

From the Womb to the Page: Gynaecology and History in John of Lydia

Do útero para a página: ginecologia e história em John Lydus

RAF PRAET¹ (*University of Groningen — the Netherlands and Ghent University — Belgium*)

Abstract: This paper aims to contribute to the cultural history of late antique embryology and gynaecology, by focusing on the historian John Lydus (ca. AD 490 – ca. 565). In an overview of his numerous passages on gynaecology, we show that he had a coherent view on these sciences. We shall contextualise the interest of John of Lydia in a subject matter which is ostensibly far removed from his historical interests, by taking into consideration three factors: 1) the legal context of imperial policy, 2) the function of gynaecology in John's historical thinking, and 3) the personal concerns of the author.

Keywords: John Lydus; sixth-century historiography; number symbolism; Justinian's laws; study of origins; Julius Caesar.

This paper aims to contribute to the cultural history of embryology and gynaecology in late antiquity, a history which until now has largely remained uncharted². For this contribution we shall focus on an unlikely character: the teacher of Latin, civil servant and polymath John of Lydia (ca. AD 490 – ca. 565)³. We shall give an overview of the numerous passages which John of Lydia devoted in his works to gynaecology and embryology, showing that they form a coherent system of thought. Finally, we shall ascertain some elements which can be used to explain and contextualise the interest of John of Lydia in a subject matter which is ostensibly far removed from his historical and antiquarian interests.

Text received on 11/01/2021 and accepted on 01/03/2021.

¹ rafpraet@gmail.com. Jan-Willem Drijvers, Renaat Meesters, Peter Van Nuffelen and Ruben Verwaal have my gratitude for reading drafts of this paper and furnishing me with useful remarks and suggestions.

² Regrettably, the cultural history of late antique conceptualisations of the foetus in terms of physiology, symbolism and theology remains a desideratum. MISTRY (2014) 264. For a concise *status quaestionis* with bibliography, see PANIDIS (2013) 221, n.1.

³ For introductions to the life and works of John Lydus see MOMIGLIANO (1966) 187, CARNEY (1971) 3-19, BANDY (1983) ix-xxxviii, BANDY (2013) 1-29, MAAS (1992) 28-37, KELLY (2004) 11-17, SCHAMP (2006a) xiii-lxxvi, TREADGOLD (2007) 258-264, TURFA (2012) 8-11, BJRONLIE (2013) 113-117.

1. John of Lydia, an Unlikely Late Antique Source of Gynaecology and Embryology

John of Lydia, hereafter also called John Lydus, or Lydus, was born around 490 and left in 511 his hometown of Philadelphia in Lydia to test his luck at the city of Constantinople, where he secured a posting in the praetorian prefecture of the east. During his long career in this department, he rose to the prestigious high office of *cornicularius*. His learnedness attracted the attention of no less than emperor Justinian himself, who invited him around 532 (after 530, or after 542) to deliver an encomium and who commissioned a history of his Persian wars (527 – 532)⁴.

John's encomium impressed Justinian and resulted in a promotion in the field of academia⁵. Around 543, Lydus was appointed to a chair of Latin language and literature at the 'university' of Constantinople⁶. During his early teaching⁷, he composed two of his erudite treatises, *On the Months* (*De mensibus*) and *On Celestial Signs* (*De ostentis*)⁸.

⁴ *Magistr.* III.26. CHAP 248. VAN NUFFELEN - VAN HOOFF (2020) xxxi, 255.

⁵ *Magistr.* III.28-29. SCHAMP (2006b) 78-79.

⁶ In Constantinople, there existed an "institution of higher education," the precise nature of which remains unclear. KAZHDAN (1991) 2143. We therefore use the term university as a conventional term. *Magistr.* III.26.1-III.30.10. See CHASTAGNOL (1960) 65, n. 58, CAIMI (1984) 79-81, MAAS (1992) 35-36, KELLY (2004) 13, SCHAMP (2006a) xliii-xlvi, DOMENICI (2007) 9, BJORNLI (2013) 114. TREADGOLD (2007) 261 proposed the earlier date of around 533 for Lydus' professorship.

⁷ CARNEY (1971) 11, CAIMI (1984) 66-68, 286, MAAS (1992) 10, KALDELLIS (2003) 313, SCHAMP (2006a) xvi-xvii, DOMENICI (2007) 9, TREADGOLD (2007) 261. Internal evidence points to the *De mensibus* being composed before the *De ostentis*, CARNEY (1971) 65, CAIMI (1984) 66-68, SCHAMP (2006a) lxxx-lxxxiii, although Lydus might have worked on them simultaneously, CAIMI (1984) 66-68.

⁸ The oeuvre of John Lydus has endured the most problematic textual transmission. Especially the textual transmission of Lydus' *De mensibus*, SCHAMP (2006a) lxxxiv-xcix, ZINGG (2019) 558, and, to a lesser extent, *De ostentis*, SCHAMP (2006a) xcix-cxv, is notoriously difficult. In anticipation of the new edition of the *De mensibus*, which is being prepared by E. ZINGG, I revert to the edition of WUENSCH, published in 1898, which remains, if flawed, the best option currently available, SCHAMP (2006a) xciii. E. Zingg was very kind in providing me with remarks on the textual transmission of *De mensibus* and the passages which I discuss in this paper. I am very indebted to his contribution. For the

De mensibus expounds in four books on Roman chronology⁹. The first Book gives, among a flourish of “antiquarian”¹⁰ and mythological information, a history of the genesis of the Roman calendar, with a focus on Rome’s mythological kings Romulus and Numa Pompilius. The second Book, with the title *Περὶ ἡμέρας*, or, *On the Day*, starts with a definition of the day before giving an overview of the different days of the week. Under this guise, the Book becomes, in fact, a numerological compendium, treating in detail the symbolic, philosophical and historical meanings of the different numbers of the days. As such, John of Lydia does not only give an extensive treatment of the numbers of the days in a week (1-7). Also the numbers 8, 9, and 10 are given lavish attention¹¹. *Περὶ μηνός*, or, *On the Month*, is the title of the third Book, which digresses on the month and the different cycles of time within the year. The fourth Book takes up the majority of the work, with an outlay of the Roman calendar and its religious feasts. Also this last Book is interspersed with diffuse antiquarian, mythological and historical digressions.

De ostentis is a compilation on various portents, in which Lydus elaborately defends the validity of omens for the prediction of the future¹². After his retirement from the prefecture in 551-552¹³, Lydus embarked on an

Greek text of *De ostentis*, I use the second edition of WACHSMUTH (1897). See SCHAMP (2006a) ci. All translations are, unless indicated in the footnotes, my own.

