, Petronius goes on to use military metaphors to describe impotence: 'that part of my body where I was once an Achilles is dead and buried' (*Satyricon* 129); 'my equipment was at fault', 'I was a soldier ready for battle but I had no weapons' (*Satyricon* 130). Being a solider was an important facet of being an ideal Roman man.[418] Thus, Encolpius' impotence marks his failure to live up to this ideal.

In the ancient world, magic was believed to be the main cause of impotence.[419] Moreover, Christopher Faraone argues that such erotic magic was usually performed

[418] Pratt, 1955, 21; Goldberg, 2021,17.

[419] Faraone, 1999, 135; Ogden, 2002, 126; Faraone, 2003, 48; Rider, 2006, 2; Edmonds, 2019, 93.

on men, by women from afar.[420] Petronius' character Encolpius believes that his impotence was caused by magic: 'I have been bewitched by a poison' (*Satyricon* 128). Petronius does not refer to the exact sorcery which has caused Encolpius' impotence, but he does imply that it was carried out by someone elsewhere: Encolpius says 'who is responsible for this catastrophe, I do not know' (Petronius, *Satyricon* 130). There is no suggestion from Encolpius that the magic was performed by women, as Faraone argues, but it does show the belief that magic could be inflicted upon someone from a distance.[421]

Ovid, in one of his *Amours*, the elegiac love poetry detailing his affair with Corinna, also discusses impotence. He is in the company of the very attractive Corinna and is keen to have intercourse but, much to his dismay, he suffers from impotence.

> *At non formosa est, at non bene culta puella,*
> *at, puto, non votis saepe petita meis!*
> *hanc tamen in nullos tenui male languidus usus,*
> *sed iacui pigro crimen onusque toro;*
> *nec potui cupiens, pariter cupiente puella,*
> *inguinis effeti parte iuvante frui*
>
> Was she then not beautiful, not attractively groomed, not longed for a thousand times in my dreams? And yet when I held her in my arms, I was unhappily limp and could not perform, but lay a shameful burden on an idle bed; but though I was eager for it and she, no less, I could not use the pleasurable part of my languid loins (Ovid, *Amours* 3.7.1–6).

[420] Faraone, 1999, 120.

[421] Faraone, 1999, 120.

The incapacity to perform is put down to magic and, in this instance, it is suggested that it was performed on him by women in some other place.

> *Num mea Thessalico languent devota veneno*
> *corpora? num misero carmen et herba nocent,*
> *sagave poenicea defixit nomina cera*
> *et medium tenuis in iecur egit acus?*
>
> Was my body listless under the spell of Thessalian drugs? Was I the wretched victim of charms and herbs, or did a witch curse my name upon a red wax image and stick fine pins into the middle of the liver? (Ovid, *Amours* 3.7.27–30).

Ovid refers to a possible range of causes of his impotence: 'Thessalian drugs', 'charms or herbs' or even a witch's spell. The reference to Thessalian drugs relates to potions produced by people from Thessaly. Magic, in the ancient world, had long been associated with Thessalian women.[422] Indeed, Pliny refers to their long association with it when discussing the origins of magic (*Natural History* 30.2.6).

Moreover, Pliny details a potion which, allegedly, would render a man impotent.

> *Nymphaea nata traditur nympha zelotypia erga Herculem mortua—quare heracleon vocant aliqui….. ideoque eos qui biberint eam xii diebus coitu genituraque privari.*
>
> The plant called nymphaea owes its name, they say, to a Nymph who died of jealousy conceived on account of Hercules, for which reason it is also known as heracleon by some…..those who take it in drink become impotent for some

[422] Edmonds, 2019, 20.

twelve days (Pliny, *Natural History* 25.37.75; translation by Jones, with minor modifications).

This treatment might have been employed for nefarious reasons. Yet the medical texts detail many anaphrodisiac treatments for reducing sexual desire: drinks; ointments; even an amulet.[423] Most are directed for use by, or on men, either to be drunk, or, in the case of the ointments, applied to the genitals; there are some which are also directed for use by, or on women. It seems that there was a desire, by some during the era, to quash both male and female libido.[424] Indeed, according to Angus McLaren, Romans, far from being unthinking hedonists, viewed sexuality with anxiety.[425] As has been discussed, Augustan legislation took steps to contain the sexual desires of citizen women within marriage.[426] Some medical advice actually warned against sexual excess: it *"*should not be desired too much' (Celsus, *On Medicine* 1.1.4; translation by Spencer, with minor modifications). Pliny the Elder even asserted that there were particular health implications resulting from too much sex: he stated that sexual excess caused eyelashes to drop off (*Natural History* 11.56.155). For some, coitus was thought to be especially dangerous: in particular for breastfeeding women, as it was believed to spoil breast milk (Soranus, *Gynaecology* 2.19).

Alongside magic or sorcery, there were other recognized causes of impotence. Sexual exhaustion could be one factor, for Ovid's lover ponders whether he has 'come here exhausted from lovemaking elsewhere' (*Amours* 3.7.82). There was also understanding that impotence was associated with old age, for Ovid asks, 'what kind

[423] Pliny *Natural History* 20.26.64; 20.50.127; 21.108.184; 24.42.72; 25.95.154; 26.61.94; 27.42.65; 28.30.120; 28.31.121; 28.32.122; 28.77.256; 28.80.262; 30.49.141; 30.49.143; 31.44.96; 32.14.34; 32.50.139; Dioscorides, *Materia Medica* 2.136.1&3; 3.126.2.

[424] The situation was complex because there was also advice on the benefits of sexual intercourse: 'it cures pains in the loins, dullness of vision, unsoundness of mind and melancholia' (Pliny, *Natural History* 28.16.58).

[425] McLaren, 1992, 48.

[426] See 57–58.

of old age lies in store for me, if indeed one does, when my youth lives not up to its full measure?' (*Amours* 3.7.17–18). Juvenal too mocks old men who suffer impotence: 'though they labour all night long at that limp and shrivelled object, limp it remains' (*Satires* 10.203–206). Impotence was a source of mockery by some and viewed as failure in being an ideal Roman man. Nonetheless, Roman understanding of the causes of erectile dysfunction can be gleaned and more importantly, some authors understood that it, along with abnormal sperm viscosity, could affect the ability of men to father children. In ancient Rome, difficulty in conceiving was attributed to men as well as women.

Other Possible Causes of Infertility

Seneca's case in *Declamations* highlights Roman understanding that there were other possible causes of infertility besides those already discussed. The woman was tortured and there was recognition that such treatment could damage the woman physically and hinder her chance of conceiving: 'the woman was dragged to the castle, maltreated by hirelings, torn apart. Is anyone surprised she does not bear children?' (Seneca, *Declamations* 2.5.3). The allegedly fictitious case has vivid descriptions of what happened to the woman, which must have been based on torture techniques of the time: 'her limbs were mangled, all her joints wrenched; her body was torn with whips, burnt with fire, twisted by rackings' (Seneca, *Declamations* 2.5.5). Furthermore, her torturers 'cut her, whip her, tear her eyes', so that 'she no longer pleases her husband as a breeder of his children' (Seneca, *Declamations* 2.5.6). She is actually hit in the stomach, with the intention of causing infertility: 'beat her belly, make sure she bears no tyrant-killers' (Seneca, *Declamations* 2.5.7). The morality of torturing women is not discussed nor debated amongst Seneca and his students, which suggests that torture of women was not considered as unreasonable and may not have been uncommon.[427]

[427] There has been some discussion of violence against women in the ancient world but it focuses primarily on domestic violence: Lloyd Llewellyn-Jones discusses domestic violence in ancient Greece; Serena Witzke discusses violence against women in ancient Rome (Llewellyn-Jones, 2011, 231–266; Witzke, 2016, 248–274).

However, the case reveals that Romans understood that damage to a woman's womb could make conceiving difficult and might well render her childless. Such damage to a woman's uterus would, more than likely, also cause anyone who had previously had children to possibly suffer secondary infertility.[428] Certainly, there was some understanding amongst Romans that women might have difficulties conceiving having previously given birth. Pliny records that 'infertility may result from sufferings at childbirth' (*Natural History* 28.77.253; translation by Jones, with minor modifications). One can infer that Pliny is referring to a problematic birth and, as shall be shown, difficult labour, especially one which required intervention may have led to infertility.[429] In addition, there was awareness that women and men, who had previously had children, could have problems conceiving with new partners. The most famous of all couples, Augustus and Livia (58 BCE–29 CE), had both been married before and had children with their previous spouses. Livia was married to Tiberius Claudius Nero (c.85 BCE–33 BCE) and gave birth to her first child, Tiberius, in 42 BCE when she was sixteen years old; she was pregnant with their second son, Nero Claudius Drusus, when she married Augustus.[430] Augustus' first marriage was to Mark Antony's stepdaughter Claudia, who, according to Suetonius, was scarcely of marriageable age; he divorced her, allegedly having never consummated the marriage (*Augustus* 62). He then married Scribonia in 40 BCE; they had a child together, Julia, but Augustus divorced her in 39 BCE.[431] Despite both having had children with previous partners, Augustus and Livia never managed to have children together.

[428] There are various reasons why women suffer secondary infertility including: tubal, ovarian, uterine, cervical and peritoneal disorders (Olpin & Kennedy, 2011, 13). Damage to any of the reproductive system may render conception difficult despite having previously had children.

[429] See Chapter 5 'The Implications of Pregnancy Complications on Future Pregnancies' 280.

[430] Barrett, 2002, 11; Huntsman, 2009, 138–151.

[431] Suetonius, *Augustus* 62-63; Edmondson, 2014, 484.

There was also understanding that infertility could occur as a result of an illness or disease. Soranus attributed amenorrhea to pathological causes.[432] He notes that some women 'do not menstruate because of a disease of the uterus, or the rest of the body, or of both' (Soranus, *Gynaecology* 3.7). In such instances, Soranus explains that the 'substance (menstrual fluid) is taken to these parts' suffering disease instead of being expelled (*Gynaecology* 3.7). He notes that the following diseases of the uterus stop menstruation and therefore cause infertility: 'if the condition of so-called imperforation is present, or callosity, or scirrhus, or inflammation or if a scar has formed on a sore, or a closure of the orifice'.[433] Specific illnesses of the body which may arrest menstruation, according to Soranus are: 'cachexia, or fevers and long ailment', 'haemorrhoids, vomiting or nasal haemorrhage'.[434] In Soranus' lost chapter 'Infertility and the Inability to Conceive', which survives in Caelius Aurelianus' *Gynaecia,* it is also noted that infertility can occur as a result of disease in the body, or in the genitals, or from pressure or weakness from such an affliction as cachexia.

> *fit autem sterilitas cum forte contra naturam passio maris vel femine corpus invaserit totum aut eius aliquam partem aut ipsa verenda, strictura vel solutione aut mala corporis habitudine, quam Greci cacexiam vocant.*

> Infertility results when disease invades the whole body or one's genitals, or from a pressure or weakness which the Greeks call cachexia (Aurelianus, *Gynaecia* 2.64).

[432] Mulder, 2021, 153.

[433] Soranus, *Gynaecology* 3.7. Scirrhus is a hard malignant tumour or swelling (OED, s.v. scirrhus).

[434] Soranus, *Gynaecology* 3.7. With the caveats that come with diagnosing retrospectively, Soranus may be referring to the illness cachexia that today is understood to be a complex metabolic syndrome associated with underlying illness and characterised by loss of muscle with or without loss of fat mass; the prominent clinical feature of which is weight loss and cannot be successfully treated with nutrition alone (Evans *et al*, 2008, 794–796; OCMD, s.v. cachexia). It is associated with: malignancies; cancer; chronic heart failure; HIV infection; chronic kidney disease; chronic infection and sepsis; anorexia; pulmonary tuberculosis (Evans *et al*, 2008, 794–795; OCMD, s.v. cachexia).

The point to note is that, according to Soranus, in those women suffering disease, either cachexia or some other sickness, menstruation ceases. In a similar vein to the cessation of menstruation in singers and athletes, it was because the substance which makes up menstrual fluid was believed to be redirected to that part of the body which was suffering disease; without menstruation the woman becomes infertile.

Infertility or Fertility Control?

Roman medical writers, practitioners and philosophers understood that there were a variety of reasons why some women and men may have had difficulties in conceiving. However, as has been discussed at the beginning of this chapter, medical authors writing in Greek use a number of other terms at times: the noun ἀσυλληψία*;* the adjective ἀσύλληπτος*;* or another adjective ἀτόκιος.[435] Dioscorides lists several treatments to be applied or inserted via a pessary prior to coitus. He notes that green mint, when 'used by women as a pessary before sexual intercourse' results in ἀσυλληψίαν (Dioscorides, *Materia Medica* 3.34.2). He also asserts that the resin of the cedar tree 'anointed all around the genitalia prior to sexual intercourse' and axe weed, when 'applied as a pessary prior to intercourse' are both ἀτόκιον (*Materia Medica* 1.77.2 & 3.130). There are also some treatments which are prescribed to be applied either following menstruation, or having given birth, or after intercourse; all of which are detailed as ἀτόκιον.[436] Such ointments and pessaries seem to be a means of preventing conception by acting as some form of barrier or spermicide; thus, the treatments act as contraceptives.

Soranus, in his *Gynaecology*, also offers advice on barrier methods to prevent conception.

[435] See 124–125.

[436] Dioscorides *Materia Medica* 2.75.1–2; 2.120.3; 2.159.3.

> συνεργεῖ δὲ τῇ ἀσυλληψίᾳ καὶ τὸ διαχρίειν τὸ στόμα τῆς ὑστέρας ἐλαίῳ παλαιῷ ἢ μέλιτι ἢ κεδρίᾳ ἢ ὀποβαλσάμῳ κατ᾽ ἰδίαν ἢ καὶ μετὰ ψιμυθίου ἢ κηρωτῇ ὑγρᾷ διὰ μυρσίνου καὶ ψιμυθίου ἢ στυπτηρίᾳ ὑγρᾷ πρὸ τοῦ πλησιάξειν, ἢ χαλβάνῃ μετ᾽ οἴνου, ἢ ἐρίου τρυφεροῦ μαλλὸν ἐντιθέναι εἰς τὸ στόμα τῆς μήτρας ἢ πρὸ τῶν συνουσιῶν πεσσοῖς χρῆσθαι στέλλειν τε καὶ πυκνοῦν δυναμένοις.
>
> It also aids in preventing conception, to smear the orifice of the uterus all over before with old olive oil or honey or cedar resin or juice of the balsam tree, alone or together with white lead; or with a moist cerate containing myrtle oil and white lead; or before the act with moist alum, or with galbanum together with wine; or to put a lock of fine wool into the orifice of the uterus; or, before sexual relations to use vaginal suppositories which have the power to contract and to condense (Soranus, *Gynaecology* 1.61).

He also notes a number of other prescriptions of barrier contraceptives which include: pine bark; *cimolian earth*; fresh pomegranate; moist alum; and unripe oak galls (Soranus, *Gynaecology* 1.62). However, he warns that these are irritating, very pungent and may cause ulcerations (Soranus, *Gynaecology* 1.62).

Alongside these barrier methods of contraception, there are a number of recommended oral treatments which allegedly also act to control fertility. Dioscorides recommends that the juice of some plants or trees are mixed together and, in some instances, mixed with water, wine, and even vinegar to produce a liquid which is then drunk. Again, Dioscorides uses the noun ἀσυλληψία or the adjective ἀτόκιος for such treatments. The leaves of the willow tree ‘causes ἀσυλληψία when taken by themselves with water’ as does iron rust (Dioscorides, *Materia Medica* 1.104 & 5.80.1). The bark of white poplar is reportedly ἀτόκιος, ‘when drunk with the kidney of a mule’ and allegedly, ‘the leaves do the same when taken with vinegar following menstruation’ (Dioscorides, *Materia Medica* 1.81). On one occasion, Dioscorides notes that the rennet of the land hare, ‘if drunk three days after menstruation is said to be ἀτόκιον’ (Dioscorides, *Materia Medica* 2.19). Further on in his *Materia Medica*, Dioscorides provides a more detailed prescription for this contraceptive: ‘a weight of

three *oboloi* of hare's rennet taken with wine, if drunk after menstruation is a ἀτόκιον' (2.75.1). Notably, a specific amount of hare's rennet is specified.

In ancient Greek, the terms used for weights gave their names to the denominations of coins: an *obolos* was the word for a cooking spit or nail and was the equivalent to 0.72g.[437] Dioscorides prescribes three *oboloi* of hare's rennet, which is 2.16g, to be mixed in and consumed with wine. In many instances in ancient prescriptions, specific quantities of ingredients are not specified; such an inclusion may be because of the potency of the ingredient, in this case, hare's rennet.[438] Rennet and cheese making were specifically used as metaphors in discussions of generation in antiquity: the female menses were like milk that was curdled under the effect of sperm (rennet).[439] In this instance, the use of hare's rennet seems to take the form of allopathy, based on creating a condition contrary to the one being treated: opposites are cures for opposites (*contraria contrariis curantur*).[440]

However, Dioscorides details that 'the juice of the leaves of the black ivy and of its berry clusters, when drunk', causes ἀγονία (Dioscorides, *Materia Medica* 2.179.2). He also notes that the leaves of honeysuckle, when drunk for thirty-seven days, make people ἀγόνους*,* as does the lower root of corn flag, when drunk with wine (*Materia Medica* 4.14.2 & 4.20.2). In these instances, by using the noun ἀγονία and the adjective ἀγόνους instead of ἀτόκιος or ἀσυλληψία, the implication is that there is a difference in the toxicity of the ingredients. Indeed, it indicates a greater potency, so may cause more longer-term infertility, because Dioscorides recommends that a diluted prescription of the juice of black ivy berries is ἀτόκιος: 'one drachma' 'taken in a drink at the end of the menstrual period' (*Materia Medica* 2.179.3). Undiluted, the juice of the black ivy plant causes ἀγονία*.* The effect of the diluted prescription is

[437] Sparkes, 2006, 473.

[438] Totelin, 2009, 219. Rennet is a complex set of enzymes produced in the stomachs of ruminant mammals and is traditionally used to separate milk (OED, s.v. rennet).

[439] Totelin, 2021, 244.

[440] Green, 2001, 117; Totelin, 2009, 124; Pormann, 2018, 13.

weakened and is therefore ἀτόκιος. By using different terms, Dioscorides implies that one (ἀτόκιος) is likely only temporary, whilst the other (ἀγονία) likely causes longer-term infertility.

There are also mentions of contraceptives by Pliny the Elder, for he details various substances which cause *sterilitas*, although they are not prescriptions to drink or to apply prior to sexual intercourse, or straight afterwards. In one instance Pliny refers to a river in Pyrrha, Lesbos, which he says causes infertility (*Natural History* 31.7.10). In another, he notes that a particular wine from Achaia, and even the grapes of that wine, purportedly prevent childbearing (Pliny, *Natural History* 14.22.117). He also advises that certain plants, *asplenon* and fern, should not be given to women, and that women should avoid them, for they cause *sterilitatem* (Pliny, *Natural History* 27.17.34; 27.55.80). Furthermore, Pliny asserts that both men and women become infertile if they eat the stem of parsley.[441]

On another occasion, Pliny states that 'even men' are made infertile by drinking the plant *clymenus* but here he does not mention women specifically (*Natural History* 25.33.70). The implication here, is that the plant is so powerful that men, and presumably women, would be rendered infertile should they consume *clymenus*. In regard to another plant, *epimedion*, Pliny simply states that it 'should be avoided by women', yet he does not elaborate as to why this should be the case (*Natural History* 27.53.76). Nonetheless, the effect of *epimedion* is explicitly clear in Dioscorides, who recommends an oral contraceptive using the plant.

> ἀτόκιός τε ἡ ῥίζα, καὶ τὰ φύλλα λεῖα ποθέντα ἐν οἴνῳ μετὰ τὴν κάθαρσιν δραχμῶν πέντε πλῆθος ἐπὶ ἡμέρας πέντε ἀσυλλήπτους τηρεῖ.

[441] Pliny notes that 'the stem of female parsley breeds grubs and because of this, those who have eaten it, whether male or female, become infertile' (*Natural History* 20.44.114).

> The root is a contraceptive and the leaves, ground up and drunk with wine in the amount of five drachmai, for five days before the menstrual period, prevents conception (Dioscorides, *Materia Medica* 4.19; translation by Beck, with minor modifications).

Dioscorides uses the terms ἀτόκιος indicating that the treatment is a means of controlling fertility. Dioscorides is more detailed in his work and, it seems, more knowledgeable about botany than Pliny.[442] In general, it is not clear from Pliny's discussion whether the substances and plants cause temporary infertility, or whether they cause longer-term infertility. It must be noted that there is no specific Latin word for contraceptive, unlike in ancient Greek, so the distinction can become blurred. That said, some modern-day contraceptives are used to prevent conception over a longer period of time, for instance, the intrauterine device (IUD) or contraceptive implant.[443]

There is one treatment which Pliny clearly states is contraceptive; he even includes a time frame for its effectiveness, for he claims that it prevents conception for a year. Moreover, he frames it as a way of offering fecund women some respite.

> *tertium genus est eodem phalangi nomine araneus lanuginosus grandissimo capite, quo dissecto inveniri intus dicuntur vermiculi duo adalligatique mulieribus pelle cervina ante solis ortum praestare ne concipiant….. quam solam ex omni atocio dixisse fas sit, quoniam aliquarum fecunditas plena liberis tali venia indiget.*

[442] As Gavin Hardy and Laurence Totelin point out, Pliny and Dioscorides in their respective works often use the same sources (2016, 50). However, according to Hardy and Totelin, in the field of botany especially, Pliny merely copies his sources whilst Dioscorides incorporates his vast experience of the field into his *Materia Medica* (2016, 20 & 50).

[443] An IUD, or IUCD (intrauterine copper device) as noted by some, provides an ongoing highly effective method of reversible contraception lasting 10 years (Jurow, 2011, 127; Collins *et al*, 2013, 628; McVeigh *et al*, 2013, 330). Also, 'implants are excellent examples of long-acting reversible contraceptives (McVeigh *et al*, 2013, 318). The etonogestrel implant provides 3 years of contraceptive protection with a single office visit and is equivalent in efficacy to sterilisation (Ballagh, 2011, 183; Collins *et al*, 2013, 628).

> There is also a third kind of phalangium, a hairy spider with an enormous head. When this is cut open, there are said to be found inside two little worms, which tied in deer skin as an amulet on women before sunrise, means they do not conceive ….they retain this property for a year. Of all such preventives this only would it be right for me to mention to help those women who are so prolific that they stand in need of such a respite (Pliny, *Natural History* 29.27.85; translation by Jones, with minor modifications).

In this instance, Pliny does not use the noun *sterilitas* or the adjective *sterilis,* but it is clear that he is referring to a contraceptive because he states that, by wearing this amulet before sunrise, women do not conceive (*ne concipiant*). Along with the barrier treatments and oral prescriptions, amulets were another form of contraception.

An amulet is an object or a substance that one attaches to various parts of the body to protect in a generic way, or to preserve and heal; they have a 'medico-magical' quality.[444] According to Véronique Dasen, amulets were ubiquitous in Roman daily life.[445] Nevertheless, regarding contraception, it seems that there were not that many recipes in the Roman medical texts: along with Pliny's amulet prescription, Dioscorides lists only one amulet treatment that is ἀτόκιος: miltwaste, 'hung about a person by itself or with the hoof of a mule, the plant is thought to be a contraceptive' (*Materia Medica* 3.134.2; translation by Beck, with minor modifications). This is in slight contrast to the several amulet contraceptive treatments detailed in the Greek magical papyri (*PGM* 22a.11–14; *PGM* 36.320–332; *PGM* 63.24–25; *PGM* 63.26–28). The magical element garnered from the two amulets noted in the Roman medical texts seems to be when, and how, the ingredients were acquired. In the case of Pliny's amulet, the two little worms need to be tied in deer skin and attached

[444] Dasen, 2018, 128. Dasen maintains that physical contact between the object and the body was essential in order to transmit the properties of the charm to the wearer (2018, 128).

[445] Dasen, 2018, 129.

to the women before sunrise (Pliny, *Natural History* 29.27.85). As for the miltwaste, 'in order to be a contraceptive, it must be dug up when the night is moonless' (Dioscorides, *Materia Medica* 3.134.2; translation by Beck, with minor modifications).

Alongside these contraceptive treatments, there were various other ways to prevent conception. Soranus advises couples to 'beware of having sexual intercourse at those periods which we said were suitable for conception' (*Gynaecology* 1.61). The technique was to avoid sexual intercourse during those times in a woman's cycle when it was believed that they were most fertile. This is, in its most rudimentary form, the rhythm method of birth control devised by John Smulders.[446] Another of Soranus' recommendations to prevent conception is that the woman moves away from the man slightly at the point of ejaculation.

> καὶ ἐν τοῖς πλησιασμοῖς ἐν τῷ καιρῷ τῆς συνουσίας ὅταν ὃ ἀνὴρ ἀποκρίνειν τὸ σπέρμα μέλλῃ, κατέχειν χρὴ τὸ πνεῦμα καὶ μικρὸν ὑφέλκειν ἑαυτήν, ὡς μὴ πορρωτέρω ἐν τῷ κύτει τῆς μήτρας τὸ σπέρμα ἀκοντισθῆναι.
>
> At the critical moment of coitus when the man is about to discharge the seed, the woman must hold her breath and draw herself away a little so that the seed may not be hurled too deep into the cavity of the uterus (Soranus, *Gynaecology* 1.61).

Lucretius also suggests a similar course of action: if 'she turns the share clean away from the furrow and makes the seed fail of its place' (*On the Nature of Things* 4.1270–1274). Both Soranus and Lucretius seem to be discussing a form of *coitus interruptus.* However, it is not quite the withdrawal method, which requires a man to completely withdraw before ejaculation; rather, it seems to suggest a partial withdrawal, and the onus is on the woman rather than the man. It must be pointed

[446] In 1930 John Smulders, a Roman Catholic physician from the Netherlands, used the aforementioned Knaus and Ogino's discoveries on ovulation, to create the rhythm method for avoiding pregnancy (Humadee, 2013, 109).

out that there is no mention of complete withdrawal (*coitus interruptus*) in Roman medical texts, nor indeed in any other Roman literature.[447] Along with the recommendation of a partial withdrawal, Soranus advises that following intercourse the woman should get up 'immediately and squatting down, she should induce sneezing and carefully wipe the vagina all round' (*Gynaecology* 1.61). Notably, Marie Stopes the lead contributor on birth control in the twentieth century and founder of the first family planning clinic, advised a similar course of action for women post intercourse: she recommended that women clean themselves or 'douche' after intercourse if a man had not practised *coitus interruptus* successfully.[448]

Thus, there were many different contraceptive methods available for Roman women: pessaries; ointments; oral treatments; amulets; and sexual intercourse techniques. Remarkably, several of the ingredients used in the prescriptions have been identified as having fertility suppressing effects in a range of ethnobotanical and laboratory studies.[449] John Riddle and Keith Hopkins both investigated the effectiveness of these contraceptives. They concluded that those barrier methods, as well as blocking the cervix of the uterus, would likely reduce the mobility of the sperm; they would act as spermicides and so diminish the chance of conception.[450] Riddle argues that gums and resins have a mild antiseptic effect and, as such, may act as spermicide; olive oil is a lubricant which, with the wool, blocks the mouth of the cervix mechanically.[451] Furthermore, according to Hopkins, similar methods were still being

[447] Hopkins states that it is not mentioned in antiquity before the 4th century CE, other than by Jewish writers and two ambiguous passages in the *Hippocratic Corpus* (1965, 143). The passages that Hopkins refers to are *Generation* 5.477 & *Nature of the Child* 2.490. In both instances the ambiguity arises because the Hippocratic authors refer to the seed running or falling out of the woman rather than the man withdrawing before ejaculation (*Generation* 5.477; *Nature of the Child* 2.490).

[448] Stopes, 1919, 26. Marie Stopes wrote a number of books and pamphlets on sex and birth control; Stopes also opened the first birth control clinic in 1921 in Holloway, North London (Neushul, 1998, 247–250).

[449] Flemming, 2021a, 900.

[450] Hopkins, 1965, 135; Riddle, 1992, 30.

[451] Riddle, 1992, 30.

used in Western countries until the mid-twentieth century.[452] Indeed, Stopes advocated using an almost identical method to Soranus' barrier method, albeit without the inclusion of white lead.[453] Nearly two millennia after Soranus suggested this treatment, Stopes states that olive oil, 'is one of the best, if not the very best contraceptive in the world'.[454]

Use of very similar treatments in the early twentieth century is not proof of the efficacy of a contraceptive. More likely, such methods, in some instances, worked better than doing nothing at all. Scholars have scrutinised Riddle's methodology of feeding rats large amounts of pomegranate rind which showed a decrease in fertility by almost thirty per cent and suggest that his laboratory tests reveals nothing about the effect of pomegranate on human women when applied in pessary form.[455] That said, there has been further research into the potential antifertility agents from plants, including some of those noted by Dioscorides and Soranus. Dinesh Kumar *et al* conclude that nearly six hundred plant species appear to be promising as effective fertility regulating agents.[456] Flemming, referring to Kumar *et al*'s research, asserts that it is likely that such prescriptions may well have diminished fertility to some degree, although she suggests that efficacy is broadly construed as 'meaningful effect rather than the guaranteed success demanded by modern biomedicine'.[457] Some births may well have been checked, particularly if treatments were combined to possibly maximise effect.

Importantly, the contraceptives advocated by the medical writers, in the large part, do not use luxurious or exotic ingredients. This is in marked contrast to the fertility treatments which I discuss in the next chapter. Most contraceptives would likely have

[452] Hopkins, 1965, 134–135.

[453] Stopes, 1923, 46. See 152–153 for discussion of Soranus' barrier contraceptive method.

[454] Stopes, 1923, 45.

[455] King, 1998, 148–150; Flemming, 2021a, 900.

[456] Kumar *et al,* 2012, 26.

[457] Flemming, 2021a, 901.

been readily available, for Riddle argues that most of the plants suggested in the recipes were common and easily obtainable.[458] Indeed, some ingredients like mint, ferns, and many of the leaves or resin from trees, would have been easily and cheaply available to Romans, if not freely available.[459] Parsley and cabbage were well known in Roman society and were likely grown in Roman gardens.[460] Cabbage, especially, may have been very cheap as Juvenal mocks it as the food of the poor.[461] Moreover, cabbage was used medicinally in the ancient world; Cato the Elder (234–149 BCE) mentions several medicinal remedies using cabbage (*On Agriculture* 156 & 157). In antiquity, dietetics was central to all therapeutics: eating and drinking in the ancient world had greater significance than mere biological sustenance.[462] Food and drink were one of several factors that influenced the humours and preserved or undermined health.[463]

Olive oil, used in the barrier method suggested by Soranus, would probably have been readily available in all Roman households in Italy and southern Europe. It was an extremely important food product of the ancient Mediterranean used for marinading meat and fish before cooking, as well as in cooking, and as a dressing for cooked food or fresh vegetables; it was also used in conserving and was a staple of ancient medicine, being used in the care of skin for afflictions such as cuts, lesions and burns.[464] More so, it had no competition from other vegetable oils, and animal fat

[458] Riddle, 1992, 18.

[459] Mint was a familiar scent at Roman country feasts (Dalby, 2003, 219–220).

[460] Dalby, 2003, 67 & 77–78. Parsley was regarded as a variant of celery and was a common culinary ingredient (Dalby, 2003, 77–78). For discussion of parsley and ferns by Pliny the Elder see *Natural History* 20.44.112 & 27.55.78. For discussion by Dioscorides on the flowers of cabbages, applied as a pessary and green mint applied as a pessary see *Materia Medica* 2.120.3 & 3.34.2.

[461] Juvenal mocks those who have not been invited to dinner by their patron, as only being able to afford cabbage and kindling (*Satires* 1.134).

[462] Nutton, 2013, 96; Wilkins, 2015, 59.

[463] Garnsey, 1999, 105.

[464] Dalby, 2003, 239; Donahue, 2016a, 610–614. It is estimated that per capita consumption of olive oil in antiquity was probably in the vicinity of 20–25 litres per year and may have accounted for up to one-third of an individual's annual caloric intake (Hitchner, 2002, 72).

was not used as a cooking medium in ancient Rome.[465] There were, however, a couple of ingredients used within the contraceptive treatments which were imported, either from outside the empire (pepper), or within its confines (pomegranate). Pliny refers to pomegranate being grown in Carthage, on the Greek island of Samos, and in Egypt (*Natural History* 13.34.112–113). Pepper was imported from southern India.[466]

Nevertheless, it did not necessarily mean that such goods were expensive; that they were luxuries. Production of fruits, including pomegranates, developed and intensified under the Romans, and formed part of the Roman way of life.[467] Pliny notes that pomegranate was used medicinally and for dyeing cloth (*Natural History* 13.34.113). Cobb argues that high volumes of imports of black pepper, along with its wide use in cuisine, medicine, and religious contexts meant that it was likely not priced beyond the reach of all; that it seems to have been popular among a wider spectrum of the Roman population.[468] Social emulation leads to a higher demand, so products slowly lose their prestige.[469] In the case of pepper and pomegranate intensive production, wide social use and large quantities coming into Rome likely reduced the status of these goods. Indeed, Pliny asserts that it is 'remarkable that the use of pepper has come so much into favour' (*Natural History* 12.14.29). So, for those Roman women wishing to control their fertility, there was a vast array of contraceptive methods available using easily obtainable and affordable, if not free, ingredients.

The extent of use of contraception

Scholarship has debated the extent of contraceptive use in ancient Rome and all agree that contraceptives were available to prevent conception, but there is some

[465] Dalby, 2003, 239.

[466] Cobb, 2018, 519.

[467] Bakels & Jacomet, 2003, 555; Ferdiére, 2021, 460.

[468] Cobb, 2018, 519–559.

[469] Totelin, 2009, 260.

disagreement on the extent and level of use, especially across all classes in Roman society.[470] Some have argued that the practice was primarily the domain of the rich.[471] Bruce Frier in particular asserts that, in general, ordinary Roman couples did not successfully limit their families through contraception.[472] He asserts that even if ancient sources do contain accurate knowledge about birth control agents, such knowledge does not in itself entail widespread family limitation.[473] Of course, availability of birth control does not mean extensive use. The point, as I have just shown, is that contraception was easily and cheaply available for women across the class spectrum; any Roman woman should they want to, could use contraception.

Indeed, there may have been various reasons why women would have wanted to prevent conception. Roman women married young, likely in their late teens, although elite women tended to marry earlier, possibly in their early to mid-teens.[474] Brides aged twelve were not unheard of.[475] Certainly, Dio Cassius records that girls were considered of 'marriageable age' at twelve years old (54.16.7). Thus, upper class women potentially had more years of childbearing and may have wanted to space out births. Moreover, women may have used contraception for family limitation because childbirth was not without its risks, particularly for the very young.[476] Significantly, within Roman society some women did not to breastfeed, employing wet nurses instead, so were likely deprived of the natural protection associated with breastfeeding.[477] There is considerable evidence for wet nursing in ancient Rome,

[470] Hopkins, 1965, 149–150; Eyben, 1980, 77–81; Riddle, 1992, 15; Frier, 1994, 332–333; Flemming, 2021a, 899–902.

[471] Eyben 1980, 77–81; Frier, 1994, 332–333.

[472] Frier, 1994, 333.

[473] Frier, 1994, 333.

[474] McLaren, 1992, 54; Parkin, 1992, 123–124; Rawson, 1992, 21; Rawson, 2003, 95; Scheidel, 2007, 390; Laes, 2011a, 30. However, Scheidel has suggested that this is a general hypothesis: that the demographic parameters of Roman marriage, in the broadest sense of the term, remain exceedingly poorly known (2007, 402).

[475] Laes, 2011a, 46.

[476] Chapter 5 discusses the implications of a difficult childbirth in the Roman world.

[477] Fildes, 1986, 34; Bradley, 1992, 201–207; Dasen, 2010, 699; Parkin, 2013, 52; Williams, 2018; 29; Lawrence, 2021, 232. Larissa Bonfante asserts that breastfeeding was equated

Soranus especially offers lengthy advice on what to look for when choosing a wet nurse (*Gynaecology* 2.19). Other Roman authors take the moral high ground and criticise the practice.[478] The *columna lactaria* in the Forum Olitorium may have been a place where wet nurses could be hired; whilst sixty-nine epitaphs of deceased wet nurses have been identified.[479] Women who did not breastfeed could well have turned to contraceptives to avoid numerous pregnancies in quick succession.

Some scholars have suggested that by controlling their fertility, elite families especially, could provide a more secure inheritance for existing children.[480] It seems that in Roman society all children were treated equally in partible inheritance.[481] Thus, the net effect of splitting estates equally or nearly equally among all children was that a Roman aristocrat with more than two surviving children faced the prospect of sub-dividing the family property.[482] Bringing up more children diminished the financial prospects of the other children and also risked lowering the status of each surviving child, especially if the estate was significantly diminished.[483] It would have affected male children in particular, because participation in politics was expensive: the monetary qualification to become a senator was one million *sesterces* and a knight four hundred thousand *sesterces*.[484] Moreover, the expansion of the

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with suckling practiced by animals and it was a sign of civilisation for a lady to be freed from this embarrassingly physical necessity, all too reminiscent of their lowly animal nature. (1997, 184–185).

[478] Plutarch, *Moralia*. *The Education of Children* 5; Tacitus, *A Dialogue on Oratory* 29; Favorinus (*c*.85–155CE) quoted in Aulus Gellius' *Attic Nights* 12.1.5–6.

[479] Fildes, 1986, 36; Bradley, 1992, 204–206.

[480] Eyben, 1980, 81; McLaren, 1992, 54; Hopkins & Burton, 2006a, 195; Hopkins & Burton, 2006b, 43.

[481] Hopkins & Burton, 2006b, 76; Garnsey & Saller, 2015, 160; Flemming, 2021a, 904. That said, Roman fathers could legally disinherit children (Saller, 1994, 119; Hopkins & Burton, 2006b, 77; Garnsey & Saller, 2015, 160 & 165; Flemming, 2021a, 904). Nevertheless, the underlying assumption is that fathers treated each child fairly (Hopkins & Burton, 2006b, 77).

[482] Hopkins & Burton, 2006b, 78.

[483] Hopkins & Burton, 2006b, 43; Flemming, 2021a, 904.

[484] Hopkins, 2012, 198–208; Temin, 2013, 73.

empire raised the costs of living in the Roman upper classes tremendously.[485] Hopkins and Burton argue that such increased cost of living also stimulated competition for political office, as the rewards out of office increased enormously, which in turn would have led to increased electioneering costs and in the longer term, the cost of expressing and maintaining high social status in society by ostentatious expenditure.[486] Thus, many sons entailed an increasing dispersal of the family fortune, making them individually less prosperous and therefore less influential.[487] Certainly, one son could be launched into politics more cheaply than two.[488]

On the other hand, daughters also placed a financial burden on the estate in the form of dowries, which were an essential part of every Roman marriage.[489] For those in the upper classes, dowries were probably large, and daughters were seemingly considered expensive.[490] In a letter to his friend Atticus, Cicero suggests that he is struggling to pay a dowry for his daughter, Tullia, on her third marriage to Dolabella.