⁹ CHAP 251. VAN NUFFELEN - VAN HOOF (2020) 256-257. On *De Mensibus* see CAIMI (1984) 68-71, SCHAMP (2006a) lxxxiv-xcix.

¹⁰ The concept of antiquarianism within late antique historiography is problematic at best, VAN NUFFELEN - VAN HOOF (2020) xviii, xxiv, xxxix-xli. However, in accordance with previous research on John of Lydia, we shall designate the writings of John of Lydia, and especially his *De mensibus*, as a form of antiquarian writing. On the relation of *De mensibus* to the antiquarian tradition, see MAAS (1992) 53-66.

¹¹ The numbers 8-10 are treated in sections which Wünsch placed, in his edition, either in the first or in the fourth Book. I am, however, inclined to follow the ordering of Bandy (2013), who placed these sections in the second Book of *De mensibus*. On number 8, see *Mens.* IV.162, Bandy II.27, on number 9, see *Mens.* IV.122, Bandy II.28, and, on number 10, see *Mens.* I.15, III.4, Bandy II.20-21.

¹² CHAP 250. VAN NUFFELEN - VAN HOOF (2020) 256. On *De ostentis* see CAIMI (1984) 71-79, MAAS (1992) 107, SCHAMP (2006a) xcix-cxv.

¹³ On Lydus’ retirement see CARNEY (1971) 11, CAIMI (1984) 81-83, SCHAMP (2006a) xlv-xlix. The treatise was written after his retirement, CAIMI (1984) 81-83, and internal evidence points to the *De magistratibus* having been written after the *De ostentis* SCHAMP

ambitious enterprise with the composition of his last treatise, *De magistratibus*, or, *On the Magistracies of the Roman State*, in which he described the different military and civil institutions of the Romans, from their mythological origins up to the present¹⁴. He probably also continued his teaching after his retirement from his office in the prefecture, and died between 557 and 561¹⁵.

In his works, John of Lydia exhibits a keen interest in the history and origins of Rome and different aspects of Greco-Roman civilisation. From a modern point of view, these interests are far away from the science of medicine in general, and gynaecology or embryology specifically. Contrary to all expectations, however, John of Lydia has a lively interest in gynaecology and embryology in his antiquarian works.

2. A Coherent Outlook on Gynaecology and Embryology

Throughout his works, and predominantly in his *De mensibus*, we find a wide array of passages on gynaecology and embryology, which are noteworthy for their detail and technicality. Indeed, Lydus appears to have devoted in his treatises more time and space to the science of gynaecology than to any other aspect of the medicinal sciences¹⁶. In these passages furthermore, he exhibits an impressive knowledge of a wide array of written sources. An overview of these passages with their sources can be found in the appendix to this paper. These passages are characterised by a proclivity for number symbolism and a very practical concern for the wellbeing of newborn infants.

(2006a) lxxxiii. CARNEY (1971) 1, dated the *De magistratibus* to the 550's, with Books I and II written before, and Book III after Lydus' retirement, CARNEY (1971) 11. SCHAMP (2006a) xxxi, placed the composition of the *De magistratibus* after 545. In an elaborate analysis, which also treated the hypothesis of Lydus writing under Justin II, Caimi concluded that the *De magistratibus* was concluded not long after 552, probably in December 554, CAIMI (1984) 111-124.

¹⁴ CHAP 252. VAN NUFFELEN - VAN HOOFF (2020) 257-258. We use the edition of M. Debuissou and J. Schamp (2006). On *De magistratibus* see SCHAMP (2006a) cxix-cxxxiii.

¹⁵ MAAS (1992) 11, SCHAMP (2006a) xlvi.

¹⁶ Apart from gynaecology, Lydus only mentions from time to time in Book Four of *De mensibus* the dietary prescriptions which were followed by the Romans during a specific period of time.

Number symbolism¹⁷ structured Lydus' view on both the ideal time for a child to be born and the process of the generation and growth of a foetus in the womb. As mentioned above, the second Book of *De mensibus* is an overview of the week which is supplied with a conspicuous amount of musings on the number symbolism of the seven days of the week. In a section devoted to the seventh day of the week and the perfection of the number seven (*Mens.* II.7). Lydus claims that the seventh month is the best month to be born:

*Thence also infants born in seven months are naturally disposed to be born perfectly formed, as Hippocrates says. For the power of this number for the generation of the soul renders those born in seven months perfect, as they are embraced by a perfect and cosmic number of a perfectly spherical cycle, a number which grasps and generates the soul. Also in the Timaeus, in fact, the soul is composed of seven numbers.*¹⁸

Alternatively, the number eight, on account of its imperfection and indefiniteness, renders the eighth month of the pregnancy an inauspicious moment for birth (*Mens.* IV.162):

*The number eight is female, indefinite and imperfect. Hence also Nicomachus calls the eighth month a month of ill-timed birth, as the period of eight months does not stand in any relation to the harmonic principles. Therefore, eight-month foetuses are not born fully developed. Standing between the numbers which bear developed infants, the number eight itself is imperfect. Sharing in every material force, the number takes on powers associated with matter.*¹⁹

¹⁷ Late antique embryologies were no medical embryologies but numerical and allegorical readings of foetal development, MISTRY (2014) 15. On embryology with numerical symbolism in the *Laterculus Malalianus* (7th century), see MISTRY (2014) 148-151. On the same in Isidore of Seville (ca. 560 – 636) and Rabanus Maurus (ca. 780 – 856), see MISTRY (2014) 293. On numerology in John Lydus, see MAAS (1992) 58-60.

¹⁸ ἔνθεν καὶ τὰ ἐπτάμηνα βρέφη τελειογονεῖσθαι πέφυκεν, ὡς Ἱπποκράτης λέγει· ἡ γὰρ τοῦ ἀριθμοῦ ψυχογονικὴ δύναμις τὰ ἐπτάμηνα τέλεια ἀποφαίνει, διότι τελείας περιόδου σφαιρικῆς ἀριθμῶ τελείῳ καὶ κοσμικῶ, τῷ ψυχοκρατητικῶ καὶ ψυχογονικῶ περιέχεται· καὶ γὰρ τὴν ψυχὴν ὁ Τίμαιος ἐξ ἐπτὰ ἀριθμῶν συνέστησε. *Mens.* II.12, WUENSCH (1898) 35.

¹⁹ Ὅτι ὁ τῆς ὀγδοάδος ἀριθμὸς θήλυς καὶ ἄπειρος καὶ ἀτελής· ὅθεν καὶ παρὰ τῷ Νικομάχῳ ἡλιτόμηρος καλεῖται· ὁ γὰρ ὀκτάμηρος χρόνος πρὸς οὐδένα τῶν ἀρμονικῶν ἔχων φαίνεται λόγον. Ὅθεν οὐ τελεσφορεῖται τὰ ὀκταμηναῖα· μέσος γὰρ ὢν τῶν τελεσφόρων ἀριθμῶν αὐτὸς ἀτελής εὐρίσκεται. πάσης γὰρ ὑλικῆς δυνάμεως μετέχων τὰς περὶ τὴν ὕλην εἴληφε δυνάμεις. *Mens.* IV.162, WUENSCH (1898) 177. The viability of the foetus in the seventh month and the unfavourable quality of the eight month was

As well as the ideal time of birth, the process of the foetus' development in the womb is conditioned by number symbolism. In *Mens.* IV.89 we have a description of the festival of Hera which was held during the Kalends of June. During the festival, the Romans drank cold water against different diseases, such as gout, and against the occurrence of twin births or monstrous births. This section continues by giving the reason for the introduction of such custom:

Such a custom was introduced during the reign of Hadrian because an Egyptian woman had been introduced to him who related that she had given birth to four infants at an irregular interval in four days, and that, after forty days, she had given birth to her fifth infant. This fact is in accordance with Aristotle, who says that in four child-births twenty had been conceived. Heraclides says that this occurs when ejaculation twice or thrice after continence aims well down into the opening or also when the womb has been opened up after previous coagulation in such a way that the delivery would become multiple.²⁰

In the anecdote of the prolific woman under Hadrian mentioned above, the woman gives birth to four children in four days and to a fifth infant after forty days.

The same number forty returns in an elaborate symbolic description of the process of generation in the fourth Book, where three numbers, namely

widely accepted in the Greco-Roman world, in Hippocratic writings, Aristotle, Soranus and in Jewish literature, CILLIERS (2004) 362-363. Also Vindicianus mentions the seventh, ninth and tenth month and avoids the ominous eighth month in his treatise, CILLIERS (2004) 362. The numerological symbolism behind the important number seven guided many of the medicinal writers in their assessments, CILLIERS (2004) 362-363.

²⁰ ἡ δὲ τοιαύτη συνήθεια ἐπὶ Ἀδριανοῦ εἰσενήνεκται, πεμφθείσης γυναικὸς ὡς αὐτὸν Αἰγυπτίας, ἡ ἀφηγεῖτο τέσσαρσιν ἡμέραις κατὰ διάστημα ἄνισον τέσσαρα τεκεῖν, μετὰ δὲ τεσσαράκοντα ἡμέρας τὸ πέμπτον, κατὰ τὸν Ἀριστοτέλην, ὃς φησιν ἐν τέσσαρσι τοκετοῖς εἴκοσι κηθῆναι· τοῦτο δὲ φησιν ὁ Ἡρακλείδης συμβαίνειν, ὅταν ἐξακοντισμὸς δις ἢ τρίς ἀπὸ ἐγκρατείας κατ' ἀναστομώσεως εὐστοχήσῃ ἢ καὶ τῆς μήτρας ἐπα-νοιχθείσης μετὰ τὴν προτέραν πῆξιν κατὰ τοσοῦτον καθ' ὅσον ὁ τοκετὸς ἀριθμοῖτο. *Mens.* IV.89, WUENSCH (1898) 137. A similar account can be found in Aulus Gellius, *Noctes Atticae*, X.2, which relates of Aristotle's testimony of one birth of five children in Egypt, and a similar birth of five under the reign of Augustus. In reverse, one of the causes of infertility as the inability of the male to project semen well into the uterus is listed by Hippocrates (*Aphorismi* V.63) and Diocles of Carystus, HANSON (2004) 299-302.

three, nine and forty, are essential (*Mens.* IV.26)²¹. First, the generation of the foetus in forty days is described; in three days blood and heart are formed, in nine days the flesh, and in forty days the whole of the human being²². Second, the numbers of the months are described; in the third month the baby moves in the womb²³, girls are born in the ninth, and boys in the tenth month²⁴. Lydus next elaborates on how a foetus develops its sex: warm sperm results in a swift formation of a male foetus, whereas colder semen engenders a more slowly formed female foetus²⁵. This elaboration prompts Lydus to make a personal assertion of his written sources:

²¹ On this passage, see NARDI (1971) 622. This numerically conditioned process of foetal development is also repeated *in nuce* in *Mens.* III.9, where Lydus describes the generation process of birds in their eggs.

²² On the development of the fruit in Greek medical writers see CILLIERS (2004) 353-360, STOL (2009) 142. The development of the foetus in 40 days was espoused by many ancient theorists, among them Aristotle and Vindicianus, CILLIERS (2004) 353-355, STOL (2009) 145-146. Aristotle, and most possibly Vindicianus, state also that the heart is the first organ to be formed, CILLIERS (2004) 357. Later on, also Isidore of Seville and Rabanus Maurus expound on this symbolic development of the foetus; the heart is formed first and the whole of the body develops in 40 days, MISTRY (2014) 293.

²³ Vindicianus also stated that the foetus starts to move in the third month, CILLIERS (2004) 357.

²⁴ Aristotle discerned sharply between a pregnancy of a male and a pregnancy of a female baby, STOL (2009) 145-146. The idea of a ten-month pregnancy originated in classical and ancient Near Eastern sources, CILLIERS (2004) 361, STOL (2009) 148-149. Also Vindicianus stated that a female foetus is born in the ninth month, and a male foetus in the tenth, CILLIERS (2004) 359, 361.

²⁵ The theory that the temperature of the uterus, which was in turn determined by the phase in the menstrual cycle, determines the sex of the child is common in Greco-Roman medicine, CILLIERS (2004) 351. Aristotle stated, more closely to Lydus, that females are engendered through a lack of vital heat, CILLIERS (2004) 352. Galen connected this theory of heat determining the sex of the foetus to its position in the uterus. Males were generated in the right side of the uterus, which was better blooded and therefore warmer, CILLIERS (2004) 352. Lydus' warmth based theory deviates from the two-seed theory, articulated in the Bible and several Greco-Roman authors. The two-seed theory, which stated that also females produced seed, and that the dominant seed in the mixture of female seed and male semen decided the gender of the foetus, was espoused by several Pre-Socratics, Hippocrates and the Jewish and Babylonian traditions. Aristotle and, most possibly, Vindicianus espoused the one-seed theory, which Lydus here also implicitly follows, CILLIERS (2004) 347-350, 351, STOL (2009) 138-141.