> *De dote quod scribis, per omnis deos te obtestor ut totam rem suscipias et illam miseram mea culpa et neglegentia tueare, meis opibus, si quae sunt.*
>
> You refer to the dowry. For God's sake take the whole matter into your hands and protect that poor girl, poor through my fault and negligence with my resources if I have any (*Letters to Atticus* 212 (11.2)).

[485] The luxury of houses, their furnishings, private expenditure on works of art jewellery, clothes, exotic foods and on domestic slaves all increased (Hopkins & Burton, 2006b, 79; Beerden, 2018, 505).

[486] Hopkins & Burton, 2006b, 79. The rewards out of office would be the command of an army or province (Hopkins & Burton, 2006b, 79).

[487] Eyben, 1980, 81.

[488] Hopkins & Burton, 2006b, 79.

[489] Eyben, 1980, 81; Evans Grubbs, 2002, 91; Hopkins & Burton, 2006b, 86; Knapp, 2011, 61; Garnsey & Saller, 2015, 159.

[490] Hopkins & Burton, 2006b, 77.

Cicero's resources seem to be drained by hidden and unexpected costs: later in the letter he asks Atticus 'what expenses are absorbing the income from my properties?'; he then mentions some large amount of money, sixty thousand *sesterces*, which was deducted from the dowry without his knowledge (*Letters to Atticus* 212 (11.2)). For some elite fathers, dowries may have been a strain on their finances; the more daughters they had, the bigger the strain. Even ordinary people paid dowries on the marriage of their daughters in the form of jewellery, clothing and cash.[491] Robert Knapp asserts that the amounts would often have been small, but it must all have been relative in terms of wealth and status and would have equally placed a financial burden on those families with many daughters.[492] One may also suggest that as the cost of living increased through expansion of the empire, so dowries rose in price, putting an increased strain on resources. In the same way that many sons entailed an increasing dispersal of the family fortune, so too did many daughters.[493] Peter Garnsey and Richard Saller assert that much higher living standards for aristocrats led many to limit their families to just a few children.[494] The necessity of dowries for daughters across the social spectrum may have influenced some lower-class Romans to limit the size of their families too.

At the lowest end of the social spectrum, enslaved women working in households may also have used contraception to limit the chance of becoming pregnant. Some Roman men likely had intercourse with their wives, concubines, sex workers and enslaved girls.[495] Enslaved peopled were helpless and exploited; they likely endured coerced sex with their enslaver or anyone else their enslaver chose, for they were at

[491] Knapp, 2011, 61.

[492] Knapp, 2011, 61.

[493] Eyben, 1980, 81.

[494] Garnsey & Saller, 2015, 165.

[495] Knapp, 2011, 66. They may also have had sex with men. As has been discussed, the ideal Roman man penetrated women or possibly other men but was not himself penetrated (see 144).

their enslaver's disposition.[496] Enslaved women could also be given as reward to favoured enslaved men.[497] For these enslaved women, enduring repeated coitus possibly with several different men, easily available contraceptive techniques and medicaments reduced the likelihood of pregnancy. Some women may have wanted to avoid having children altogether: sex workers would more than likely have used contraception to remain voluntarily childless, at least during their working career. Prostitution formed a licit area of Roman sexuality and was likely widespread amongst ordinary people in the ancient world: according to Knapp, possibly one in every hundred people in Pompeii was a sex worker.[498]

More importantly, getting pregnant would have been 'very inconvenient' for sex workers.[499] Such women were entirely dependent on their bodies for their livelihood; a pregnancy would likely mean that they lost their clientele and thus, their only source of income.[500] Evidence from a little later than the period under discussion says as much. The courtesan, Myrtium, in Lucian's *Dialogue of the Courtesans,* comic dialogues written *c.*mid-second century CE, reveals the problem of getting pregnant for women in the sex industry.

> τοῦτο γοῦν καὶ μόνον ἐπριάμην τοῦ σοῦ ἔρωτος, ὅτι μου τηλικαύτην πεποίηκας τὴν γαστέρα καὶ μετὰ μικρὸν παιδοτροφεῖν δεήσει, πρᾶγμα ἑταίρᾳ βαρύτατον.
>
> All the good I've had from your love is that you've given me such an enormous belly and I'll soon have to bring up a child and that's a terrible nuisance for a lady of my kind (Lucian, *Dialogue of the Courtesans* 2.282).

[496] Foucault, 1985, 215; Knapp, 2011, 237; Perry, 2014, 33; Hunt, 2018, 99; Levin-Richardson, 2021, 188–189; Perry, 2021, 256.

[497] Hunt, 2018, 99.

[498] McGinn, 1998, 17; Kapparis, 2002, 107; Knapp, 2011, 245–246 & 263.

[499] Knapp, 2011, 262.

[500] Kapparis, 2002, 108.

Knapp argues that the inconvenience of pregnancy and having a child meant that sex workers would have employed a number of methods to prevent pregnancy with pessaries and ointments being the most practical.[501] Notably, there seems to be no moral condemnation, nor laws prohibiting the use of contraceptives in Roman society; more so, they were recommended by some physicians: Soranus states that it is preferential to ‘‘prevent conception taking place than to destroy the foetus’ (*Gynaecology* 1.60).

Conclusion

In this second part of my thesis, I aim to extend understanding of infertility in Roman society. In this chapter, I have begun by discussing the ways difficulties in conceiving were formulated in the Roman world. There was discussion amongst Roman physicians, medical writers and philosophers and an understanding that infertility was linked to the body. There was recognition of the importance of menstruation with fertility and that absent menses caused difficulties in conceiving. A number of factors were understood to cause problems with menstruation which, in turn, resulted in problems with conception. In addition, there was recognition that men could have difficulties fathering children. Issues with conception were attributed to men as well as women. Furthermore, such interest in infertility by health-giving professionals and intellectuals, and especially a desire to understand the causes, suggests that there was an element of empathy towards those who were struggling to conceive.

Along with discussion of the reasons some women and men had difficulties in conceiving, Roman medical writers also discussed ways or treatments that they believed prevented conception and so caused temporary infertility: they gave advice and advocated contraception. Certainly, evidence suggests that women across the class spectrum had their own reasons to try and prevent pregnancy. The situation in

[501] Knapp, 2011, 262.

the Roman world was such that some women may well have experienced difficulty in conceiving; on the other hand, women had the means to try to control their fertility.

Following on from examining Roman understanding and knowledge of the causes of infertility, the next chapter seeks to examine the help available for Roman women and men struggling to conceive.

Chapter 4.

Helping the Childless: Roman Fertility Treatments

Introduction

In this chapter, I show that there was substantial assistance available to those having difficulties in conceiving during the era. The medical texts show that, in the majority of cases, fertility treatments were prescribed for women; yet there were also remedies specifically for men. I will discuss how the treatments range from inexpensive home remedies to expensive luxurious prescriptions which use exotic ingredients. Such a range of choice meant that fertility treatments were not the preserve of the wealthy; women of all classes could try to treat their infertility. However, I will explore the way the different fertility treatments reflected the hierarchy of Roman society: wealthier women could access more luxurious and exotic treatments, and purchasing such treatments may have been as much about conspicuous consumption as it was about enhancing their fertility.

As well as enhancing or treating difficulties in conceiving, there were medicaments in the medical literature which promised couples the opportunity to select the sex of their child. Notably, in some of these instances, the treatment was prescribed for both the potential father and mother of the child: both parents had a responsibility in determining the gender of the foetus. More specifically, there were several fertility treatments available to specifically produce male offspring. This suggests that there was a desire amongst many in Roman society, especially the elite, to produce male heirs. Alongside prescriptions to enhance or treat infertility, I will show that there was advice on sexual intercourse to increase the chances of conception. My discussion will include Roman understanding of conception and the advice on when to have intercourse to maximise the chances of pregnancy. In ancient Rome, menstruation signified the possibility of getting pregnant. I will argue that women wishing to become pregnant could take measures to stimulate menstruation, thereby preparing their bodies for conception; they could use emmenagogues. Within this discussion I will concur with previous scholarship that has challenged the argument that

emmenagogues were used as fertility inhibitors to abort pregnancies. I will discuss how some may have been abortive because they refer to the expulsion of foetuses. More so, I will argue that, whilst most abortifacient herbs were classified as emmenagogues, not all emmenagogues were believed to cause abortion. I will show that such a distinction is clearly made in the ancient medical texts, because less than half of the emmenagogues discussed by the Roman authors note that they destroy embryos or expel foetuses. The large majority state that they only draw down the menses, induce or promote menstruation or set the menses in motion; therefore, it seems, that they were not thought to be strong enough to abort a pregnancy. In a society where menstruation marked the opportunity to get pregnant, such treatments were likely perceived as fertility enhancers, as they offered Roman women the chance to control their reproductive health and prepare their bodies for pregnancy; they too were a form of fertility treatment.

Roman Definitions and Terminology

Before discussing the treatments in detail, it is important to note that there are several different words and phrases used in the ancient texts which denote that they are fertility treatments. In some instances, Latin authors use the noun *fecunditas.*[502] In ancient Rome, when used in relation to plants, fields and animals, '*fecunditas'* refers to the quality of producing abundantly: Varro (116–27 BCE) discusses the *fecunditas* of hares and rabbits; Livy refers to the *fecunditas* of the territory of Sagalassus; Seneca the Younger refers to the *fecunditas* of fields; whilst the first century CE agricultural author Columella discusses the *fecunditas* of vines, chickens and pigeons.[503] However, in relation to women, '*fecunditas'* is also used by ancient Roman authors to define the capability to conceive a child: Seneca the Elder states that the *fecunditas* of women 'does not answer according to plan', or 'follow a fixed timetable'; rather, 'nature is subject to its own laws and does not adapt to fit human rules'; Seneca the Younger discusses the *fecunditas* of humans in relation to the

[502] In some of his fertility treatments, Pliny uses *fecunditas* (*Natural History* 14.22.116; 20.22.49; 28.27.102; 28.77.249; & 30.45.131). A full description of the treatments is listed in Table 1 below.

[503] Varro, *On Agriculture* 3.12.4; Livy, 38.15.9; Seneca, *On the Tranquillity of the Mind* 17.5; Columella *On Agriculture* 3.9; 8.5.1; 8.8.9.

moon; Pliny the Younger, when discussing his wife's miscarriage in a letter to his wife's grandfather, asserts that her miscarriage, whilst tragic, is proof of her *fecunditas.*[504] Thus, *fecunditas* has been translated as either fecundity or fertility.[505] 'Fecundity' is defined as productiveness in general, or the faculty of being fruitful.[506] In relation to women, *fecunditas* is more associated with 'fertility', defined as the quality of being fertile; or fecundity; or fruitfulness; or productiveness.[507]

As I have discussed in my introduction, 'fertility' was initially related to soil and agriculture, referring to producing an abundance of plants; in the nineteenth century it became associated with human reproduction.[508] Moreover, at this time a distinction began to be made between the words fertility and fecundity: the number of births, fertility, was distinguished from the capability to bear children, fecundity.[509] However, such a distinction seems only to have been made in demographic usage; in the medical profession and in laypeople's terms, 'fertility' is used even though it should ideally be 'fecundity': the medical profession offer treatments for fertility, in-vitro fertilisation (IVF), to increase the likelihood of a woman successfully conceiving a child.[510] As *fecunditas* is the term used by Roman authors to denote the ability to bear a child in relation to human reproduction, in translation I shall use the term fertility.

[504] Seneca, *Declamations* 2.5.7; Seneca, *On Benefits* 4.23.1; Pliny, *Letters* 8.10.

[505] OLD, s.v. *fecunditas*.

[506] OED, s.v. fecundity.

[507] OED, s.v. fertility.

[508] See 10–11.

[509] In 1866 J.M. Duncan distinguished between the two: 'by fertility or productiveness, I mean the number of births as distinguished from the capability to bear. By fecundity, I mean the demonstrated capability to bear children' (OED, s.v. fertility *&* fecundity).

[510] By 1964 it was accepted that 'fertility in modern demographic usage relates to the actual frequency of births and carries no overtones of ability to have children. For the latter concept fecundity or reproductive capacity are now used' (OED, s.v. fecundity).

Pliny's use of *fecunditas* in his *Natural History* refers to treatments which bring about or cause fertility; increase fertility; and make or produce fertility; even restore and renew fertility.[511] On occasion he uses the adjective *fecundus* meaning fertile or fruitful and the adjective *fetifer* meaning causing fruitfulness or fertilising.[512] In several more treatments, instead of noting substances which assist or aid fertility, Pliny notes substances which assist, cause, hasten, even guarantee the ability to become pregnant using the noun *conceptus*.[513] On one occasion he uses a slightly different noun, *conceptio* and, in another instance, he uses the verb *concipere*.[514] Lucretius, when discussing sexual positions to improve the chances of conceiving, also uses the verb *concipere* (*On the Nature of Things* 4.1263). The nouns *conceptus* and *conceptio* have been translated as conception; the verb *concipere* has been translated as to conceive.[515] 'Conception' is defined as 'the action of conceiving offspring in the womb'.[516] On the other hand, Celsus notes a pessary to help women conceive but he uses the verb *comprehendere* which has been translated as to become pregnant or to conceive.[517] In other instances, Pliny refers to some treatments which allegedly cure infertility, using the noun *sterilitas:* he notes substances which he claims act against it, or remedy it, even destroy or abolish (*abolere*) infertility.[518]

[511] Pliny, *Natural History* 14.22.116*;* 20.22.49; 28.27.102*;* 28.77.249; 30.45.131. A full description of the treatments is listed in Table 1 below.

[512] OLD, s.v. *fecundus & fetifer*. Pliny, *Natural History* 30.44.130; 7.3.33. See Table 1 below for a full description.

[513] Pliny, *Natural History* 20.3.6; 20.15.32; 24.6.12; 28.27.97–98; 28.77.253; 28.77.255; 30.43.126; 31.7.10. See Table 1 below for a full description.

[514] Pliny, *Natural History* 20.58.164 (*concipere);* 22.40.83 (*conceptio*). See Table 1 below for a full description.

[515] OLD, s.v. conceptus, conceptio & concipere.

[516] OED, s.v. conception.

[517] Celsus, *On Medicine* 5.21.7; OLD, s.v. *comprehendere*.

[518] Pliny, *Natural History* 28.13.52; 28.27.97–98; 28.77.253; 31.4.9. See Table 1 below for a full description. For discussion on the noun *sterilitas,* see 122–123.

Those Greek-speaking medics practising in Rome discuss conception and conceiving rather than fertility, and, when doing so, use the Greek noun σύλληψις. Dioscorides asserts that two treatments aid or facilitate the ability to become pregnant using the noun σύλληψις (*Materia Medica* 2.75.1 & 2.100). In his treatise, Soranus does not advise on any medicaments to enhance fertility but offers advice for maximising the chance of pregnancy using the noun σύλληψις. He suggests that the best time for 'fruitful intercourse' (σύλληψιν) is when menstruation is 'ending and abating' (Soranus, *Gynaecology* 1.36). Furthermore, he suggests that both women's and men's bodies should be in a natural state to allow for conception (σύλληψιν) to take place.[519] Thus, the noun σύλληψις translates as conception or pregnancy and the verb συλλαμβάνειν means to conceive.[520]

The Fertility Treatments

Aids and Remedies

As I have shown at the beginning of this thesis, the *Laudatio Turiae* specifically documents one couple's sorrow at being childless.[521] Notably, it seems that the couple, and the wife in particular, sought help for their predicament because the husband notes that his wife 'planned' and 'attempted' things, without stating them, as a result of their situation (*ILS 8393,* 2.27–28). As previously mentioned, the husband refers to the goddess Fortuna as the one responsible for their fate.[522] Such plans or attempts may have included the act of dedicating votives to the deity by the wife.[523] Votive offerings were made to a range of deities associated with warfare, healing, agriculture, rites of passage and above all fertility; they were a central component of ancient religion.[524]

[519] As shall be discussed in due course, Soranus advises against intercourse if one is too drunk, or too congested with food (*Gynaecology* 1.36–1.38).

[520] LSJ, s.v. σύλληψις & συλλαμβάνειν.

[521] See 1–3.

[522] See 126–127.

[523] Votive dedications were made to Fortuna to secure procreation (Miano, 2018, 12 & 49; Purcell, 2012).

[524] Graham, 2013, 218; Graham, 2021, 112.

In particular, anatomical votives were offered to the gods to invoke the healing specialism of the divine figure to whom they were made as a gift of thanks; such votives are generally seen as a source of evidence of particular diseases or medical conditions which were made to the gods.[525] A wide variety of different body parts were offered to the gods: eyes, ears, breasts, limbs, hands, genitals, hearts, bladders and wombs.[526] Those in the shape of the womb are usually interpreted as concerned with fertility and reproduction, and uterine diseases and female health more generally.[527] Uteri votives have been found in large numbers across Italy.[528] In a very recent excavation in the village of San Casciano dei Bagni in Tuscany, known for its thermal springs, archaeologists unearthed a votive womb along with those in the shape of a phallus, a pair of breasts, legs, arms and ears.[529] Notably, according to Flemming, representations of the womb are found in over half of the collections containing offerings in the form of body parts; indeed, she states that hundreds, if not thousands, of votive wombs have been identified.[530]

It seems that such votive offerings were quite commonly made to the gods, which may suggest that reproductive issues, or uterine disease and female health more generally, which can result in issues with fertility, were quite prevalent in Roman

[525] Graham, 2021, 112. That said, Jessica Hughes asserts that some scholars have considered other reasons for the dedication of votives for reasons other than healing, particularly citing Fay Glinister (2017, 11). Glinister argues that, along with disease or fertility, some body parts, especially the genitals, may have been connected with rites of passage, i.e. puberty (2006, 12).

[526] Graham & Draycott, 2017, 5.

[527] Glinister, 2006, 10–12; Graham, 2013, 219–222; Flemming, 2017, 116; Graham & Draycott, 2017, 13; Carroll, 2019, 11–12; Graham, 2021, 114.

[528] Graham, 2013, 219; Graham, 2021, 114.

[529] Bartek, 2022.

[530] Around 150 votive deposits in central Italy contain offerings in the form of body parts and votive wombs have been identified at around 80 of these locations (Flemming, 2017, 112).

society.[531] That said, there is no mention on the *Laudatio Turiae* of any specific offerings or votives to Fortuna, or indeed to any other god. On the other hand, what the wife 'attempted' may suggest that the wife took medical treatments (*ILS 8393,* 2.28). Ancient people often combined secular and religious treatments.[532] Indeed, the texts list numerous fertility treatments, as detailed below in Table 1. The treatments claim to either enhance fertility and aid conception or indeed cure infertility; they are available in a variety of methods, and, in the large part, they were prescribed to be taken or applied by women.

Table 1: List of Fertility Treatments

Celsus ***On Medicine***	**Prescription**	**Method of Treatment**
5.21.7	*Si non comprehendit, adeps leonina ex rosa mollienda est* If a woman does not conceive, (a pessary) of lion's fat softened by rose-oil.	Pessary
Pliny ***Natural History***	**Prescription**	**Method of Treatment**
7.3.33	*ubi fetifer potu Nilus amnis* Drinking the water of the Nile causes fruitfulness.	Oral
14.22.116	*(Vino) in Arcadia fieri quod fecunditatem feminis inportet* One (wine) grown in Arcadia produces the ability to bear children.	Oral
20.3.6	*(elaterium) conceptus adiuvari adalligato semine, si terram non adtigerit*	Amulet

[531] Glinister asserts that the majority of deities known to receive anatomical votives were female and especially fertility goddesses such as Uni, Mater Matuta, Diana and Ceres (2006, 29).

[532] Harris, 2016, 47.

	An amulet of (squirting cucumber) seed helps conception if it is fastened without it having touched the ground.[533]	
20.15.32	*Staphylinus, quod pastinacam erraticam vocant…cibo…ideo conceptus adiuvari* Staphylinos which they call carrot (or parsnip)….when eaten…..aids conception.[534]	Oral
20.22.49	*Capitato porro…. fecunditatem etiam feminarum hoc cibo augeri* Headed leek…..when eaten increases fertility in women (translation by Jones, with minor modifications).	Oral
20.58.164	*Ami: facilius concipere eas quae odorentur id per coitum* *Ami* (bullwort): women who smell the plant during sexual intercourse, more easily conceive.[535]	Inhalation
22.40.83	*caucalis semen…..conceptionibus conferre multum. bibitur in vino ieiunis* Caucalis seed……greatly helps conception. Drunk with wine on an empty stomach (translation by Jones, with minor modifications).	Oral
24.6.12	*Viscum: si terram non attigerit….conceptum feminarum adiuvare, si omnino secum habeant* An amulet of mistletoe helps women conceive if it does not touch the ground.[536]	Amulet

[533] Translation by Jones, with minor modifications. *Elaterium* is squirting cucumber (Mabberley, 2017, 318).

[534] There is some difficulty in distinguishing between parsnip and carrot in classical writings since both vegetables seem to have sometimes been called *pastinaca* (André, 1985, 190; Zohary *et al*, 2012, 161; OLD, s.v. *pastinaca*).

[535] *Ami* is also *Ammi* (André, 1985, 14). *Ammi majus* is commonly called bullwort (Mabberley, 2017, 40.

[536] Translation by Jones, with minor modifications: it literally translates as 'it helps women conceive if they merely carry it on their person' (Pliny, *Natural History* 24.6.12).

28.13.52	*in feminis quas infantium alvo editas in utero ipso contra sterilitatem subdi censent, meconium vocant* A pessary made from the faeces of foetuses voided in the womb is a cure for infertility; they call it meconium (translation by Jones, with minor modifications).	Pessary
28.27.97–98	*Hyaenam…. sterilitatem mulierum emendari oculo cum glycyrrhiza et aneto sumpto in cibo, promisso intra triduum conceptu* Infertility in women is cured with the eye of a hyena, taken in food with liquorice and dill, guaranteeing conception within 3 days (translation by Jones, with minor modifications).	Oral
28.27.102	*Hyaenam….renium nervos potos in vino cum ture fecunditatem restituere* Kidney sinews of the hyena, taken with frankincense in wine restore fertility.	Oral
28.77.249	*conceptum leporis utero exemptum his quae parere desierint restibilem fecunditatem adferre. sed pro conceptu* The foetus of a hare, taken from its uterus, renews fertility to women who are passed childbearing.[537]	Oral
28.77.253	*conceptus vero vaccini lactis potu* Drinking cow's milk, conception is aided.	Oral
28.77.253	*sterilitatem a partus vexatione fieri certum est. hanc emendari…….felle taurino et adipe serpentium et aerugine ac melle medicatis locis ante coitus* Infertility may result from sufferings at childbirth….is cured by bull's gall, serpent's fat, copper rust and honey rubbed on the parts	Pessary/application

[537] There is no direction to eat the foetus, although it can be inferred because the beginning of the discussion directs women to eat the uterus of the hare should they want to conceive males (Pliny, *Natural History* 28.77.249).

	before intercourse (translation by Jones, with minor modifications).	
28.77.255	*Caprarum: ceterarum vero fel …… inspersum a purgatione conceptus facit* The gall of other she-goats …. sprinkled after menstruation produces conception.[538]	Pessary/application
30.43.126	*inveniuntur et in gramine vermiculi….. conceptus quoque causa dantur in potu quini aut septeni.* Those worms that are found in grass…..cause conception, 5 or 7 worms are given in drink.	Oral
30.43.126	*cocleae in cibo sumptae adcelerant …..conceptum inpositae cum croco* Snails, taken in food hasten…..conception if applied with saffron.	Oral
30.44.130	*fimum accipitris in mulso potum videtur fecundas facere* Hawk's dung, taken in honeyed wine, seems to make women fertile.	Oral
30.45.131	*ovo perdicis aut ortygis….. si sorbeantur eadem, fecunditatem facere* Partridge or quail eggs…..if swallowed produces fertility.	Oral
31.4.9	*In eadem Campaniae regione Sinuessanae aquae sterilitatem feminarum abolere produntur* In Campania are the waters of Sinuessa, which are said to cure infertility.[539]	Oral/bathe
31.7.10	*Thespiarum fons conceptus mulieribus repraesentat, item in Arcadia flumen Elatum*	Oral/bathe

[538] In the preceding sentence to this, Pliny notes a depilatory using the blood of wild she-goats; in this prescription he then states that the gall of others '*ceterarum*' produces conception (*Natural History* 28.77.255). Thus, other she-goats must presumably be those that are not wild.

[539] Translation by Jones, with minor modifications. It is not stipulated by Pliny whether women should drink or bathe in the waters (*Natural History* 31.4.9).

	A spring at Thespiae hastens conception among women as does the river Elatum in Arcadia.[540]	
Dioscorides *Materia Medica*	**Prescription**	**Method of Treatment**
2.75.1	πιτύα λαγωοῦ…… τριωβόλου προς…….. προστιθεμένη δὲ μετὰ τήν κάθαρσιν τῇ μητρᾳ μετὰ βουτύρον συλλήψει συνεργει Hare's rennet….a weight of three *oboloi….*applied to the cervix with butter after menstruation, aids conception.	Pessary/application
2.100	αἶρα…….σύν ἀλφιτώ δ' ἤ σμύρνῃ ἤ κρόκῳ ἤ λιβανωτῷ ὑποθυμιωμένη συνεργεῖ ταῖς συλλήμψεαιν Darnel…….burned with barley groats or myrrh or saffron or frankincense to produce smoke from below aids conception.	Fumigation/Sitz bath
3.63	κόριον…. τὸ δὲ σπέρμα ὀλίγον μὲν μετὰ γλυκέος …… σπέρματός ἐστι γεννητιχόν Coriander…. a small quantity of its seed drunk with grape-syrup……furthers the production of semen.	Oral

As shown in Table 1, there were prescriptions which could be taken orally, either drunk or ingested and these made up the vast majority of the surviving fertility treatments. Some treatments were prescribed to be applied to the appropriate parts either by hand or via a pessary, a solid medical preparation designed to dissolve after being inserted into the vagina. Celsus explains how such a treatment was prepared in ancient Rome.

[540] As above, it is not stipulated whether the woman should drink or bathe in the waters (Pliny, *Natural History* 31.7.10).

> *Sed alia quoque utilia sunt, ut ea, quae feminis subiciuntur: pessos Graeci vocant. Eorum haec proprietas est: medicamenta composita molli lana excipiuntur, eaque lana naturalibus conditur.*
>
> There are other useful compositions such as those which are introduced into women from below, the Greeks call them *pessoi.* Their characteristic is that the component medicaments are taken up in soft wool and this wool is inserted into the genitals (Celsus, *On Medicine* 5.21.1).

As well as the oral treatments and medicaments which needed to be applied, Pliny lists two prescriptions which were meant to be worn as amulets on the body. Dioscorides also details one fertility treatment which uses the method of fumigation. Here, the prescribed elements are burned together or boiled in water to create the required medicinal fumes; the part of the body requiring treatment is then exposed to these fumes in order to produce a therapeutic effect. In the case of this fertility treatment, the fumes are created in a sitz bath which the woman sits over, exposing her genitals and enabling the vapours to flow into the uterus through the neck of the womb. Such individual prescriptions could be given to women in isolation, or treatments could be combined.

Before discussing the treatments, it is important to note where Roman people acquired health advice and medical care. In the ancient world, medicine was pluralistic: there was a mixture of many competing types of healing.[541] There were professional healers but no 'professions' in a modern sense; there were doctors who had been trained in the art of medicine and these comprised the professional sector, but there were no legally recognised qualifications.[542] Vivian Nutton warns against

[541] Nutton, 2013, 277.

[542] Lloyd, 1983, 165; Nutton, 2013, 254–255; Harris, 2016, 2; Panagiotidou, 2016, 92. Those who wanted to become doctors appointed themselves to medical practitioners, often, but far from always, in one of the centres of medical training such as Cos, or later Alexandria (Lloyd, 1983, 165). In the Hellenistic period many doctors belonged to one or other of the main medical sects or schools: the Dogmatists, the Pneumatists, the Empiricists and the Methodists (Lloyd, 1983, 165).

assuming that those providing healing in the ancient world formed some form of coherent group whose status, ideology and reputation could be clearly determined.[543] Nevertheless, it would have been clear to a person whether someone was a doctor or not, and a rudimentary code of professional ethics existed from Hippocratic times onwards.[544] In addition, learned physicians competed with other medical practitioners; other approaches to healing which were available: surgeons; astrologers; root-cutter and drug sellers who sold various plants and herbs at markets and offered health advice; and sellers of charms and incantations who travelled, selling amulets.[545] It was a 'medical marketplace'; patients shopped around and made choices according to their own means and preferences.[546] Women likely provided the bulk of medical care for women: they continued folk medical traditions and worked as midwives whose activities extended beyond childbirth; they were active in the fields of pharmacology and in treating other women for ailments relating to their reproductive life.[547]

Romans may have visited doctors in surgeries or medical establishments or consulted with healers who travelled from town to town selling their wares and services.[548] Some initiated standing agreements with local physicians. Varro asserts that farmers have 'yearly contracts' with doctors, along with other artisans necessary for the running of a farm; Cicero too, does not seem to have engaged a permanent,

[543] Nutton, 2013, 254–255.

[544] Harris, 2016, 30.

[545] Oberhelman, 2013, 7–8; Panagiotidou, 2016, 93; Flemming, 2020, xx. Nutton discusses Lucius Clodius of Ancona, a circulator, travelling from town to town selling his wares or someone who combined doctoring with farming along with other pursuits (2013, 162). There is a stone funerary relief depicting a woman who has been variously identified as a doctor, a pharmacist and a soap-maker, dating from the second century CE (Musée Départemental d'Art Ancien et Contemporain, Épinal, France).

[546] Nutton, 2013, 66; Flemming, 2020, xx.

[547] Flemming, 2000, 359–361; Totelin, 2016a, 6; Dean-Jones, 2018, 248.

[548] Draycott asserts that there have been occasional archaeological discoveries of surgeries and there have also been discoveries of houses containing medical instruments whose purpose is less clear: at Pompeii, medical instruments have been found at over twenty locations indicating that some sort of medical activity was taking place on a variety of premises (2019, 107).

full-time physician, but seems to have been in the habit of employing them as and when their services were required.[549] On the other hand, some wealthy Romans employed personal physicians; the services of medical practitioners were all bought and sold in antiquity, but so were some medical practitioners themselves.[550]

People likely also turned to family members or friends.[551] Most members of Roman society, whether male or female, freeborn, freed slave or slave, possessed some degree of healing knowledge which meant that, in a lot of instances, medicine was practised within the household, the *domus*.[552] The patriarch is often presented as being in charge of the household's health and well-being; Cato the Elder is often presented as the archetypal *pater familias* looking after his family's health.[553] He reportedly compiled recipes and prescriptions to care for his family and presumably extended household.[554] More so, women probably sought out the advice and assistance of female family members or friends, particularly in matters of fertility and reproductive health.[555] Women likely had an important role in domestic medicine.[556] Advice may have been transferred orally from female to female: mother, or mother-in-law to daughter; sister, or sister-in-law to sister; friend to friend. The business of medical buying and selling also extended beyond the services of practitioners: drug recipes, along with medical materials and equipment were all commercial commodities.[557] Wealthy families likely purchased the medical literature under

[549] Varro, *On Agriculture* 1.16.4. Cicero, *Letters to Friends* 123 (16.4); 124 (16.5); 127 (16.9); 286 (13.20).

[550] Draycott, 2019, 103; Flemming, 2020, xxii.

[551] Harris, 2016, 3.

[552] Nutton, 2013, 165–166; Draycott, 2019, 131–132.

[553] Draycott, 2019, 98.

[554] According to Plutarch, Cato the Elder wrote a book of recipes which he followed in the treatment and regimen of any who were sick in his family (*Lives. Marcus Cato* 23.4). Unfortunately, Cato's book of recipes has not survived.

[555] Caldwell, 2016, 366.

[556] Nutton, 2013, 258. Nutton cites the example of one woman Aquilla Secundilla whose remedies are noted by Galen (2013, 258).

[557] Flemming, 2020, xxiii.

discussion: Celsus' *On Medicine*; Scribonius Largus' *Compounding of Drugs*; Pliny's *Natural History*, Dioscorides' *Materia Medica;* and Soranus' *Gynaecology*; as well as others that are now lost.

Inexpensive Home Remedies

As shown in Table 1, some of the treatments are used dietetically: women are advised to eat or drink certain products to help or enhance fertility. For instance, Pliny advises eating carrot (or parsnip); leek; partridge or quail eggs; drinking cow's milk, even drinking one particular Arcadian wine. Food and drink had greater significance than mere sustenance and was a means of medical intervention, along with exercise, as well as sleep, massage, baths, drugs and sexual intercourse.[558] Here, the alleged medical benefit from the consumption of carrot (or parsnip), leek, partridge or quail eggs and cow's milk is enhanced fertility. The foods noted may have had specific properties which were of significance; they carried symbolic meaning. Totelin asserts that efficacy in antiquity was culturally bound: ritual and other symbolic connotations were attached to a drug or substance.[559] Eggs especially were loaded with symbolism: in the ancient world they represented life and fertility, and commonly made an appearance at marriages.[560] Milk too had associations with fertility, because it is only produced by females who have borne offspring.[561]

Generally, however, Romans did not drink milk; instead, it was used for producing cheese and that was predominantly sheep and goat's milk.[562] Cow's milk, in particular, found little favour amongst Romans; it was associated as a product consumed by barbarians, particularly those from more northern parts of Europe:

[558] Wilkins, 2015, 59; Grant, 2018, 543.

[559] Totelin, 2009, 221; 2016a, 13–14.

[560] Garnsey, 1999, 8.

[561] Staples, 1998, 50; Totelin, 2009, 205 & 215.

[562] Sallares, 2012b; Kitchell, 2016, 537.

Germans and Britons.[563] Yet farmers did keep cattle: the husbandry of sheep and goats was predominant, followed by cattle and swine.[564] Notably, milk may have only been available for specific time periods during the year in Rome, which is during the calving season. That said, Pliny notes that those nations that live on milk spread out the calving season so that there may be a supply throughout the year (*Natural History* 8.70.177–178). Nevertheless, if it was required for medicinal purposes, at certain times milk might have been fairly easy to purchase.

There are fertility treatments with more detailed instructions, for instance how they should be taken, when they should be taken and even set quantities. There is one oral treatment which prescribes drinking the seeds of the wild herb *caucalis* (Pliny, *Natural History* 22.40.83). The Latin instruction is that the seed be *bibitur in vino ieiunis*, which I have translated as 'drunk with wine on an empty stomach'; this is in slight contrast to William Henry Samuel Jones' translation of, 'is taken in wine, fasting' (Pliny, *Natural History* 22.40.83). The adjective *ieiunis* translates as fasting or hungry.[565] Fasting is the temporary abstinence from all food for ritual, ascetic and medicinal purposes.[566] It is an act laden with religious connotation in antiquity.[567] Indeed, Livy mentions fasting in relation to a festival in honour of Ceres and it was also integral to a women's festival of Demeter, the Thesmophoria.[568] Nevertheless, it was generally alien to Roman religion.[569] In this instance, it may simply suggest that the prescription is to be taken in wine on an empty stomach, to easily facilitate consumption of the *caucalis* seed. This would be in the same way that prescriptions

[563] Julius Caesar remarks on Britons sustaining themselves on milk and flesh (*The Gallic War* 5.14). Tacitus refers to the Germans drinking milk (*On the Origin and Situation of the Germans* 23.1).

[564] Kitchell, 2016, 533.

[565] OLD, s.v. *ieiunis*.

[566] Henrichs, 2012.

[567] Totelin, 2009, 122.

[568] Livy, 36.37.4; Emir, 2015, 5.

[569] Henrichs, 2012.

today advise to take certain medications on an empty stomach, to ensure that the medicine is fully absorbed into the body, quickly.

Another treatment advises taking grass worms, *vermiculi,* in a drink (Pliny, *Natural History* 30.43.126). There may be a sexual connotation to this prescription because *vermiculi* may have had a phallic significance in a similar fashion to snakes.[570] Ingredients that bore sexual connotations were used to treat infertility or promote fertility in antiquity.[571] Moreover, there was the belief in the ancient world that worms could spontaneously generate.[572] Thus, worms may have been used in this fertility treatment because of their sexual connotation and the ability to easily reproduce. It is not specified what drink it should be taken with, wine or water, although this prescription specifically states that five or seven worms are to be taken. Such specified amounts are significant because certain numbers were important in the ancient world. The number seven especially possessed mystical properties.[573] Interest seems to have derived from the belief that there were seven planets; Aristotle expands this further, explaining that it was because there were seven vowels, seven strings to the scale, seven Pleiads, and that most animals lose their teeth in the seventh year; also, that there were seven heroes who attacked Thebes.[574] The importance of the number five seems to have originated from the number of fingers on a hand.[575]

There is a prescription for a pessary with detailed quantities given, as well as when it should be applied: Dioscorides prescribes a weight of three *oboloi* of hare's rennet to be applied to the cervix with butter, specifically after menstruation (*Materia Medica*

[570] Adams, 1982, 30–34.

[571] Totelin, 2009, 207.

[572] Campbell, 2016, 612.

[573] Hanson, 1987, 590.

[574] Aristotle, *Metaphysics* 14.6.5; Ifrah, 1985, 304; Potter, 2012; The seven planets were: the sun; moon; Mars; Jupiter; Venus; Saturn and Mercury (Potter, 1994, 18).

[575] Ifrah, 1985, 26; Potter, 2012.

2.75.1). The use of the hare as a fertility treatment may have been because of its prolificacy. It may have been a literal use of a metaphorical interpretation because in antiquity, rennet and cheese making are used as metaphors in discussions of generation: the female menses were like milk that was curdled under the effect of sperm (rennet).[576] Aristotle refers to 'the action of the semen upon the substance of the menstrual fluid as that of rennet upon milk'; that it 'sets' and 'solidifies' the embryo (*Generation of Animals* 2.739b22–34). Thus, in a fertility treatment rennet may have been used to help set or solidify the foetus.

However, as well as aiding fertility, a similar prescription, which has been discussed in chapter three, was contraceptive: three *oboloi* of hare's rennet drunk with wine three days after menstruation, was ἀτόκιον'.[577] Totelin argues that whilst this may seem an apparent paradox, promoting fertility and curbing it were two sides of the same coin.[578] In her discussion, Totelin discusses treatments from the *Hippocratic Corpus* that are identified as fertilisers but could also be used as abortive or expulsive drugs.[579] In this instance the treatment is not a purge, rather it is a contraceptive, but the same discussion applies here. In one sense, the fertility treatment using hare's rennet takes the form of homeopathy, in which diseases are treated by the administration of drugs which would produce symptoms closely resembling those of the disease treated: likes are cured by likes (*similia similibus curantur*).[580] On the other hand, the contraceptive treatment using hare's rennet takes the form of allopathy, based on creating a condition contrary to the one being treated: opposites are cures for opposites (*contraria contrariis curantur*).[581]

[576] Totelin, 2021, 244.

[577] Dioscorides, *Materia Medica* 2.19 & 2.75.1. See 153–154.