*The statement is true. Male fetuses prolapse formed, even if they miscarry within forty days. But female fetuses prolapse both fleshy and unformed, even if they miscarry after the period of forty days.*²⁶

After this personal gloss, Lydus returns to his symbolic account, with a description of the first days of the infant: in three days the child loses its swaddling clothes, in nine days it gains strength and in forty days it can smile and recognise its mother.

The account closes with a description of the process of human disintegration, which follows a reverse pattern; in three days a corpse loses its character traits, in nine days the body decays and the heart — the first organ to be formed — endures until the fortieth day. Also further on in the treatise, John Lydus connects the origins of human life to its ending in a comparison between the dead who do not require libations and fetuses who do not require external food in the womb (*Mens.* IV.31):

*Just as an infant does not need any other nourishment when it is in the womb, but is nourished by pure blood, likewise they did not pour libations for the dead, as we were saying, after one year, because they were concealed by nature, just as in a womb.*²⁷

Lydus' numerological musings on the ideal timing for a human being to be born and on the development of the foetus are coupled to a real and practical concern for the wellbeing of a newborn child. Throughout the *De mensibus*, indeed, — next to information on newborn children²⁸ — Lydus provides us both with tips for the fostering of a newborn infant and passages

²⁶ ὅτι δὲ ἀληθὴς ὁ λόγος, τὰ μὲν ἄρρενα καὶ τῶν τεσσαράκοντα ἡμερῶν ἐντὸς ἐκτιτρωσκόμενα μεμορφωμένα προπίπτει, τὰ δὲ θήλεα καὶ μετὰ τὰς τεσσαράκοντα ἡμέρας σαρκώδη τε καὶ ἀδιατύπωτα. *Mens.* IV.26, WUENSCH (1898) 85. Significantly, Lydus does not mention any sources for this theory, whereas many authorities in Greco-Roman medicine, such as Hippocrates, Aristotle and Galen all state that the female foetus develops slower because of lack of warmth, CILLIERS (2004) 354.

²⁷ Καθάπερ ἐν τῇ μήτρᾳ τυγχάνον τὸ βρέφος οὐ δεῖται ἐτέρας τροφῆς, ἀλλ' ἐξ αἵματος εἰλικρινοῦς τρέφεται, οὕτως οὐδὲ τοῖς τελευτήσασιν κατὰ τὸ πρότερον, ὥς ἐλέγομεν, ἐνιαυτὸν ἐπεχάζον, ὥσπερ ἐν μήτρᾳ παρὰ τῇ φύσει λανθάνουσιν. *Mens.* IV.31, WUENSCH (1898) 90. Another connection between the earliest origins and the end of human life can be found in *Mens.* IV.40, where Lydus stated the Stoic doctrine of rebirth after a conflagration. The Stoics left their teeth on the funeral pyre in anticipation of their rebirth, considering that a foetus equally has no teeth in the womb.

²⁸ In *Mens.* IV.80 we read how an infant walks before it talks.

which reveal a concern for women during the various stages of pregnancy. In *Mens.* IV.65 we read that myrtle strengthens the body of the newly born child. In *Mens.* IV.84 Lydus refers to the opinions of Plato and Empedocles on the causes of monstrous births. As already mentioned, *Mens.* IV.89 gives us a description of the precautions taken during the festival of Hera against such births. In *Mens.* IV.148, we find information on the protective goddesses in childbirth:

*Ilithyia is the protector of women who give birth, as Plutarch says, and it is said that in pain, Artemis, too, acts in the same way for those who give birth. According to the numerological explanation, Artemis is the one who gives birth to the generation which reaches the even number and which hastens to arrive at that point.*²⁹

The fate of pregnant women also receives extensive treatment in the works of Lydus. He treats every aspect of the pregnancy of a woman. In *Mens.* IV.106 we find the advice to women to abstain from sexual activity in the month of July, in order to preserve their health. In *Mens.* IV.66 we yet again find a very technical passage on the causes of female (in)fertility:

*The natural philosophers say that women with the opening of their uterus in a straight line are prolific, but that those having it in a crooked line are barren.*³⁰

Lydus' concern for women in labour is not limited to the *De mensibus*. When Lydus reports on the remarkable effect of the thunderbolt *Lampros* in *De ostentis*³¹, his concern for the wellbeing of the pregnant woman is apparent:

As regards this matter, one can marvel at nature and its phenomena. For not all thunderbolts, although they are all created from air and from a collision of clouds, act in

²⁹ Είλειθνια [δέ ἐστὶν ἡ τ]ῶν τικτουςῶν ἔφορος .]πω[. . . .]ν, ὡς φησιν Πλούτ[αρχος . . .]οίως ἐαυτήν δ[. . . .]σειεν [τοιαύτην δὲ ἐν τῷ πάθει καὶ τ]ὴν Ἀρτεμιν ταῖς κυ[ού]σαις εἶναι φασιν. Ἀρτεμὶς δὲ κατ[ὰ τὸ]ν ἀριθμητικὸν λόγον ἐστὶν ἡ τὴν εἰς τὸ ἄρτιον ἰούσαν γένεσ[ιν] καὶ εἰς τοῦτο προβ[ι]ῆναι σπεύδουσιν ἐκβαλλομένη. *Mens.* IV.148, ZINGG (2021) 62..

³⁰ Ὅτι οἱ φυσικοὶ φασὶ τὰς θηλείας τὰς κατ' ἐνθὺ τὴν ἀναστόμωσιν τῶν ἀγγείων ἐχούσας τοκάδας εἶναι, τὰς δὲ ἐκ πλαγίου στείρας. *Mens.* IV.66, WUENSCH (1898) 120.

³¹ Although *De ostentis* is for the most part composed of translated treatises, the passage at hand is part of Lydus' own commentary. Other passages on pregnancy and childbirth in *De ostentis* are part of the *Brontosopic Calendar* of Nigidius Figulus (ca. 98 – 45 BC), which was translated by Lydus and included in his treatise: *Ost.* 27 second of June, *Ost.* 35 eleventh and fourteenth of February, TURFA (2012) 119.

the same way. The one which among thunderbolts takes the name Arges, and which the ancients in particular call Lampros, often fell upon a jar or simply a vessel either of wine or of water. It left the container undamaged but it made its content to vanish. Not in the least, this happened when it had fallen on gold or silver coffers and when, in like manner, it melted their contents but preserved the containers intact. And, most remarkably, the great Apuleius says that this occurred also to a pregnant woman, and not an unknown woman, but the famed Marcia, who had lived in wedlock with Cato the Younger. For the aforementioned thunderbolt Arges or Lampros fell upon her, and preserved her completely unharmed, but dissipated the fetus in her so imperceptibly that she was not even conscious of what became of it in her, even if it was on the verge of being delivered. Such exceptional activity, indeed, has been allotted to the nature of the Arges.³²

The emphatic wording in this passage is revealing. Lydus' emphasis on the marvel and exceptionality of this natural phenomenon is, indeed, exceptional for the otherwise detached Lydus. For example, he used in this passage twice words with the stem *θαυμα-*, 'wonder,' namely *θαυμάσαι* and the superlative *θαυμασιώτατον*, whereas words with this stem only appear six times throughout the whole of the *De ostentis*, otherwise a work on natural 'wonders'. More significantly, the phrase *κατ'ἐξαιρετόν*, 'specially,' which Lydus used to describe the exceptional activity of the *Lampros*, only appears four times in the whole of Lydus' oeuvre³³. Lydus emphatically marvels at the survival and the lack of pain of the woman in this case, yet his comparing

³² Ἔστι δὲ θαυμάσαι καὶ τούτῳ τὴν φύσιν καὶ τὸ ἄβατον τῶν ἐν αὐτῇ θεωρημάτων. οὐδὲ γὰρ πάντες (καίτοι πάντες ἐξ ἀέρος καὶ συστροφῆς νεφῶν φερόμενοι) τὰ αὐτὰ ἀλλήλοις δρῶσιν. ὁ γὰρ ἐν αὐτοῖς λεγόμενος ἀργῆς, ὃν καὶ λαμπρὸν ἐξαιρετόως καλοῦσιν οἱ ἀρχαῖοι, πολλάκις ἐμπεσὼν ἐπὶ πίθον ἢ ἄγγος ἀπλῶς ἢ οἶνον ἢ ὕδατος, τὸ μὲν περιέχον ἀπήμαντον τὸ δὲ ἐμπεριεχόμενον ἄφαντον ἐποίησεν. οὐχ ἥκιστα δὲ καὶ ἐν σκεύεσι χρυσίον ἢ ἀργύριον φέρουσιν ἐμπεσὼν τῷ ἴσῳ τρόπῳ τὰ μὲν ἔνδον ἔτηξε, τὰ δὲ ἔξωθεν ἔσωσε. καὶ τὸ δὴ πάντων θαυμασιώτατον ἐπὶ γυναικὸς ἐγκύμονος συμβῆναί φησιν ὁ μέγας Ἀπουλήιος, καὶ γυναικὸς οὐκ ἡγνοημένης, Μαρκίας δὴ ἐκείνης τῆς Κάτωνι τῷ τελευταίῳ συνοικησάσης. ἐμπεσὼν γὰρ αὐτῇ κεραυνὸς ὁ λεγόμενος ἀργῆς ἦτοι λαμπρὸς αὐτὴν μὲν παντελῶς ἐφύλαξεν ἀβλαβῆ, τὸ δὲ ἐν αὐτῇ διεφόρησεν οὕτως ἀνεπαίσθητως, ὥς μηδὲ αὐτὴν συνιδεῖν ὅ τι ἐγένετο τὸ ἐν αὐτῇ, καίτοι πρὸς ἔξοδον ἔχον. τοιαύτην μὲν κατ' ἐξαιρετόν ἐνέργειαν ἢ τοῦ ἀργήτος εἴληχε φύσις. *Ost.* 44, WACHSMUTH (1897) 97-98.

³³ *Θαυμ-* *Ost.* 3, 7, 9, 16a and 44 (twice). *κατ' ἐξαιρετόν* *Ost.* 44, *Mens.* IV.19, IV.37, and IV.47.

the unborn child to gold or silver in a coffer reveals at the same time a sensitivity towards the child, such as he exhibited throughout *De mensibus*³⁴.

3. A Historian's Interest in Gynaecology and Embryology

In the previous section we have given an overview of the manifold passages which John of Lydia devoted to the science of gynaecology and embryology, most predominantly in his work *De mensibus*. These passages show a coherent outlook of John Lydus on gynaecology, with a focus on numerical explanations of the processes of generation of the foetus and the birth of the infant on the one hand, and an interest in the wellbeing of mother and child on the other hand.

In the following section we shall try to give some reasons as to the interest of John of Lydia in gynaecology, a science which, at first sight, seems unrelated to John's main historical interests. For the purpose of this analysis, three possible factors shall be taken into consideration: 1) the legal context of sixth-century imperial policy, 2) the function of gynaecology in John's historical thinking, and 3) the personal concerns of the author. The main attention shall be given to the second factor, the analysis of the function of gynaecology and embryology in John's idiosyncratic thinking on the historical explanation of human action.

3.1. The Legal Context: Lydus, Justinian, and the Care for Women and Children

A first factor for explaining John of Lydia's interest in embryology and gynaecology can be found in the bureaucratic and legal context in which he functioned. In sixth-century Constantinople, a dense network of intellectuals with a position in one of the departments of the Roman administration

³⁴ It has to be said that both the comparison with precious metals and the stress on the wonder of the phenomenon are already present in Pliny, *Nat. Hist.* II.137, of which the passage in Lydus seems to be a translation. However, Lydus seems to value the unborn child slightly more than Pliny, as the former speaks only of gold and silver, whereas the latter speaks of gold, silver and bronze: *aurum et aes et argentum liquatur intus, sacculis ipsis nullo modo ambustis ac ne confuso quidem signo cerae*, RACKHAM (1944) 274.

interacted with this government throughout their literary output, which gave them the opportunity for straightforward praises or covert criticisms³⁵.