[578] Totelin, 2009, 219.

[579] Totelin, 2009, 214–219.

[580] Totelin, 2009, 124.

[581] Green, 2001, 117; Totelin, 2009, 124; Pormann, 2018, 13.

As well as the oral treatments, there are two fertility amulets with particular instructions not to let the crucial ingredient touch the ground before it is fixed to the woman: ‘the seed of squirting cucumber’ and ‘mistletoe’ (Pliny, *Natural History* 20.3.6 & 24.6.12). As has been discussed, amulets had a ‘medico-magical quality’.[582] In both these instances, the magical element seems to be that neither ingredients should have touched the ground (Pliny, *Natural History* 20.3.6 & 24.6.12).

The common factor of all of these treatments is that they would probably have been concocted at home, for many of the ingredients discussed could be found growing nearby or grown by Romans themselves. Many people in classical antiquity dwelt on farms or lived very close to the non-urbanised countryside.[583] Much could be found in the local environment, so, they could readily access those significant components which grew or lived wild in Italy.[584] On the other hand, Romans could grow the necessary ingredients themselves in gardens. Even city dwellers likely had gardens in various forms too which allowed for an element of self-sufficiency, and constituted an important contribution to food supply.[585] Crucially, Jane Draycott asserts that Romans would have grown products to be used in medicaments, to keep on hand for the sake of expediency.[586]

Various vegetables, fruit trees, even vines were grown and livestock was kept, although this depended on the size of the garden. Indeed, Martial refers to a garden

[582] See 157.

[583] Scarborough, 1986, 60; Laes 2011a, 32–33. Laes suggests that at its height, the vast empire must have had a population of between 50 and 60 million, with at least two-thirds working in farming (2011a, 32).

[584] Flemming, 2000, 182. *Caucalis* was, and still is, a wild plant native to and indeed prevalent in southern Europe (André, 1985, 53; Hassler, 2020; Mabberley, 2017, 174). Squirting cucumber and mistletoe were wild plants; worms, partridges and quail were native to Italy (Kron, 2015, 165).

[585] Draycott, 2019, 61–64. The occupants of a *cenaculum* in a *insula* might utilise the space afforded by their windowsill for a window box or their balcony for potted plants; the interior courtyard might be dedicated to some sort of garden space (Draycott, 2019, 64). Some residences, whether rural or urban might boast multiple garden spaces (Draycott, 2019, 64).

[586] Draycott, 2019, 70.

at a villa in Baiae and mentions a variety of crops grown and animals that were kept (*Epigrams* 3.58). Leeks would have been one of the staples of their gardens (Dalby, 2003, 193). Both Cato the Elder and Martial refer to them being grown in Roman gardens (Cato the Elder, *On Agriculture* 47; Martial *Epigrams* 3.47). There is some difficulty in distinguishing between carrot and parsnip in classical writings since both vegetables seem sometimes to have been called *pastinaca*, but each vegetable appears to be well under domestication in Roman times.[587] Another ingredient, hare, lived wild but was also kept by the Romans, along with rabbits in their gardens, specifically to fatten up for the table.[588] The Roman author Varro remarks that everyone knows that if 'he puts in a few hares, male and female, in a short time the place will be filled, such is their fecundity' (*On Agriculture* 3.12.4). The pluralism and customer choice of the ancient medical marketplace was as much an economic phenomenon about prices and means.[589] The ease of access to such products meant that a lot of these fertility treatments would have been inexpensive, and in the case of the wild herbs, free. Fertility treatments were not reserved for the wealthy; women of all classes and means would have been able to try to treat infertility.

Luxurious and Exotic Treatments

Whilst there were many inexpensive fertility treatments available, there were treatments, as shown in Table 1, which include more unusual components and exotic ingredients, likely making them more expensive. One oral treatment advocates taking 'hawk's dung' 'in honeyed wine' and there is a pessary which is made 'from the faeces of foetuses' (meconium) who had died in the womb (Pliny, *Natural History* 30.44.130; 28.13.52). The use of faeces in ancient medicine was not unusual, particularly animal faeces. Such ingredients were prescribed by Greek physicians.[590] These treatments are noted by Pliny, whose sources for his *Natural*

[587] André, 1985, 190; Dalby, 2003, 249; Zohary *et al*, 2012, 161.

[588] Kitchell, 2016, 544.

[589] Flemming, 2020, xxi.

[590] von Staden, 1992, 8–9; Harris, 2019, 1–2.

History were varied, but a large majority of them were Greek.[591] Dung was believed by ancient physicians to be especially capable of clearing up infertility.[592]

Infertility was considered by the ancients as a disorder of exceptional difficulty and of supreme obstinacy.[593] Such treatments using faeces were thought to be homeopathic remedies (*similia similibus curantur*), whereby the ingestion or application of excrement was prescribed to cure a dangerous female impurity: infertility. It was, as von Staden asserts, a method where impure pathogens were treated with substances that were themselves impure: dirt purifies dirt; or as Totelin states 'filth against filth'.[594] In contrast, other scholars argue that instead of recommending filthy products as a way to cure similars (filth against filth), dung was recommended as a way to cure opposites: as a way to cure infertility by means of fertility.[595] The parallel is drawn between the medical use of dung as a fertiliser and the use of excrement as fertiliser for farmers' fields.[596] Totelin argues that even if it is accepted that dung was used for its fertilising properties, one does not have to completely reject von Staden's opinion; she argues that recipes can be read at several different levels which are not necessarily mutually exclusive.[597] Significantly, the excrement used in one prescription is more exclusive than animal faeces as it is that of miscarried foetuses (Pliny, *Natural History* 28.13.52). Such excrement was likely thought to be more potent than animal dung.

[591] Pliny lists his sources for book 30, in which this prescription is noted and according to Jones-Lewis most of them were Greek (2012, 52). In particular, Theophrastus (c.372–c.287 BCE), the philosopher who wrote extensively and particularly on botany originates from Greece (Jones-Lewis, 2012, 52).

[592] von Staden, 1992, 10; Totelin, 2009, 213; Harris, 2019, 12–14.

[593] von Staden, 1992, 10.

[594] von Staden, 1992, 16; Totelin, 2009, 213.

[595] Hanson, 1998, 89–90.

[596] Hanson, 1998, 89; Totelin, 2009, 214.

[597] Totelin, 2009, 214.

One prescription includes an exotic animal, and an unusual part of that animal. Pliny advises women to eat 'the eye of a hyena with liquorice and dill'; it purportedly cures infertility and promises conception within three days (*Natural History* 28.27.97–98). The hyena was seen in the ancient world as inherently magical; specifically, it was believed to have both male and female genitalia and that it could self-generate.[598] Pliny details all of its features: he states that it is believed to be bisexual, that it becomes male and female in alternate years and especially that the female can bear offspring without a male; it imitates the human voice to summon shepherds from their cottages so that it can devour them; it imitates a person being sick to attract the dogs so that it may attack them.[599] As Gabriella Zuccolin states, the reason why it was believed to be bisexual may have been because its genitalia can easily deceive: the female's enlarged clitoris, through which she urinates, copulates and gives birth, looks like a penis and can develop pseudophallic erections; the labia are shaped much like testicles.[600] Despite this myth having been debunked as early as Aristotle, it still persisted in ancient Rome and for several centuries afterwards; it was finally dismissed in 1551.[601] As well as this, these animals were seen in ancient Rome as highly sexual (Pliny, *Natural History* 8.46.108). Hyenas, it seems, were used in this fertility treatment because of perceptions that they could self-generate, were highly sexual and magical. There were potent symbolic associations attached to them, which as Totelin asserts, are more important than their biochemical efficacy.[602] This treatment claims to guarantee conception; such potent healing powers are necessary to cure the most difficult female impurity: infertility.

This prescription specifically advises that the eye should be taken with liquorice and dill; most of the aforementioned oral treatments have simply advised that they be

[598] Ogden, 2014, 298.

[599] Pliny, *Natural History* 8.44.105–107. In terms of biology, 'bisexual' is defined as 'having both male and female characteristics'; regarding animals or plants 'containing both male and female organs' (OED, s.v. bisexual).

[600] Zuccolin, 2018, 672.

[601] Aristotle, *Generation of Animals* 3.757a3; Zuccolin, 2018, 672. According to Zuccolin, the myth was finally dismissed in Conrad Gessner's *Historiae Animalium* (1551) (2018, 672).

[602] Totelin, 2009, 221.

taken in wine or in drink. Daniel Ogden asserts that it is not clear whether the liquorice and dill function merely as carriers for the hyena eye, or as necessary catalysts for its efficacy, or as effective agents in their own right.[603] Totelin on the other hand argues that in ancient medicine no difference is drawn between a 'neutral vehicle' and an 'active ingredient', the means by which something is administered is as significant as the ingredients that are administered.[604] In this instance, it seems that dill especially may have been an active ingredient, as it formed part of a fertility treatment in the *Hippocratic Corpus*.[605] Liquorice too was prescribed for a number of medical conditions.[606] If these ingredients were merely carriers then other generic components like oil, wine, or 'in a drink' may have been stipulated instead. I suggest their inclusion is an important part of the remedy and must, in some way, be significant to the efficacy of the hyena eye.

There are other prescriptions which include luxurious or exotic components. One treatment advises that 'women, who smell *ami* during intercourse, more easily conceive' (Pliny, *Natural History* 20.58.164). *Ami*, according to Pliny was 'very like cumin', possibly 'Ethiopian cumin' so would have been imported into Rome and Roman Italy (*Natural History* 20.58.163). Another of Pliny's prescriptions recommends eating snails smeared in saffron; Celsus advises on a pessary which includes 'lion's fat' softened 'by rose oil'; whilst Dioscorides prescribes a fumigation treatment burning 'darnel' 'with barley groats' and either myrrh, saffron or

[603] Ogden, 2014, 299.

[604] Totelin, 2009, 215.

[605] 'If you want a woman to become pregnant, first clean her and her uterus; then give her dill to consume in the fasting state, have her drink undiluted wine and apply a suppository of red soda, cumin and resin soaked in honey and wrapped in a piece of linen' (*Diseases of Women* 1.89.2.214).

[606] Theophrastus states that liquorice, or Scythian Root is useful against asthmas or a dry cough and in general for troubles in the chest; also, it is administered in honey for wounds and has the property of quenching thirst (*Enquiry into Plants* 9.8.2). Celsus includes liquorice in an antidote treatment and for removing stones and urine from the bladder (*On Medicine* 5.23.B; 5.20.6). Pliny states that it is prescribed for all affections of the throat; for dropsy in order to prevent thirst; it is chewed as a mouth medicine and sprinkled on inflammatory swellings of the eye-lids; it also cures irritation of the bladder, pains in the kidneys, tumours of the anus and sores on the genitals (*Natural History* 22.11.25–26).

frankincense.[607] These prescriptions mix common Italian products with highly prized ingredients which may have been more difficult to obtain, or in some instances had to be transported over long distances, thus making them more expensive and more exclusive. For instance, hyenas and lions were native to Africa, but would have been transported across the empire for the games and spectacles. It seems that once the animals had been killed for entertainment, there was a lucrative market for body parts. Frankincense and myrrh were imported from Arabia.[608] Saffron was imported within the empire from several places, the best of which came from Cilicia, the Corycian cave of Mount Parnassus above Delphi and Sicily (Pliny, *Natural History* 21.17.31).

The first century CE was a time of increased trade with far-flung points in the East.[609] New spices and drugs came into the ken of Graeco-Roman pharmacologists. Using global products which were brought into Rome and the Roman peninsula meant the price would probably have been significant, and definitely higher than ingredients which were available locally. Adding such components even to weeds like darnel, used in the fumigation treatment, or smeared on the common garden snail, made these treatments expensive, and luxurious; some were, it seems, prepared to pay a great deal to treat women's infertility. Certainly, Pliny describes the use of such exotic items as the 'very climax of luxury' (*Natural History* 13.2.18). It must be noted that luxury is not an intrinsic quality of goods; each society defines which products are luxuries.[610] More so, luxury goods are regarded as a means of advertising and displaying social status as conspicuous consumption.[611] In these instances, Pliny's

[607] Celsus, *On Medicine* 5.21.7; Pliny, *Natural History* 30.43.126; Dioscorides, *Materia Medica* 2.100. See Table 1 above.

[608] Totelin, 2016b, 157.

[609] Scarborough, 1985, xiii.

[610] Totelin, 2009, 129.

[611] van der Veen, 2003, 408. The term conspicuous consumption was introduced in 1899 by Thorsten Veblen in his book *The Theory of the Leisure Class*. In it Veblen argues that work does not provide prestige to members of elite society; instead, the rich and powerful show their wealth to others by enjoying leisure (conspicuous abstention from labour) and by maintaining an extravagant lifestyle (1899, 30 & 49–69).

comments suggest that, generally, exotic goods were viewed by the Romans as expensive, luxury items. Nonetheless, as has been discussed, some imported goods such as pepper and pomegranate were likely not expensive luxuries.[612] Of course, Pliny's comment may be typical of his moralising, but it does suggest that there may have been an element of conspicuous consumption at play when using such expensive fertility treatments.

Even though it is a modern phrase, it seems that Romans were conspicuous consumers: Kim Beerden argues that families belonging to the *nobilitas,* especially, were continuously in competition with one another, and in such a highly competitive society needed to show off their wealth.[613] Beerden argues that during the period of the early Principate, the elite showed off their wealth in a number of ways: 'by acquiring a nice villa on the bay of Naples; owning many slaves; owning pieces of art; wearing expensive clothes and perfumes; giving food away as part of the *alimenta* and eating exclusive foodstuffs'.[614] Owning specialised slaves was likely one of the more common ways to flaunt their prosperity, because at that time there was a noticeable increase in slave numbers who were acquired for a whole host of reasons.[615] The wealthiest Romans employed or enslaved personal physicians, most of whom were Greek.[616] Indeed, having a personal doctor especially seems to denote conspicuous consumption because, according to Nutton, it became almost *de rigueur* amongst wealthy Romans to have a Greek physician.[617]

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[612] See 162.

[613] Beerden, 2018, 506.

[614] Beerden, 2010, 79.

[615] Draycott, 2019, 104. Those who could afford it may well have had slaves as: physicians, midwives; wetnurses of infants; pedagogues for older children; personal attendants with responsibility for massage, oils, perfumes, cosmetics or bathing; and those responsible for the acquisition, provision and preparation of food and drink (Draycott, 2019, 103).

[616] Nutton, 2013, 168; Israelowich, 2015, 11; Draycott, 2019, 103; Flemming, 2020, xxii. Nutton asserts that only 5% of doctors recorded epigraphically bear non-Greek names (2013, 168). Nutton also states that before 100 CE, less than 10% of doctors recorded epigraphically were Roman citizens; over 75% were either slaves or ex-slaves (2013, 168).

[617] Nutton, 2013, 168.

In such a competitive society, it may have been that the wealthiest Romans had several medical practitioners in their household who specialised in different areas. Rich Romans spent heavily on medical assistance.[618] Moreover, medical practitioners expert in pharmacology may have been more inclined to use treatments which blended the exotic ingredients with common, locally sourced components and introduced the latest remedies available. Wealth would certainly have restricted access to these more exotic ingredients and complicated compounds.[619] Thus, ordering such ingredients into the *domus* and using such treatments would also project the wealth of the family. Conspicuously consuming expensive drugs may have been a strategy towards being seen as part of the elite.[620]

That said, some of these more luxurious fertility treatments were tailored to remedying specific causes of infertility. For instance, one oral treatment was aimed at renewing fertility in older women, and advocates eating 'the foetus of a hare taken from its uterus' (Pliny, *Natural History* 28.77.249). Hares, as I have noted previously, symbolize fertility because of their prolificacy; using the foetus, which may have been viewed by some as the pure essence of fertility, the animate, likely made the remedy even more potent. Such a powerful remedy would therefore be more applicable in tackling fertility issues in older women, who are by their very nature less fertile. This is an allopathic prescription; it is, as von Staden asserts, where 'the pure, the animate and the animating' are deployed as a cure.[621] Another oral treatment specifically targets infertility which was lost through sorcery, *veneficium*; that requires digesting the kidney sinews of the hyena 'taken with frankincense in wine' (Pliny, *Natural History* 28.27.102). Here, the highly sexual, self-generating and magical hyena is mixed with the exotic and exclusive frankincense for further potency.

[618] Harris, 2016, 45.

[619] Flemming, 2000, 182.

[620] Totelin, 2009, 131.

[621] von Staden, 1992, 19.

One pessary was specifically for women whose infertility was as a result of a previous difficult childbirth: ‘bull’s gall, serpent’s fat, copper rust and honey’ were prescribed to be ‘rubbed on the parts before intercourse’ (*Natural History* 28.77.253). In this instance, there is a definite sexual nuance to the recipe because the bull was sexually connoted in antiquity, and snakes were felt to have phallic significance by Latin speakers.[622] Notably, snakes, according to McLaren, were associated with potency since the ancients believed that they could rejuvenate themselves.[623] It seems that combining such ingredients made the prescription more effective in tackling an aspect of infertility that was particularly challenging. All these treatments contain unusual, exotic or luxury ingredients, all markers of conspicuous consumption. Yet the speciality of the treatment for such specific causes of infertility may have been just as much the driving force behind their use, as well as the expression of wealth and status.

Using treatments with such unusual and possibly unfamiliar ingredients may also have posed a risk to the patient in terms of poisoning. Indeed, using any prescription supplied by any physician or pharmacologist was not without risk. In the ancient world, there was no formal process of accreditation or regulation of medical practitioners, and therefore no licensing or regulation of any medical services or drugs.[624] Anyone could self-proclaim as a healer or medical practitioner and sell or prescribe anything as a drug; the buyer had to beware. This meant that there was no way of knowing whether the person administering the treatment was qualified or indeed knowledgeable or whether what was being prescribed actually contained the correct ingredients. At best, the treatment may have been ineffective but not have caused any side-effects; at worst, it could be poisonous and caused the patient to become seriously ill or even die. Louise Cilliers and Francois Retief assert that fortuitous poisoning caused by ignorance regarding the actions of medicaments

[622] Adams, 1982, 30; Totelin, 2009, 204.

[623] McLaren, 2007, 18.

[624] Nutton, 2013, 254–263; Israelowich, 2015, 12; Draycott, 2019, 134.

taken for illness probably occurred often.[625] Certainly, there is evidence of women becoming seriously ill or dying following treatment. Ovid refers to Corinna lying 'in peril of life' after procuring an abortion, whilst juristic evidence details the death of a woman after taking a fertility medication (Ovid, *Amours* 2.13.2; *Digest* 48.8.3.2). This jurisprudence also reveals the risks to those administering the drugs, for poisoning was a serious crime in ancient Rome. In this case the punishment levied upon the woman who prescribed the treatment was exile as it was deemed unintentional.

> *sed ex senatus consulto relegari iussa est ea, quae non quidem malo animo, sed malo exemplo medicamentum ad conceptionem dedit, ex quo ea quae acceperat decesserit.*
>
> It is however, ordered by *senatus consultum* that a woman, who, not admittedly maliciously but unadvisedly, administered a fertility drug from which the recipient died, shall be relegated (*Digest* 48.8.3.2).

The boundary between poison and medicinal drug was blurred and the risks for both patient and practitioner were great. Indeed, the Latin noun *venenum* means both poison and drug.[626] For those women seeking treatment for their childlessness there was a real possibility of poisoning, especially with the introduction of different spices and drugs in the first century CE.

Non-pharmacological treatments

Along with these specific treatments, the ancient texts mention certain rivers and springs with healing properties which purportedly could also enhance fertility, even cure infertility. Women were advised to drink 'the water of the Nile' to enhance their fertility; the waters of Sinuessa, in Campania reportedly cured infertility; whilst the spring at Thespiae and the river Elatum in Arcadia caused women to become

[625] Cilliers & Retief, 2014, 98.

[626] OLD, s.v. *venenum*.

pregnant.[627] As well as the oral medications, pessaries, amulets and the fumigation prescription, women could attempt to treat their infertility by taking a trip to these places to wash and bathe, even drink the waters. Sinuessa, a spa town in Campania, was believed to have health benefits.[628] It was a town located on Appian Way, so would have been easily accessible to those living in Rome and the surrounding area.[629] On the other hand, Thespiae was an ancient Greek city in south-central Boeotia, a region in central Greece; Arcadia was in the central region of the Peloponnese; and the Nile was in Egypt.[630] Romans living in these provinces could have accessed these springs, whilst the wealthy living in Rome and Roman Italy could take a trip to these healing waters and springs. Medical tourism did exist in the ancient world; it was quite common in antiquity for health tourists to visit spas in Italy and elsewhere, seeking cures from disease and to generally improve health.[631] Travelling to such places could be moderately expensive or a very costly enterprise, depending on the distance travelled.[632]

Some Romans may also have visited shrines and temples to invoke the gods to help with fertility issues, leaving votives as gift offerings. Temple medicine, particularly that associated with the cult of Asclepius was among the most popular of the treatment options, according to Ido Israelowich, attracting sick worshippers and the health care providers who wished to treat them from across the Graeco-Roman

[627] Pliny, *Natural History* 7.3.33; 31.4.9; 31.7.10 (see Table 1 above).

[628] Strabo (*c.*64 BCE–*c.*21 CE), the Greek geographer, philosopher and historian refers to the hot baths near Sinuessa, 'which are most efficacious for certain diseases' (*Geography* 5.6.234). Tacitus details how the Emperor Claudius, 'under the weight of anxiety', and with 'his health broken down' went there to 'renovate his strength by the gentle climate and the medicinal springs' (*Annals* 12.66).

[629] Strabo lists the cities on the sea that the Appian Way passes through, of which Sinuessa was one such coastal town (*Geography* 5.6.233)

[630] Scanlon, 2002, 264; Buckler & Spawforth, 2012; Roy, 2012.

[631] Treggiari, 1991, 426–427; Israelowich, 2015, 123; Draycott, 2019, 49. Baiae in the bay of Naples was the most fashionable Roman spa resort from the end of the first century BCE (Israelowich, 2015, 123). The thermal baths in San Casciano dei Bagni are also believed to have been a spa resort in the Roman world (Bartek, 2022).

[632] Harris, 2016, 58.

world; the most prominent healing temples, Asclepieia, were at Pergamum, Epidaurus, Athens, Cos and Rome.[633] The nature of visiting healing sanctuaries, as I stated in my introduction, falls outside the scope of this thesis, only to say that visiting those destinations may indeed have been for curative purposes. However, visiting those far from Rome and especially those which were fashionable, may also have been an act of conspicuous consumption.

Male Fertility Treatments

All the aforementioned fertility treatments are aimed at women: it is the woman who drinks the potions, eats the concoctions, inserts the pessaries, wears the amulets, fumigates her genitals or bathes in the healing waters. Yet, as has been shown in the previous chapter, it was recognised by some practitioners that infertility affected men as well as women: that men could be infertile as a result of their semen, or due to impotence.[634] Importantly, as I have noted in Table 1, there is one fertility treatment recommended for men to improve their sperm: it is advised that a small quantity of coriander seed should be drunk with grape-syrup (Dioscorides, *Materia Medica* 3.63). In addition, for men suffering impotence it is advised that they eat parsnip or skirret, particularly the wild variety.[635]

Pliny also records that *abrotonum* (southernwood) or its alternative form *habrotonum,* a species of flowering plant native to Europe, is another treatment for impotence; specifically, for those who believed that their impotence was caused by witchcraft: *abrotonum*, he states 'is of the very greatest efficacy against all those

[633] Israelowich, 2015, 111–112.

[634] See 'Male Infertility' 140–149.

[635] Pliny, *Natural History* 20.17.35. In this instance it is not the Latin term '*pastinaca*' that is used, it is '*siser*' which Jones has translated as 'parsnip', although the dictionary translation is 'skirret' (Pliny, *Natural History* 20.17.35; OLD, s.v. *siser*). Skirrets are hardy perennial root vegetables resembling parsnips in flavour and are one of the oldest vegetables grown north of the Alps; they remained popular into the 18th century but then fell out of favour (Weaver, 2016, 37). Jacques André notes that '*siser*' is parsnip deriving from σισαρον meaning parsnip (André, 1985, 241; LSJ, s.v. σισαρον).

charms and spells by which impotence is produced'.[636] Moreover, it seems that erotic magic, as well as causing impotence, could also cure impotence.[637] In Petronius' *Satyricon*, witchcraft is used to counter Encolpius' impotence, which he claims was caused by sorcery: 'I have been bewitched by a poison' (128).

> *In(terea anicu)la de sinu licium protulit varii coloris filis intortum cervicemque vinxit meam. mox turbatum sputo pulverem medio sustulit digito frontemque repugnantis signavit. hoc peracto carmine ter me iussit expuere terque lapillos conicere in sinum, quos ipsa praecantatos purpura involverat, admotisque manibus temptare coepit inguinum vires. dicto citius nervi paruerunt imperio manusque aniculae ingenti motu repleverunt.*
>
> An old woman took from her pocket a twisted ball of various coloured threads and tied it round my neck. Next, she mixed some dust with her own saliva, took it up with her middle finger and, ignoring my attempt to ward her off, marked my forehead with it. Once her chant was finished, she ordered me to spit three times and then toss some pebbles into my underwear three times, after she had uttered a spell over them and had wrapped them in purple material. She then placed her hands on my member and began to test its powers. Before anyone could utter a word, the muscle in my penis responded to her command and with a mighty throbbing filled the old woman's hands (Petronius, *Satyricon* 131).

The joke of course in this passage is that the sorcery and ritual is a ruse, as the woman is simply masturbating Encolpius. Nevertheless, satirising such treatment suggests that men likely sought help from sorcerers for erectile dysfunction.

Prior to this, however, Encolpius had tried to treat his impotence himself.

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[636] Pliny, *Natural History* 21.92.162; André, 1985, 115; Mabberley, 2017, 870; OLD, s.v. *habrotonum*.

[637] Faraone, 1999, 18; Ogden, 2002, 264; Edmonds, 2019, 93.

curavi dilgentius noxiosissimum corpus, balneoque praeterito modica unctione usus, mox cibis validioribus pastus, id est bulbis cochlearumque sine iure cervicibus, hausi parcius merum. hinc ante somnum levissima ambulatione compositus sine Gitone cubiculum intravi. tanta erat placandi cura, ut timerem ne latus meum frater convelleret.

I paid great attention to my offending body. I thought it best to forgo the bath, rubbed myself down with just a small amount of perfumed oil, next I dined on really healthy foods like strong foods, onions and snails' heads without sauce and drank sparingly of wine. I then settled myself with a gentle walk before bed and went into my room without Giton. I was so anxious to please her that I was afraid my boyfriend might take away my strength (Petronius, *Satyricon* 130–131; translation by Schmeling, with minor modifications).

Here Encolpius instigated a regimen which included: forgoing a bath; massaging himself with oil; feeding on certain foods; not drinking too much alcohol; gentle exercise; and abstaining from intercourse. Regimens classically comprised food, drink, sleep, and sexual activity, but by the Roman period had broadened to include programmes of exercise, massage, bathing and the regulation of diet.[638] Notably, onion, along with garlic and leek, vegetables which are all members of the *Allium* species, was thought to be aphrodisiac.[639]

For men suffering from erectile dysfunction, there were a number of options and treatments. There were also a vast array of aphrodisiacs suggested in the medical texts to increase libido.[640] Pliny the Elder advises on plants, vegetables and some animals which, drunk in potions, applied as ointments or carried as amulets, are

[638] Flemming, 2000, 111.

[639] Peterson, 2000, 257; Mabberley, 2017, 379, 511 & 648.

[640] An 'aphrodisiac' is defined as a food, drink or drug that makes people want to have sex' (OED, s.v. aphrodisiac).

aphrodisiacs.[641] In addition, Dioscorides mentions an array of spices, plants, fruit and vegetables, even animals that are aphrodisiac or heighten one's sexual desire.[642] Even Martial and Juvenal refer to an aphrodisiac for older men: advising to eat a specific salad variety.[643] These aphrodisiacs range from the very expensive, such as saffron, which may have been difficult to obtain, to the inexpensive and easily obtainable substances such as the seeds of turnips or stinging nettles (Dioscorides, *Materia Medica* 1.26.3; 2.110.1 & 4.93.2).

Fertility Treatments to Promote the Birth of a Boy or a Girl

Within the texts there are a number of treatments which purport to offer couples the opportunity to select the sex of their child. It was believed that different parts of certain plants could determine gender, so were prescribed according to whether one wanted to conceive a boy or a girl. Pliny and Dioscorides both advise that when drunk, the different types of the plant dog's mercury (*Mercurialis perennis*) will produce different gendered offspring: *arregonon* (Pliny notes it as *arsenogonon*) produces males, whilst *thelygonon* produces females.[644] The plant name *arregonon* (ἀρρενογόνον) literally means procreating (γόνον - *gonon*) males (ἄρρεν - *arren*). *thelygonon* (θηλυγόνον) means procreating (γόνον) females (θῆλυ - thely). Notably, the plant is called dog's mercury because it resembles other edible plants that are true mercuries, but it is a false mercury; the plant is poisonous causing vomiting, and gastric and kidney inflammation.[645] Interestingly neither Pliny nor Dioscorides note any ill effects from digesting this plant. The earliest record of the toxicity of dog's

[641] Pliny, *Natural History* 8.38.91; 10.83.182; 19.44.155; 20.13.28; 20.15.32; 20.17.34; 20.21.47; 20.23.57; 20.40.105; 20.42.108; 20.43.110; 21.92.162; 26.61.94; 26.62.96; 26.63.99; 27.42.65; 28.28.107; 28.80.261; 30.49.141; 30.49.143.

[642] Dioscorides lists the following: *Materia Medica* 1.16.2; 1.26.3; 1.71.1; 2.66; 2.103; 2.110.1; 2.124.1; 2.140; 2.149.2; 2.155.1; 2.166.3; 2.167; 2.170.1; 3.34.1; 3.52.2; 3.56; 3.126.2; 3.128.2; 3.129; 4.20.2; 4.93.2; 4.95.

[643] Martial, *Epigrams* 3.75; Juvenal, *Satires* 9.134. The Latin term used is *eruca* meaning colewort or rocket salad; Susanna Morton Braund translates it in Juvenal as arugula, another name for the rocket salad (André, 1985, 97; Mabberley, 2017, 342; OLD, s.v. *eruca*).

[644] Pliny, *Natural History* 26.91.162; Dioscorides, *Materia Medica* 3.125; André, 1985, 26 & 258; Mabberley, 2017, 307.

[645] Bevan-Jones, 2009, 57; Mabberley, 2017, 580.

mercury was in 1693.[646] Thus, this could well be an example of the blurring of poison and medicine, and of the risk to the patient.

Along with the prescription of this false mercury, both authors recommend the prospective mother consumes the male variety of the plant mercury (*mercurialis*) to conceive a boy and the female variety to conceive a girl (Pliny *Natural History* 25.18.39; Dioscorides, *Materia Medica* 4.189.2). Dioscorides also advises that grounded leaves of the gendered parts of the plant should also be applied to the woman's genitalia, following menstruation, to further promote conception (*Materia Medica* 4.189.2). Pliny details similar advice regarding a plant which he notes that the Greeks call *phyllon;* he asserts that it 'causes births of its own sex' when 'taken in wine' (*Natural History* 27.100.125). *Phyllon*, φύλλον, was a name of definite species of plants including dog's mercury (*Mercurialis perennis*).[647]

The same was also believed of the plant which Pliny notes that the Greeks refer to as *satyrion,* σατύριον: 'the lower and larger part (of the plant) favour the conception of males; the upper and smaller (part of the plant), the conception of females' (*Natural History* 26.63.97). S*atyrion* is a former name for some orchids from their connection to satyrs.[648] Indeed, when discussing the same plant, Dioscorides refers to it as an orchid: he states that 'men who eat the larger root sire males and that women eating the smaller give birth to females' (*Materia Medica* 3.126.2). This is reiterated when Pliny discusses a variety of orchid, the *cynosorchis*: 'if men eat the larger of these roots, male children are said to be conceived, but female if the smaller is eaten by women'.[649] Notably, in these instances, the prospective father is

[646] Bevan-Jones, 2009, 57.

[647] André, 1985, 198; LSJ, s.v. φύλλον.

[648] Satyrion is a general name for aphrodisiac plants, especially orchids (André, 1985, 227; OLD, s.v. *satyrion*). Σατύριον translates as 'man orchid', *orchis anthropophora* (LSJ, s.v. σατύριον; Mabberley, 2017, 655). The roots of the plant resemble testicles in appearance and hence evoke the image of satyrs (OED, s.v. satyrion).

[649] Pliny, *Natural History* 27.42.65. The translation in Greek of cynosorchis would be κυνόσὅρχις literally meaning 'dog testicle': dog (κυνός) and testicle (ὅρχις) (LSJ, s.v. κυνός & ὅρχις).

required to take the prescription if a boy is desired; if a daughter is desired it is the prospective mother that takes the medicament.

There is one treatment prescribed for both the mother and father to take, which allegedly ensures a boy is born. Pliny notes a prescription of *crataegonon* (κραταιόγονον) which literally means procreating (γόνον) powerful or strong (κρατεῖν).[650] Such connotations of strength are being linked with boys and men.

> *quod si bibant ex vino ante cenam tribus obolis in cyathis aquae totidem mulier ac vir ante conceptum diebus xl, virilis sexus partum futurum aiunt.*

> if three *oboloi* of it, in three *cyathi* of water, are taken in wine before supper by the woman and also by the man, for forty days before conception takes place, the child they say will be of the male sex (Pliny, *Natural History* 27.40.62).

In terms of understanding quantities, three *oboloi* is 2.16g, which is prescribed to be taken in three *cyathi* of water, which is about 142ml.[651]

Dioscorides seemingly records the same treatment, containing κραταιόγονον, although his prescription varies slightly to that noted by Pliny. He asserts that a boy is born if the woman

> ἐάν τις μετὰ τὴν κάθαρσιν τῶν καταμηνίων πρὸ τοῦ πλησιάσαι νῆστις πίνῃ τρὶς τῆς ἡμέρας ὁλκὴν τριωβόλου μετὰ ὕδατος κυάθων δύο ἐπὶ ἡμέρας τεσσαράκοντα᾽ ὡσαύτως δὲ καί ὁ ἀνὴρ πινέτω τὰς ἴσας ἡμέρας καί πλησιαζέτω.

[650] LSJ, s.v. κρατεῖν.

[651] An *obolos* was equivalent to 0.72g, so 3 *oboloi* = 2.16g; 12 *cyathi* = 1 *sextarius* = circa 568ml (1 British pint), so 3 *cyathi* = 142ml (Sparkes, 2006, 472–473).

> after having her menstrual period and before intercourse, drinks on an empty stomach, three times a day for forty days one *triobolon* of seed with two *cyathi* of water, but her man too must drink it similarly for the same number of days and then he must have sexual intercourse with her (Dioscorides, *Materia Medica* 3.124).

One *triobolon* is equal to three *oboloi*, therefore about 2.16g mixed with two *cyathi* of water, just short of 95ml.[652] Dioscorides details when exactly a woman should start taking the prescription: after her menstrual period. In addition, he prescribes the treatment be taken three times a day for forty days; Pliny's notes suggest once a day, before supper for forty days. Dioscorides' version seems to be stronger, less diluted: one *triobolon* (three *oboloi*) is mixed with two *cyathi*, rather than the three *cyathi* as noted by Pliny. What is important is that both authors record that the mother-to-be and father-to-be take exactly the same medicament for forty days. The responsibility for the gender of the infant is equally shared between the parents.

There were a number of other medicaments specifically for those hoping for a boy. Pliny suggests that 'if the uterus of the hare is taken in food, it is believed that males are conceived' (*Natural History* 28.77.249). Two prescriptions make use of aristolochia (ἀριστολόχεια*)* which derives from ἀριστόλοχος meaning well-born.[653] Indeed, Pliny asserts that this ability to form male offspring is aristolochia's 'greatest fame' (*Natural History* 25.54.98). In both prescriptions the plant is combined with meat from cows. In one instance a pessary of aristolochia is prescribed to be applied to the uterus with beef (Pliny, *Natural History* 25.54.98). In another, 'if women about the time of conception eat roasted veal with aristolochia, they are assured that they will bring forth a male child' (Pliny, *Natural History* 28.77.254). Beef was not widely consumed in antiquity beyond special occasions such as religious sacrifices.[654] Farmers kept cattle to pull ploughs and carts; they were not predominantly raised for

[652] Sparkes, 2006, 472–473.

[653] André, 1985, 25; LSJ, s.v. ἀριστόλοχος.

[654] Donahue, 2016b, 622.

slaughter for meat.[655] Thus, the lack of availability of beef and veal may have made these prescriptions quite difficult to obtain and therefore expensive.

It was also believed that eating the male genitals of certain animals would ensure a boy was conceived. Pliny notes that males are conceived by eating the testicles and rennet of a hare, in food (*Natural History* 28.77.249), Also, if after conception a woman eats the testicles of a cock, males are said to be formed in the uterus (Pliny, *Natural History* 30.43.123). The first treatment advises consumption of the hare's rennet along with its male genitals. Here the symbolism of rennet is very clear: rennet is comparable to sperm, whilst woman's blood is like milk, and the proportion of semen to menstrual fluid was believed to determine the sex of the foetus, just as the ratio of rennet to milk determines the solidity of cheese.[656] If the male generative substance was present in the uterus in the right quantity and if there was enough dry heat, then the generative material would 'set' or 'concoct' into the form of a male foetus.[657] One presumes that the quantity of male substance in the uterus is increased due to consuming rennet and male genitals; thus, ensuring that a boy was conceived.

Pliny also records another measure employed by pregnant women to try and ensure that they gave birth to a boy. It is not a treatment or prescription to take orally or apply. Instead, it is a technique which involves the prospective mother cherishing a chicken's egg in her bosom, presumably until it hatches (Pliny, *Natural History* 10.76.154). He specifically records that Julia Augusta (Livia) adopted the practice whilst pregnant by Tiberius Claudius Nero, for she was eager to give birth to a boy; indeed, Livia gave birth to Tiberius (Pliny, *Natural History* 10.76.154).

[655] Chandezon, 2015, 141; Kitchell, 2016, 533.

[656] Mulder, 2021, 150; Totelin, 2021, 244.

[657] Mulder, 2021, 150.

Treatments specifically to aid conception of boys were likely because Rome was a patriarchal society. For elite Romans in particular, male heirs were needed to perpetuate the family name and pursue the social and political prestige established by their fathers.[658] That said, Flemming asserts that parents seem generally to have wanted both sons and daughters, as daughters also made a range of important contributions to the family, but contends that they would have desired a son first and foremost, to ensure the continuity of the paternal line.[659] The biggest contribution of daughters would have been to produce grandchildren. Indeed, Statius makes such a point: 'a maiden too brings happiness to a young parent' because they will soon provide 'grandsons' (*Raw Material* 4.8.26–27). More so, a daughter was likely to produce grandchildren earlier than would a son, as girls married younger.[660] It must also be noted, and shall be discussed in more detail in the next chapter, that childbirth was particularly perilous for both mother and baby in the Roman world. A wife's delivery of a child was cause for celebration.[661] Thus, the safe birth of a healthy baby was more likely what was most desired by parents. However, for those Romans trying to select the gender of their baby, there were various options available.

Remedies for Gynaecological Problems

Along with specific treatments to enhance fertility or cure infertility, or to help with selecting the gender of the foetus, medical writers and practitioners all discuss a number of treatments for many gynaecological problems. There are treatments for uterine pain.[662] There are prescriptions for leucorrhoea and any other uterine

[658] Eyben, 1991, 142; Saller, 1994, 161; Späth, 2010, 149.

[659] Flemming, 2021a, 909.

[660] Treggiari, 1991, 84. Girls married in their late teens but somewhat younger, early to mid-teens in the upper classes; in contrast the men were generally between 25 and 30 years of age (Rawson, 1992, 21; Rawson, 2003, 95–96; Laes, 2011a, 46).

[661] Rawson, 2003, 108.

[662] Pliny, *Natural History* 20.13.27; 20.15.30; 22.15.34; 26.90.153; 26.90.155; 26.90.157; 26.90.160; 27.38.60; 28.9.42; 28.16.58; 28.77.247; 32.46.134. 36.33.141. Dioscorides, *Materia Medica* 1.33.2; 1.99.1; 2.81.2; 2.103; 2.118.2; 2.124.2; 3.6.3; 3.140.3; 4.7; 4.59; 4.169; 5.38.2; 5.60. Soranus, *Gynaecology* 3.10–11.

discharges and fluxes.[663] Remedies are suggested to check excessive menstruation.[664] There are medicaments for prolapse.[665] Furthermore, there are some prescriptions which treat uterine inflammations but a number are unspecific and are prescribed to treat uterine ailments and problems generally.[666] In several instances remedies may treat one or more issue: for instance, the mastic tree is 'effective for uterine bleeding and for uterine prolapses' (Dioscorides, *Materia Medica* 1.70.1). The point to note is that there were many treatments available for women suffering from a wide range of gynaecological problems and such a plethora of treatments suggest that there was a desire, on the part of doctors and physicians, to remedy such complaints. These gynaecological issues cannot be related to infertility directly; abnormal bleeding and pain are often as a result of other conditions such as prolapse or inflammation. That said, many fertility problems manifest in uterine issues. For instance, pelvic inflammatory disease is an infection in any part of the

[663] Leucorrhoea is a mucus discharge from the lining membrane of the female genital organs; an abnormally large discharge may indicate infection of the lower reproductive tract (OCMD, s.v. leucorrhoea). Celsus *On Medicine* 4.27.D. Pliny, *Natural History* 21.73.123; 22.38.81; 26.90.156; 34.45.153; 34.46.155. Dioscorides, *Materia Medica* 1.7.3; 1.70.2; 1.87.2; 1.93; 1.97.2; 1.100.3; 1.101.2; 1.105.2; 107.2; 1.108.3; 1.109.1; 1.112.2; 2.59; 2.75.1; 2.114.3; 2.126.3; 3.13; 3.56; 3.132.3; 4.3; 4.4.2; 4.36; 4.37; 4.43; 4.44; 4.51; 4.64.3; 4.70.2; 4.88.2; 5.3.2; 5.5.2; 5.30; 5.34.2; 5.80.1; 5.114.3; 5.126.2; 5.134; 5.153.2. Soranus notes treatments for uterine fluxes (*Gynaecology* 3.44).

[664] Celsus, *On Medicine* 4.27.D. Pliny, *Natural History* 20.82.218; 21.71.119; 21.79.135; 21.96.169; 23.34.70; 23.52.98; 23.60.112; 23.71.138; 24.5.10; 24.42.70; 24.42.72; 24.65.107; 24.67.110; 24.77.126; 24.86.136; 26.90.152; 26.90.157; 26.90.160; 27.61.88; 27.69.93; 27.78.103; 27.79.104; 27.116.142; 29.11.46; 32.46.131; 34.31.122; 35.14.34; 36.37.145. Dioscorides, *Materia Medica* 1.70.1; 1.125.2; 2.80.2; 3.43; 3.55; 4.36; 4.43; 5.99.2.

[665] Celsus, *On Medicine* 6.18.10; Pliny, *Natural History* 22.15.31; 23.27.56; 23.54.103; 23.81.161; 24.5.10; 24.67.110; 28.77.253; 35.51.182. Dioscorides, *Materia Medica* 1.70.1; 1.73.2; 1.101.2; 1.107.2; 1.112.2; 1.115.2; 2.80.1; 4.93.1; 5.13.1. Soranus, *Gynaecology* 4.37-40.

[666] Celsus notes treatment for uterine inflammations (*On Medicine* 5.21.4; 5.25.3; 5.25.5). Pliny notes treatments for inflammations of the uterus and complaints of the womb (*Natural History* 20.83.220; 21.94.165; 24.12.20; 25.36.73; 27.3.12; 27.26.43; 27.60.86; 28.13.50; 28.28.110; 28.77.246; 28.77.249; 28.77.254-5; 29.9.32; 29.10.37; 30.43.123; 32.46.133). Dioscorides notes treatments for uterine inflammations and uterine complaints (*Materia Medica* 1.2.2; 1.7.4; 1.16.1; 1.17.2; 1.19.5; 1.33.2; 1.42.1; 1.43.4; 1.52.5; 1.53; 1.55.3; 1.56.3; 1.57; 1.61.2; 1.103.2; 2.72.2; 2.76.1; 2.102.1-2; 2.103; 2.131; 3.2.2; 3.31.2; 3.45.2; 3.58; 3.92; 3.109.2; 3.116; 3.121.2; 3.123; 3.136.2; 3.138; 3.146.2; 3.152.2; 4.1.2; 4.58; 4.173.3; 5.41). Soranus discusses treatments for uterine inflammation (*Gynaecology* 3.23 & 3.24).

reproductive system: the uterus; ovaries; fallopian tubes; cervix; and, importantly, if not treated can result in long-term reproductive disability, including infertility.[667] Notably, pelvic inflammatory disease is signalled by pelvic pain in particular, abnormal vaginal discharge and intermenstrual bleeding, all issues noted in the ancient texts.[668] One should not diagnose retrospectively. Nevertheless, some ancient women suffering from gynaecological conditions, particularly uterine pain or abnormal discharge, may have had problems with their fertility.

More importantly, at a rudimentary level, pelvic pain and discomfort inhibit desire for sexual intercourse, whilst prolapse and inflammation can make coitus difficult; all of which would reduce the likelihood of conception. Remedying such problems may in turn have helped women conceive. Indeed, one specific treatment noted by Celsus to remedy inflammation of the uterus, notes that it seeks to 'mollify the womb' (Celsus, *On Medicine* 5.21.2). The implication is that the treatment will soften the womb and thereby make it easier for it to function, that is, to allow the foetus to develop. Treatments for such gynaecological conditions are not fertility treatments *per se*, but they may have had a positive effect on fertility.

Along with the treatments for different gynaecological problems, there are also many treatments prescribed for uterine suffocation, sometimes referred to as hysterical suffocation, *hysterike pnix*: an acute and dangerous condition produced by sustained upward movement of the womb.[669] The idea that the womb moved freely about a

[667] Collins *et al*, 2013, 561–562; McVeigh *et al*, 2013, 110; Brunham *et al*, 2015, 2039. Pelvic inflammatory disease can be a complication of chlamydia and gonorrhoea (Collins *et al*, 2013, 561; Brunham *et al*, 2015, 2040). The presence of chlamydia in the ancient Roman world is discussed in chapter 5; see 240.

[668] Collins *et al*, 2013, 562; McVeigh *et al*, 2013, 169; Brunham *et al*, 2015, 2039–2040; OCMD, s.v. pelvic inflammatory disease.

[669] Flemming, 2000, 211. Celsus, *On Medicine* 4.27; Pliny, *Natural History* 20.15.30; 20.73.194; 20.75.197; 21.80.136; 21.81.137; 21.86.150; 22.15.32; 23.28.59; 26.90.153; 26.90.155; 26.90.156; 26.90.158; 28.20.71; 30.43.126; 30.45.131; 32.13.28; 32.46.130; 36.34.142. Dioscorides, *Materia Medica* 1.33.2; 1.48.2; 1.73.2; 1.75; 2.7; 2.8; 2.34; 2.75.2; 2.81.2; 2.126.3; 2.154.2; 3.1.3; 3.45.2; 3.48.5; 3.53.1; 3.76.2; 3.78.3; 3.81.2; 3.83.2; 3.140.3; 4.1.2; 5.17.3; 5.37; 5.72.3; 5.128.1. Soranus, *Gynaecology* 3.28.

woman's body causing a spasmodic disease similar to epilepsy, enjoyed great popularity in the ancient world.[670] Dean-Jones asserts that a prolapsed womb may have given rise to the belief that the uterus could wander in other directions.[671] As has been noted above, there was ancient recognition of a prolapsed womb, because of the many medicaments to treat the condition. Yet, Herophilus (*c.*330–*c.*260 BCE) discovered the uterine ligaments, among other things, which meant that the womb was anchored in the body and technically made extensive womb movement an impossibility.[672] Nonetheless, the discovery seemed to have had little effect for some; indeed, four or five centuries after Herophilus' discovery, many doctors apparently continued to believe that the womb could move about the body and they treated their patients accordingly.[673]

Even for those that acknowledged that the womb was secured, they seemed to have believed that there was a degree of flexibility and movement. Soranus was of the opinion that the womb was secured in the body, noting that 'the uterus does not issue forth like a wild animal from the lair' (*Gynaecology* 3.29). Yet, he admits that in some ways it behaves as if it were an animal, responding to cooling and loosening drugs.[674] His explanation for uterine suffocation is that inflammation of the ligaments, securing the womb in place, causes them to contract and thereby lift the womb upwards.[675] Soranus maintains that the uterus was held in place but makes allowances that it could shift about in a limited manner and thus cause seizures and suffocation.[676]

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[670] King, 1998, 7; Faraone, 2011, 1; Dean-Jones, 2018, 256. It began in the classical period with Plato and the Hippocratic writers (Faraone, 2011, 1).

[671] Dean-Jones, 1991, 122.

[672] King, 1998, 38; Flemming, 2000, 233. Herophilus also discovered the ovaries, although he did not understand their function and was aware of the fallopian tubes, but he did not know their purpose (King, 1998, 38).

[673] Faraone, 2011, 6.

[674] Soranus, *Gynaecology* 1.8; King, 1998, 223.

[675] Soranus, *Gynaecology* 3.50; Faraone, 2011, 7.

[676] Faraone, 2011, 8.

Faraone has argued that the wandering womb was never perceived as a gynaecological complaint in antiquity, primarily because it was not signalled by gynaecological or obstetrical dysfunctions, such as vaginal discharges, abnormal menorrhea or the inability to get pregnant.[677] Instead, a diagnosis of the wandering womb, according to Faraone, was always triggered by a dysfunction in some other organ of the body, especially the lungs and liver; in particular, by the catastrophic onset of seizures, suffocation or unconsciousness.[678] In a similar manner, Fallas asserts that in the *Hippocratic Corpus*, authors widely discussed uterine displacement but rarely linked it with infertility.[679] Such a lack of mention of the problem as a gynaecological complaint may have been, as Fallas states, because the other effects (seizures, inability to breathe, or suffocation) were so extreme and could result in death, that the gynaecological effects were not considered hugely important.[680]

On the other hand, Fallas argues that infertility may have been such an obvious result of uterine displacement that there was no need for it to be widely mentioned by the Hippocratic authors.[681] This seems likely to have been the case. Soranus, the gynaecological specialist, asserts that uterine suffocation, which he acknowledges was caused by the upward movement of the womb, was linked to the female reproductive cycle.[682] He relates hysterical suffocation to other conditions such as epilepsy, apoplexy or catalepsy, but, at the same time, distinguishes it from such conditions by the fact that the uterus in the former conditions is found to be normal, whereas in *hysterike pnix*, the uterus is ‘greatly inflamed and retracted’ (Soranus,

[677] Faraone, 2011, 26.

[678] Faraone, 2011, 26.

[679] Fallas, 2015, 110. Fallas claims that there are only four examples of uterine displacement causing infertility in the Hippocratic texts (2015, 111).

[680] Fallas, 2015, 112.

[681] Fallas, 2015, 112.

[682] Flemming, 2000, 242.

Gynaecology 3.27). Soranus maintains that women suffering from uterine suffocation would likely have had gynaecological problems, including infertility: he asserts that 'hysterical women have had much trouble with the uterus'; that the disease is 'preceded by recurrent miscarriages, premature birth, long widowhood, retention of the menses and the end of ordinary childbearing, or inflation of the uterus' (*Gynaecology* 3.26 & 3.27). Thus, treatments for uterine suffocation, and indeed there were several, were not fertility treatments *per se*, but they were gynaecological treatments: they sought to return the uterus to its correct position to relieve the effects of suffocation.[683] This, in turn, would likely have had a positive effect on fertility, in the minds of Roman medical writers and practitioners, who understood that womb displacement caused infertility.

Treatments for Andrological Problems

In the same way that there are treatments for gynaecological problems, my analysis of the medical texts has revealed that there are also treatments for andrological issues, although like the fertility treatments, there are not as many as those for women. The medical texts note treatments for specific symptoms: sores; calluses or carbuncles; itching; indurations; swelling of the penis; or fluxes.[684] Sometimes, the medical writers simply note remedies for male genital diseases; troubles; affections; or complaints.[685] Notably, the vast majority of treatments are ointments specifically for inflamed or swollen testicles.[686] Like gynaecological problems, none of these

[683] See list of treatments for uterine suffocation 209.

[684] On sores: Pliny, *Natural History*, 20.20.40 & 32.14.37. On calluses or carbuncles: Celsus, *On Medicine* 6.18.5. On itching: Pliny, *Natural History* 22.71.147. On indurations: Dioscorides*, Materia Medica* 1.103.3 & 5.156.2. On swelling of the penis: Celsus, *On Medicine* 6.18.2. Scribonius, *Compounding of Drugs* 234; On fluxes: Pliny, *Natural History* 20.51.142.

[685] On troubles & diseases: Pliny *Natural History* 20.34.89; 23.53.99; 34.31.122 & 36.32.140. On affections: Pliny, *Natural History* 23.81.163. On complaints: Pliny, *Natural History* 26.49.81 & 30.22.72.

[686] On swelling and Inflammation of the testicles: Celsus, *On Medicine* 6.18.6; Scribonius *Compounding of Drugs* 233; Pliny, *Natural History* 22.32.68-9; 22.69.141; 22.72.149; 22.75.158; 23.12.16; 23.31.63; 23.80.152; 26.58.89; 26.58.91; 28.60.215; 31.33.65; 31.46.118; 31.47.129; Dioscorides, *Materia Medica* 1.112.3; 2.104; 2.105.2; 2.158; 2.169.2; 3.45.3; 3.59.2; 3.60.2; 3.63; 3.102.3; 4.96.2; 5.3.3; 5.109.5; 5.150 & 5.153.2.

issues can be related to infertility directly; in a lot of instances, infertility in men does not manifest in symptoms.[687]

That said, some fertility problems manifest in such issues: scholarship has linked male infertility with varicoceles, an enlargement of the veins within the loose bag of skin that holds the testicles; symptoms of which may be testicular pain or scrotal swelling.[688] One cannot retrospectively diagnose that all Roman men suffering inflamed testicles would have been suffering from varicoceles and thus were infertile, because testicular swelling may result from a number of causes: sexually transmitted diseases, mumps, cancer, or simply occur because of a trauma to the genitals.[689] Retrospective diagnosis often seeks a single cause when the reality is more complex. Nonetheless, some of those men suffering with inflamed testicles may have had fertility problems. At a rudimentary level, swelling likely caused pain and discomfort, which, in turn, would probably inhibit desire for sexual intercourse or indeed make coitus difficult; thus, reducing the likelihood of conception. In the same way that treatments for gynaecological conditions are not fertility treatments *per se*, but may have had a positive effect on fertility, so too might remedies for male testicular and genital problems.

Sexual Intercourse Advice for Maximising the Chance of Pregnancy

In addition to the fertility treatments noted in the medical texts, ancient physicians and experts offer advice and tips on sexual intercourse for boosting a couple's chance of pregnancy. Lucretius recommends that couples should mate like animals because, 'in that position, breasts down and loins up, the seeds can occupy the

[687] Iammarrone *et al,* 2003, 214.

[688] Naughton *et al,* 2001 473. Jensen *et al*, 2017, 523–529; Arafa & Elbardisi, 2019, 115; Lybbert & Tadros, 2019, 107.

[689] WHO, 2003,18. Pliny refers to sexually transmitted diseases: *phthiriasis* and *herpes* (*Natural History* 26.86.138 & 26.87.145). Certainly, a form of chlamydia has been noted in antiquity and so too has herpes (Knapp, 2011, 263; Nutton, 2013, 29–30). The next chapter discusses chlamydia, herpes and the possible presence of syphilis; see 240–244.

proper places'.[690] Importantly, couples are even advised to prime themselves before intercourse, to ensure their bodies are in the optimum state for conception to take place: they are advised not to be drunk when having sex, nor too congested with food; instead, they should consume a little food before-hand and give their bodies a rub down (Soranus, *Gynaecology* 1.36–38).

Soranus specifically states that the couple should not be drunk because a body only performs its proper functions, in this case conception, when it is in a natural state; it is not in a natural state when people are drunk (*Gynaecology* 1.38). Furthermore, he considers wine especially to be damaging, for he states that it should be rejected during the very early days of pregnancy (Soranus, *Gynaecology* 1.46). Wine was considered haematopoietic in antiquity: red and thick wines especially were most useful for the formation of blood.[691] For women, drinking too much wine and especially red wine causes an imbalance of blood in her body which, in turn, means it is not in its natural state and so not fit to conceive.

Along with this advice on what to do and more importantly what not to do before intercourse to maximise the chances of conceiving, specific advice is offered to couples on when to have sex to further improve their chances of having a baby. Pliny advises that the easiest conceptions are when menstruation is beginning, or as it ends (*Natural History* 7.16.67). Soranus asserts that the best time, is to have intercourse when menstruation is 'ending and abating' (*Gynaecology* 1.36). Whilst Pliny and Soranus had slightly differing views, the important thing to note is that, in ancient Rome, menstruation signified the possibility of getting pregnant. It was an essential prerequisite for conception.[692] It was very much viewed positively by women trying to conceive. Moreover, regular menstruation was viewed as necessary for conception (Soranus, *Gynaecology* 1.34). Women wishing to become pregnant

[690] *On the Nature of Things* 4.1263–1267. This is where the man penetrates the woman from behind, as male animals mount females in the wild.

[691] Jouanna, 2012,184–185.

[692] Flemming, 2000, 163.

could take measures to stimulate menstruation thereby preparing their bodies for impregnation: they could use emmenagogues.

Emmenagogues

An emmenagogue is defined as an agent or substance which increases or stimulates the menstrual discharge.[693] Emmenagogues are, in the main, concoctions of herbs and plants, or on occasion animal parts or excrement, that women usually digest or administer as a pessary. They have been used throughout history to control the periodicity, consistency, colour and quantity of menses; consequently, they held an established place in reputable medical practice.[694] As for the use of emmenagogues in ancient Rome, previous scholarship has predominantly focussed on their use as fertility inhibitors: John Riddle has famously argued this, in the sense that they were all used to abort pregnancies.[695] Yet, the ancient medical texts clearly categorise the various concoctions. Some prescriptions are noted as abortifacients and specifically state that they destroy, or abort foetuses; some declare that they draw down or expel foetuses whilst others refer to the expulsion of dead foetuses. Celsus lists three such medicaments; Pliny lists thirty-one; Dioscorides lists seventy-two; whilst Soranus notes four oral substances and three pessaries which are abortifacient, and suggests four substances which are often used for abortion; in total, I have identified one hundred and seventeen abortifacients in the Roman medical texts.[696] In many instances, these treatments note that they bring on menstruation, so are emmenagogic; nonetheless, it is clearly marked by the writers that they are also abortifacient.

Alongside these abortifacient concoctions, I have identified over one hundred and thirty emmenagogic treatments which the ancient medical writers state only draw down the menses, induce or promote menstruation or set the menses in motion:

[693] OED, s.v. emmenagogue.

[694] Brodie, 2001, 39; van de Walle & Renne, 2001, xiv.

[695] Riddle, 1992, 27.

[696] See Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

Celsus details three such emmenagogues; Pliny lists thirty-six; Dioscorides lists eighty-one; Soranus notes five specific pessaries along with a number of 'irritating' substances to be used as pessaries to bring on menstruation.[697] These, it seems, were viewed by the ancient medical writers and those within the medical profession as not strong enough to abort a pregnancy. In her investigations of menstrual interventions in history, Janet Brodie asserts that in early medical and folk beliefs there was distinction between emmenagogues and abortifacients.[698] My investigation of the Roman medical texts shows that there was a clear distinction in the Roman world between an emmenagogue and an abortifacient.

Specific abortifacient treatments were detailed by medical writers and practitioners because abortion was not illegal during the era *per se,* although, as will be discussed, some authors were morally against the practice.[699] That said, there were laws protecting the rights of the foetus, although these were predominantly concerned with the rights of the unborn child as an heir. Roman law wanted to ensure that paternal property went to the proper heir; inheritance rights of an unborn child and potential heir had to be protected.[700] This allegedly went as far back as the Twelve Tables and is mentioned in several statutes throughout the *Digest*.[701] Birth activated these potential rights.[702] Notably, in some instances, a *curator* was appointed to protect the rights of the unborn child and would authorise deductions

[697] See Appendix 2: List of emmenagogues which simply promote menstruation.

[698] Brodie, 2001, 39. Brodie asserts that, from the 1840s onward in the US, there was a refashioning of social attitudes towards emmenagogues and abortifacients and that the lines between the two categories grew increasingly blurred (2001, 39–40).

[699] Kapparis argues that abortion was not illegal in any part of the Graeco-Roman world before the third century CE (2002, 176).

[700] Evans Grubbs 2002, 264.

[701] 'The ancients provided for the free unborn child in such a way that they preserved for it all legal rights intact until the time of birth' (*Digest* 5.4.3). 'Just as the *praetor* had a care for those children who are already among human affairs, so he has not neglected even those who have not yet been born, on account of their expectation of being born' (*Digest* 37.9.1). 'Even in the law of the Twelve Tables he who was in the womb is admitted to the legitimate succession as if he has been born' (*Digest* 38.16.3.9).

[702] *Digest* 1.5.7 & 1.5.26; Dasen, 2013a, 20.

from the inheritance for the care of the pregnant woman.[703] Thus, the rights of the unborn child were more about protecting its financial rights as an heir rather than its right to life. Furthermore, there were severe penalties for a woman who deliberately aborted an heir. Jurisprudence notes that 'if it is proved that a woman has done violence to her womb to bring about an abortion, the provincial governor shall send her into exile' (*Digest* 48.8.8). In another criminal case, a pregnant woman was found guilty of procuring an abortion and was given the death penalty. The case is noted in jurisprudence and by Cicero (Cicero, *In Defence of Cluentius* 11.32; *Digest*, 48.19.39). Cicero's account is as follows.

> *Memoria teneo Milesiam quandam mulierem, cum essem in Asia, quod ab heredibus secundis accepta pecunia partum sibi ipsa medicamentis abegisset, rei capitalis esse damnatam: nec iniuria, quae spem parentis, memoriam nominis, subsidium generis, heredem familiae, designatum rei publicae civem sustulisset.*
>
> I remember a case which occurred when I was in Asia: a certain woman of Miletus, who had accepted a bribe from the alternative heirs and procured her own abortion by drugs, was condemned to death and rightly for she had cheated the father of his hopes, his name of continuity, his family of support, his house of an heir and the Republic of a citizen-to-be (Cicero, *In Defence of Cluentius* 11.32).

As well as protecting the rights of the unborn child as an heir, the law seemingly also protected its potential as a Roman citizen for the state. The case illustrates that some foetuses, in particular future Roman elite citizens, were protected in law and in such cases upper class women could face the harshest sentence, death, if they deliberately aborted their unborn infants. Thus, in some instances in ancient Rome, abortion was illegal. Of course, elite Roman women could always assert that the foetus had died in the womb before taking the appropriate medication, because, as

[703] Evans Grubbs, 2002, 265. The maintenance of the pregnant woman would be in 'proportion to the means of the deceased and also in proportion to the status of the woman' (*Digest* 37.9.1.19).

Riddle asserts ‘there is an unresolvable ambiguity as to whether the words describe an action or a desired effect’.[704]

Nonetheless, for many women it was not illegal to procure an abortion, although it may have been extremely risky. Ovid notes that his mistress, Corinna, by having an abortion has undertaken a ‘course filled with danger’ (*Amours* 2.13.3–4). The danger Ovid refers to is her life, as a result of the medication, not because she has broken any laws. Indeed, Soranus warns against using abortifacient decoctions that are too powerful (*Gynaecology* 1.65). A cocktail of pharmacological substances could prove a powerful mix becoming highly toxic and produce serious side-effects for the health of the woman.[705] Abortifacient pessary treatments were also dangerous: they could cause ulcers, inflammation and sceptic abortions, leading to infertility or even death.[706] Abortion using any mechanical means would likely have been equally risky; Soranus warns against using sharp-edged implements.[707] Certainly, Ovid notes that his mistress, Corinna ‘lies languishing in peril of life’ (*Amours* 2.13.2). In Corinna’s case the nature of the abortion, whether it was a pessary, oral decoction or mechanical, is not noted; yet it shows that the risk for Roman women was great.

Interestingly, despite detailing several abortive emmenagogues, Pliny professes that he does not mention them and seemingly takes a moral stand on the issue. He states

> *sed quae fuit venia monstrandi qua mentes solverentur, partus eliderentur, multaque similia? ego nec abortiva dico.*

[704] Riddle, 1992, 50.

[705] Kapparis, 2002, 16–18.

[706] Soranus, *Gynaecology* 1.65 & 3.12; Kapparis, 2002, 21; Dasen, 2013a, 25.

[707] Soranus, *Gynaecology* 1.65; Dasen, 2013a, 25.

> what excuse was there to point out the means of deranging the mind or of causing abortion and many other similar crimes? I personally do not mention abortives (Pliny, *Natural History* 25.7.25)

Such a moral stand against the practice of abortion, it seems was not unique to Pliny, others too seem to have taken issue with the practice. Scribonius apparently objected to abortion for in his 'Dedicatory Letter', at the beginning of his *Compounding of Drugs,* he praises the Hippocratic *Oath* which forbade physicians prescribing abortifacients (5). Within the medical profession, there was contention of the practice of abortion. Soranus discusses the issue.

> οἵ μὲν γὰρ ἐκβάλλουσι τὰ φθόρια τὴν Ἱπποκράτους προσκαλουμένοι μαρτυρίαν λέγοντος οὐ δώσω δὲ οὐδενὶ φθόριον, καὶ ὅτι, τῆς ἰατρικῆς ἐστιν ἴδιον τὸ τηρεῖν καὶ σώζειν τὰ γεννώμενα ὑπὸ τῆς φύσεως. οἱ δὲ μετὰ διορισμοῦ συντάσσουσιν αὐτά τοῦτ᾽ ἔστιν οὐχ ὅτε διὰ μοιχείαν τις βούλεται φθείρειν τὸ συλληφθὲν οὔτε δι᾽ ἐπιτήδευσιν ὡραιότητος, ἀλλ᾽ ὅτε διὰ κίνδυνον κωλῦσαι γεννησόμενον ἐν ταῖς ἀποτέξεσι.

> For one party banishes abortives, citing the testimony of Hippocrates who says 'I will give to no one an abortive'; moreover because it is the specific task of medicine to guard and preserve what has been engendered by nature. The other party prescribes abortives but with discrimination, that is, they do not prescribe them when a person wishes to destroy the embryo because of adultery or out of consideration for youthful beauty, but only to prevent subsequent danger in parturition (Soranus, *Gynaecology* 1.60).

Soranus' mention of the testimony of Hippocrates is reference to the Hippocratic *Oath* which is somewhat ambiguous on the issue of abortion. The specific sentence within the *Oath* reads: 'I will not give an abortive pessary to a woman' (*Hippocratic Oath* 19–20). There has been considerable debate about the precise meaning of the sentence and in particular whether the statement should be read as absolute or

not.[708] The debate centres around the reference to abortive pessaries specifically, rather than abortives on the whole. Those following the letter of instruction might infer that any other treatment causing abortion was therefore permitted. Indeed, Hippocrates advocates 'leaping with the heels to the buttocks for the sake of expulsion' despite prohibiting the use of abortive pessaries, according to Soranus.[709] Thus, the ban may simply have been about abortifacient pessary treatments, because they were deemed dangerous for the health of the woman. However, if this was the reason, it would have been somewhat contradictory because there were other treatments such as oral drugs and mechanical means which may have been equally risky.[710] Those within the medical profession, could, it seems, interpret the *Oath* to suit their agenda. On the other hand, they might have ignored it altogether: Nutton argues that many ancient Greek and Roman doctors did not follow the *Oath*, and that it was never imposed as a qualification for practice.[711]

Whilst Scribonius and Pliny apparently objected to abortion, of the other medical practitioners and writers under discussion, Celsus does not seem to take issue with it and neither does Dioscorides; both list abortifacients and, unlike Pliny, do not seem to state any opposition to the practice. Soranus advocates contraception over abortion but recognises that some women do 'intend to have an abortion' (*Gynaecology* 1.61–65). Therefore, he offers professional advice on different options. He recommends the following: undertaking vigorous exercise; carrying heavy objects; taking various decoctions which purge the uterus; sitting in a bath of decoctions and applying poultices; using abortive pessaries; even injecting old oil, presumably into the vagina as he does not provide specific instructions (Soranus, *Gynaecology* 1.63, 1.64 & 1.65). He further suggests that any woman intent on abortion should be 'bled' as this leads to women miscarrying (Soranus, *Gynaecology*

[708] Dasen, 2013a, 25; Totelin, 2020b, 137.

[709] Soranus, *Gynaecology* 1.60. Here, Soranus is referring to the case noted by the Hippocratic physician who authored the *Nature of the Child*, of the enslaved singer made to expel the seed she had retained following intercourse (*Nature of the Child* 2.490; Soranus, *Gynaecology* 1.60; Flemming, 2021a, 901).

[710] Dasen, 2013a, 25.

[711] Nutton, 1995, 520.

1.65). In slight contrast, Celsus notes that one must be careful letting blood from a pregnant woman but asserts that as long as she is in good health it may be done so safely (Celsus, *On Medicine* 2.10.1–3). Nonetheless, such advice from Soranus suggests that he was not morally averse to abortion. However, as has been noted above, he does advise caution against anything too powerful, especially abortive drugs and in particular using sharp-edged implements (Soranus, *Gynaecology* 1.65).

There were other Romans who were seemingly against the practice too. Ovid seems to be against abortion, questioning why women give 'poisons to children yet unborn' (*Amours*, 2.14.28). Nevertheless, his stance on the subject may be because his love, Corinna, endangered her life and was likely more to do with his fear of losing her rather than abortion itself. Seneca the Younger hints at his stance on the subject, when he praises his mother for not crushing 'the hope of children that were being nurtured in (her) body' (*Consolations to Helvia* 16.4). Juvenal professes moral outrage at the use of abortifacients by wealthy women in particular (*Satires* 6.592–600).

For women seeking an abortion, the medical texts detail various specific abortifacient concoctions. These compound remedies were believed to specifically remove foetuses as well as provoke menstrual flow. Thus, these abortifacient concoctions were also emmenagogues. Yet, as has been shown, there were a large number of remedies which state that they only draw down the menses, induce or promote menstruation or set the menses in motion.[712] These, in the minds of Romans, were not thought to be strong enough to abort a pregnancy. Such distinction between abortifacients and emmenagogues suggests that Roman women would just as likely require treatment for promoting menstruation as well as for ending a pregnancy.

One possible reason for promoting menstruation was when a woman suffered delayed menstruation. Certainly, some emmenagogues state that they are 'good for

[712] See Appendix 2: List of emmenagogues which simply promote menstruation.

delayed menstruation' or to hasten the monthly flow.[713] Another prescription claims to regulate menstruation.[714] As has been noted, if menstruation did not occur then it was believed by some that a dangerous excess of liquid would build up in the woman's body, causing a range of diseases, including causing the womb to wander and even death.[715] Celsus even claims that women whose menstruation is regular do not suffer any issues with their vision.[716] In terms of a definition, regularity was deemed to be once monthly; there is juristic evidence which records that women who did not menstruate once a month were deemed unhealthy.[717] As it was deemed by some in antiquity essential to female health to have regular menses, many Roman women may have been motivated to take an emmenagogue. The principle was that these emmenagogues controlled blood in the female body.[718] As such, they were likely taken to ensure overall good health and avoid disease or possibly death. Thus, Riddle's conclusion that anything expulsive becomes an abortifacient, reduces all gynaecology to abortion advice, and he fails to appreciate the importance of menstruation in its model of the female body.[719] Riddle's deduction fails to address the importance of regular menstruation in Roman society.

Some Roman women may have regulated their cycles to increase their chances of conceiving. As has been discussed, in the Roman world menstruation was

[713] Pliny, *Natural History* 21.89.156; 22.71.147; 26.90.155 & 32.46.132. See Appendix 2: List of emmenagogues which simply promote menstruation.

[714] Pliny, *Natural History* 20.26.68. See Appendix 2: List of emmenagogues which simply promote menstruation.

[715] See 22 & 129.

[716] He notes that a weakness occurs when some people see well enough in the daytime but not at all at night, although he notes that in 'women whose menstruation is regular, this does not happen' (Celsus, *On Medicine* 6.6.38).

[717] *Digest* 21.1.15. The jurisprudence asserts that those who menstruate twice a month are deemed unhealthy in the same way as those who do not menstruate at all, unless women have stopped menstruating due to age.

[718] Totelin, 2020c, 14.

[719] King, 1998, 145.

understood to be an essential prerequisite for conception.[720] More importantly, regular menstruation was key and was promoted by health practitioners: Soranus asserted that the most fertile women were those who had their 'catharsis regularly' (*Gynaecology* 1.34). Roman women, looking to conceive, may have heeded such advice and tried to increase their chances of success by using those emmenagogues that simply drew down or promoted their menses to regulate their cycle. Purging the womb was not necessarily a damaging or negative action; it was an essential component of sexual health practice designed to increase the fertility of the body.[721] Using emmenagogues offered Roman women the chance to control their reproductive health by regulating their menstrual cycle, and so prepare their bodies for pregnancy. In such instances, they were perceived as enhancing fertility and thus, were a form of fertility treatment.

Roman discourse on emmenagogues shows that the way in which women interpret and react to menstruation and, more importantly its absence, reflects the cultural and social context in which they live.[722] In more recent times, there seems to have been a shift and the term emmenagogue has come to mean an abortive. Since the late nineteenth century, the terms 'emmenagogue' and 'abortifacient' have often been used synonymously, even though there had historically been a distinction between the two remedies.[723] Flemming notes that Isidor Fischer, in the late 1920s, suggested that the primary purpose behind moving the menses was abortion.[724] In addition, menstrual irregularity became a neglected topic amongst the medical profession in the twentieth century.[725] Instead, menstrual regulation became a code phrase for early-term abortion and has acquired this meaning almost exclusively in

[720] See 214.

[721] Evans, 2012, 17.

[722] van de Walle & Renne, 2001, xiii.

[723] Brodie, 2001, 39; Siedlecky, 2001, 107.

[724] Flemming, 2000, 162.

[725] van de Walle & Renne, 2001, xxiv.

family planning literature since the 1970s.[726] Over the course of time, there has been a blurring of the boundary between the regulation of menstrual health and abortion. Riddle's interpretation that all emmenagogues were used to abort pregnancies may have been borne out of modern thinking on the subject. Considering the pronatalist tenor of Roman society, traditional emmenagogues may have been used by some women to enhance rather than limit fertility.[727] Roman women would just as likely to have brought down their menses in order to have children as the reverse.[728]

Conclusion

I concluded in the last chapter that there was discussion and understanding of infertility by physicians and medical writers of the late Republic and early Roman Empire. In this chapter, I have shown that there was assistance available to those experiencing difficulties in conceiving during the era; physicians and medical writers sought to enhance fertility for both women and men and indeed, treat infertility. For women experiencing difficulties in conceiving there was a vast array of treatments and remedies advocated; there were both pharmacological and dietetical fertility treatments. Some of these were inexpensive home remedies which would have been easily available to Romans in their own gardens or grew wild locally; some were expensive luxurious treatments using exotic ingredients. Women could also travel to a spa or waters for curative purposes. There were a variety of ways people could try and treat women's infertility; those of all means could seek some form of help for infertility. There were also remedies specifically for men having problems. Under the remit of fertility treatments, there were also prescriptions which allegedly offered couples the opportunity to select the sex of their child. In some of these instances, the treatment was prescribed for both the potential father and mother of the child; both parents had a responsibility in determining the gender of the infant.

[726] van de Walle & Renne, 2001, xvii.

[727] van de Walle & Renne, 2001, xiv.

[728] Flemming, 2000,163.

My analysis of the texts has also revealed that there were many treatments for women's gynaecological problems. These cannot be related to infertility directly, but many fertility problems manifest in uterine issues. By the same token, although not on the same level, there were a number of treatments for andrological problems. Again, these are not always indicators of infertility, but in some instances could be signs of underlying fertility problems. The treatments for such problems were not fertility treatments *per se*. Nevertheless, at a rudimentary level such gynaecological issues and male urology problems can inhibit desire for sexual intercourse, or make the act extremely difficult and painful, thus reducing the likelihood of conception. Remedying such problems may, in turn, have helped couples conceive. More so, in a society where regular menstruation was a marker of fertility, specific emmenagogues may have been taken by women to regulate their cycles and thus enhance fertility; they too were a form of fertility treatment.

In Roman society there were a number of measures available to those having problems conceiving. Building on Flemming's argument that infertility has a history that goes back thousands of years to the ancient Greeks, I have shown that involuntary childlessness is a problem that spans time and cultures. Yet infertility is not simply about the inability to conceive; it is much more complex. It is also defined as the inability to carry a pregnancy to a live birth. Thus, women whose pregnancies spontaneously miscarry, or whose pregnancies result in a stillbirth, without ever having had a live birth, present with infertility. Therefore, it is important to examine the threat to the Roman foetus of such pregnancy complications; to understand whether some Roman women might have been childless because they were unable to retain the foetus in the womb for the entire gestation period and deliver a live infant.

Chapter 5.