In this context, we can remark a parallel between John Lydus' concerns for pregnant women and newborn children on the one hand, and an increased awareness in imperial circles of the legal position of these groups on the other hand. Indeed, throughout his all-encompassing project of legal reform, emperor Justinian systematically improved on the position of women and children. We can see this tendency both in Justinian's monumental codification of Roman law, the *Codex Iustinianus*, (first edition published on 07/04/529, second edition published on 16/11/534) as in his handbook on Roman law, the *Institutiones* (compiled between 530 and 533)³⁶. More significantly, Justinian issued numerous new laws (*Novellae*, published between 535 and 539), which sought to ameliorate the position of women and children³⁷. Perhaps

³⁵ Profound research has been conducted on the theme of the commonality of erudite and political networks and related subjects in sixth-century Constantinople. For a useful *status quaestionis* with bibliography, see VAN HOOFF - VAN NUFFELEN (2017) 16. Different scholars have already made a considerable case for the existence of this common intellectual culture on the level of political thought and historiographical culture, CARNEY (1971) 47, 77, 100, BJORNLI (2013) 82-123, more specifically 82-85, GREATREX (2016). For the existence of "pagan networks" in the sixth century, see KALDELLIS (2003; 2005; 2013). On the affinities between Lydus and Procopius, see KALDELLIS (2003; 2004; 2005), between Lydus and Simplicius, see KALDELLIS (2004, 2005), and between Lydus and Zosimus, see KALDELLIS (2003). For the common tradition of literary and intellectual expertise in bureaucracy, see MAAS (1992) 29. The works of J. CAIMI (1984), T.F. CARNEY (1971) and C. KELLY (2004) have proved groundbreaking for the study of the sixth-century bureaucratic culture, with special attention to the oeuvre of John Lydus and Cassiodorus. For an assessment of the former, the study of MAAS (1992) is invaluable. For an overview of patterns of patronage in the literary culture of sixth-century Constantinople, see RAPP (2005).

³⁶ *There is a strong trend in Justinian's legislation (in the Codex as well as in the Institutes and the Novellae, especially) to improve the woman's and especially the mother's position taking into consideration her natural love, the "female weakness," her labour in child-birth, and the danger often of death.* TSIRPANLIS (1995) 63.

³⁷ 36 of Justinian's 168 *Novellae* (approximately 21%) deal with women, children, and their protection in marriage and inheritances. See *Nov.* 1, 12, 14, 18, 19, 22, 39, 51, 61, 68, 74, 78, 84, 89, 91, 92, 94, 97, 98, 100, 107, 109, 115, 117, 118, 119, 127, 134, 139, 140, 143, 143, 150, 153, 154, 155, and 164.

we can interpret John's interest in gynaecology and embryology as a conscious or unconscious echo of similar imperial policy interests.

3.2. Gynaecology, Embryology and History: Caesar, a Born Ruler

The legal context can, however, only partially contextualise the interest of John of Lydia in gynaecology and embryology. Protecting pregnant women and their children was merely a minor aspect of Justinian's comprehensive programme of legal reform. In case John of Lydia would have liked to curry imperial favour by focusing on the emperor's policies, he would have chosen a more pronounced aspect of them. Furthermore, a comparison between imperial policy concerns and John's historical works clearly shows that he does not straightforwardly echo official policy. For instance, Justinian's interest in the doctrinal aspects of Christianity and his concern for maintaining the union of the Church are clearly not shared by John of Lydia, who barely touches upon the subjects of Christianity, Christian antiquarianism and Church history³⁸.

In order to explain John's interests in gynaecology and embryology more thoroughly therefore, we have to take a different approach, by looking at the function of these disciplines in their own right within the historical thinking of John of Lydia. At first glance, indeed, John's gynaecological interests seem at odds with his historiographic interests. On closer inspection, however, these interests are coherent with his historical thinking.

In his antiquarian writing, John explains or interprets a certain cultural or historical phenomenon by analysing its origins. The underlying reasoning behind these explanations is the naturalistic idea that the origins of a being or a phenomenon determine its further development and, eventually, its ending. By using this principle in his historical explanation of events, John harks back to an idea which was congenial to historical and antiquarian thinking in antiquity³⁹.

³⁸ On the disinterest of John of Lydia in Christianity, and on how this need not reflect his personal stance (as a pagan or a Christian), see MAAS (1992) 3-4.

³⁹ HONORÉ (1978) 246-247, RAWSON (1985) 233, STEVENSON (2004) 118-119, DRIJVERS *et alii* (2018) 6.

However, John of Lydia takes this reasoning one step further, by applying it to the genesis, development and ultimately the demise of human beings. This reasoning explains John's interest in gynaecology and embryology: in order to fully understand the significance of a historical character, one has also to take into account an analysis of its origins. We can see this reasoning at work in John's account of one of the mayor influential historical characters in Roman history, namely Julius Caesar.

Julius Caesar (100 – 44 BC) is a character of special significance throughout the entire oeuvre of John of Lydia. As one of the pivotal figures in the transformation of the Roman republic into a monarchical empire, he figures prominently in John's history of the Roman political institutions, the *De magistratibus*⁴⁰. Of special interest for John of Lydia, in this context, is Caesar's adoption of Octavian (63 BC – AD 14), who became the first Roman emperor⁴¹. This interest comes as no surprise, since Octavian created the praetorian prefecture, the department of state for which John of Lydia worked, and which receives ample attention in his *De magistratibus*.

The presence of Julius Caesar is, however, not limited to John's account of the history of the Roman state. Also in *De mensibus* Caesar figures prominently, this time on account of his reforms of the Roman calendar. Caesar reduced the amount of festivals in the Roman calendar, changing the lunar calendar previously used into a solar calendar. Moreover, the month of *Quin-*

⁴⁰ In *Magistr.* I.38, Caesar is the sole ruler in the war with Pompey. In *Magistr.* I.45, we read that the consuls are responsible for wars, and that the civil magistrates are responsible for other matters down to Caesar. In *Magistr.* I.51, Caesar abolished all magistracies and usurped their power. This passage also has an account of his assassination and succession by Augustus, which begins of the rule of the emperors or *Caesares*. *Magistr.* II.1 gives an overview of the different tyrannical rulers of Rome, from Marius and Sulla up to Caesar. Caesar is first in favour of Pompey, then in favour of Marius. Caesar's daughter Iulia, Pompey's wife, dies. Caesar and Pompey become heirs to the tyrants, resulting in a conflict between Caesar in the west and Pompey in the east. *Magistr.* II.2 has the anecdote on Caesar's symbolic refusal of the title of king, with his rejection of the crown when he was going from the Capitole Hill to the senate. This anecdote is followed by a digression in the titles and the attire of emperors in triumphal processions. In *Magistr.* II.3, Octavian is adopted by Caesar.

⁴¹ *Magistr.* I.51, *Magistr.* II.3, see also *Mens.* IV.111.

tilis was renamed in his honour, resulting in the name we still use today for the seventh month of the year, *Iulius*, or, July⁴².