Childlessness due to Miscarriage, Stillbirth or Premature Birth in Roman Society

Introduction

In this chapter, I investigate the factors which prevented the birth of a live infant: spontaneous abortion, colloquially termed a miscarriage, and stillbirth. Some scholars have referred to miscarriage and linked it with childlessness in Roman society.[729] Yet, there has been no in-depth analysis of the loss of the foetus during pregnancy, or at birth. I begin by describing Roman categorisation of miscarriage by medical writers and practitioners. Notably, any spontaneous death of the foetus right up to the end of pregnancy and at birth, that which is now referred to as a stillbirth, was seemingly still referred to as a miscarriage. Moreover, there was Roman discourse on the causes of miscarriage. Specifically, there was understanding that miscarriage could occur as a result of a fever, a usual indicator of infectious disease.[730]

This is notable because recent research has concluded that some infectious diseases, and in particular malaria, significantly increase the likelihood of miscarriage, particularly in young and first-time mothers.[731] Malaria was seemingly a common and recognised fever pattern in Roman society. Consequently, it would likely have impacted the pregnancies of Roman women. Importantly, there was specific advice in the medical texts aimed at preventing miscarriage: there were

[729] Rawson, in her study of Roman children and childhood, claims that miscarriage must have been frequent, citing Pliny the Younger and his wife Calpurnia (2003, 116–119). Osgood asserts that childlessness in the Roman world was caused by high rates of miscarriage as well as infant mortality (2014, 67–68).

[730] Fever is one of the usual clinical features that appear during the course of several infectious diseases (González Plaza *et al*, 2016, 97; OCMD, s.v. fever).

[731] Maharaj, 2009, 33; McGready *et al*, 2012, 394; Collins *et al*, 2013, 167; Stivala, 2015, 154–155; Giakoumelou *et al*, 2016, 128; Craik, 2020, 87 & 92-93; Laskaris, 2020, 79.

regimens, amulets and pharmacological treatments to help protect the foetus and sustain a pregnancy. In my discussion I note that much of the advice issued by medical practitioners seems quite controlling; pregnant women were instructed to avoid the following: baths; wine; certain foods; sexual intercourse and certain ways of travelling, specifically being drawn by animals (Soranus, *Gynaecology* 1.46). Such advice gave men increased power to further control women in a traditionally patriarchal society.

A large percentage of foetal deaths occur during intrapartum, as a result of childbirth complications such as obstructed labour.[732] There is discussion in the Roman medical texts of the reasons why some women encounter a difficult and obstructed labour. Underdevelopment either as a result of age or from lack of growth was considered a major factor. The young age of first-time mothers or the consequences of malnutrition may have been causal factors in an obstructed childbirth in the Roman world. More so, the discourse in the medical texts on the techniques and methods for dealing with a problematic and obstructed labour reveal the dangers to both the infant and the parturient. Such intervention put the infant at great risk; it likely resulted in the death of the child. It seems that such methods were only carried out to save the life of the mother. That said, such procedures may have led to the subsequent death of the mother postpartum from infection.

Another threat to the foetus is premature birth: the earlier an infant is delivered the less likely it is to survive.[733] Therefore, investigations into Roman understanding of premature birth will be examined. I discuss Roman understanding of the length of pregnancy and what constituted a premature birth in Roman society. Premature birth also means the risk of malformations and precarious health, if not the death of the

[732] Intrapartum is defined as during labour and delivery, or childbirth (OCMD, s.v. intrapartum). A major cause of infants dying in childbirth in contemporary society is attributed to complications in labour (Vaishali & Pradeep, 2008; WHO, 2023a).

[733] Goldenberg *et al*, 2000, 1500; Romero *et al*, 2003, 1668S; Vaishali & Pradeep, 2008, 315. Most stillbirths are concentrated in those infants born before thirty-two weeks, eight months (Goldenberg *et al*, 2000, 1500).

neonate. Roman society allowed for the choice of whether a newborn infant was to be raised by the family or not.[734] Severe disabilities likely influenced the decision to raise a child. Thus, couples could still be left childless if they chose not to raise a newborn infant born with disabilities.

Significantly, recent research has concluded that women suffering miscarriage, stillbirth or premature labour in their first pregnancy, would be more likely to have problems in subsequent pregnancies.[735] Thus, Roman women who suffered a spontaneous abortion, or who went into early labour or indeed who endured a complicated and obstructed childbirth, would likely suffer the same complications in subsequent pregnancies. Furthermore, some Roman women may have been rendered disabled following surgical intervention such as an embryotomy to remove the foetus; they may have had difficulties conceiving or sustaining a pregnancy to full-term as a result of damage to their reproductive system. Such complications and issues may have affected the capacity of some Roman women to ever carry a pregnancy to term and deliver a healthy infant.

My discussion also includes the treatments that were available to women whose foetuses had died within the womb. I show that there were a number of medicaments which expelled dead foetuses. Here, abortion is referred to again, because such medications might have expelled living ones. However, in a similar vein to the previous chapter, a distinction is made in the ancient texts between drugs which destroyed or harmed live foetuses, and those which expelled dead ones: there were different treatments for those who wanted an abortion and those who had suffered a miscarriage. Roman women could access specific remedies for their different gynaecological needs.

[734] As shall be discussed, midwives were instructed to examine newborns immediately following the birth to ensure they were 'perfect in all parts' and therefore ascertain whether they were viable or not (Soranus, *Gynaecology* 2.10).

[735] Goldenberg *et al*, 2000, 1500; Johansson *et al*, 2008, 300; Bhattacharya & Bhattacharya 2009, 5-8. Giakoumelou *et al*, 2016, 117; Kvalvik *et al*, 2020, 1.

Roman Definitions and Terminology

Before discussing Roman understanding of miscarriage, it is important to note the different terminology used by those authors writing in Latin and those writing in Greek. Roman medical authors writing in Latin, generally only used one noun, *abortus,* to denote both a miscarriage and an induced abortion. Celsus asserts that women whose breasts suddenly shrivel up are at risk of miscarriage; also, that natural phenomena such as the weather can put pregnant women at risk of miscarrying.[736] At the same time, he warns that certain medical treatments, namely bloodletting, may cause some women's pregnancies to abort; in all cases he uses the noun *abortus* (Celsus, *On Medicine* 2.10.1–2). Pliny claims that certain plants and animal products, even wine, cause miscarriage, or induce abortion, and in all cases uses the same terminology.[737]

Throughout Roman literature *abortus* is used when women procure abortions, and it is also used to denote a miscarriage. Terence's play *The Mother-in-law*, performed *c.*160–165 BCE, refers to miscarriage (*abortus*) (398). Cicero refers to Junia Tertia (*c*.75 BCE–22 CE), also known as Tertulla, the wife of Gaius Cassius Longinus, one of the leading conspirators in the death of Julius Caesar, having had a miscarriage (*abortus*) (*Letters to Atticus* 374 (14.20)). Scribonius Largus refers to a medicine given to women who are still having pains following a miscarriage (*Compounding of Drugs* 121). Jurisprudence refers to both abortion and miscarriage in terms of inheritance claims of the unborn child and in each case uses *abortus*.[738] Even when miscarriage is discussed in relation to animals and plants, *abortus* is used.[739] That said, on occasion when abortion is discussed the verb *abigere* is used instead: Cicero refers to a woman from Miletus who accepted a bribe to procure an

[736] Celsus, *On Medicine* 2.1.14 & 2.8.41. These aphorisms are noted in the *Hippocratic Corpus* (*Aphorisms* 5.31 & 5.37).

[737] Pliny, *Natural History* 7.6.42; 7.7.43; 14.19.110; 20.4.9; 20.84.226; 21.69.116; 21.84.147; 24.20.29; 24.92.143; 25.34.71; 25.67.115; 27.55.80; 27.86.110; 28.77.251; 30.43.128; 30.44.129; 30.44.130; 32.3.8 & 32.46.133.

[738] Gaius, *Institutes* 2.131; *Digest* 29.2.30.4; 37.9.1.4; 37.9.1.27.

[739] Columella, *On Agriculture* 6.27.12; 7.6.5; Pliny, *Natural History* 8.69.172; 8.72.188; 8.76.201; 9.54.108; 11.16.50; 12.6.13; 18.44.150; 25.64.112; 28.6.32; 28.23.79.

abortion.[740] *Abigere* also translates as to drive away, or deter, or remove; thus, by using this verb, the implication is that the abortion is induced, rather than spontaneous.[741] Nevertheless, the use of *abigere* to denote a deliberate abortion does not seem to have been common. In most instances, the noun *abortus* is used when discussing both a deliberate attempt to abort, or a miscarriage.

Medical authors writing in Greek in the ancient Roman world, on the other hand, used several terms for the loss of the foetus from the womb either deliberately or spontaneously. Soranus, in the most part, uses the noun ἔκτρωσις which translates as 'miscarriage'; he also uses the verb ἐκτιτρώσκειν, which translates as 'to bring forth untimely', the noun φθορά and the verb φθείρειν, meaning 'destruction' and 'to destroy'; on one occasion he uses the verb ἐκβάλλειν, which translates as 'expel' or 'cast out'.[742] Unlike Latin writers, Soranus distinguishes between deliberate and spontaneous abortion. Whenever Soranus refers to an abortion that occurs naturally, a miscarriage, he uses the noun ἔκτρωσις or the verb ἐκτιτρώσκειν.[743] When referring to the deliberate expulsion of a foetus by means of a drug, or indeed the drug that induces an abortion, Soranus uses the noun φθορά or the verbs φθείρειν and ἐκβάλλειν.[744] The distinction between Soranus' use of terminology is made clear when he asserts that there are different symptoms experienced by women who deliberately abort using medicaments, to those who miscarry naturally.

[740] Cicero, *In Defence of Cluentius* 11.32. The case is documented at 217. Jurisprudence also refers to the same case (*Digest* 48.19.39). Columella also refers to mares miscarrying using the verb *abigere* (*On Agriculture* 6.27.12).

[741] OLD, s.v. *abigere*.

[742] LSJ, s.v. ἔκτρωσις, ἐκτιτρώσκειν, φθορά, φθείρειν & ἐκβάλλειν. Soranus uses ἔκτρωσις at: *Gynaecology* 1.15; 1.46; 1.47; 1.52; 3.17; 3.26; 3.40; 3.47; 3.48; 3.49. He uses ἐκτιτρώσκειν at *Gynaecology* 1.59; 1.65. He uses φθορά at *Gynaecology*: 1.56; 1.59; 1.60; 3.31. He uses φθείρειν at *Gynaecology* 1.65; 3.12; and ἐκβάλλειν at *Gynaecology* 1.65.

[743] Soranus, *Gynaecology* 1.15; 1.46; 1.47; 1.52; 3.17; 3.26; 3.40; 3.47; 3.48; 3.49 (ἔκτρωσις); Soranus, *Gynaecology* 1.59; 1.65 (ἐκτιτρώσκειν).

[744] Soranus, *Gynaecology*: 1.56; 1.59; 1.60; 3.31 (φθορά); 1.65; 3.12 (φθείρειν); and 1.65 (ἐκβάλλειν).

> Μελλούσης δὲ γίγνεσθαι τῆς τοῦ ἐμβρύου φθορᾶς ταῖς φθειρούσαις παρακολουθεῖ κένωσις ὑδατώδους, εἶτα ἰχωρώδους ἢ ὑφαίμου ὑγροῦ καὶ οἷον ἀποπλύματος κρεῶν, ὅταν δὲ πρὸς τῇ λύσει ὑπάρχῃ, αἵματος καθαροῦ, ἐπὶ τέλει δὲ θρόμβον αἵματος ἢ σαρκὸς ἀδιατυπώτου ἢ διατετυπωμένου παρὰ τὴν τοῦ χρόνου διαφοράν, ταῖς δὲ πλείσταις βάρος ὀσφύος καὶ πόνος ἰσχίων καὶ ἤτρου βουβώνων κεφαλῆς ὀφθαλμῶν ἄρθρων, στομάχου δῆξις, περίψυξις, περιίδρωσις, λειποθυμία, ποτὲ δὲ καὶ φρικώδης πυρετός, ταῖς δὲ καὶ λυγμὸς ἢ σπασμὸς καὶ ἀφωνία. ταῦτα δὲ μάλιστα παρέπεται ταῖς ἐκ φαρμακείας φθειρούσαις. ταῖς δὲ χωρίς τινος ἐπιτηδεύσεως ἐκτιτρωσκούσαις προηγεῖται. καθὼς Ἱπποκράτης φησί, παράλογος μαστῶν ἴσχνωσις, ὡς δὲ Διοκλῆς φησι, ψῦξις μηρῶν καὶ βάρος ἐγκαθιζόμενον ὀσφύι περὶ τὸν καιρὸν τῆς ἀποτέξεως.

> When abortion (φθορᾶς*)* of the embryo is impending, a watery discharge appears in the aborting woman (φθειρούσαις); then an ichorous one or a sanguineous fluid like the water in which meat has been washed. And when the moment for detachment has come, pure blood appears and finally a clot of blood or (some piece) of flesh, unformed or formed depending on the different periods. Besides, in most aborting women (φθειρούσαις) there is heaviness and pain of the loins, hips and lower abdomen, of the groins, head, eyes, joints; a gnawing in the stomach, shivering and profuse perspiration, fainting, sometimes also a fever with chills and in some cases, hiccups or cramps or loss of voice. And these things mostly occur in women who abort (φθειρούσαις) from the use of a medicament (φαρμακείας). In those miscarrying (ἔκτιτρωσκούσαις) without any interference, on the other hand, there comes first, according to Hippocrates an unexpected shrinking of the breasts or as Diocles says, coldness of the thighs and a heaviness located in the loins around the very time of the delivery (Soranus, *Gynaecology* 1.59).

Importantly, Soranus categorises a miscarriage using the noun ἔκτρωσις as the ‘death of the foetus after the second or third month’ of pregnancy (*Gynaecology* 3.47). Furthermore, he distinguishes the spontaneous loss of the foetus before such a time: a loss during the very early stages of pregnancy is referred to as an ‘efflux’ (ἔκροια), which he states is the ‘spitting forth of the seed’ (Soranus, *Gynaecology* 3.47). Here, Soranus seems to be reiterating Aristotle, who states that an ‘efflux’ is the expulsion of the foetus when the embryo resembles an egg (*Generation of*

Animals 3.758b6). Soranus' distinction between ἔκτρωσις and ἔκροια shows that there was categorisation, by some, of miscarriage in ancient Rome.

Dioscorides also uses the verb ἐκτιτρώσκειν in a number of instances: he advises against pregnant women stepping over the plant bugloss, consuming bracken, or wine flavoured with hellebore.[745] These are not prescriptions to induce abortion *per se* because there are no directives given by Dioscorides, but they would cause a spontaneous abortion. Dioscorides seemingly seeks to warn pregnant women of the properties of certain substances; hence his use of the verb ἐκτιτρώσκειν. Thus, the verb is usually used by authors in antiquity to describe the natural destruction of the embryo.[746] Also, in comparison with Soranus, Dioscorides uses φθόριος to mean an abortifacient, although he uses it as an adjective to qualify a substance rather than as a noun. He asserts that smelling the fading flowers of dragon arum is destructive (φθόριος*)* to newly conceived embryos (Dioscorides, *Materia Medica* 2.166.2). He also notes that an oral treatment of bryony destroys (φθειρειν) foetuses (Dioscorides, *Materia Medica* 4.182.3). In another instance Dioscorides notes that grapevines planted with hellebore*,* or squirting cucumber*,* or scammony*,* become abortifacient (φθόριος) (*Materia Medica* 5.67).

However, Dioscorides uses a number of other terms when discussing miscarriage and abortion. He uses the nouns ἐκβόλιον and τρωσμός, along with the verb ἐξαμβλοῦν.[747] It is clear, in most of these instances, that Dioscorides is referring to induced abortion because, as a pharmacologist, he notes prescriptions with particular instruction to rub, drink, or insert as a pessary. That said, Dioscorides warns that stepping over cyclamen may cause miscarriage using the verb ἐξαμβλοῦν*;* it is used in the sense of causing a spontaneous abortion (*Materia Medica* 2.166.2). Yet, he details a pessary made from Cretan alexanders in which he

[745] Dioscorides, *Materia Medica* 3.131; 4.185 & 5.72.2.

[746] Panidis, 2013, 224.

[747] Dioscorides, *Materia Medica*: ἐκβόλιον at 4.182.4; ἐξαμβλοῦν at 2.166.2; & 3.68.2; τρωσμῶν at 5.72.3.

uses the same verb ἐξαμβλοῦν, and in this instance it is clear that it is a prescription which would induce an abortion (Dioscorides, *Materia Medica* 3.68.2). Dioscorides uses ἐξαμβλοῦν to suggest a spontaneous abortion as well as an induced abortion. By the same token, he uses ἔκτρωσις, the noun which Soranus uses to signify a miscarriage, in several ointment prescriptions to induce an abortion.[748] Unlike Soranus, Dioscorides does not clearly differentiate between a miscarriage and an abortion. In addition, another ancient Greek term is used to discuss miscarriage: Plutarch uses the verb ἀπαμβλίσκειν, which means to make abortive, when he discusses the miscarriage of Julius Caesar's daughter, Julia (*c*.73 BCE–54 BCE).[749] There were many different Greek terms used to denote abortion, whether spontaneous or induced. When discussing how to prevent miscarriage, Pliny notes that substances contain, hold, guard, or nourish the foetus (*partus*) when there is a threat of miscarriage.[750]

In contemporary society, the loss of the foetus after six months of pregnancy is commonly referred to as a 'stillbirth'.[751] Notably, I have not found any terminology which corresponds with stillbirth in Roman texts. It seems that any death of the infant just before birth, or during labour, or indeed, in some cases very shortly afterwards, was simply classed as a miscarriage. Celsus refers to pregnant women, who are about to give birth being in danger of miscarriage from the weather (*On Medicine* 2.1.14). In addition, he notes that a pregnant woman whose infant dies just before it is born needs to have an operation, but no terminology is used to define such a death: Celsus simply writes 'if the foetus which is near to being born dies inside….an operation needs to be done' (*si iam prope maturus partus intus emortus est neque….. adhibenda curatio est*) (*On Medicine* 7.29.1; translation by Spencer, with minor modifications). In another instance, Aulus Gellius refers to a court case that

[748] Dioscorides, *Materia Medica* 1.93; 2.164.2; 3.121.3.

[749] Plutarch, *Lives*. *Pompey* 53; LSJ, s.v. ἀπαμβλίσκειν.

[750] See below Table 2: Pliny's List of Treatments to Prevent Miscarriage.

[751] Depending on the medical source a stillbirth is defined as an infant born with no signs of life or is the loss of a pregnancy after 24 weeks or 28 weeks of gestation; it includes those who die just before birth or during childbirth (NHS, 2021 & WHO, 2023a).

classed an infant born alive at eight months, but that died immediately afterwards as a miscarriage and not a birth (*Attic Nights* 3.16.21). In contemporary society, the death of a baby in the first few hours, or days, of birth would likely be classed as a perinatal, or neonatal death.[752] Despite the infant being born alive and then dying, Aulus Gellius still classed the death as a miscarriage.

The reason that a late pregnancy loss, or indeed the loss of an infant very soon after birth may have been classed as a miscarriage is likely because foetuses and newborns had an ambivalent status in Roman society. In some Roman laws, the unborn was regarded as a living being and, as has been discussed, there was legislation in place to protect their rights as an heir.[753] Nevertheless, until birth, the embryo was treated as 'a potential human being only'.[754] Furthermore, even when the infant was born, it did not have a right to life; newborns were subject to specific rituals associated with their particular liminal status between two worlds: 'alive, but not yet fully social beings'.[755] Immediately after the birth, the attending midwife was instructed to set the baby on the floor to inspect it, and to offer advice on its physical condition and prospects.[756] She had to examine the newborn's ability to cry, and to move all its limbs, as well as to inspect its bodily openings and the proportions of the parts of their bodies.[757] Importantly, the midwife checks the whole body, from head to toe, which reflects the newborn's fragility and the concern not to rejoice too soon at a time of very high infant mortality.[758] Only after inspection, was the child considered

[752] A perinate is an infant born in the perinatal period, that is the period comprising the latter part of foetal life and the early postnatal period, commonly taken as ending either one week or four weeks after birth (OCMD, s.v. perinatal). This contrasts very slightly with a neonate which is defined as a newly or recently born individual; specifically, a human infant less than four weeks old (28 days) (OCMD, s.v. neonate). Thus, a perinatal death is one which occurs during the latter stages of pregnancy or in the very early postnatal period; a neonatal death is any infant that dies within 28 days of birth.

[753] See 216–218.

[754] Dasen, 2013a,19.

[755] Dasen, 2009, 199.

[756] Soranus, *Gynaecology* 2.10; Rawson, 2003, 105.

[757] Soranus, *Gynaecology* 2.10; Laes, 2008, 95–96.

[758] Dasen, 2009, 200.

appropriate to raise and it was the parents who made that decision; infants who failed to meet the requirements were not worth rearing, although it is not stated what action should be taken.[759]

Once the checks have been made, medical practitioners advise that the newborn rests a little, so that the afterbirth can be delivered, before lifting the infant up to cut the umbilical cord (Soranus, *Gynaecology* 2.11). Lifting the child from the ground was therefore a decisive moment, the sign of a child's viability.[760] Following on from this, it seems that the infant still did not have a right to life before the social recognition by the father, which was usually about one week after delivery.[761] The tradition of waiting a week was likely because most infant deaths occurred in this first week.[762] The notion was that the first week was a period of transition into life.[763] Plutarch refers to a transformation in the child's body, where the umbilical cord plays a central role: he explains that one must wait until the eighth day because the dried umbilical cord only falls off on the seventh day; until then the newborn infant is 'more like a plant than an animal' (*Moralia. The Roman Questions* 288c.102). At the end of this week there was the naming ceremony: the *dies lustricus*, the eighth day after birth for girls and ninth day for boys was when Roman infants were named.[764] This marked a decisive step in the child's life; it marked the child's entry into the paternal line.[765]

Initially after birth, it seems that children were not yet considered human; they were 'almost non-existent'.[766] In the case that Aulus Gellius refers to, the infant died

[759] Rawson, 2003, 105; Laes, 2008, 96; Dasen, 2009, 200.

[760] Dasen, 2009, 201.

[761] Dasen, 2013a, 26.

[762] Aristotle, *History of Animals* 9.588a10; Parkin, 2013, 45.

[763] Parkin, 2013, 45.

[764] Parkin, 2013, 45; Stevens, 2013, 626; Carroll, 2018b, 63.

[765] Dasen, 2009, 207–208.

[766] Dasen, 2009, 200.

almost immediately following birth, presumably before the midwife had a chance to perform the necessary checks. Furthermore, it seems that a significant point of argument was the fact that the infant was born in the 'untimely period of the eighth month'; the child was born prematurely (*Attic Nights* 3.16.21). As shall be discussed, there was some contention of the length of a pregnancy, but the consensus of opinion was that it normally lasted about nine or ten months, or lunar revolutions.[767] Thus, it was ruled that it did not qualify as a birth; instead, it was still classed as a miscarriage (Aulus Gellius, *Attic Nights* 3.16.21). As for terminology of a premature birth, when discussing births close to 'the completion of the foetus' but before the 'proper time', usually around nine or ten months, Soranus describes them as ὠμοτοκία, which has been translated as premature childbirth.[768] In terms of Latin, Suetonius, when referring to Livia's miscarriage records that the infant was born untimely or prematurely (*immaturus est editus*) (*Augustus* 63).

Roman Understanding of the Causes of Miscarriage

Romans believed that a number of factors could induce a miscarriage. Women were warned about certain smells, stepping over particular plants or animals; they were even cautioned against looking at specific creatures.[769] Furthermore, there was a belief that the weather could endanger pregnancy, particularly in the very late stages when women were near to giving birth. According to Celsus, 'if south winds and rain have prevailed during winter and the spring is cold and dry, pregnant women, near their confinement, are in danger of miscarrying' (*On Medicine* 2.1.14). The gynaecological expert Soranus, offered advice on the care of pregnant women during the very early stages of pregnancy. Soranus states that the aim is the

[767] In the ancient world, pregnancy was calculated in lunar months (Carroll, 2018b, 51–52).

[768] Soranus, *Gynaecology* 3.47; LSJ, s.v. ὠμοτοκία.

[769] The following were all believed to provoke a miscarriage: the smell of lamps being put out (Pliny, *Natural History* 7.7.43); the smell of dracunculus (Pliny, *Natural History* 24.92.143); the smell of the fading flowers of edderwort (Dioscorides, *Materia Medica* 2.166.2); stepping over cyclamen (Pliny, *Natural History* 25.67.115; Dioscorides, *Materia Medica* 2.164.1); stepping over a viper (Pliny, *Natural History* 30.43.128); stepping over a raven's egg (Pliny, *Natural History* 30.44.130); stepping over beaver oil (Pliny, *Natural History* 32.46.133); stepping over bugloss (Dioscorides, *Materia Medica* 3.131); even looking at a sea hare (Pliny, *Natural History* 32.3.8).

preservation of the seed in the womb (*Gynaecology* 1.46). He urges women to 'beware of every excess and change, both bodily and psychic' (Soranus, *Gynaecology* 1.46). Specifically, he notes that the embryo is vulnerable to being dislodged by excess movement and shaking, so 'being drawn by animals should be avoided' on account of it shaking passengers quite violently (Soranus, *Gynaecology* 1.46). Indeed, anything that made the newly pregnant woman's body shake or convulse, was deemed harmful to early pregnancy. He warns that

> ἐξίεται γὰρ τὸ σπέρμα καὶ διὰ φόβον καὶ διὰ λύπην καὶ χαρὰν αἰφνίδιον καὶ καθόλου διανοίας ἰσχυρὰν ταραχήν, καὶ γυμνάσια σφοδρά, καὶ βιαίους κατοχὰς πνεύματος, βῆχας, πταρμούς, πληγάς, πτώματα καὶ μᾶλλον τὰ ἐπὶ τὰ ἰσχία, βάρους ἄρσεις, πηδήματα, σκληρὰς καθέδρας, φαρμακείας, δριμέων καὶ πταρμικῶν προσφοράν, ἔνδειαν, ἀπεψίαν, μέθην, ἔμετον, κοιλιολυσίαν, δύσιν αἵματος διὰ ῥινῶν καὶ αἵμορροΐδος ἢ ἄλλου τόπου, καὶ χαλασμὸν διά τινος τῶν θερμαίνειν δυναμένων, καὶ διὰ πυρετὸν δὲ σφοδρὸν καὶ ῥῖγος καὶ σπασμὸν καὶ τὸ κοινότερον πᾶν τὸ βιαίαν κίνησιν ἐπᾶγον, δι' ὧν ἔκτρωσις ἀποτελεῖται.
>
> the seed is evacuated through fright, sorrow, sudden joy and generally by severe mental upset; through vigorous exercise, forced detention of the breath, coughing, sneezing, blows and falls, especially those on the hips; by lifting weights, sitting on hard sedan chairs, by the administration of drugs, by the application of pungent substances and sternutatives; through want, indigestion, drunkenness, vomiting, diarrhoea; by a flow of blood from the nose, from haemorrhoids or other places; through relaxation due to some heating agent, through marked fever, rigors, cramps and in general everything inducing a forcible movement by which a miscarriage may be produced (Soranus, *Gynaecology* 1.46).

Soranus claims that simple, natural bodily reactions such as coughing, or sneezing, could dislodge the embryo during the very early stages. Before Soranus, Pliny had asserted that sneezing caused miscarriage, particularly following intercourse (*Natural History* 7.6.42). Notably, this is also an abortive technique advocated by Soranus (*Gynaecology* 1.61). This advice is specifically for early pregnancy, when it

was believed that the seed 'was not yet strongly attached' for Soranus claims that during mid-pregnancy there is no risk, since the foetus is 'safely attached' (*Gynaecology* 1.55).

Amongst Soranus' long lists of possible causes of miscarriage, he contends that shock to the body as a result of fright, or sudden joy, or severe mental upset, would cause a woman to miscarry (*Gynaecology* 1.46). Certainly, there is evidence of why some may have thought that shock caused miscarriage. In 55 BCE, Julius Caesar's daughter and wife of Pompey, Julia, suffered a miscarriage. According to reports,

> ἐν δ' οὖν ἀγορανομικοῖς ἀρχαιρεσίοις εἰς χεῖράς τινων ἐλθόντων καὶ φονευθέντων περὶ αὐτὸν οὐκ ὀλίγων ἀναπλησθεὶς αἵματος ἤλλαξε τὰ ἱμάτια. πολλοῦ δὲ θορύβου καὶ δρόμου πρὸς τὴν οἰκίαν γενομένου τῶν κομιζόντων τὰ ἱμάτια θεραπόντων, ἔτυχε μὲν ἡ κόρη κύουσα, θεασαμένη δὲ καθημαγμένην τὴν τήβεννον ἐξέλιπε καὶ μόλις ἀνήνεγκεν, ἐκ δὲ τῆς ταραχῆς ἐκείνης καὶ τοῦ πάθους ἀπήμβλωσεν.

> it once happened that at an election of aediles, people came to blows and many were killed in the vicinity of Pompey and he was covered with their blood, so that he changed his garments. His servants carried these garments to his house with much confusion and haste and his young wife, who was with child, at sight of the blood-stained toga fainted away and with difficulty regained her senses and in consequence of the shock and her sufferings, miscarried (Plutarch, *Lives*. *Pompey* 53).

There are no details of when in the pregnancy Julia lost the baby, although interestingly, Plutarch notes that she miscarried as a result of severe upset. Remarkably, avoidance of violent emotions was a treatment to prevent habitual spontaneous abortion in the 1930s and 1940s.[770] In contemporary society there are

[770] Kuller & Katz, 1994, 227.

opposing opinions regarding stress as a cause of miscarriage.[771] Yet, some medical research has shown that psychological stress, such as a death, divorce, concerns about money, and work pressure during pregnancy is associated with an increased risk of miscarriage.[772]

It was also noted that some medical procedures may cause a woman to miscarry. Soranus notes that a pregnant woman, if bled, miscarries (Soranus, *Gynaecology* 1.65). That said, Celsus notes that some strong pregnant women may be able to undergo the procedure without endangering the infant (*On Medicine*, 2.10.3). Bloodletting was a normal medical procedure in antiquity; it was a recommended treatment to balance the humours.[773] The perceived danger of bleeding pregnant women may have meant that many medical practitioners, or healers, attending a woman for ailments unrelated to her pregnancy, may have been cautious about bloodletting as a form of treatment. As a result, Roman pregnant women may have suffered reduced medical intervention because of such advice.

Within his discourse on the causes of miscarriage, Soranus asserts that it can occur as a result of a 'marked fever, rigors' and 'cramps', which are symptoms of infectious disease.[774] One disease which Romans believed caused miscarriage, that is now known to be infectious, was dysentery: Celsus claims that dysentery can result in a pregnant woman losing her foetus.[775] Recent research does not associate dysentery

[771] Qu *et al*, 2017, 2. Around three-quarters of pregnant women and some medical practitioners believe that stress during pregnancy is associated with miscarriage but such a view is often dismissed by doctors and health care providers, particularly in the UK (Qu *et al*, 2017, 1–4).

[772] Qu *et al*, 2017, 4–6. Siobhan Quenby *et a*l have also found that high stress is associated with miscarriage risk, although they do not note the causes of high stress (2021, 1661). Psychological factors can increase the risk by around 42% (Qu *et al*, 2017, 4).

[773] Nutton, 2013, 93; Baker, 2020, 128.

[774] Soranus, *Gynaecology* 1.46. Fever is one of the usual clinical features that appears during the course of several infectious diseases (González Plaza *et al*, 2016, 97).

[775] Celsus, *On Medicine* 2.8.31. Dysentery is an intestinal infection that causes severe diarrhoea; severe cases, if left untreated, can lead to severe dehydration and become life-threatening (OCMD, s.v. dysentery).

with miscarriage but links the following infections with the loss of the foetus: bacterial infections; chlamydia; dengue fever; herpes; human papillomavirus; HIV; influenza; malaria; mycoplasma genitalium; parvovirus infection; Q fever; rubella; syphilis; & toxoplasmosis.[776] In modern society, fifteen percent of early miscarriages and sixty-six percent of late miscarriages have been attributed to such infections.[777] Some infectious diseases can also cause stillbirth: malaria; HIV; parvovirus; syphilis; toxoplasmosis.[778]

Ancient perceptions and descriptions of diseases, and especially the ways in which they were classified, are frequently impossible to correlate with diseases reported in a modern medical textbook.[779] That said, some infections now associated with miscarriage are detailed in ancient texts. Certainly, a form of chlamydia has been noted and so too has herpes.[780] The sexually transmitted infection chlamydia is caused by the bacterium *chlamydia trachomatis*, the causative agent of trachoma, which manifests in scarring of the eyelids causing them to turn inwards so that they rub against the eyeball, resulting in constant pain and light intolerance; left untreated, it can result in visual impairment or blindness.[781] Chlamydia was seemingly present in the ancient Roman world as treatments for trachoma along with salves for rough or hard eyelids are noted in the Roman medical texts, although one should not diagnose retrospectively that all patients suffering rough or hard eyelids were indeed

[776] Collins *et al*, 2013, 166–182; Giakoumelou *et al*, 2016, 118–123; Quenby *et al*, 2021, 1662; Heydarifard *et al*, 2022, 54–67.

[777] Giakoumelou *et al*, 2016, 117. These figures are concluded by Giakoumelou *et al* based on studying published reports on infections and miscarriage from across the world as well as any human studies, in the 5 years prior to their paper (2016, 116-117).

[778] McClure & Goldenberg, 2009, 182–189; Collins *et al*, 2013, 166–182; Giakoumelou *et al*, 2016, 118–123; WHO, 2023b.

[779] Nutton, 2013, 22. The ancient heading ‘fevers’ or ‘fiery diseases’ could cover almost any condition in which the patient’s body felt hot; in other instances, a disease may have mutated over the centuries to produce a whole series of related and possibly short-lived strains, for example of viruses (Nutton, 2013, 22).

[780] Knapp, 2011, 263; Nutton, 2013, 29–30.

[781] Taylor *et al*, 2014, 2142; WHO, 2022c.

infected with chlamydia.[782] The extent to which chlamydia was common, however, is difficult to gauge, but it may have impacted some Roman pregnancies.

Herpes is mentioned in the ancient medical texts but it is not clear whether it refers to the modern name of the disease. The herpes that is associated with miscarriage is herpes simplex of which there are two distinct types: the first mainly causes symptoms above the waist (HSV 1), such as cold sores or blisters on the hands; the second causes disease below the waist (HSV 2), especially genital herpes.[783] Pliny lists two treatments for a disease he calls 'herpes' without specifying any exhibiting symptoms making it impossible to establish whether he was possibly referring to the modern disease of the same name.[784] On the other hand, there may be evidence of a herpes variant. Shingles, also known as herpes zoster, or chickenpox are caused by the varicella-zoster virus which belongs to the family of herpes viruses but is not the same as herpes simplex.[785] Scribonius notes an oral treatment for 'shingles, *zona*, which the Greeks call herpes'; he further recommends two ointment prescriptions along with rubbing on 'fresh hemlock' which has been 'ground well' for the condition (*Compounding of Drugs* 63, 247 & 248).

With the caveats that come with diagnosing retrospectively, Scribonius' *zona* may be the herpes variant varicella-zoster virus because the name Scribonius assigns to the disease, in translation, is characteristic of the shingles rash: *Zona*, ζώνη, translates as belt or girdle; the shingles rash often goes right around the body from front to

[782] Celsus specifically notes ointments for trachoma (*On Medicine* 6.6.26–29). Scribonius notes a variety of salves for roughness or hardness of the eyelids (*Compounding of Drugs* 26; 28; 32; 33; 35; 36; 37); Pliny notes treatments for rough or hard eyelids (*Natural History* 22.67.137; 29.10.36; 31.47.130; 34.31.122); and so too does Dioscorides (*Materia Medica* 3.84.3; 5.5.2; 5.126.1; 5.127.2). These treatments for roughness or hardness may have been treatments for trachoma.

[783] Kampmeier, 1993, 773 & 779.

[784] Pliny, *Natural History* 26.87.145 & 27.105.130.

[785] Grmek, 1989, 335–336; OCMD, s.v. herpes zoster.

back like a band or belt.[786] Indeed, Joëlle Jouanna-Bouchet has argued that the invention of the French medical meaning of shingles can be attributed to Scribonius Largus alone.[787] Similarly, Pliny too may be referring to shingles when he discusses a disease *zoster*; he details a treatment for the skin condition which he describes as extending 'round the patient's waist and is fatal if the circle becomes quite complete' (Pliny, *Natural History* 26.74.121). *Zoster* translates as shingles deriving from ζωστήρ, meaning belt.[788] Therefore, Scribonius' reference to the disease 'herpes' does not align with the contemporary herpes simplex virus. Certainly, some medical scholars have argued that whilst the term 'herpes' has been known since Hippocratic time, it does not apply to those conditions which are now termed herpetic.[789] Thus, it seems that the ancient disease of the same name is not that of the modern disease herpes and one cannot therefore ascertain if herpes simplex was present in the ancient world. If the *zona* and *zoster* Scribonius and Pliny refer to were shingles or chickenpox then it may have affected Roman pregnancies and indeed pregnant women for varicella-zoster virus has been linked with an increase in risk of premature birth.[790]

There is possible ancient evidence of another disease which can affect pregnancies, syphilis.[791] In the Costebelle cemetery in Hyères, France, an adult female burial

[786] OLD, s.v. *zona;* LSJ s.v. ζώνη; OCMD, s.v. herpes zoster. However, herpes zoster can occur without a rash and can affect the limbs, head and face, distributing in a way that is 'anything but girdle-like' (Schott, 2017, 18).

[787] Jouanna-Bouchet, 2006, 527. The French word for shingles is zona (OHFD s.v. shingles)

[788] OLD, s.v. *zoster*; LSJ, s.v. ζωστήρ.

[789] Schott, 2017, 17. The word 'herpes' has been used in medicine for at least 'twenty-five centuries', although 'its meaning has changed considerably during this time' (Beswick, 1962, 214).

[790] Tan & Koren, 2006, 413; Lamont *et al*, 2011, 1156. Varicella-zoster virus is more severe in pregnancy and can be life-threatening for the mother: third trimester infection may lead to maternal pneumonia (Tan & Koren, 2006, 414; Lamont *et al*, 2011, 1157; Collins *et al*, 2013, 164).

[791] Syphilis is one of the four treponematoses. Treponematoses is a term used to describe any of the diseases caused by four members of the bacterial genus *Treponema*; the four treponematoses are: pinta; yaws; syphilis or bejel; syphilis may be congenital or acquired

dating from the fourth century CE was discovered to have the skeleton of a seven-month foetus within the pelvic cavity, indicating that she had died during pregnancy, rather than as a result of childbirth.[792] Despite the archaeological find being outside the period under discussion it is significant because it is a rarity of antique foetal remains, particularly from a late pregnancy; more so, it may suggest the presence of syphilis in the ancient world.[793] Scholars, after examining the foetal skeleton, have concluded that the type and distribution of skeletal changes were characteristic of congenital syphilis.[794] The mother seems to have been in the early stages of syphilis.[795] This is significant, for a pregnant woman is most infectious to her foetus in early disease and syphilis-linked foetal death happens most frequently between the sixth and eighth month of the pregnancy.[796] The foetus has been aged as seven-month-old, so may have died as a result of the mother's syphilis infection, if not when the mother died.

That said, the diagnosis of congenital syphilis has been questioned and it has been suggested that the character of the pathology is indicative of a 'stone-baby': a calcium-encased foetus occurring in ectopic abdominal pregnancies when the foetus dies and is not reabsorbed by the maternal body.[797] It is difficult to draw conclusions, especially as the presence of syphilis in the ancient world is debatable. Some argue that syphilis, in venereal or endemic form, was present in Europe from antiquity; others claim that syphilis originated in the Americas and was carried out to Europe

(Rissech *et al*, 2013, 651; Roberts & Redfern, 2019, 97–99). Congenital syphilis is the disease being present at birth (OCMD, s.v. syphilis).

[792] Pàlfi *et al*, 1992, 245; Redfern & Gowland, 2012, 121; Carroll, 2018b, 54; Lewis, 2018, 182.

[793] Pàlfi *et al*, 1992, 259.

[794] Pàlfi *et al*, 1992, 245–261; Redfern & Gowland, 2012, 121; Nutton, 2013, 333; Lewis, 2018, 182.

[795] Lewis, 2018, 182.

[796] Pàlfi *et al*, 1992, 258–259.

[797] Rose, 1997, 25; Carroll, 2018b, 54.

by Columbus' crew in 1493.[798] Recently, however, scholars have concluded that a skeleton of a Roman man from Gavà city, in Spain, between the second and third century CE potentially provides further evidence of syphilis in the Roman Empire.[799] Also, two individuals from Roman Britain during the second half of the second century CE are thought to have suffered from congenital syphilis.[800] In another instance, it has been reported in the press that twins from Pompeii were infected with congenital syphilis.[801] Nonetheless, the presence of syphilis in antiquity is controversial; it continues to be one of the most contentious issues in archaeological science.[802] If it was present in the Roman world, it would have further endangered the Roman foetus.

The Threat to the Foetus of Malaria

One disease now known to cause miscarriage or stillbirth, malaria, was likely common in ancient Rome and may have had considerable effect on Roman foetuses.[803] Malaria is caused by *Plasmodium* parasites spread to people through the bites of infected female *Anopheles* mosquitoes.[804] In recent times malaria is

[798] Pàlfi *et al*, 1992, 259; Rissech *et al*, 2013, 651–652; Roberts & Redfern, 2019, 102–103. The first recorded epidemic of syphilis occurred in 1495 in Italy when the French king Charles VIII invaded Naples (Farhi & Dupin, 2010, 534). Whether this outbreak was a direct consequence of Christopher Columbus' discovery of the New World a few years earlier or syphilis was merely not recognised previously as a distinct clinical entity is a long-standing matter of controversy (Farhi & Dupin, 2010, 534).

[799] Rissech *et al*, 2013, 660. The chapter summarises how treponematosis manifests in the skeleton appears to have changed over time and not every affected person will develop bone changes; thus, diagnosis remains quite difficult (Rissech *et al*, 2013, 651–663).

[800] Redfern, 2018, 267–269.

[801] Beard, 2010. However, it seems that the twins were excavated at Oplontis; Kristina Killgrove is currently undertaking a large multi-disciplinary analysis of the site and will publish shortly (Rebecca Redfern, email correspondence with author, January 18, 2023).

[802] Roberts & Redfern, 2019, 117.

[803] Sallares, 2002, 17; Giakoumelou *et al*, 2016, 123; Craik, 2020, 87; Laskaris, 2020, 76. The term 'malaria' originally meant 'an unwholesome condition of the atmosphere' and was introduced into English literature by Henry Walpole in 1740 who described it as 'a horrid thing that comes to Rome every summer and kills' (OED, s.v. malaria).

[804] OCMD, s.v. malaria; WHO, 2022a. There are five parasite species that cause malaria in humans: Plasmodium falciparum (or P. falciparum); Plasmodium malariae (or P. malariae); Plasmodium vivax (or P. vivax); Plasmodium ovale (or P. ovale); and Plasmodium knowlesi

associated with the tropics, but in the ancient world it was found in all climates: it ranged from the Mediterranean to the Arctic Ocean.[805] Each of the types of malarial parasite cause a characteristic periodicity of fever, which historically have been described as being either tertian, where fever occurs every third day, or quartan, where fever occurs every fourth day.[806] The terms 'tertian' and 'quartan' are rarely used in modern medical literature but they are frequently used in Roman literature.[807]

Indeed, Celsus discusses both these terms and another term, quotidian, and specifically states that, during the summer months, fevers in general seem to be reduced, but that there is an increase in tertian and quartan fevers.[808] Cicero states plainly that the tertian and quartan agues reoccur regularly in Roman society (*On the Nature of the Gods* 3.10.24). It is alleged that Julius Caesar suffered from a 'severe attack of quartan ague' when he was sixteen years old (Suetonius, *Julius Caesar* 1.2). Moreover, Roman medical writers and practitioners advise on many different courses of treatment for tertian and quartan fevers; whilst jurisprudence questions the mental capacity of those suffering with either of the fevers.[809] Of course, not all

(or P. knowlesi); two of these, P. falciparum and P. vivax, pose the greatest threat (OCMD, s.v. malaria; WHO, 2022a).

[805] Cunha & Cunha, 2008, 194–195; Laskaris, 2020, 77; it was only eradicated in Italy after the second world war (Stivala, 2015, 144).

[806] P. malariae is also known as benign quartan malaria, because in the course of attacks, the fever returns on the fourth day; therefore, after two days of relief. P. vivax and P. ovale are known as tertian malaria: in the course of attacks the fever returns on the third day, or every other day, that is after one day of relief. P. falciparum is known as malignant tertian, or semitertian, malaria because the fever never abates completely, only stronger fever every other day (OCMD, s.v. malaria).

[807] Sallares, 2002, 9–10.

[808] Celsus discusses quotidian, tertian and quartan fevers in his *On Medicine* at: 2.1.7–9; 2.7.29; 2.8.16; 2.8.42; 3.3.1–2; 3.5.2–3; 3.8.1; 3.14.1–2; 3.15.1–6; 3.16.1–2; 3.17.1; 3.21.2 & 3.21.8;

[809] Pliny *Natural History* 7.50.167; 20.23.56; 20.54.155; 20.73.194; 20.82.216; 21.94.166; 21.104.176; 22.11.26; 22.16.38; 22.24.50; 22.29.61; 22.72.150; 23.20.35; 24.107.170; 25.24.60; 26.71.115; 27.91.115; 28.9.41; 28.11.46; 28.23.86; 28.26.91; 28.27.96; 28.28.111; 28.29.115; 28.66.229; 30.30.98–104; 31.8.12; 31.33.64; 31.47.130; 32.14.40; 32.18.52; 32.38.116; 35.51.182. Dioscorides *Materia Medica* 2.34; 2.63; 2.126.4; 3.11.2; 3.109.2; 3.154.2; 4.42.3; 4.60.2; 4.190.2. *Digest* 21.1.53.

intermittent fevers are malarian. Nevertheless, whilst other diseases have some periodic tendencies and would certainly have existed in Roman times, they lack the characteristic association with certain types of environment, especially wetland environments which are strongly associated with malaria.[810] In ancient Rome, what is now termed malaria was seemingly a common occurrence. Some claim that malaria was the chief cause of mortality in Rome during the months of August to October.[811] Annelieke Oerlemans & Laurens Tacoma assert that child mortality, in particular, would 'go sky high' during the hottest months as a result of malaria; that malaria might even have become hyperendemic during the hottest months, meaning that fifty percent of all children and a substantial number of all adults were infected by the parasite.[812]

Moreover, malaria would, more than likely, have affected the pregnancies of Roman women particularly young first-time mothers, causing many to miscarry. Malaria is peculiarly dangerous for both mother and child in pregnancy: infection increases the risk of miscarriage, or stillbirth, or neonatal death, and of maternal mortality.[813] The malaria variant *P. falciparum* is particularly dangerous, for it sequesters in the placenta which restricts foetal growth and causes maternal anaemia.[814] Joan Stivala asserts that malaria can cause an abortion rate as high as fifty per cent if the woman exhibits symptoms of malaria; even in women who are asymptomatic the rate of spontaneous abortion can reach thirty per cent.[815] Younger women, especially, are

[810] Sallares, 2002, 10; Cunha & Cunha, 2008, 197; Oerlemans & Tacoma, 2014, 223. Fevers with intermittent patterns of fever likely existing in Rome are: relapsing fever (*Borrelia recurrentis*) transmitted by the human body louse and brucellosis, most commonly acquired by ingesting contaminated milk or cheese (Sallares, 2002, 10). Similarly, other major infectious disease transmitted either directly by the respiratory route (e.g. influenza and smallpox) or by vectors other than mosquitoes (e.g. typhus and bubonic plague) do not have any epidemiological association with wetland environments (Sallares, 2002, 10).

[811] Laskaris, 2020, 76.

[812] Oerlemans & Tacoma, 2014, 223.

[813] Maharaj, 2009, 33; McGready *et al*, 2012, 394; Oerlemans & Tacoma, 2014, 223; Stivala, 2015, 154–155; Giakoumelou *et al*, 2016, 123; Laskaris, 2020, 79.

[814] Stivala, 2015, 155; Craik, 2020, 87.

[815] Stivala, 2015, 155–156. Figures from the first half of the 20th century in the US show that the rate of miscarriage attributed to maternal infection with *P. falciparum* has been estimated

more susceptible, and malaria is most common in first pregnancies; in such women there is a high risk of cerebral malaria resulting in coma and probable mortality and a severe likelihood of miscarriage or stillbirth.[816]

Pregnant women are particularly attractive to mosquitoes because of their higher metabolic rate.[817] Elizabeth Craik explains that mosquitoes locate the presence of humans by their body heat and by their exhaled breath, and therefore are liable to home in on pregnant women who have a higher metabolic rate and consequently a higher body temperature; pregnant women also exhale greater amounts of carbon dioxide to which mosquitoes are attracted.[818] In addition, pregnancy reduces immune response to malaria. Generally, continuous exposure to plasmodia parasites can produce partial immunity to both the parasite and the disease, although it never provides complete protection.[819] Nonetheless, pregnant women, even with acquired immunity before pregnancy, are at increased risk of malarial infection due to impaired immunity.[820] Expectant mothers endure both higher rates and greater severity of malarial infection.

Malaria was likely a major health problem for ancient people and would probably have been a considerable factor in miscarriage in the Roman world.[821] Indeed, at a villa on the hillside known as Poggio Gramignano in Umbria, there was a mass burial of forty-seven newborns and foetuses whose deaths have been attributed to a

to have been as high as 60%; during an epidemic of malaria in Sri Lanka in 1934–1935, the fatality rate among pregnant women was 13% with a foetal loss or neonatal death rate of 67%; whilst at a hospital in Rwanda during an epidemic in 1998, 71% of maternal deaths were attributed to malarial infection (Stivala, 2015, 155).

[816] Craik, 2020, 93.

[817] Maharaj, 2009, 33; McGready *et al*, 2012, 388; Craik, 2020, 92; Laskaris, 2020, 79

[818] Craik, 2020, 92.

[819] Laskaris, 2020, 79.

[820] Maharaj, 2009, 33; Stivala, 2015, 155; Craik 2020, 92.

[821] Stivala, 2015, 156; Laskaris, 2020, 72.

malaria epidemic.[822] This cemetery, reserved exclusively for tiny infants, has been dated to the mid-fifth century CE. Whilst this is another archaeological find outside the period under discussion it is worth mentioning as the find possibly illustrates the presence and consequences of malaria in the late Roman period, indicating that the disease would likely have also affected the pregnancies of earlier Roman women.[823]

David Soren has argued over the years that malaria may have been the cause of death for the Umbrian infants.[824] His evidence for a malarial epidemic consists of the following: rapid successive vertical depositions; single interments at the bottom of the cemetery moving to paired burials and then to groups of five to seven being interred together; and significantly, the presence of honeysuckle, purportedly a cure for tertian and quartan fevers.[825] Such evidence, however, is circumstantial; thus, one cannot be certain that malaria was the definitive cause of death of these tiny infants. Certainly, specimens from the cemetery were analysed for evidence of malaria and nothing was found in the very youngest children; however, one child aged between 2 and 3 years old produced positive results for *P. falciparum*.[826] Since this kind of malaria would most likely not have been an isolated case, it was most probable that a malarial epidemic had been responsible for the deaths of the infants.[827] If malaria was the cause of death, then it reveals the devastating consequences of the disease on ancient pregnant women.

[822] Soren & Soren, 1995, 48; Soren, 2003, 197; Carroll, 2012, 45; Redfern & Gowland, 2012, 121.

[823] Malaria was only eradicated in Italy after the second world war (Stivala, 2015, 144).

[824] Soren, 1995, 43–48; Soren, 2003, 193–209.

[825] Soren, 1995, 44 & 48; Soren, 2003, 202–205.

[826] Sallares & Gomzi, 2000, 202–203; Soren, 2003, 203.

[827] Soren, 2003, 203.

Protecting the Foetus and Sustaining Pregnancy

Advice and Treatment to Prevent Miscarriage

Roman foetuses were likely under considerable threat. As a result, the unborn infant benefited from divine protection.[828] Carmentis was the Roman goddess of childbirth whose temple stood at the foot of the Capitoline hill in Rome, and a festival was held in her honour each year in January.[829] Yet there were numerous other deities who watched over conception, foetal growth and delivery: entities such as Vitumnus and Sentinus animated the foetus; Fluvionia, Alemona and Mena cared for its feeding in utero; Prorsa (also known as Antevorta) and Postverta watched over the position of the child before delivery; Juno Lucina and Candelifera contributed to an easy delivery.[830] Roman women purportedly presented flowers to the temple of Juno to prevent the occurrence of miscarriage.[831]

Medical writers and physicians offered advice on protecting the foetus and sustaining a pregnancy. During the very early stages of pregnancy Soranus offers help on preserving the 'injected seed' (*Gynaecology* 1.46). He recommends that 'one ought to keep the woman who has conceived quietly in bed for one or two days where she should use anointments', and to specifically avoid massages of the abdomen, baths, and wine for seven days, along with certain foods (Soranus, *Gynaecology* 1.46). Soranus recommends avoiding the following: garlic, onions, leeks, preserved meat or fish, and very moist food (*Gynaecology* 1.46). He advises against eating foods which were likely staples of the Roman diet and were valued as curative: garlic, onions and leeks would probably have been grown in Roman gardens and were also used medicinally.[832] Such advice may have been because the properties of these

[828] Dasen, 2013a, 30.

[829] Ovid, *On the Roman Calendar* 1.619; Wilkinson, 2013, 45.

[830] Varro, *On the Latin Language* 5.67–69; Ovid, *On the Roman Calendar* 2.435-452 & 3.245–258; Aulus Gellius, *Attic Nights* 16.16; Tertullian, *To the Nations* 2.11.1–6; Dasen, 2013a, 31.

[831] Kuller & Katz, 1994, 227. Juno Lucina was an epithet of Juno (March, 2014, 277).

[832] Dalby, 2003, 155 & 193; Kron, 2015, 170. As has been noted, leeks are used in fertility treatments, see Table 1.

vegetables, all members of the same family, were warming and 'windy'.[833] The ancients conceived of health as a state of balance of humours.[834] Eating and drinking were believed to contribute to the balancing of these humours.[835] Thus, the belief was that such effects from consuming these vegetables would cause an imbalance; it would, as John Wilkins states, act 'technically as a drug'.[836] This would then lead to physical consequences; in this case, Soranus believes that the consequence could be a miscarriage. The same would also apply with moist food: eating such food would upset the balance of moist and dry humours. The recommendation to abstain from drinking wine is because wine was considered haematopoietic, as has been noted in chapter 4; it would be considered detrimental to pregnancy because it could bring on the menses and therefore a miscarriage.[837]

As has been noted, Roman medical opinion was that violent shaking of the body could dislodge the seed during early pregnancy, so the advice was specifically to avoid travel by being 'drawn by animals'.[838] For the same reason, a newly pregnant woman was also advised to avoid intercourse, for it 'causes movement in the whole body' and especially in the womb, which 'when agitated' discharges the seed' (Soranus, *Gynaecology* 1.46). Moreover, the advice was that sexual intercourse should be avoided throughout the pregnancy because 'it is always harmful to pregnant women' due to the shaking movement (Soranus, *Gynaecology* 1.56). Generally, in antiquity, the advice for women was to have regular sexual intercourse to maintain their health. Ancient medical writers of the *Hippocratic Corpus* believed that sexual intercourse had therapeutic properties, curing female diseases.[839] Specifically, it helped maintain the reproductive parts in good order, keeping the

[833] Irwin, 2016, 273; Totelin, forthcoming.

[834] Totelin, 2020c, 14; Wilkins, 2021, 210.

[835] Garnsey, 1999, 105; Wilkins, 2015, 59.

[836] Wilkins, 2015, 65.

[837] See 214.

[838] Soranus, *Gynaecology* 1.46. See 237.

[839] Totelin, 2009, 199–200.

paths by which the menstrual blood leaves and male seed enters clear, and keeping the womb wet enough to prevent it from moving elsewhere in the body.[840] In a state of pregnancy, however, Roman women were specifically advised against coitus.

Soranus' advice is dietetic treatment, which, in the sense of ancient medicine, embraced most aspects of daily life, diet, exercise, baths, and sexual intercourse.[841] Thus, there were regimens for pregnancy.[842] Pregnant women were responsible for the harm that they could cause to their developing foetuses from the food and drink that they ingested, or by having intercourse.[843] On the face of it, such recommendation to prevent miscarriage seems helpful, genuine and about protecting mother and baby. On the other hand, it seems to be quite controlling. Every aspect of the woman's life was to be regulated from what she ate and drank to the frequency of her baths; her emotional and physical range was to be restricted, her thoughts and actions modulated.[844] Some restrictions may have meant that the expectant mother was confined to a domestic space.[845] That said, there is considerable advice given today to pregnant women to avoid certain food and activities.[846] Garnsey argues that the list of foods judged suitable for Roman women reflects physiological theory rather than male prejudice and the social subordination of women, although he acknowledges that the two coexist and are intertwined.[847] Nevertheless, the medical guidelines from Soranus, a gynaecological specialist,

[840] Flemming, 2000, 117.

[841] Temkin, 1991, xli*;* Totelin, 2009, 134.

[842] Carroll, 2018b, 52; Draycott, 2019, 103.

[843] Carroll, 2018b, 51; Mulder, 2021, 153–154.

[844] Flemming, 2021a, 899.

[845] Gowland, 2020, 267.

[846] The advice is to avoid the following: high mercury fish such as swordfish and tuna; undercooked or raw fish; undercooked, raw and processed meat; raw or undercooked eggs; raw sprouts; unwashed produce; unpasteurised milk, cheese and fruit juice; alcohol; soft-serve ice cream; smoking; changing a litter tray (Webster-Gandy *et al*, 2020, 237–248). Pregnant women are advised against some amusement park rides and undertaking any activity with risk of a fall.

[847] Garnsey, 1999, 105–106.

potentially gave Roman men authority to restrict the lives and activities of their pregnant wives.

Notably, Soranus seems to pressure women to comply with his advice, not only to ensure the ongoing pregnancy, but also to ensure the health and viability of the foetus. He warns that, if women do not follow his rules and manage to avoid miscarriage, they should not assume that the foetus has not been injured, for, according to Soranus, it will have 'been harmed' and that 'it is weakened, becomes retarded in growth' and more so that it 'becomes misshapen' (*Gynaecology* 1.47). The implication is that failure to follow his advice will result in the deformity, or disability of the baby, even if miscarriage does not take place. Roman women were under enormous pressure to produce a healthy heir.[848] The message was that the survival and health of their unborn babies was down to women. Women were culpable if a foetus was born deformed.[849] The practice of regimen, was, as Michael Foucault states, a 'whole art of living'; the manner of forming oneself as a subject who had the proper, necessary, and sufficient concern for their body.[850] Regimen was interactive, not so much between physician and individual, more so, involving oneself and one's body.[851] In the case of pregnant women, for the foetus growing inside their bodies.

Thus, there was advice for pregnant women on what should be avoided to protect the foetus and sustain a pregnancy. There is an example of miscarriage in Roman society, where the husband claims that it was his pregnant wife's fault that she lost the baby. Pliny the Younger's wife Calpurnia (1st century CE) suffered a miscarriage, which was noted by Pliny in a letter to her grandfather (*Letters* 8.10). He specifically writes that because she was 'young and inexperienced' she 'failed to take proper precautions and did several things which were better left undone' (Pliny, *Letters*

[848] Evans Grubbs, 2013, 87.

[849] Mulder, 2021, 152.

[850] Foucault, 1985, 101–108.

[851] Flemming, 2000, 112.

8.10). Pliny does not elaborate on what Calpurnia failed to do, or what he thinks she may have done that was seemingly detrimental to her pregnancy, but there is clear indication that he believes it was her fault. He insists that his wife's youth and ignorance caused the improper behaviour which resulted in the miscarriage.[852] There is an insinuation, by Pliny, that Calpurnia did not follow advice as suggested by the likes of Soranus.

Along with such advice, there were various other treatments, as detailed below in Table 2, which a woman could either wear as an amulet, take orally, anoint, or insert as a pessary to try and prevent miscarriage.

Table 2: Pliny's List of Treatments to Prevent Miscarriage

Pliny *Natural History*	**Prescription**	**Method of Treatment**
16.76.199	*ferunt lapides ita inventos ad continendos partus esse remedio* It is said that stones found inside trees serve to contain the foetus (translation by Rackham, with minor modifications).	No specific treatment mentioned (most likely amulet)
28.27.99	*mulieri candida a pectore hyaenae caro et pili septem et genitale cervi, si inligentur dorcadis pelle, e collo suspensa continere partus promittuntur; venerem stimulare genitalia* A woman is guaranteed to hold the foetus if, tied round her neck in gazelle leather, she wears white flesh from a hyena's breast, seven hyena's hairs and the genital organ of a stag (translation by Jones, with minor modifications).	Amulet
28.37.139	*Axungiae…sincera partus in abortum vergentes nutriunt collyrii modo subdita*	Pessary

[852] Centlivres Challet, 2012, 10.

	Clean axle grease used as a pessary nourishes the foetus, when there is threat of a miscarriage (translation by Jones, with minor modifications).	
28.77.247	*tradunt cervas, cum senserint se gravidas, lapillum devorare, quem in excrementis repertum aut in vulva; custodire partus adalligatum* It is reported that hinds, when they realise that they are pregnant swallow a little stone, which is then found in their excrements or in the uterus; this preserves the foetus if worn as an amulet (translation by Jones, with minor modifications).	Amulet
30.43.123	*partus conceptos hystricum cinis potus continet* The foetus is retained by taking in drink the ash of porcupines.	Oral
30.43.124	*cinis irenaceorum cum oleo perunctarum custodit partus contra abortus* Rubbing the woman all over with the ash of hedgehog and oil protects the foetus against miscarriage.	Ointment
30.43.125	*inveniuntur et in gramine vermiculi qui adalligati collo continent partum* There are also little worms found in grass; these tied around the neck as an amulet holds the foetus (translation by Jones, with minor modifications).	Amulet
30.44.130	*lapis aetites in aquilae repertus nido custodit partus* The stone aetites, found in the eagle's nest protects the foetus.	No specific treatment mentioned (most likely amulet)
30.49.142	*ibium cinere cum adipe anseris et irino perunctis, si conceptus sit, partus contineri* Rubbing with ibis ash, goose grease and iris oil holds the foetus (translation by Jones, with minor modifications).	Ointment
31.7.10	*custodit autem fetum Linus fons in eadem Arcadia abortusque fieri non patitur* The spring Linus, in Arcadia, guards the embryo and prevents miscarriage.	Presumably Bathing

32.1.6	*Mora….. partus …..continere ad maturitatem adalligatum, ut diximus, prodiderunt* The sucking fish, they say, worn as an amulet holds the foetus and allows the foetus to reach maturity (translation by Jones, with minor modifications).	Amulet
32.46.131	*Muricum…. recentes vel aridos bibunt ad partus continendos* Crabs, fresh or dried are taken in drink to hold the foetus (translation by Jones, with minor modifications).	Oral
36.39.151	*aetites gravidis adalligati mulieribus …….. pelliculis sacrificatorum animalium continent partus* Eagle stones, wrapped in the skins of animals that have been sacrificed are worn as amulets by women during pregnancy so as to hold the foetus (translation by Eichholz, with minor modifications).	Amulet
36.40.153	*lapis Samius…..volunt et partus contineri adalligato eo* Samian stone, worn as an amulet, it acts to hold the foetus (translation by Eichholz, with minor modifications).	Amulet

As Table 2 shows, most of the preventative measures were amulets. As has been noted the 'medico-magical' qualities were gained when the amulet was attached to various parts of the body either to preserve or heal that specific part.[853] Physical contact was essential in order to transmit the properties of the charm to its wearer.[854] One would presume therefore, that pregnant women would have worn these amulets around their waists, over the womb, to garner the full effect of the treatment. However, this does not always seem to have been the case. Some prescriptions come with specific instructions to place the amulet around the neck: one made of gazelle leather and containing white flesh from a hyena's breast, seven hairs and the

[853] See 157.

[854] Dasen, 2018, 128.

genital organ of a stag, is prescribed to be worn around the neck; whilst another advocates tying little worms found in grass around the neck.[855]

Notably, several of the amulets contain stones, either from the inside of trees, the uterus of female deer, eagle stones or Samian stone. The use of some stones, in particular the eagle stone (*aetite*), may have had cultural connotations. The *aetite* found in an eagle's nest is a hollow nodule or pebble of hydrated iron oxide, containing a loose kernel that makes a noise when rattled.[856] Thus, the symbolism of a foetus inside a womb is evident. Significantly, Dasen asserts that eagle stones were still being used as amulets against miscarriage in western Europe until the nineteenth century.[857] Such continued use of this treatment throughout the ages seems to compare with those similar contraceptive methods being used at the beginning of the twentieth century: there were probably no other better alternatives.

As well as the amulets, there are two ointment treatments advocated to prevent miscarriage. One recommends rubbing the woman with the ash of hedgehog and oil, the other with ibis ash, goose grease and iris oil (Pliny, *Natural History* 30.43.124 & 30.49.142). Soranus' advice was to avoid massaging of the abdomen in the early stages of pregnancy, although such a measure is not noted by Pliny (*Gynaecology* 1.46). Pliny's prescriptions were likely for pregnant women in a later stage of pregnancy, rather than during the very early period. There are also two oral prescriptions: one recommends drinking the ash of porcupines, the other prescribes crabs, either fresh or dried, taken in drink (Pliny, *Natural History* 30.43.123 & 32.46.131). There are a mix of treatments which Romans may have been able to create themselves easily and cheaply at home or would have purchased from drug sellers and pharmacologists. It would likely have been easy to create an amulet of grass worms, or the ointment containing the ash of hedgehog. For those living near

[855] Pliny, *Natural History* 28.27.99; 30.43.125. See Table 2: Pliny's List of Treatments to Prevent Miscarriage.

[856] Kuller & Katz, 1994, 227; Stol, 2000, 51; Dasen, 2013a, 29; OED, s.v. aetites.

[857] Dasen, 2013a, 29.

the coast or rivers, the oral treatment containing crabs might also have been fairly easy to concoct. However, many of the treatments contain exotic and specialist ingredients and would probably have been created and sold by pharmacologists, and so have been more expensive: ibis, used in one of the ointments, would have been imported into Roman Italy, because, according to Pliny, the ibis was native to Egypt; hyenas too were native to Africa; whilst the many different stones used in the amulets were specialist ingredients.[858]

In addition to the advice to try and prevent miscarriage, ancient Roman women were advised on what to look out for physiologically of an impending miscarriage. Celsus and Soranus both note that if the breasts suddenly shrivel and contract the pregnant woman is in danger of miscarriage (Celsus, *On Medicine* 2.8.41; Soranus, *Gynaecology* 1.15). This advice comes from the *Hippocratic Corpus*; Soranus acknowledges this in his treatise.[859] Importantly, should a woman notice such changes, Soranus advises that 'one should try to prevent its expulsion' and advocates the following

> πολλὴν ἡσυχίαν ἄγειν καὶ ἀναρρόπως κατακλίνειν καὶ σπόγγους ἀποτεθλιμμένους ἐν ὀξυκράτῳ περιβάλλειν ἐφηβαίῳ καὶ ὀσφύι.
>
> one should order much rest and should put the woman to bed slightly raised and should apply sea sponges squeezed in diluted vinegar on her pubes and loins (*Gynaecology* 3.48).

[858] Pliny, *Natural History* 10.15.32; on hyena's see 191.

[859] Soranus states that 'there comes first, according to Hippocrates, an unexpected shrinking of the breasts' (*Gynaecology* 1.59). The Hippocratic texts Soranus refers to are: 'should the breasts of a woman with child suddenly become thin, she miscarries'; 'when a woman is pregnant with twins, should either breast become thin, she loses one child. If the right breast becomes thin, she loses the male child; if the left, the female'; and 'when women are threatened with miscarriage the breasts become thin. If they become hard again there will be pain either in the breasts or in the hip-joints, eyes or knees and there is no miscarriage' (*Aphorisms* 5. 37, 38 & 53).

Such advice is not too dissimilar to the bed rest ordered by Soranus during early pregnancy to protect the foetus.[860] Notably, bed rest is conventionally the most commonly used management technique for threatened miscarriage in contemporary society.[861]

The Death of the Foetus in Childbirth

Intrapartum Complications

Childbirth is particularly risky for the foetus; even today, nearly half of all stillbirths occur during labour due to childbirth related complications.[862] In antiquity, a quick and uneventful birth at full term was hoped for.[863] For Roman women, childbirth was associated with a high risk to both the foetus and the mother.[864] More so, an obstructed labour greatly threatened the life of the mother and especially the infant that she was carrying. Soranus dedicates a lengthy discussion in book four of his *Gynaecology* to difficult and obstructed labour. He examines what it is, and the perceived causes and treatments (*Gynaecology* 4.1–16). Within the discourse, Soranus notes an array of factors which would likely make childbirth problematic. He specifically notes that issues occur because of problems with the pregnant mother's reproductive organs such as: 'the orifice of the uterus is not straight or has become hardened and closed'; or the woman is 'narrow in the lower parts' (Soranus, *Gynaecology* 4.1–2). He also notes that there may be problems with the foetus: that it is large; atrophic or dead; that it presents not by the head but instead by the feet;

[860] Soranus advises that in early pregnancy 'one ought to keep the woman who has conceived quietly in bed for one or two days' (*Gynaecology* 1.46).

[861] Sotiriadis *et al*, 2004, 154; Aleman *et al*, 2005, 3; Qureshi, 2009, 37. Despite it still being advised, there is no definite evidence of reduction in the risk of miscarriage in women prescribed bed rest (Sotiriadis *et al*, 2004, 154; Aleman *et al*, 2005, 5).

[862] Vaishali & Pradeep, 2008; WHO, 2023a. Over 40% of stillbirths occur during labour (WHO, 2023a).

[863] Carroll, 2018b, 52.

[864] Todman, 2007, 82.

or that it is doubled up upon the hips, or side, or has the head near the groins and one hand or one leg forward (*Gynaecology* 4.1).

Labour is considered obstructed when delivery is blocked physically, when the presenting part of the foetus cannot progress through the birth canal, despite strong uterine contractions.[865] The failure to progress is due to mechanical problems: a mismatch between foetal size, or more accurately, the size of the presenting part of the foetus and the mother's pelvis, although some malpresentations, notably a brow presentation or a shoulder presentation will also cause obstruction.[866] Obstructed labour is one of the main causes of perinatal mortality: it can lead to asphyxia of the foetus, resulting in stillbirth, brain damage or neonatal death.[867] In ancient Rome, Soranus understood that childbirth became difficult when it was obstructed, either due to the size of the mother's anatomy, or the size or position of the foetus.

Soranus warned that young women in particular would likely experience an obstructed labour because their bodies were not developed or big enough to deliver a foetus. He asserts that 'difficult labour takes place when the uterus has either a narrow orifice or small one or a small neck'; in some cases, because women 'married before maturity, conceive, and give birth while the uterus has not fully grown' (Soranus, *Gynaecology* 4.4). Foeto-pelvic disproportion is the most common cause of obstructed birth in modern society, with the primary cause of foeto-pelvic disproportion being a small pelvis that does not allow the delivery of the foetus.[868] Young adolescent expectant mothers are more likely to have small and immature pelves which have not developed to their full dimensions to deliver a baby.[869]

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[865] Dolea & AbouZahr, 2003, 1; Neilson *et al*, 2003, 192; Munjanja, 2010, 115; Laskaris, 2020, 85; OCMD, s.v. obstructed labour.

[866] Dolea & AbouZahr, 2003, 1; Neilson *et al*, 2003, 192.

[867] Dolea & AbouZahr, 2003, 1; Munjanja, 2010, 115.

[868] Dolea & AbouZahr, 2003, 1; Neilson *et al*, 2003, 193. In the early 21st century, 75% of cases of obstructed labour in sub-Saharan Africa were due to feto-pelvic disproportion (Munjanja, 2010, 116).

[869] Neilson *et al*, 2003, 193.

Pregnancy-related mortality rates go up significantly when the mother is under eighteen years of age; if the mother is as young as twelve or thirteen, the risk of serious disease, injury or death increases dramatically; they are also more likely to lose their infants during childbirth.[870] Roman society and culture was characterized by a pattern of early marriage for women, with girls marrying in their late teens, but somewhat younger, early to mid-teens in the upper classes.[871] Some girls may have been married as young as twelve (Dio Cassius, 54.16.7). These women may well have been experiencing their first pregnancy in their early or mid-teens and so would have been at risk of having an obstructed birth due to underdeveloped pelves.

Some other Roman women, particularly in the lower classes, may simply not have grown large enough to bear children, as a result of malnutrition, which in turn would have meant an increased risk of obstructed labour.[872] Soranus remarks that problems occur because the woman is 'narrow in the lower parts' (*Gynaecology* 4.2). Specifically, he asserts that women of small stature may experience difficult labour because they would likely have a small uterus, or a narrow orifice; their reproductive parts would be 'in proportion to their other parts' (Soranus, *Gynaecology* 4.4). Recent research has shown that undernourishment in childhood increases the risk of short stature and small pelvic size, leading to obstructed labour during a pregnancy.[873] Malnutrition causes several difficulties in the reproductive cycle of women. Firstly, as has been discussed, it may have made conceiving difficult for some women.[874] Malnourished women who managed to conceive faced a greater risk of sustaining a pregnancy to full-term because women who are underweight

[870] Girls aged ten to fourteen face a higher risk of complication of pregnancy than other women, and infants born to teenage mothers have a higher rate of infant mortality and morbidity than those born to older mothers (Irvine *et al*, 1997, 325; Laskaris, 2020, 85; WHO, 2021).

[871] McLaren, 1992, 54; Parkin, 1992, 123–124; Rawson, 1992, 21; Rawson, 2003, 95; Scheidel, 2007, 390; Laes, 2011a, 30.

[872] Laskaris, 2020, 73.

[873] Munjanja, 2010, 117.

[874] See 131.

have a higher chance of miscarriage or delivering a premature baby.[875] If the pregnancy continued to term, such women were likely to endure an obstructed labour due to their small stature, which as shall be shown would likely result in the death of their child and may well have led to their own death. Maternal mortality, it seems, was likely the final straw for bodies already weakened by malnourishment and disease.[876]

Notably, there is evidence from Beit Shemesh in Jerusalem, albeit from around the early part of the fourth century CE, of a young ancient woman of just fourteen years old who, it seems, died giving birth, or at the very beginning of the process, due to an small or immature pelvic cavity.[877] According to Gourevitch, her internal anteroposterior dimensions were approximately seven to seven and a half centimetres, which would have made a normal vaginal delivery very unlikely; her body still carries in the pelvic cavity the skeleton of her child.[878] Despite being outside the period under investigation, it is another instance of an ancient pregnant woman's remains along with her foetus and, specifically, it highlights the risk of childbirth to young, underdeveloped women in the ancient world. There may be an example from the early part of the first century CE, although in this instance the expectant mother became a victim of the eruption of Mount Vesuvius. The pregnant sixteen-year-old from Herculaneum died seven months into her pregnancy; significantly, some have asserted that her pelvis was too narrow for the baby to pass through.[879] Sara Bisel & Jane Bisel describe the woman as having an 'infantile pelvis' and that it 'would have been impossible for her to deliver a full-term infant'.[880]

[875] Huebner, 2013, 164.

[876] Laskaris, 2020, 70.

[877] Gourevitch, 2004, 263; Laes, 2011a, 55–56.

[878] Gourevitch, 2004, 263.

[879] Bisel & Bisel, 2002, 465; Redfern & Gowland, 2012, 121; Laskaris, 2020, 86. The skeleton was found in a group in the ship sheds on the beach at Herculaneum where people took refuge from the eruption (Carroll, 2018b, 61).

[880] Bisel & Bisel 2002, 465.

Even though the pregnant woman perished in the volcanic eruption, the conclusion has been that she would likely have endured an obstructed childbirth.[881]

Dealing with a Difficult or Obstructed Labour

There were techniques to cope with a problematic birth in the Roman world. For the attending midwife or physician who believed that the position of the foetus was causing the obstruction and therefore hindering childbirth, Soranus suggests that they try and turn the foetus in the womb. He asserts that 'if the foetus is situated abnormally, one must make the position normal' (Soranus, *Gynaecology* 4.8). In order to do so, he suggests using an 'anointed left hand' 'the fingers extended, joined together at their tips to give them a tapering shape' (Soranus, *Gynaecology* 4.8). It is then advised that the hand be inserted into 'the orifice of the uterus' so that the foetus can be held and repositioned; specifically, the advice is that

> πάντα δὲ ποιεῖν ἠρέμα καὶ ἀπεριθλάστως, καὶ συνεχῶς ἐλαιοχυτοῦντα τοὺς τύπους, ὥστε καὶ τὴν κύουσαν ἀσυμπαθῆ καὶ τὸ κυούμενον σῶον διαφυλάξαι. πολλὰ γὰρ οὕτως δυστοκηθέντα βιώσαντα βλέπομεν.

> one should do everything gently and without bruising and should continually anoint the parts with oil, so that the parturient remains free from sympathetic trouble and the infant healthy (Soranus, *Gynaecology* 4.8).

The important point to note in this treatment for obstructed labour, is that the aim is to ensure the infant remains alive. Such a procedure was, allegedly, a tried and tested technique: according to Soranus, 'there are many alive' who have been born in such an assisted manner (*Gynaecology* 4.8).