As can be seen from the paragraphs above, Julius Caesar is a character of profound influence for many of the historical aspects of Roman culture which concern John of Lydia. It comes therefore not as a surprise that John of Lydia tries to give an explanation for the prodigy of this influential character. And in agreement with his explanation of phenomena through an analysis of their origins, John tries to find an explanation for the phenomenon of Julius Caesar in its origins, namely in the special circumstances of his foetal development and his birth.

As mentioned in the analysis above, John Lydus considered the seventh month a favourable time for birth. This part of his numerological analysis acquires specific historical meaning later on in the treatise. In *Mens.* IV.105, for example, where we read the following:

*Many of the historians state that Caesar had been born in seven months and that he changed for this reason the seventh month of the sacerdotal year into his own name. No one else was as brave as he was.*⁴³

Lydus partially explains the historical element of Caesar's prowess through his analysis of the ideal time for birth. Furthermore, John of Lydia uses in the same passage Caesar's time of birth to explain an important feature in his history of the Roman calendar, namely the change in name of the seventh month of the year, *Quintilis*, into *Iulius*. This explanation can be found in full at the beginning of John's analysis of the calendar of the month of July, where he digresses on the different names of the month, introducing the reforms of Julius Caesar (*Mens.* IV.102):

One would consider the month of July to be the fifth month of the civil year, but the seventh month of the sacerdotal year. It is the fifth month counting from the month of March, which was placed at the beginning of the civil year by Romulus. Hence it was previously named Quintilis. Counting from the month of January, however, it is

⁴² Reform of the calendar: *Mens.* III.5-6, reform of the lunar calendar into a solar calendar: *Mens.* III.10, reduction of festivals: *Mens.* IV.102. Change of the month *Quintilis* into *Iulius*: *Mens.* IV.103, IV.105, *Ost.* 45.

⁴³ Ὅτι οἱ πολλοὶ τῶν ἱστορικῶν φασὶ τὸν Καίσαρα ἐπτάμηνον τεχθῆναι, καὶ διὰ τοῦτο τὸν ἑβδομον μῆνα τοῦ ἱερατικοῦ ἐνιαυτοῦ εἰς τὴν οἰκείαν μεταβαλεῖν προσηγορίαν. οὐδεὶς δὲ ἄλλος ἠνδραγάθισεν ὥς οὗτος. *Mens.* IV.105, WUENSCH (1898) 143-144.

*the seventh month. According to Numa, this was a sacerdotal month. (...) When he (Julius Caesar) had encountered the month Quintilis, he changed its name, not only because of the perfection of the number but also because he himself had been born on the fourth day before the Ides of this month (12/07/100).*⁴⁴

For the purpose of connecting the seventh month of the year to Caesar's time of birth (both his birth in seven months as his birth in the seventh month of the year), Lydus idiosyncratically selected from his sources in order to fit his explanation. For, indeed, the majority of the historical sources on Julius Caesar do not mention his birth in the seventh month of the pregnancy at all⁴⁵. We can find a more commonly accepted account of the birth of Julius Caesar in, for instance, the *Chronicle* of John Malalas (ca. 490 – ca. 570), a contemporary of John of Lydia:

*He (Julius Caesar) was not born normally but, after his mother had died in the ninth month, they cut her open and delivered the baby. So he was called Caesar, for in the Roman language Caesar means "dissection".*⁴⁶

John Malalas presents the dominant historical tradition which traces the etymology of the cesarian section erroneously to the birth of Julius Caesar and the demise of his mother in the final stages of the pregnancy⁴⁷. Not only does this tradition mention another time of birth for Caesar. It also implicitly disproves the analysis of John of Lydia, as a cesarian section is only performed as a last resort effort to give birth to the baby in a final stage of the pre-

⁴⁴ Τὸν Ἰούλιον μῆνα πέμπτον μὲν ἂν τις ἀπὸ τοῦ πολιτικοῦ, ἑβδομον δὲ ἀπὸ ἱερατικοῦ λάβοι ἐνιαυτοῦ· ἀπὸ γὰρ τοῦ Μαρτίου — ἐκεῖνος δὲ ἦν ὁ παρὰ Ρωμύλου τεθεὶς εἰς ἀρχὴν τοῦ πολιτικοῦ ἐνιαυτοῦ — πέμπτος ἐστίν, ὅθεν καὶ Κυντίλιος τὸ πρὶν ὠνομάζετο· ἑβδομος δὲ ἀπὸ τοῦ Ἰανουαρίου· ἱερατικὸς δὲ οὗτος κατὰ τὸν Νουμᾶν. ὁ τοίνυν Καῖσαρ (...) εὐρών τὸν Κυντίλιον μῆνα τὴν προσηγορίαν μετέβαλεν, οὐ διὰ τὴν τοῦ ἀριθμοῦ μόνον τελειότητα, ἀλλὰ καὶ διὰ τὸ αὐτὸν ἐκεῖνον κατὰ τὴν πρὸ τεσσάρων Εἰδῶν τοῦ μηνὸς τούτου τεχθῆναι. *Mens.* IV.102, WUENSCH (1898) 141-142.

⁴⁵ Suetonius, *Vita divi Iuli* 76, and Appian, *Hist. Rom.* II.106 shortly mention that a month was named after Caesar in his honour. Cassius Dio, *Hist. Rom.* XLIV.4, specified that the month of his birth received his name in his honour.

⁴⁶ CHAP 421. VAN NUFFLEN - VAN HOOFF (2020) 244-246. ὁς οὐκ ἐγεννήθη, ἀλλὰ τῆς αὐτοῦ μητρὸς τελευτησάσης τῷ ἐνάτῳ μηνὶ ἀνέκειραν αὐτὴν καὶ ἐξέβαλαν αὐτὸν βρέφος· διὸ Καῖσαρ ἐλέγετο· καῖσαρ <γάρ> λέγεται ῥωμαῖστί ἡ ἀνατομή. *Chron.* IX.1, THURN (2000) 161, trans. JEFFREYS (1986) 113.