If the foetus could not be positioned correctly using the aforementioned method, in the words of Soranus if it 'does not respond to manual traction because of its size or

[881] Bisel & Bisel, 2002, 465; Carroll, 2018b, 62; Laskaris, 2020, 86.

death', one must proceed to the 'more forceful methods, those of extraction by hooks and embryotomy' (*Gynaecology* 4.9). In contemporary society, once obstructed labour has been detected delivery is conducted promptly, usually by caesarean section.[882] Caesarean section was not considered in ancient medical texts.[883] In the Roman world, when delivery of the child was not possible, it was embryulcia or embryotomy that was practiced.[884] Nevertheless, Soranus cautions against moving to such techniques before other methods have been tried (*Gynaecology* 4.7). His caution is seemingly because using such methods would have resulted in the death of the infant. In translation, Temkin notes that such surgical procedures 'remove' the foetus, but the term Soranus uses is λύειν which also means 'destroy'.[885] Indeed, medical explanation of the procedure illustrates the harm that would be inflicted upon the infant. Celsus and Soranus describe inserting a hook into the eyes or ears or mouth, even at times the forehead or back of the head of the foetus, so that it can be pulled out (Celsus, *On Medicine* 7.29.4–5; Soranus, *Gynaecology* 4.10). The medical texts go on to instruct how the foetus should be dissected and the various parts removed separately, if necessary (Celsus, *On Medicine* 7.29.7–10; Soranus, *Gynaecology* 4.10–12)

There is evidence that one medical practitioner in third-century Roman Britain seemingly resorted to an embryotomy to extract a foetus which had a large head and was malpositioned with an arm presentation.[886] Whilst this archaeological evidence is outside the period under discussion it is, according to Rebecca Redfern & Rebecca Gowland, on present evidence, the only example of an embryotomy, and

[882] Munjanja, 2010, 117.

[883] Gourevitch, 2004, 244. Gourevitch asserts that caesarean section was possibly performed in veterinary medicine but certainly without the animal being able to have other young after repair of the uterus and probably without it surviving; it was never used in ancient human medicine (2004, 244).

[884] Dasen, 2013a, 24.

[885] Soranus, *Gynaecology* 4.13; LSJ, s.v. λύειν.

[886] Gourevitch, 2004, 262; Laes, 2011a, 55; Redfern & Gowland, 2012, 121–123; Dasen, 2013a, 25; Carroll, 2018b, 54.

therefore warrants inclusion.[887] In line with the medical explanation, the procedure resulted in the dismemberment of the full-term infant: the skeletal remains reveal a series of cut-marks distributed throughout the torso, arms and legs; specifically, there was separation of the head and the upper and lower right limbs.[888] Such a procedure was carried out to extract the foetus rather than save the infant. Embryotomy was practiced only to save the life of the mother during childbirth.[889] Soranus implies as much in his treatise: 'even if one loses the infant, it is still necessary to take care of the mother' (*Gynaecology* 4.9). Obstructed labour could last for several days, or even a week, and could be fatal for both mother and child.[890] Thus, such invasive intervention was necessary to try and save the parturient at least.

Nonetheless, the procedure was extremely risky for the labouring woman. Poor sterilisation techniques and the lack of anaesthesia and antibiotics would have meant that such an operation would always have been an excruciating and life-threatening ordeal.[891] Celsus counted the operation amongst 'the most difficult' (*On Medicine* 7.29.1). Konstantinos Kapparis claims that it was not a course of treatment to which ancient doctors and their patients can have resorted to on a regular basis.[892] Of course, in the case of prolonged childbirth due to foetal obstruction, attending physicians and midwives had little choice. Yet, in this instance, it seems that the mother did not die with her infant, at least not immediately. Gourevitch and Dasen both conclude that the mother must have survived the procedure as the newborn was buried alone in a coffin.[893]

[887] Redfern & Gowland 2012, 121.

[888] Gourevitch, 2004, 262; Redfern & Gowland, 2012, 121.

[889] Dasen, 2013a, 24; Carroll, 2018b, 53.

[890] Laskaris, 2020, 86.

[891] Kapparis, 2002, 27.

[892] Kapparis, 2002, 27.

[893] Gourevitch, 2004, 262; Dasen, 2013a, 25.

The risk to the mother of such a procedure was great; not only when the operation was taking place but also for a time postpartum. Celsus asserts that after childbirth, a woman 'is in danger of death, if oppressed by violent and persistent pain in the head along with fever' (*On Medicine* 2.8.35). Soranus lists a number of threats to the mother that may follow an embryotomy.

> διόπερ τὸν μὲν ὑποκείμενον δεῖ προλέγειν κίνδυνον, πυρετῶν ἐπιγιγνομένων καὶ νευρικῆς συμπαθείας, ἔσθ' ὅπου δὲ καὶ φλεγμονῆς ὑπερβαλλούσης, καὶ γάγγραιναν μάλιστα ὑποφαίνειν ὀλίγας ἐλπίδας ἔχειν, ἐφ' ἧς ἔκλυσις, περιίδρωσις περίψυξις, σφυγμῶν ὑπόδυσις, πυρετὸς ὀξύς, παρακοπή τε καὶ σπασμός.

> One should warn of the underlying danger of supervening fevers, sympathetic nervous troubles, sometimes even of excessive inflammation, and that there is little hope particularly if gangrene appears; in the latter case, there is weakening, profuse perspiration, chills, imperceptible pulse, sharp fever, delirium and convulsions (Soranus, *Gynaecology* 4.9).

With the caveats that come with diagnosing retrospectively, Celsus and Soranus seem to be referring to postpartum infection. Indeed, such infection is a possible consequence of obstructed labour caused by bacterial infections of the reproductive organs having undergone repeated pelvic examinations (especially if hygiene is lacking); or protracted labour, traumatic delivery, retention of the placenta or obstetric haemorrhage.[894] Specifically, any tear in the woman's tissue permits bacteria to enter the bloodstream or the lymph system and cause potentially fatal septicaemia, cellulitis, or peritonitis.[895] Internal surgical intervention with unhygienic equipment likely increased the risk of infection in the Roman birthing room. Ancient practitioners performed the procedure to save the life of the mother during childbirth, but it may well have led to her subsequent death. Such a consequence explains why Soranus warns that the procedure should not be rushed into (*Gynaecology* 4.7).

[894] Laskaris, 2020, 86.

[895] Laskaris, 2020, 86.

In the Roman world, the dangers and perils of a difficult birth were well known to physicians.[896] So much so, that there was advice on what should not be done to women experiencing difficult or obstructed labour. Soranus asserts that one should not vigorously shake the mother; neither should the labouring mother be encouraged to walk about, or climb up and down stairs; he completely rejects the following treatment.

> οἱ μὲν γὰρ μετεωρίσαντες τοὺς περὶ τὴν κεφαλὴν τῆς κλίνης πόδας τήν τε κάμνουσαν διὰ κηρίας ἐν τοῖς ἐνηλάτοις τῷ θώρακι προσκαταλαβόντες προσέταξαν ὑπηρέτει τὰ πρὸς τοῖς ποσὶ τῆς κλίνης μέρη διὰ χειρῶν ἐπαίρειν τε καὶ ἀφιέναι κατὰ τοῦ ἐδάφους.

> Raising the legs of the bed at the head and fastening the woman to the bedstead by means of a bandage around the chest, then ordering an assistant to lift the foot end of the bed with his hands and let it fall down to the floor (Soranus, *Gynaecology* 4.7).

This form of treatment comes from the *Hippocratic Corpus* (*Diseases of Women* 1.68.144). In the same way that Soranus disagreed with the established view regarding menstruation and its requirement for the health of women, and the procedures for ascertaining a woman's fertility, here he dismisses a technique for dealing with a problematic labour. It is firmly rejected by Soranus on the premise that any form of shaking or movement shocks the uterus, which, in turn, leads to ruptures (*Gynaecology* 4.7). Medical thinking changed, to an extent, in the Roman world. The fact that Soranus had cause to mention these methods and, more importantly, advised against employing them in situations of difficult labour, suggests that they were used by some attending births, during the era.

[896] Redfern & Gowland, 2012, 121.

In cases of obstructed labour, Soranus also rejects the numerous medicinal treatments which were available to Roman women to allegedly assist difficult childbirth.[897] He states that 'to prescribe drugs promoting quick birth is without foundation', none, according to Soranus, 'effect quick birth'; in cases of obstructed labour, he claims that only his mechanical intervention would be effective (*Gynaecology* 4.13). One may presume that, because Soranus specifically remarks that such treatments should not be used when there is an obstruction, then he was happy for them to be used in cases where complications resulted from other factors. Indeed, Soranus claims that difficult labour could originate from a number of external factors such as: if the room has not been prepared beforehand; or if the mother is prone to drink, presumably wine; or if the season is particularly cold and wintry, or extremely hot; or if the midwife or physician is inexperienced (*Gynaecology* 4.5). Soranus' observation that extreme temperature can result in a difficult birth is interesting because contemporary research has shown that extreme heat exposure, especially, can cause complications in childbirth: it can increase the risk of preterm birth and stillbirth.[898] More so, the distinction of drugs to accelerate childbirth further illustrates that Roman women had a plethora of medications for a variety of gynaecological needs.

Along with the treatments to assist difficult childbirth there were also numerous treatments to specifically expel dead foetuses from the womb.[899] Of course, such

[897] Celsus mentions one aid to difficult labour: *On Medicine* 5.25.14. Pliny notes that the following aid childbirth: *Natural History* 11.79.203; 20.3.6; 20.18.37; 20.40.105; 25.54.95; 28.27.103; 28.29.114; 29.11.47; 32.1.6; 32.46.131. Dioscorides notes the following aid childbirth: *Materia Medica* 1.47.2; 2.164.1; 3.4.1; 3.78.3; 3.105.2; 3.150.2; 4.14.2; 4.145; 5.142; 5.154.

[898] Böckmann *et al*, 2020, 140–141. Böckmann *et al* conclude that in 40 of 47 studies, preterm births were more frequent at higher than lower temperatures; also, that all studies showed temperature and stillbirth association with stillbirths increasing as the temperature increased (2020, 140–141).

[899] Celsus, *On Medicine* 5.21.5 & 5.25.13. Pliny, *Natural History* 20.30.74; 20.34.86; 20.51.139; 20.54.154; 20.91.248; 21.84.146; 21.89.156; 24.13.22; 26.90.152; 26.90.153 (juice of the lesser centaury); 26.90.153 (dittany); 26.90.154; 26.90.157; 26.90.158; 26.90.159; 26.90.161; 28.77.248; 28.77.251; 29.9.32. Dioscorides, *Materia Medica* 2.70.6; 3.32.1; 3.83.2; 3.112.2. See Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

medicaments likely expelled living ones as well; thus, they would be abortifacient. Also, there are many substances detailed by Dioscorides which simply state that they expel, purge or draw down foetuses, but they do not qualify that they are for dead foetuses categorically.[900] In these instances, such medicaments are abortive treatments or could be used when a woman miscarries. Riddle argues that the terminology is 'a mask for rationalising a simple abortion'.[901] Yet, in some instances, the ancient writers warn that such treatments for expelling dead foetuses would abort those that are living.[902] More importantly, the Roman authors unequivocally note those substances which cause abortion. As well as his list of treatments to remove dead foetuses, Pliny notes a further eleven which he claims are specifically abortive; in some instances he definitively states that substances kill the foetus.[903] In the same vein, Dioscorides notes a further twenty substances which he claims actually abort, kill or destroy embryos.[904] Therefore, defining every expulsive as an abortifacient, is, as King states and as has previously been discussed, reducing all gynaecology to abortion advice.[905] In the same way that there were emmenagogues specifically to promote menstruation, as discussed in the previous chapter, there were different medications for those who wanted an abortion, and those who had suffered a miscarriage.[906] Roman women could access specific remedies for their different gynaecological needs.

[900] Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

[901] Riddle, 1992, 50.

[902] Pliny Natural History 20.91.248; 21.84.146-147; 28.77.251. See Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

[903] Pliny, *Natural History* 14.19.110; 20.4.9; 20.52.146; 20.84.226; 21.69.116; 24.20.29; 25.34.71; 27.55.80; 27.86.110; 27.113.140; 30.44.129. See Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

[904] Dioscorides, *Materia Medica* 1.6; 1.56.3; 1.78.2; 2.155.1; 2.156.2; 2.163; 3.7.2; 3.35.3; 3.48.4; 3.81.2; 4.148.2; 4.150.7; 4.162.3; 4.170.4; 4.172.3; 4.176.2; 4.182.3; 4.185; 5.67; 5.72.3. See Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses.

[905] King, 1998, 145; See 222.

[906] For discussion on emmenagogues and abortifacients see 215–224.

Soranus' detailed and lengthy discussion of childbirth and the difficulties that could be encountered, according to Carroll, implies that Roman midwives could routinely expect to encounter complicated births.[907] In particular, it shows that a difficult childbirth was perilous for the baby especially, but also the mother. Indeed, in 54 BCE, Julia died giving birth to her and Pompey's second child and her baby girl survived her but only by a few days (Plutarch, *Lives*. *Pompey* 53; Dio Cassius, 39.64.1). Caligula lost his young wife Junia Claudilla whilst giving birth; seemingly the infant died too because there is no record of the baby being born alive (Suetonius, *Caligula* 12). Some argue that the death of the mother or the child, or indeed both, was not infrequent, but that infant mortality was probably much higher than that of the mother.[908]

The risks to the baby are palpable in the sheer joy expressed at the safe delivery of a child: a graffito conveys the happiness of one Juvenillia, who 'was born on Saturday in the second hour of the evening, August 2nd' (*CIL* 294). In another instance, a man writes, 'a woman has borne a son of her own; he isn't mine and doesn't look like me but I wish he was mine and I was wanting him to be mine' (*CIL* IV 1877). The safe delivery of a child was occasion for celebration, seen by the decking of the front door with laurel wreaths.[909] According to Rawson, if the family had clients they would offer congratulations at the next *salutatio*.[910] Indeed, it seems that there may have been a wider celebration that spilled outside onto the streets:

[907] Carroll, 2018a, 155.

[908] Rawson, 2003, 103; Dixon, 2007, 61; Laes, 2011a, 50–51. There are no statistics available for deaths in the ancient world; figures are available from the eighteenth century onwards which show that maternal mortality was around 10.5 per 1,000 births between 1700 and 1750, then 7.5 per 1,000 from 1750 to 1800 and decreasing to around 5 per 1,000 from 1800 to 1850 (Chamberlain, 2006, 559). Modern estimates, according to Laes, put a Roman mother's risk of death in childbirth at 17 in 1,000 (2011a, 50). Other scholars simply state that foetus deaths were high: Rawson asserts that 'natal and neonatal mortality rates were high; Totelin asserts that perinatal mortality was high (Rawson, 2003, 116; Totelin, 2020a, 203).

[909] Rawson, 2003, 108. Laurel was sacred to Apollo; it celebrated victory and joy, so it's use on the front door was a sign to the wider world of the good fortune of the family (Rawson, 2003, 109).

[910] Rawson, 2003, 109. A *salutatio* was a ceremonial visit by a client to his patron (OLD, s.v. *salutatio)*.

Juvenal describes benches being set up outside the home, as well as the doorposts being decorated with laurels (*Satires* 6.78–79). Fires too were lit on altars to give thanks to the gods for a birth; this happened in friends' homes and in the parents' home.[911] Presumably, all such celebrations occurred after the naming ceremony and the formal recognition by the father. Significantly, anniversaries of birthdays were celebrated with similar rituals, along with a poem and a gift.[912] The arrival of a newborn was a huge cause for celebration which continued throughout their life marked on the anniversary of their birth.

Other Possible Causes of the Death of a Foetus

Premature Birth

A large percentage of foetal deaths occur as a result of premature labour, primarily before thirty-two weeks of pregnancy.[913] Just as Romans worried about miscarriage, there were also concerns about the length of pregnancy, for premature birth meant the risk of malformations and precarious health, if not the death of the infant.[914] In Roman society there was discourse on what constituted a premature birth and there was some contention as to the length of pregnancy. Pregnancy was calculated in antiquity in lunar months.[915] Across the ancient world, the seven-months' child was the lower limit for viable birth and the ten-or eleven-months' child was the upper limit.[916] Cicero notes that 'the period of gestation is occasionally seven, or more usually nine lunar revolutions, and these are called months' (*On the Nature of the Gods* 2.27.69). Pliny asserts that 'the period of gestation varies'; that it 'may exceed six-months, in another seven and it may even exceed ten' (*Natural History* 7.5.38).

[911] Statius, *Raw Material* 4.8.37–40; Rawson, 2003, 109.

[912] Rawson, 2003, 109 & 134.

[913] Goldenberg *et al*, 2000, 1500; Romero *et al*, 2003, 1668S; Vaishali & Pradeep, 2008, 315. Most stillbirths are concentrated in those infants born before thirty-two weeks, eight months (Goldenberg *et al*, 2000, 1500).

[914] Aubert, 1989, 438.

[915] Carroll, 2018b, 51–52.

[916] Hanson, 1987, 589.

Ancient jurisprudence notes that for the sake of legal issues, the proper time of a pregnancy is from the one hundred and eighty second day, which is from twenty-six weeks, and lasts no more than ten months.[917] That said, there was a case of a disputed inheritance whereby a praetor judged in favour of the heir, despite the fact that he was born a thirteen months' child.[918] Also, there was the case of a Roman woman who gave birth in the eleventh month after her husband's death; in this case Emperor Hadrian ruled that the infant was the child of the late husband.[919] In general, according to Aulus Gellius, Romans believed 'that a woman was delivered, according to nature, in the ninth or tenth month' (*Attic Nights* 3.16.9–10). Soranus, as a gynaecological specialist, sums up the position by asserting that births can occur around the seventh month, for 'evidence has shown that seven-months' children may also be capable of life', but defines the proper time for birth as being best at 'the end of nine months' or even later (*Gynaecology* 1.55 & 2.10).

For those born before seven months, it was understood that they did not survive. Pliny states as much: 'those children who are born before the seventh month never survive' (*Natural History* 7.5.39). Despite stating this, Pliny then refers to one Roman woman, Vistilia (1st century BCE) who reportedly bore five children after only six months of pregnancy (*Natural History* 7.5.39). Moreover, at least one of these children reportedly survived, because Pliny states that one, Domitius Corbulo, became a prominent general and suffect consul in 39 CE.[920] This case is problematic, as the likelihood of any newborn surviving at six months, which is between twenty-four and twenty-eight weeks, is extremely low in the modern Western world. In modern society, premature birth, particularly before thirty-two

[917] The proper time for birth is on and after the 182nd day following the advice of Hippocrates and Emperor Antonius Pius (86–161 CE) (*Digest* 38.16.3.11–12).

[918] Pliny, *Natural History* 7.5.40; Aulus Gellius also refers to the case in his *Attic Nights* (3.16.23).

[919] Aulus Gellius, *Attic Nights* 3.16.12. The judgement was based on the woman's 'good and honourable character' and 'undoubted chastity' (Aulus Gellius, *Attic Nights* 3.16.12).

[920] Pliny, *Natural History* 7.5.39–40; Bruun, 2010, 759; Momigliano *et al*, 2012.

weeks, largely results in stillbirth and, in the majority of cases, those who survive have done so as a result of neonatal intensive care.[921] It would have taken as Christer Bruun states, a 'major miracle' for an infant born at six months to survive in antiquity.[922] It may have been that Vistilia simply miscalculated the length of her pregnancy. Identification of conception in ancient times would likely have posed difficult.[923] Some women may not have realised that they were pregnant, especially during the very early stages, so may have miscalculated when they conceived and therefore the length of their pregnancy. It is possible that Vistilia deliberately underestimated the length of her pregnancy. Vistilia was married six times and had seven children; she reportedly had a child with each husband, and two with her second husband.[924] Vistilia may have intentionally claimed that she gave birth at six months, to ensure that each new husband believed he was the father of her child.

In general, the length of a pregnancy was thought to be around nine or ten months, so any birth prior to nine months, it seems, would have been deemed a premature birth in the Roman world. More so, authors indicate that such births were not unusual. Aulus Gellius, citing Varro, states that births before nine months were not regarded as 'unnatural rarities' (*Attic Nights* 3.16.9). Indeed, Cicero reports that his daughter, Tullia, gave birth prematurely to a boy at 'seven months' (*Letters to Atticus* 210 (10.18)). Unfortunately, there is no further mention of the infant, and so the belief is that he did not survive, although there is no report of his death either. Rawson suggests that the death of the child is inferred from contextual evidence.[925] Cicero describes him as born very weak, or helpless (*natum perimbecillum est*), insinuating that the child was not strong enough to survive (*Letters to Atticus* 210 (10.18)).

[921] Goldenberg *et al*, 2000, 1500; Romero *et al*, 2003, 1668S; Field *et al*, 2008, 1221; Vaishali & Pradeep, 2008, 315. A premature birth is defined today as one which occurs before 37 weeks of pregnancy (WHO, 2022b). Preterm delivery accounts for seventy percent of perinatal mortality, predominantly in those born before 32 weeks (Goldenberg *et al*, 2000, 1500).

[922] Bruun, 2010, 763.

[923] Todman, 2007, 83.

[924] Bruun, 2010, 759.

[925] Rawson, 2003, 96.

Generally, the belief in antiquity was that the eight-months' child never survived, whereas the seven-months' infant was viable but at risk of death.[926] King argues that the statement that a child was 'seven months' became a convenient shorthand in the ancient world, to warn everyone involved that the infant might not live long.[927] Thus, such phrasing, by Cicero, may have indicated, to his friends and family, that there was nothing that could be done to save the boy, and so people assumed that he had died. There is also further evidence of a premature birth in which the infant did not survive. Livia, Augustus' wife, gave birth prematurely, although there is no record of what month of the pregnancy the infant was delivered.[928] There is no record of the child being born alive either, as in the case of Tullia's son; so, one presumes that the infant was stillborn.

The chances of an infant born at seven months surviving in Roman society, would probably have been extremely low.[929] For those who did, it was believed that superstition played a part: 'those conceived the day before or the day after the full moon, or when there is no moon are born in the seventh month'.[930] They were also considered lucky on account of numerology and the number seven from Greek

[926] Hanson, 1987, 590; King, 1998, 112. However, Hanson asserts that not all accepted the superstition that eight-months' infants invariably died but that seven-months' children were viable and cites Aristotle who not only knew that a few eight-months' children lived but suggested that if they did live, that people considered that the baby was not, after all, an eight-months' child (Aristotle, *History of Animals* 9.584b5-10; Hanson, 1987, 599).

[927] King, 1998, 112.

[928] Suetonius, *Augustus* 63; Barrett, 2002, 46.

[929] Those born before thirty-two weeks, largely results in stillbirth and, in most cases, those who survive have done so as a result of neonatal intensive care (Goldenberg *et al*, 2000, 1500; Field *et al*, 2008, 1221; Vaishali & Pradeep, 2008, 315).

[930] Pliny, *Natural History* 7.5.38. A connection between the power of the moon with birth may not be that surprising, as in the ancient world the moon was also associated with menstruation, and fertility (Mulder, 2021, 150). Aristotle, when discussing menstruation, asserts that whilst the period is not accurately fixed, it tends to happen when the moon is waning (*Generation of Animals* 2.738a15–20). According to Soranus, Diocles and Empedocles also believed menstruation occurred when the light of the moon was waning (*Gynaecology* 1.21). Seneca the Younger discusses the *fecunditas* of humans in relation to the moon, although does not elaborate on it specifically (*On Benefits* 4.23.1).

thinking.[931] In contrast, the eight-months' child, lacking in its numbering did not survive.[932] Nonetheless, for those infants born between twenty-eight and thirty-one weeks, the likelihood is that they would have been incredibly feeble. Certainly, Soranus' discourse regarding the latter stages of pregnancy is about 'the perfection of the embryo' (*Gynaecology* 1.46). He uses the noun τελείωσις which also translates as development, or completion.[933] The implication, by Soranus, is that these last two months of pregnancy focus on perfecting or developing the foetus, to ensure it is complete at birth. Thus, any infant born during these months was considered not fully developed, imperfect.

Indeed, Soranus specifically asserts that any baby born prematurely, that is before the 'end of nine months', which have not died, are 'atrophic and very weak' (*Gynaecology* 2.10 & 3.47). Soranus uses the adjective ἄτροφος which Temkin has translated as atrophic, but also translates as non-viable.[934] Such a reference may be in a similar vein to Aristotle's comments that those who are born early are in an 'imperfect' state; that their ears and nostrils are often not yet fully formed (*Generation of Animals* 4.775a1–5). Moreover, it echoes Cicero's earlier description of his grandson who was born at seven months, as very weak.[935] One can infer that infants born prematurely may have been born disabled in some way. There is no established or ancient term matching the modern-day word disability, but terms such as 'imperfect' or 'weak', according to Laes, were used for infants that would now be considered disabled.[936]

[931] See 186. The Hippocratic writer of *Fleshes* states the thinking: 'the child born viable at seven months is born in phase and lives and has the correct synchrony and precise numerical relationship to seven-day periods' (19.612).

[932] Hanson, 1987, 590.

[933] Soranus, *Gynaecology* 1.46; LSJ, s.v. τελείωσις.

[934] LSJ, s.v. ἄτροφος.

[935] See 272.

[936] Laes, 2008, 90.

The chances of these 'weak' premature infants surviving may have been very slim, and not necessarily because of the health issues which result from being born early.[937] As has been noted, midwives were instructed to examine the newborn immediately following the birth, to ensure that they were perfect in all parts.[938] This illustrates the Roman sensitivity towards physical abnormality.[939] In Republican Rome, human physical anomalies were seen as portentous and eliminated.[940] The medical tradition of the selection of newborns for rearing, reduces the chances of survival for infirm or malformed infants; infants born noticeably handicapped or deformed in some way would be less likely to be reared than healthy babies.[941] Thus, those who were deemed as not worth rearing may well have been exposed or killed. Furthermore, the decision did not need to be made quickly. Social aggregation took place at the *dies lustricus* or *dies nominis,* which usually took place a week after the birth.[942] Until such a time, an infant may be abandoned or killed. Notably, many health issues arising from a premature birth are not obvious immediately. Cerebral palsy, a motor disorder that is caused by damage to the developing brain before during or shortly after birth, which can sometimes take months or years to diagnose, has been directly related with premature birth, particularly in infants born before 31 weeks.[943] In preterm infants, the development of the retina is incomplete, which is a leading cause of childhood blindness or visual impairment: the extent of the immaturity of the retina depends on the degree of prematurity.[944] Such disabilities

[937] Immaturity of the central nervous system, lungs, gastrointestinal tract, endocrine metabolic and immune systems, compromise and complicate the ability of a premature infant to survive (Rubin, 2014, 115).

[938] See 234–235.

[939] Dasen, 2009, 200–201.

[940] Dasen, 2013b, 247. Cicero refers to the Twelve Tables directing 'terribly deformed infants' to be killed (*Laws* 3.8.19). Seneca the Younger writes that 'unnatural progeny we destroy; we drown even children who at birth are weakly and abnormal' (*On Anger* 1.15.2).

[941] Laes, 2008, 95; Evans Grubbs, 2013, 87.

[942] Dasen, 2009, 200; Dasen, 2013a, 26.

[943] Rubin, 2014, 122; Morgan *et al*, 2018, 1162; OCMD, s.v. cerebral palsy.

[944] Fierson, 2018, 1.

may have escaped the midwife's test, and Laes insists that the possibility of infanticide, or exposure, several months down the line cannot be ruled out.[945]

On the other hand, the assumption that those born displaying visible signs of deformity or disability were subjected to either death or abandonment has changed in recent years.[946] Barbara Levick argues that Emperor Claudius may have had cerebral palsy.[947] According to Lisa Trentin, blindness and varying degrees of visual impairment would likely have been widespread in the ancient Greco-Roman world, although Trentin focuses on blindness as a result of disease, injury and old age rather than from birth.[948] There is evidence of muteness too, where deafness may be assumed.[949] It seems that there was medical acknowledgement and often treatment for some imperfections in ancient Greece: clubfoot and cleft conditions.[950] Ancient physicians valued individuals with congenital impairments like clubfoot and cleft conditions enough to dedicate professional thought and practice to their care and development.[951] Such medical help indicates that infants born with such conditions were not killed but rather raised and often treated for their malformation. Certainly, infants born with an extra finger or toe would be unlikely to be killed.[952] Indeed, Pliny the Elder refers to 'some people' having 'six fingers on each hand' and specifically mentions two daughters of a patrician family who were called the 'Miss Six-Fingers', as well as a distinguished poet, Volcatius Sedigitus (*Natural History* 11.99.244).

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[945] Laes, 2008, 97.

[946] Draycott, 2015, 189.

[947] Levick, 2015, 14.

[948] Trentin, 2013, 89–91. In terms of blindness, Draycott discusses Gaius Gemellus Horigenes who lost one eye and developed a cataract in the other (2015, 193-205).

[949] Laes, 2011b, 456. Pliny refers to the senatorial boy Quintus Pedius who was born mute, who went on to make a career as a painter (*Natural History* 35.7.21).

[950] Within the *Hippocratic Corpus,* the author of *On Joints* describes individuals with congenital clubfoot, whilst the author of *Instruments of Reduction* details a treatment for the condition (*On Joints* 62; *Instruments of Reduction* 32.7). The author of *Epidemics* describes cleft conditions (*Epidemics* 4.19 & 6.1.3; Sneed, 2021, 755).

[951] Sneed, 2021, 768.

[952] Graumann, 2021; Sneed, 2021, 768.

Moreover, whilst in the Republican era physical anomalies were seen as portentous and eliminated, in imperial times the negative associations vanished; some viewed as 'monsters' became part of a profit-earning business.[953] Instead, disabled people were frequently subjected to various types of public mockery and humiliation in the form of casual ableism, insults and jokes at their expense within controlled contexts.[954] Many people of restricted growth and those with excessive curvature of the spine, along with those with other deformities, earned a living by exhibiting themselves as entertainers.[955] Wealthy Romans and emperors delighted in them, although Augustus was reportedly afraid of deformed humans.[956] It seems that, during the imperial era, those born with malformations were likely exposed and raised as slaves specifically for amusement. That said, the lack of evidence concerning those born 'weak', makes it very difficult to ascertain what generally happened to them. However, as Draycott states, 'it is undeniable' that in Roman culture 'deformed and disabled individuals were treated not only differently from able-bodied individuals but also negatively'.[957] Thus, a premature birth potentially posed a real risk to the foetus in terms of likely death, or the possibility of exposure, or infanticide; whatever the outcome Roman couples would have been without a child.

Advice and Treatment to Prevent Premature Birth

Along with advice and treatments to prevent miscarriage, there is also advice to prevent premature births. As noted in Table 2, Pliny details one amulet containing

[953] Dasen, 2013b, 247.

[954] Draycott, 2015, 202-203.

[955] Trentin, 2011, 196; Dasen, 2013b, 247; Trentin, 2015, 131. Martial refers to an 'unarmed midget' (*Epigrams* 1.43). He also details a 'clay figurine of a hunchback' (Martial, *Epigrams* 14.182). Statius too refers to 'midgets' fighting as entertainment (*Raw Material* 1.6.55–64).

[956] Dasen, 2013b, 247; Graumann, 2013, 191. Indeed, Suetonius records that Augustus 'abhorred dwarfs, cripples and everything of that sort as freaks of nature and ill omen' (*Augustus* 83). This is possibly as a result of the Republican perspective that they were viewed as portentous.

[957] Draycott, 2015, 201.

the sucking fish and states that it ‘holds the foetus’ and allows it ‘to reach maturity’ (*Natural History* 32.1.6). Elsewhere in his work, Pliny asserts that the sucking fish specifically holds the ‘foetus until the time of birth’ (*Natural History* 9.41.79). Ancient writers generally refer to the sucking fish in reference to its capacity to stop, or retard, the progress of a ship.[958] Indeed, Pliny alleges that the fish held back Mark Antony’s ship at the battle of Actium, giving Octavian the advantage to make an attack (*Natural History* 32.1.3). The Greeks called the fish ἐχενηίς which translates as ship-detaining, deriving from ἔχειν meaning to hold and ναῦς meaning ship.[959] The Latin name for the sucking fish is *mora* which means delay.[960] Efficacy in antiquity was culturally bound: ritual and other symbolic connotations were attached to a substance.[961] Thus, in this instance, the property of the fish to delay or hold ships is transferred to pregnancy to hold the foetus in the womb until the time of birth. It is not clear from Pliny what he means by the time of birth; one can infer that he means that the foetus is held until nine or ten months, the generally held opinion of the length of pregnancy.

As has been noted, during the last stages of pregnancy Soranus’ discourse is about ‘the completion of the embryo’ (*Gynaecology* 1.46). Indeed, Soranus offers advice for pregnant women on protecting the foetus during months seven and eight of pregnancy. Soranus asserts that

> κατὰ δὲ τὸν ἕβδομον μῆνα τὰς μὲν σφοδροτέρας κινήσεις ὑφαιρετέον καὶ μάλιστα τὰς διὰ τῶν ὑποζυγίων, τοῖς δὲ ἄλλοις προσεκτικώτερον χρηστέον. ἐπισφαλὴς γὰρ ὁ σπαραγμὸς ἐν ἀρχῇ μὲν μήπω προσεχομένου τοῦ σπέρματος εὐτόνως μηδ᾽ εἰς τὴν πῆξιν κεκρατυμμένου καὶ διὰ τοῦτο ῥαδίως τοὺς ἀποσπασμοὺς λαμβάνοντος, ὕστερον δὲ διὰ τὸ βαρυαχθὲς εἶναι τελειούμενον τὸ κατὰ γαστρὸς ὅτε δεῖ φυλάττεσθαι μὴ διὰ τὸν πλείονα σάλον τοῦ χορίου ῥαγέντος ἀποκριθῇ μὲν τὸ ἐν αὐτῷ συλλεγόμενον ὑγρόν, ἐπὶ ξηρᾷ δὲ τῇ κυήσει κατασπώμενον τὸ ἔμβρυον.

[958] Watson, 2010, 639.

[959] LSJ, s.v. ἔχειν & ναῦς.

[960] OLD, s.v. *mora*.

[961] Totelin, 2009, 221; Totelin, 2016a, 13–14.

> at the seventh month, she should give up the more violent movements, especially those caused by draught animals, whilst she should indulge in the others more cautiously. For being pulled about is dangerous in the beginning when the seed is not yet strongly attached nor hardened into a coagulum and therefore easily suffers separation, and on the other hand, later the perfected foetus is a heavy burden. At this time, one must take care in case the chorion burst on account of too much tossing, causing the fluid accumulated in it to be evacuated and the foetus born in dry pregnancy (*Gynaecology* 1.55).

Once again, he warns pregnant women against doing anything which may cause violent movement and shaking of their bodies. This is in similar fashion to the advice given to women during the very early stages of pregnancy to prevent the seed from dislodging (Soranus, *Gynaecology* 1.46). During the latter stages such similar advice is advocated to ensure the chorion, the outermost foetal membrane, is not ruptured by the movement or shaking and the embryotic fluid released.[962]

During the eighth month, which Soranus describes as 'burdensome' and one which 'produces malaise', there is more instruction (*Gynaecology* 1.56). In order to alleviate any feelings of discomfort or weakness, women are advised to restrict their food intake; it is even suggested that they 'fast for one day' so that the feelings of discomfort can be dispelled (Soranus, *Gynaecology* 1.56). Once again, it is advocated that they avoid the bath and, even though the advice throughout pregnancy has been to avoid sexual intercourse, Soranus asserts that it is especially dangerous during this latter stage, on account that it might burst the chorion and release the fluid (*Gynaecology* 1.56). The advice from both Pliny and especially Soranus attempted to sustain pregnancy until the proper time for birth, generally believed to be around the ninth or tenth month. Once again, however, Soranus'

[962] OED, s.v. chorion.

advice potentially gave Roman men the authority to restrict the lives and activities of their wives throughout their pregnancies.

The Implications of Pregnancy Complications on Future Pregnancies

Pregnancy complications have been shown to significantly affect future pregnancies. A previous miscarriage is known to increase the likelihood of another pregnancy loss, or a preterm delivery.[963] A previous premature birth is a major predictor of a future one.[964] Thus, any Roman woman who suffered a miscarriage, or lost her baby as a result of a premature birth was at a higher risk of losing infants in subsequent pregnancies either as a result of suffering another miscarriage or delivering preterm. Furthermore, the likelihood of an obstructed labour can be anticipated if the mother has had a prior difficult labour.[965] A Roman woman, having experienced a problematic birth was more likely to have another one in her next pregnancy. This would have been extremely likely if the mother was adolescent, and her pelvis was still underdeveloped or suffered the effects of malnutrition.

Pregnancy complications may cause infections of the reproductive tract that may result in infertility.[966] Surgical intervention in Roman births may have led to gynaecological infections leading to infertility in some women. Moreover, obstructed labour was very likely a cause of disability for young mothers in antiquity. They could suffer lasting health problems such as anaemia (from haemorrhaging) or obstetric fistulas.[967] Fistulas are openings that develop between two areas of the body that are

[963] Goldenberg *et al*, 2000, 1500; Johansson *et al*, 2008, 300; Bhattacharya & Bhattacharya 2009, 5-8. Giakoumelou *et al*, 2016, 117; Quenby *et al*, 2021, 1659. Miscarriage increases by about 10% for each additional miscarriage, reaching 42% in women with three or more previous miscarriages (Quenby *et al*, 2021, 1659).

[964] Goldenberg *et al*, 2000, 1500; Johansson *et al*, 2008, 300; Bhattacharya & Bhattacharya 2009, 5-8. Giakoumelou *et al*, 2016, 117; Kvalvik *et al*, 2020, 1.

[965] Dolea & AbouZahr, 2003, 6.

[966] Mascarenhas *et al*, 2012, 10.

[967] Laskaris, 2020, 86.

not usually linked forming a connection between them.[968] An obstetric fistula develops over the course of a lengthy birth when the foetus presses against the mother's vagina very tightly cutting off blood flow to the surrounding tissues which causes the tissue to disintegrate and rot away creating the opening, resulting in uncontrolled urinary or faecal incontinence through the vagina.[969] Prolonged, obstructed labour, over the course of several days is the main cause, especially when competent obstetric care is not available.[970]

There is evidence of ancient women seemingly developing fistulas following a traumatic birth. The mummy of an Egyptian woman, Henhenit, of the XIth Dynasty (*c.*2050 BCE) reveals that her 'pelvis was an abnormal shape' which would have made it difficult for a foetal head to pass through; consequently, it seems that during childbirth a fistula between the vagina and her bladder occurred, probably when the infant became stuck due to her misshapen pelvis.[971] Despite this evidence being considerably earlier than the era under discussion, it likely illustrates the gynaecological problems ancient women faced following an obstructed birth. Indeed, Julie Laskaris asserts that the 'conditions that favour obstetric fistulas (prolonged obstructed labour in young and underdeveloped mothers) are precisely those that obtained for many girls and women' in Roman society.[972] In his discussion on labour, Celsus advises that, on some occasions, a 'strong man, but not untrained' 'stand on' the labouring mother's left side and press down on the womb so that the foetus is 'forced to the mouth of the womb' (*On Medicine* 7.29.8). Such pressure would likely create a fistula or potentially cause other damage to the woman herself. Soranus too

[968] OCMD, s.v. fistula.

[969] Neilson *et al,* 2003, 194; Donnay & Ramsey, 2006, 255; Muleta, 2006, 962; Lewis Wall, 2016, 80–82; Laskaris, 2020, 87.

[970] Neilson *et al*, 2003, 191; Donnay & Ramsey, 2006, 254; Muleta, 2006, 962; Collins *et al*, 2013, 776; Lewis Wall, 2016, 88. In the late 20th century, obstructed labour caused 73% of fistulas in one report from India and 74% in another from Ghana (Munjanja, 2010, 124).

[971] Derry, 1935, 492; Arrowsmith *et al*, 1996, 569. Derry asserts that a 'rent in the bladder communicated directly with the vagina and so with the exterior into which an instrument could be passed directly from the outside'(1935, 492).

[972] Laskaris, 2020, 87.

refers to possible injury to the mother's uterus if the body of a dead foetus has decomposed and the bones are exposed, or if the flesh is torn off a foetus' body while it is being extracted (*Gynaecology* 4.3). According to Laskaris, Soranus is detailing a situation in which fistulas could be caused by either necrosis of the mother's tissue, or by direct injury from the foetus' bones.[973]

Extraction of the dead foetus by embryotomy or the manipulating of a living, but abnormally positioned infant, could also have created fistulas.[974] Inserting hands or hooks with sharp points into the birth canal to manipulate the foetus out, likely increased the chance of tearing the surrounding tissues and creating holes. Soranus advises inserting two hooks into the birth canal to extract the foetus in some form of 'levering motion' (*Gynaecology* 4.10). In this instance, the risk to the parturient is two-fold: tearing of the tissue by the sharp points of the instruments; and continuous pressure against the tissue causing it to disintegrate and die. Surgical intervention using hooks may well have left many women permanently incapacitated and debilitated to some degree.[975]

As well as likely causing lasting disability, obstetric fistulas may have rendered women infertile. In some instances, women with the condition experience difficulties in conceiving related to problems in sperm retention whereby leakage, during and post coitus, prevents semen from staying in the body.[976] Moreover, obstetric fistulas can result in extensive scarring and widespread destruction of the vagina and cervix.[977] Such damage can result in infertility because any damage to the reproductive parts would likely result in difficulties in conceiving.[978] Thus, the

[973] Laskaris, 2020, 88.

[974] Laskaris, 2020, 88.

[975] Garland, 1995, 21.

[976] Wilson *et al*, 2011, 198.

[977] Arrowsmith *et al*, 1996, 573.

[978] Infertility can result from tubal, ovarian, uterine, cervical and peritoneal problems (Olpin & Kennedy, 2011, 13).

condition can affect many aspects of a woman's reproductive health and result in infertility.[979] Roman women, whose obstructed labour resulted in the death of their infant, likely developed fistulas which may, in turn, have further prevented future pregnancies.

In addition, the insertion of sharp instruments into the labouring woman could easily cause damage to her reproductive system. Any cut, tear or bruising of the uterus, cervix, or birth canal would likely cause difficulty in conception, or in sustaining a pregnancy to full-term. Marie Stopes, when introducing birth control to a wider population during the early part of the twentieth century, noted that nearly ten per cent of women that first visited her clinic suffered a slit cervix, nearly four per cent suffered from a prolapsed uterus and just over four per cent suffered internal deformations; all of which were likely caused by childbirth.[980] Thus, obstructed, or problematic labour resulting in damage to a Roman woman's reproductive system, or obstetric fistulas likely made conceiving again difficult for some ancient women. All in all, miscarriage, premature birth, or obstructed labour may have affected the capacity of some Roman women to ever carry a pregnancy to term and deliver a healthy baby.

Conclusion

To gain a complete understanding of infertility in the Roman world it was necessary to investigate those factors which prevented the birth of a live infant. The Roman discourse on miscarriage amongst medical practitioners and writers suggests that there was anxiety surrounding the issue during the era; the Roman foetus was seemingly at great risk. Indeed, evidence indicates the presence of an infectious disease now associated with miscarriage, chlamydia, which likely impacted some pregnancies. Syphilis, which is also linked with miscarriage, may also have been present in the Roman world, further endangering the Roman foetus. More so, the prevalence of malaria probably had considerable ramifications for pregnant Roman

[979] Arrowsmith *et al*, 2013, 401.

[980] Neushul, 1998, 252.

women. There was also concern amongst the authors about premature birth; it too posed a threat to the developing foetus in terms of likely death. Even if the infant survived, early delivery meant the likelihood of malformations which may have led to the exposure or infanticide of the preterm. In such circumstances Roman couples would still have been without a child despite the child being born alive. Great attempts were made amongst these authors to protect the foetus and sustain a pregnancy through a wide range of methods: advice was issued on regimens for pregnancy; pharmacological treatments were available; and there were many different amulets for women to wear.

One of the greatest threats to the foetus in Roman society was a difficult and obstructed childbirth. Young, first-time mothers were at an increased risk of such complication due to underdeveloped pelves; so too were those women who had simply not grown large enough to bear children because of malnutrition. Surgical intervention did occur, but seemingly only when the life of the mother needed to be saved. The consequences for the foetus, if it had not already died, were catastrophic. However, such invasive action may well have had severe consequences for the parturient even if she did not die from infection: it was highly likely that the woman would have had difficulty in conceiving again as a result of tears and damage to her reproductive system.

More significantly, Roman women who miscarried, or who went into premature labour, or whose infants died during a complicated and obstructed childbirth, would likely suffer the same complications in subsequent pregnancies. For some Roman couples, childlessness may have resulted from multiple miscarriages, premature births or from a problematic birth.

Conclusion

The main aim of this thesis was to explore childlessness in ancient Roman society, in particular, from the beginning of the first century BCE to the early part of the second century CE. By undertaking a thematic and interdisciplinary study, the aim was to explore how childlessness was perceived and what attitudes there were towards the subject. I was particularly interested in understanding the fertility treatments that existed for those struggling to conceive; also, what evidence existed for deliberate childlessness.

In part one of my thesis, I conducted a social analysis of childlessness during the era, exploring perceptions and attitudes through the lens of the Augustan legislation and Roman satire. Through punitive measures, the initial laws strove to regulate conduct and to deter citizens from leading a single life without legitimate children; then, harsher penalties were introduced years later penalising those who were married but still childless. The Augustan legislation can clearly be set into a historical period, relating to Roman interest in demography and specifically imperial concerns regarding the production of legitimate citizens; within this, Augustus and the state had an ongoing concern about childlessness. More notably, my discussion showed that there was a perception by the state that many were deliberately and voluntarily choosing not to marry and have children, and indeed, evidence suggests that many preferred leading a single life, at least for a time. Delaying marriage and parenthood has a history that goes back thousands of years to the ancient Romans.

Through the lens of legacy hunting, a trope of Roman satire, I then showed that satirists continually highlighted childlessness in the Roman world. More so, I noted how those without children were characterised. The monied elite, who did not have any children, were satirised as courting the attention of legacy hunters for favours and gifts, financial reward, and influence and status. As a result, the childless were portrayed as being able to wield a significant amount of power over legacy hunters, which likely enhanced the impression that some voluntarily chose not to have

children. Older, wealthy women, especially, were depicted as inverting the sexual norms of Roman culture and were seemingly able to exert control over men in a traditionally patriarchal society. Satire deliberately exaggerates for comic effect; thus, these characterisations were likely, deliberately over-dramatised. Nonetheless, the satirists accentuated elite views of the period, enhancing and perpetuating the perception that childlessness was a cause for concern.

The *Laudatio Turiae* specifically highlights a couple's involuntary childlessness as a result of infertility. Therefore, following on from the social analysis of childlessness, in the second part of my thesis, I aimed to extend the limited scholarship on infertility in the Roman world and present a thorough investigation of the topic.[981] By exploring medical and philosophical works, I sought to examine, in the first instance, the ways in which difficulties in conceiving were formulated. Chapter three showed that there was discourse on the subject amongst Roman physicians, medical writers and philosophers. It was recognised that there were many different reasons why some women experienced problems with conception. One of my wider aims was also to understand the Roman perspective on male infertility because discussion of this has been extremely limited.[982] My analysis has shown that it was recognised that men too could have reproduction difficulties either due to the production of semen, or the inability to have intercourse with a woman. Then, following on from this, I strove to examine what types of fertility treatments existed in the medical texts and for whom. Chapter four detailed the substantial assistance available to those experiencing difficulties in conceiving. The treatments were heavily biased towards women but there were prescriptions and remedies tailored to male infertility. The medical evidence, whilst written by elite men, shows a wider concern. Physicians and medical writers, it seems, empathised with those experiencing fertility issues and sought to enhance fertility for both women and men, and indeed, treat infertility. Previous research has investigated infertility in classical Greek material and

[981] The following have investigated, to an extent, childlessness and infertility in the Roman world: Gourevitch 2013, 219–231; Hug, 2014, 302–348; Osgood, 2014, 65–86; Flemming, 2021a, 896–914.

[982] Hug provides some discussion on male infertility in the Roman world, but does not investigate treatments (2014, 76–80).

concluded that infertility has a history that goes back thousands of years.[983] I have extended this research and shown that involuntary childlessness is a problem that spans time and cultures. Such discourse on infertility in Roman society may have been part of a broader trend in antiquity.

By analysing the remedies in detail, I showed that fertility treatment was pluralistic; that there was a mixture of many different types of therapies: inexpensive; luxurious; dietetic; and pharmacological. Some remedies may have been concocted in the *domus*; some may have been purchased from root-cutters and drug sellers, or those selling charms and amulets; some treatment may have required a trip to a curative spring. This pluralism allowed customers choice: those of all means could access treatments to try and treat infertility. Moreover, I have argued that in a society where regular menstruation was a marker of fertility, specific emmenagogues may have been taken by women to regulate their menstrual cycles and thus enhance fertility; they were a form of fertility treatment.

One of the final aims of my thesis was to examine the loss of a foetus during pregnancy or childbirth in Roman society, as infertility is further defined as the inability to carry a pregnancy to a live birth. My analysis has shown that the Roman foetus was at great risk in pregnancy especially due to the presence of malaria, being born prematurely, or should the expectant mother experience a problematic and obstructed labour. The medical texts show that there was some concern, amongst medical writers and practitioners, regarding the protection of the foetus as evidenced by the discussion on preventing miscarriage and sustaining a pregnancy. Moreover, recent research indicates that women who spontaneously miscarry, give birth prematurely or experience obstruction in childbirth are more likely to suffer the same problems in subsequent pregnancies. Some Roman women may have been able to conceive but may have repeatedly lost their infants during pregnancy, as result of miscarriage, premature birth or obstructed labour. Such complications and

[983] Totelin, 2009, 197–219; Flemming, 2013, 565–590; Fallas, 2015. Flemming concludes that infertility has a history that goes back thousands of years to the ancient Greeks (2013, 589–590).

issues may have affected the capacity of these women to ever carry a pregnancy to term and deliver a healthy child. Furthermore, women who experienced surgical intervention, having had a protracted and difficult labour, may have had difficulty conceiving again as a result of tears and damage to their reproductive system.

The presence of childlessness in Roman society had been noted by some but not investigated.[984] Several scholars had undertaken some limited investigation largely centred around Pliny the Younger and his wife Calpurnia or on the *Laudatio Turiae*.[985] Yet there had been no interdisciplinary investigation of the topic; there had been no comprehensive study of Roman medical texts on the issue of infertility, neither in terms of suspected causes nor treatments. Having undertaken this study, bringing together a wide and diverse range of literature, I have presented an extensive analysis of childlessness within Roman society and examined the medical texts in detail for the causes and treatment of infertility. Nevertheless, due to limitations of time and space, I have focussed on the late Republic and early imperial Roman era. A study of childlessness in other eras and environments would prove insightful; in particular, analysing infertility in other medical authorities, especially Galen would be beneficial.

Furthermore, whilst I have noted dietetic treatments such as curative springs and rivers, a more thorough investigation of childlessness in Roman medical tourism and the use of healing sanctuaries and oracles would also be useful. This research has shown that within the medical texts there was a vast number of gynaecological and andrological treatments. I have analysed such treatments in terms of their link with infertility. However, a comprehensive study into Roman understanding of the causes of such problems and a full analysis of the treatments would give us greater

[984] The following scholars note or refer to childlessness: Brunt, 1971, 116–117 & 382; Dixon, 1992, 119; Dixon, 2007, 62; Hin, 2013, 209; Huebner, 2013, 163.

[985] The following discuss childlessness citing Pliny the Younger and his wife Calpurnia: Parkin, 1992, 114; Rawson, 2003, 116–119. The following scholars have carried some investigations into infertility largely centred around the *Laudatio Turiae*: Gourevitch 2013, 219–231; Hug, 2014, 302–348; Osgood, 2014, 65–86.

understanding of how Roman medical practitioners and healers viewed and treated both women and men for such issues.

I began my thesis with some lines from the *Laudatio Turiae* detailing one Roman couple's childlessness. I noted that the husband was clearly stating to his Roman audience, and the state in particular, that the couple longed for and tried to have children. The inference was that they were not deliberately avoiding parenthood, which implied that there were some who were doing so, at that time. My investigation has revealed that, during the era, there was a perception that many voluntarily chose to remain childless. On the other hand, like the couple on the *Laudatio Turiae*, some Romans suffered infertility: some women and men had difficulty conceiving; whilst other women lost their foetuses during pregnancy, or from giving birth prematurely, or during childbirth. Statistically, there is no way of knowing if childlessness was more widespread during the late Republic and early imperial era as compared to other periods. Yet childlessness was an issue during the era, indicated by the visibility of the topic across a wide spectrum of sources.

Appendices

Appendix 1: List of substances which cause abortion/miscarriage, or expel foetuses

Celsus ***On Medicine***	**Prescription**
5.21.5	If the foetus is dead, to renders its expulsion easier, pomegranate rind should be rubbed up in water and so used.
5.25.13	A draught for the expulsion of a dead foetus or placenta consists of ammoniac salt 4g, or of Cretan dittany 4g, in water.
Pliny ***Natural History***	**Prescription**
14.19.110	Hellebore is planted among the vines or else wild cucumber or scammony and the wine obtained is called by a Greek name denoting miscarriage because it produces abortion.
20.4.9	*Elaterium* promotes menstruation but causes abortion when taken by women with child.
20.30.74	Chicory: boiled down in water, helps the purgation of women as even to withdraw the dead unborn baby.
20.34.86	The stalk of cabbage, eaten raw, brings out the dead unborn baby.
20.51.139	Rue: promotes menstruation and brings away the afterbirth and the foetus that has died before delivery, as Hippocrates holds, if it is taken in sweet, dark wine or applied locally.
20.52.146	*Mentastrum* (wild mint). Taken in drink it brings on menstruation, but it kills the foetus.
20.54.154	Pennyroyal: expels the dead foetus.
20.84.226	Mallow: with goose-grease causes abortion.
20.91.248	Wild *sisymbrium*: it should not be eaten by pregnant women, unless the foetus is dead, since even an application of it produces abortion.
21.69.116	Gladiolus: causes miscarriage in women.
21.84.146–147	Hulwort: brings away the afterbirth and the dead foetus, and causes miscarriage.
21.89.156	Thyme: it is good for delayed menstruation; or if the embryo in the womb is dead, thyme boiled down in water to one third proves useful.

24.13.22	Galbanum: a pessary or fumigation brings away the foetus when there is a miscarriage.
24.20.29	The ground-pine, *abiga*, causes abortion.
25.34.71	*Gentian* should not be taken in drink by women with child.
26.90.152	A pessary of *panaces* roots brings away retarded afterbirth or the dead foetus.
26.90.153	Juice of the lesser centaury, if it is scraped and applied as a pessary it brings away a dead foetus.
26.90.153	But it is dittany that is of the greatest efficacy; it draws the menses and forces out the foetus when dead or lying transversely – an *obolos* of the leaves taken in water – being so efficacious in these respects that it is not even introduced into the bedroom of pregnant women. Not only taken in drink but also when used as embrocation or a fumigation it has medicinal power.[986]
26.90.154	*Aristolochia*: it moves the menses and hastens the afterbirth and brings away a dead foetus; myrrh and pepper being added it is taken in drink or used as a pessary.[987]
26.90.157	Seed of mandrake: a pessary of its juice facilitates the menses and brings away a dead foetus.[988]
26.90.158	*Scammony* taken in drink or used as a pessary forces out a dead foetus.
26.90.159	*Artemisia*: its root taken in drink purges the uterus so violently that it expels a dead foetus.
26.90.161	Leaves of dittany given in water, a single *obolos* of them by weight immediately brings away the dead foetus.
27.13.30	*Anagyros*: if a dead foetus does not come away, or if the afterbirth or menstruation is retarded, the leaves are taken in raisin wine, a dose being a drachma.
27.55.80	Fern should not be given to women, since it causes a miscarriage when they are pregnant and infertility when they are not.

[986] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[987] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[988] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

27.86.110	Onosma: if a woman with child should eat it or step over it, she is said to miscarry.
27.113.140	*Thlaspi* moves the menses but kills the foetus.
28.77.248	Hare's rennet: applied with saffron and leek juice, a pessary of it in raw wool brings away a dead foetus.
28.77.251	Fumigation with ass's hoofs hastens delivery so that even a dead foetus is extracted, only then is the treatment applied, for it kills a living infant.
29.9.32	Unwashed wool applied or used as a pessary extracts a dead foetus.
30.44.129	Snake's slough: given in wine with frankincense causes miscarriage.
Dioscorides *Materia Medica*	**Prescription**
1.1.3	Applied like a pessary with honey, the roots (of all irises) draw down embryos/foetuses.
1.6	Cardamom, when burned to produce smoke from below, it also destroys embryos/foetuses.
1.14.4	All cinnamons have warming, diuretic, emollient and digestive properties. When drunk and when applied with myrrh they draw down both the menses and embryos/foetuses.
1.19.4	Mecca balsam: the juice is the most efficacious; it draws down both the afterbirth and embryos/foetuses.
1.56.3	Unguent of iris aborts embryos/foetuses.
1.64.3	Myrrh: when applied with an infusion of wormwood Artemisia *absinthium* or lupine or with the juice of rue, it also draws rapidly down both the menses and embryos/foetuses.
1.67.2	Bdellium is the sap of an Arabian tree: applied directly or burned for fumigation, it opens up the cervix and it draws out the embryos/foetuses and all moisture.
1.69.1	The *pitys* pine is a familiar tree: when ground with a solution of copper sulphate burned to produce thick smoke from below, it expels embryos/foetuses and the afterbirth.
1.76	The leaves of savin (trees): when drunk, used topically or burned to produce thick smoke from below draw down blood through the urine and expel embryos/foetuses.
1.77.3	The cedar is a tall tree: (its resin) used as a clyster, draws down embryos/foetuses.

1.78.2	The sweet bay: the bark of their root kills embryos/foetuses, when drunk with aromatic wine.
1.93	The fiery thorn is a tree that nearly resembles the wild pear: its root can effect miscarriages when the abdomen is struck with it gently three times or when it is anointed with it.
1.105.6	The sap of the Ethiopian olive tree, when smeared on, sets the menses going and draws down embryos/foetuses.
2.24.1	The testicle of the beaver, if drunk with two drachmai pennyroyal, it sets the menses going and it expels both embryos/foetuses and the afterbirth.
2.70.6	Woman's milk: some say that the milk of a primipara when drunk is an antidote to deadly medicine and a means for expelling dead embryos/foetuses.
2.74.4	The fat from greasy wool is called *oisypos:*it draws both the menstrual period and embryos/foetuses, when applied as a pessary on wool.
2.80.1 2.80.4	Trottles of goats, especially of mountain goats, when drunk with spices they set in motion the menses and expel embryos/foetuses. [989] Dung of the vulture, burned as to produce smoke, expels embryos/foetuses.
2.104	The cultivated chick-pea draws forth the menstrual period and embryos/foetuses.
2.109.1	The seed of the cultivated lupine draws the menstrual period and embryos/foetuses, in a pessary with myrrh and honey.
2.127	Water parsnip grows in water: when eaten either boiled or raw, they draw out menses and embryos/foetuses.
2.155.1	Garden cress: the seed destroys embryos/foetuses and moves menstruation.
2.156.2	Shepherd's purse is a little herb with narrow leaves, its seeds, when drunk, set the menses going and it destroys embryos/foetuses.
2.159.3	Pepper: when drunk or when smeared on draws down embryos/foetuses.

[989] Translation by Beck, with minor modifications. Beck uses the term emmenagogue.

2.163	Soapwort, which wool-cleaners use to clean wool, used topically draws down the menses; it thoroughly destroys embryos/foetuses.
2.164.1–2	The cyclamen: should a pregnant woman step over its root, she miscarries; rubbed on the navel, or the lower part of the belly, it causes miscarriage.
2.166.2	The dragon arum (edderwort): a quantity of thirty seeds, drunk with sour wine mixed with water causes miscarriage and they say that the smell of its fading flowers is destructive to newly conceived embryos.
2.179.3	Black Ivy: the leafstalk smeared with honey and placed in the uterus, draws the menstrual period and embryos/foetuses.
3.3.2	Gentian: applied as a pessary, the root expels embryos/foetuses.
3.4.4	Birthwort: draws out the menses, and embryos/foetuses when drunk with pepper and myrrh. It does the same also when applied in a pessary.
3.6.3	Centaury: draws down the menses and embryos/foetuses when whittled, shaped like a pessary and applied to the uterus.
3.7.2	Feverfew: induces menstruation and abortion when used in a pessary.
3.31.1	Pennyroyal, when drunk, draws down the menses, afterbirth and embryos/foetuses.
3.32.1	The dittany of Crete accomplishes everything that cultivated pennyroyal accomplishes (see above) but much more effectively, for it expels deceased embryos/foetuses not only when drunk but also when used topically and when burned as to produce smoke from below.
3.33.2	Sage: the decoction of its leaves and branches when drunk has properties that set the urine and menstruation in motion, draws down embryos/foetuses.
3.35.3	Catmint: the leaves, ground up and used in a pessary, destroy embryos/foetuses and draws the menses.
3.36.2	Cretan thyme: its decoction, combined with honey, drives out the menses, afterbirth and embryos/foetuses.
3.44.1–2	Sowbread: boiled in water, draws down the menses; one of its tender roots, applied as a pessary, draws down embryos/foetuses.
3.48.4–5	Hercules' woundwort: when offered to drink with hydromel or with wine draws down the menses and destroys embryos/foetuses; the root too, grated and applied as a pessary to the uterus, draws down embryos/foetuses.

3.52.2	The wild carrot: when drunk or even when applied, its seed sets the menses going; as for the root, it expels embryos/foetuses when used as a pessary.
3.53.1	Hartwort: the fruit and root draw down the menstrual period and embryos/foetuses.
3.68.2	Alexanders: The root, when grated and used as a pessary, induces miscarriage.
3.72.2	Daucos: when drunk draws out the menstrual period, embryos/foetuses.
3.81.2	Sagapenon: drunk with hydromel, it brings on the menstrual period and destroys embryos/foetuses.
3.83.1–2	Galbanum: when applied as a pessary and when burned to produce smoke from below, it draws the menstrual period and embryos/foetuses; drunk with wine and myrrh, it expels dead embryos/foetuses.
3.84.2	Gum ammoniac: one *drachma*, when drunk with vinegar pulls down embryos/foetuses.
3.95	Horse thyme: the herb and its decoction draws the menstrual period and embryos/foetuses.
3.98.2	Wall germander draws down the menstrual period and embryos/foetuses, when drunk with vinegar.
3.112.2	Colt's Foot: the root expels a dead embryo/foetus when drunk boiled in hydromel.
3.113.2	Wormwood: when boiled is suitable to use in sitz baths for drawing the menstrual period, afterbirths, embryos/foetuses; its juice, triturated with myrrh and applied, draws from the uterus as many things as the sitz bath; the foliage is also given to drink in the amount of three *drachmai* to draw out the same.
3.121.2–3	Fleabane: the flower and leaves are drunk with wine to bring about the menstrual period, to expel embryos/foetuses; the juice, used topically, causes abortion.
3.123	Gillyflower: boiled when dry, its flowers are good for driving out the menstrual period; its fruit, when drunk in wine in the amount of two *drachmai* or when used as a pessary with honey, draws the menstrual period and embryos/foetuses.

3.131	Stone bugloss: drunk with wine, its leaves draw embryos/foetuses. They say that a pregnant woman miscarries even if she steps over this plant.
3.137.2	White-flowered chamomile: the roots, flowers and greens, when drunk and when used in sitz baths, they draw the menstrual period, embryos/foetuses.
3.143.2	Madder: applied as a pessary, the root draws the menstrual period and embryos/foetuses.
3.150.2	Stinking bean trefoil, but some call it *anagyris* and others *acopon*. Its leaves: an amount of one *drachma* is given to drink in grape syrup for getting out embryos/foetuses and the menstrual period.
4.23.2	Alkanet: the root, applied as a pessary, draws down embryos/foetuses.
4.75.4	Mandrake: about one *hemiobolon*, inserted by itself as a pessary, draws the menstrual period and embryos/foetuses.
4.148.2	White hellebore: draws the menstrual period and destroys embryos/foetuses, when inserted as a pessary.
4.150.7	*Elaterion* sets menstruation in motion, kills embryos/foetuses when used in a pessary.
4.162.3	Black hellebore: inserted as a suppository, it draws the menstrual period and destroys embryos/foetuses.
4.170.4	Scammony: the milky juice, applied to the uterus with a wool pad destroys embryos/foetuses.
4.172.3	Spurge flax: this herb destroys embryos/foetuses when used as a pessary.
4.176.2	Schrad Colocynth: the gourds themselves destroy embryos/foetuses when inserted as a pessary.
4.182.3–4	Bryony: a weight of two *drachmai* when drunk destroys embryos/foetuses; inserted as a pessary into the uterus, it also draws out embryos/foetuses and the afterbirth; it is boiled for sitz baths too, being a cleanser of the uterus and abortifacient.
4.185	Bracken: should a pregnant woman take them, she aborts.
4.190.2	Large heliotrope: inserted, ground up as a pessary, they move both the menstrual period and embryos/foetuses.
5.62	Wine flavoured with allheal draws down the menstrual period and embryos.

5.67	Abortifacient wine: there is also an abortifacient wine. For when the grapevines are planted, they plant with them hellebore or squirting cucumber or Scammony. The grapes assume their properties and the wine made from them becomes abortifacient. An amount of one *cyathos* is given diluted to women who have vomited, on an empty stomach.
5.72.2–3	Wine flavoured with hellebore also causes miscarriage; it purges from childbirth and miscarriages, it destroys embryos/foetuses.
5.106.6	Alum: help to induce menstruation and they expel embryos/foetuses.
5.107.2	Sulfur: draws down embryos/foetuses when burned so as to produce smoke from below.
Soranus ***Gynaecology***	**Prescription**
1.63	Once during the month (it seems advisable) to drink Cyrenaic balm to the amount of a chick-pea in two *cyaths* of water for the purpose of inducing menstruation. Or, of panax balm and Cyrenaic balm and rue seed, of each two *obols*, grind and coat with wax and give to swallow, then follow with a drink of diluted wine or let it be drunk in diluted wine. Or, of wallflower seed and myrtle, of each three *obols*, of myrrh a *drachma*, of white pepper two seeds; give to drink with wine for three days. Or of rocket seed one *obol*, of cow parsnip one-half *obol;* drink with oxymel. However, these things not only prevent conception, but also destroy any already existing. Moreover, the evil from these things is too great, since they damage and upset the stomach and cause congestion of the head and induce sympathetic reactions.
1.65	Abortive vaginal suppositories: of myrtle, wallflower seed, bitter lupines, equal quantities by means of water, mould troches the size of a bean. Or, of rue leaves 3 *drachmai*, of myrtle 2 *drachmai* and the same of sweet bay, mix with wine in the same way. Another vaginal suppository which produces abortion with relatively little danger: of wallflower, cardamom, brimstone, absinthium, myrrh, equal quantities, mould with water.
3.12	Squirting cucumber, black hellebore, pellitory, panax balm, drugs which women have often used for abortion.

Appendix 2: List of emmenagogues which simply promote menstruation

Celsus ***On Medicine***	**Prescription**
5.21.B	A pessary for inducing menstruation contains soda 2.65g, added to two Caunean figs; or garlic seeds are pounded, a little myrrh added and these are mixed with Susine lily ointment; or the pulp of a wild cucumber is diluted in woman's milk.
Pliny ***Natural History***	**Prescription**
20.13.26	Radishes: cooked in mud promotes the menstrual discharge.
20.26.68	Lettuce: menstruation is regulated by its use in food.
20.44.115	The seed (of parsley) aids the menses.
20.46.117	*Oreoselinum* (parsley) and *Heleoselinum* (wild celery) taken in wine promotes the menses.
20.56.158	Catmint: helps menstruation.
20.58.164	Ami: promotes menstruation.
20.84.226	Mallow: a handful of leaves taken in oil and wine assists menstruation.
21.80.136	*Phu:* the root moves the menses.[990]
21.86.150	*Melissophyllum*: the juice of the boiled plant promotes menstruation.
21.89.156	Thyme*:* is good for delayed menstruation.
21.94.165–166	*Anemones* promote menstruation when taken with barley water or used on a wool pessary.
21.96.169	*Heliochrysus* (chrysanthemon), taken in wine promotes menstruation.
22.40.83	*Caucalis*: the seed promotes menstruation.
22.71.146–147	Wild lentil promotes menstruation. With wine it also brings on delayed menstruation.
22.72.149	Wild chickpea: the grain in particular promotes menstruation.
23.80.153	Bay: the berries pounded and applied in a pessary or taken in drink pull down the menses.[991]
24.86.136	*Ampeloprason:* sets the menses in motion.[992]

[990] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[991] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[992] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

25.18.40	*Linozostis* or *parthenion* (mercurialis): promotes the menses.[993]
26.90.151	*Panaces* with wormwood promotes the menses.[994]
26.90.153	Juice of the lesser centaury taken in drink or used as a fomentation moves the menses.[995]
26.90.155	Delayed menstruation is relieved by *agaric* taken in doses of three *oboloi* to a *cyathus* of old wine, by a pessary of peristereos in fresh lard and by antirrhinon with rose oil and honey.
27.28.50–51	Wormwood: three or four twigs, with one root of Gallic nard and six *cyathi* of water promotes menstruation.[996]
27.36.58	*Calyx*: its root taken in drinks promotes women's menses. [997]
27.92.118	*Pancratium:* in wine promotes menstruation.[998]
27.107.131	*Stoechas*: taken in drink it moves the menses.[999]
28.13.50	Human offscouring from the gymnasia are used to promote menstruation.[1000]
28.28.109	Crocodile: a pessary made of its intestines promotes menstruation.[1001]
28.77.246	Women's purgings are aided by bull's gall applied as a pessary in unwashed wool.
29.30.95	The pine-caterpillar promotes menstruation.[1002]
30.43.128	Fumigation with a dried snake assists menstruation.
30.44.129	The ash of the *trixallis*, applied with honey helps menstruation.
32.13.29	*Castoreum* (beaver-oil) promotes menstruation if two *drachmai* are taken in water with pennyroyal.[1003]

[993] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

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[995] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

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[1001] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[1002] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

[1003] Translation by Jones, with minor modifications. Jones uses the term emmenagogue.

32.46.132	Beaver oil taken in honey is good for menstruation.
32.46.130	The *pulmo marinus* (jellyfish), tied on is an excellent promoter of menstruation.
32.46.132	Crabs boiled in their liquor with lapathum and celery hasten the monthly flow.
35.51.182	Burnt bitumen: drunk in wine hastens menstruation.
Dioscorides *Materia Medica*	**Prescription**
1.4.2	The *galingale*, some *call erysisceptron* as they call the camel's thorn, is good for drawing down the menses.
1.10.2	The hazelwort also draws down the menses.
1.11.2	When drunk, the dry root of Cretan spikenard draws down the menses.
1.13.3	Cinnamon cassia, when drunk draws down the menses.
1.17.2	Camel hay brings on the monthly period.[1004]
1.18	The sweet flag grows in India, when drunk and when applied it draws down the menses.
1.24	Bisabol is the sap of an Arabian tree, when combined with hydromel it draws down the menses.
1.28.2	Elecampane, when drunk, sets the menses in motion.
1.48.2 & 1.58.2	Unguent of marjoram draws down the menses.
1.49	Unguent of basil accomplishes the same things as unguent of marjoram, although less effectively.
1.50	Unguent of wormwood Artemisia *arborescens* draws down the menses.
1.66.3	Storax is the sap of a tree that resembles the quince tree, it draws down the menses when drunk and when applied.
1.73.3	Asphalt when drunk with wine and castor, they set the menses going.
1.96	The leaves of the lime tree are astringent, drunk, they draw down urine and the menses.
1.100.4	Dyer's buckthorn: boiled in vinegar and drunk, its greenery reportedly brings on the periods of women.
1.103.2	The fruit of the chaste tree brings on the menses, when a quantity of one *drachma* is drunk with wine; its seed sets the menses in motion

[1004] Translation by Beck, with minor modifications. Beck uses the term emmenagogue.

	when drunk with pennyroyal or when burned to produce thick smoke from below and when inserted.
1.123.1	The root of the bitter almond ground up and boiled, applied as pessaries bring on the menses.
1.128.3	The milky substance of the wild and of the cultivated fig tree draws down the menses when applied with egg yolk or Tyrrhenian wax.
2.9.2	The shells of land snails, when ground up and applied as a pessary, bring on menstruation.
2.61.2	Blister beetles that come from grain draw down the menses when mixed with softening pessaries.
2.112.1	The radish: draws down the menses.
2.114.3	Monk's rhubarb boiled in wine and drunk, draw down the menses.
2.120.2–3	The juice of raw cabbage draws down the menses.
2.129	Samphire: the fruit, leaves, and root, boiled in wine and drunk also set the menses in motion.
2.136.3	Cultivated lettuce: when its seed is drunk brings on menstruation.
2.149.1 & 2.150	Leek draws down the menses.
2.151.1	The juice of onions moves menstruation.
2.152.3	Garlic: the decoction of its foliage, used as a sitz bath, brings on menstruation and the afterbirth, it is also burned to produce smoke from below for the same purposes.
2.169.1	The asphodel is a plant with which most people are familiar, the roots taken in drink provoke menstruation.
2.173.2	The caper: its fruit, when drunk, draws down the menses.
2.176.2	The poppy anemone: both the leaves and stems boiled together with barley gruel, used in a pessary, they draw down the menses.
3.1.4	Agaric: a weight of three *obols*, taken with water, draws down the menses.
3.21.2	The eryngo: draws down the menses when drunk.
3.23.2	Wormwood: draws down the menses both when drunk and when used topically with honey.
3.24.2	The seeds of the southernwood help delayed menstruation.
3.27.1	Oregano: having been dried, an amount of one *oxybaphon* drunk with hydromel sets the menses in motion.
3.30.2	Goat's marjoram draws down the menses.
3.38.2	Tufted thyme: when drunk, it draws down the menses.

3.39.2	Marjoram: the dry leaves draw down the menses when used as a pessary.
3.45.1	Rue: promotes menstruation.[1005]
3.51.3	Lovage: the seed and root set the menses going when drunk.
3.54	Cretan Hartwort: when drunk induces menstruation.
3.62.2	Ajowan: draws down the menses.
3.65	Mountain parsley: the seed and root drunk in wine bring on the menstrual period.
3.66	Parsley brings on the menstrual period.
3.67.2	Alexanders: when drunk with honey and wine, the seed can bring on the menstrual period.
3.70.1	Fennel brings on the menstrual period.
3.71	Horse Fennel: the root brings on the menstrual period when used as a pessary.
3.74.3	Rosemary frankincense combined with honey draws the menstrual period.
3.79.2	Black cumin when drunk for many days, it brings on the menstrual period.
3.80.6	Laserwort drunk with pepper and myrrh, it brings on the menstrual period.
3.102.2	Lily: the root, ground up and boiled with unguent of roses draws the menstrual period.
3.104.2	Balm: their decoction is suitable in sitz baths for bringing on the menstrual period.
3.105.2	Horehound is given to women that have not been cleansed to bring on the menstrual period.
3.106	Base horehound: the decoction of its leaves draws the menstrual period.
3.109.2	The treacle clover when drunk with water, the seed and leaves brings on the monthly period.
3.110	Hulwort when drunk, their decoction moves the menstrual period.
3.111.2	Garlic germander inserted as a pessary draws the menstrual period.
3.152.2	Water plantain sets the menstrual period going.

[1005] Translation by Beck, with minor modifications. Beck uses the term emmenagogue.

3.154.2 & 3.157	St. John's wort has properties that moves the menses; its seed sets in motion the menstrual period.[1006]
4.1.4	Betony: when one *drachma* is drunk with wine, it draws down the menses.
4.18	Medion: the seed, when drunk with wine, brings on the menstrual period.
4.20.2	Corn flag: the upper root, applied as a pessary, brings about the menstrual period.
4.49	Stinking tutsan: its leaves, fruit and sap, when drunk bring on the menstrual period.
4.57	Gold flower drunk with wine or with honey mixed with wine helps bring on menstruation.
4.68.4	Henbane: the seed is good for the female flow when an amount of one *obol* is drunk with poppy seed and hydromel.
4.93.1–2	Stinging nettle: the leaves inserted as a pessary, ground up with myrrh set menstruation in motion; the decoction of the leaves drunk with a bit of myrrh, moves the menstrual period.
4.115	Sweet cicely cleanses off the menstrual period.
4.134.1	Maiden Hair: the decoction of this plant, when drunk with wine, moves the menstrual period.
4.144.2	Butcher's broom: the leaves and fruit, drunk in wine bring on the menstrual periods.
4.146	Spurge Laurel: its dry or fresh leaf when drunk induces menstruation.
4.147	Chamaidaphne: its juice gets the menses going when given in drink with wine and it does the same when inserted in a pessary.
4.183.2	Black bryony: its stems set the menses going.
5.18.3	Wine from squill draws the menses.[1007]
5.32.2	Fig wine draws down the menstrual period.
5.39.3	Wine flavoured with wormwood is useful for menstrual periods that have stopped.
5.40.2	Wine flavoured with hyssop sets the menses going.
5.47	Wine flavoured with dittany of Crete draws the menstrual period.

[1006] Translation by Beck, with minor modifications. Beck uses the term emmenagogue at 3.154.2.

[1007] Translation by Beck, with minor modifications. Beck uses the term emmenagogue.

5.54.2	Wine made with aromatics is good for interrupted menstrual periods.
5.60	Wine flavoured with *Daucos* draws the menstrual periods.
5.61	Wine flavoured with sage is good for when menstruation has stopped.
Soranus ***Gynaecology***	**Prescription**
3.13–14	The best suppository is a piece of wool soaked in warm, sweet olive oil. One may also beat juice of fenugreek or linseed or mallow with oil into a thick mass and boil any of these with fresh goose or chicken fat, so that one can separate the fatty cream and spread it on a piece of wool. Also: yolk of egg triturated with these and perhaps reduced into one mass by means of refined honey. Also: a decoction of melilot in sweet wine. Or: the inner part of juicy dates similarly boiled with sweet wine, the skin having been removed because it is slightly astringent.
3.16	(If the above remedies do not work) one should also use irritating cataplasms like the one with bayberries or that with seeds, and suppositories producing the same effect. Particularly, for such suppositories one should use rue ground with honey, or the so called ‘thin leaved’ fleabane, or raisins without stones ground with natron or salt; furthermore, cumin, pepper, absinthium, hyssop, butter, old olive oil and similar things. These should be smeared into a suppository the size of a bean, dipped into sweet olive oil or oil of lilies to take the edge off the sting and placed before the orifice of the womb.

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