⁴⁷ VAN DONGEN (2009) 62-63, BARROSO (2013) 79-80.

gnancy. If Caesar was born too early, in the seventh month of the pregnancy, there would have been no reason to perform a cesarian section. It is therefore not surprising that John Lydus, also in *Mens.* IV.102, explicitly denounces the etymological connection between Caesar and the cesarian section⁴⁸, in order to maintain his theory of the early birth of Caesar in the seventh month of the pregnancy:

*He was named Caesar, but not, as the ancients say, from the fact that he had been taken by the dissection of the belly of his mother Aurelia, who was cut open when she was dying in pregnancy.*⁴⁹

The example of Julius Caesar shows how John of Lydia takes into account the origins of a human being in the womb, its further development, and its birth, in order to explain its historical significance. This technique explains the numerous appearances of elements from embryology and gynaecology throughout his historical works, and explains why these passages are neatly intertwined in his historical narrative. Gynaecology and embryology form an integral part of John's historical thinking on the origins, the development and, ultimately, the demise of both cultural phenomena as human beings. In applying this reasoning to both cultures and human beings alike, Lydus is thinking through, and innovating on an idea which was congenial to historical thinking in antiquity, namely that a phenomenon can be explained through its origins.

We might even hypothesise that John's views on the historical function of embryology and gynaecology can account for the rationale behind his treatise on portents, the *De ostentis*. As the genesis and birth of a human being can account for its historical significance later on in life, knowledge of these origins can be used as a means to *predict* the future of a human being. This makes John's work on embryology and gynaecology tie in nicely with his *De*

⁴⁸ Significantly, in similar discussions, John of Lydia presents different explanations and etymologies, refraining from indicating which hypothesis carries his favour. This neutral way of presenting different hypotheses is one of the characteristics of antiquarian writing in antiquity, STEVENSON (2004) 139-141.

⁴⁹ Καῖσαρ δὲ ὠνομάσθη, οὐ καθὼς φασιν οἱ παλαιοί, ἐκ τῆς ἀνατομῆς τῆς γαστρὸς Αὐρηλίας τῆς μητρὸς αὐτοῦ, ἧς δῆθεν ἀποβιούσης ἐγκύμονος αὐτὸν ἀνατμηθείσης ἐκείνης λεφθῆναι· *Mens.* IV.102, WUENSCH (1898) 142.

ostentis, which formed, next to a compendium of ways to predict the future, also an elaborate defence of the validity of omens. Past, present and future, origins, development and decline, are, through embryology and gynaecology, equally present in John's integral view on history.

3.3 Epilogue: A Personal Concern?

Apart from the legal context of imperial legislation, and apart from the function of embryology and gynaecology within John's historical thinking, we can perhaps also discern a shimmering of a personal concern for newborns and their mothers which influenced John's interest in embryology. Such a personal concern can be glanced from a rather emotional gloss which is tucked away in his otherwise detached historical narrative (*Mens.* IV.89):

The month of June is unsuitable for marriages, as is indicated in the books of the Roman priests. Their statement is true and it is inevitable to lose a marriage made at this point of time at a rather young age. Also I experienced this outcome, with the rapid loss of my wife, who was most dear to me. For three days women were not permitted either to cut their hair or to pare their nails.⁵⁰

Lydus' emphasis on the fate of both women and children during pregnancy, coupled to his emotional declaration about his wife, could seem to suggest that there is also a personal concern guiding John Lydus in his antiquarian research. Was he a young father? Did his wife die in childbirth? Did his child(ren) die? For a want of conclusive biographical evidence, however, any statements on the life of Lydus explaining these emphases must of necessity remain in the field of speculation.

4. Conclusion

In this paper, we have presented an unlikely source of late antique gynaecology and embryology, the sixth-century historian and intellectual John

⁵⁰ ὅτι ὁ Ἰούνιος μὴν ἀνεπιτήδειος πρὸς γάμους, ὡς τὰ βιβλία τῶν παρὰ Ῥωμαίους ἱερέων λέγει· ἀληθὲς δὲ ὁ λόγος καὶ ἀνάγκη πᾶσα, κατὰ τὸδε καιροῦ γινόμενον συνοικέσιον τὸν νεώτερον ἀποβαλεῖν, καὶ ταύτης ἐγὼ τῆς ἐκβάσεως ἐμπειρὸς εἰμι, τὴν ἐμοὶ φιλτάτην γυναῖκα ὡς τάχος ἀποβαλὼν. ἐπὶ δὲ τρεῖς ἡμέρας οὐκ ἐξῆν γυναιξὶν ἢ καρῆναι ἢ ὀνυχίσασθαι. *Mens.* IV.89, WUENSCH (1898) 137. On this passage see CAIMI (1984) 14, SCHAMP (2006a) xxix. DOMENICI (2007) 11, sees in this passage an affirmation of Lydus' superstitious belief in the veracity of the pagan omens and predictions he described.

Lydus. Lydus' idiosyncratic approach to these disciplines could be explained partially through the legal context of his age and, perhaps, through the existence of a personal concern, the causes of which are inevitably shrouded in mystery due to a lack of biographical data.

However, we found a more rounded explanation of Lydus' use of these disciplines in the function he attached to them within his original approach to history. In Lydus' historical thinking, gynaecology and embryology are valid tools for the study of the past, as the study of the origins of phenomena serves to explain their development and, ultimately, their demise. This naturalistic reasoning was an idea congenial to historical thinking in antiquity. But John Lydus innovated on this idea by applying it equally to the analysis of significant historical characters, such as Julius Caesar. From the womb to the page, Lydus' innovative take on historiography allowed for a place for gynaecology and embryology within the toolbox of the historian.

5. Appendix: Table of passages with sources

Passage	Sources Mentioned	Parallels
<i>Mens.</i> II.12	Hippocrates, <i>Περὶ Ἑπταμήνων</i> , Kühn, <i>Medicorum Graecorum Opera</i> , I.444 = <i>Doxographi Graeci</i> 428a16b Plato, <i>Timaeus</i> 36D	
<i>Mens.</i> IV.26	"Those of the Romans who write treatises on natural history"	<ul style="list-style-type: none"> - Possible sources: Aristotle, Diocles of Carystus, Empedocles (Nardi 1971: 622). - Development of the foetus in 40 days; many ancient theorists, Aristotle, Vindicianus (Cilliers 2004: 353-355), (Stol 2009: 145-146). - The heart is the first organ to be formed: Aristotle, most possibly Vindicianus (Cilliers 2004: 357). - Distinction between a pregnancy of a male and a pregnancy of a female baby: Aristotle (Stol 2009: 145-146). - Ten-month pregnancy: classical and ancient Near Eastern sources (Cilliers 2004: 361), (Stol 2009: 148-149).

		<ul style="list-style-type: none"> - The sex of the child determined by the temperature of the uterus: Greco-Roman medicine (Cilliers 2004: 351). - The sex of the child determined by the temperature of the uterus and the position in the uterus: Galen (Cilliers 2004: 352). - Generation of females through a lack of vital heat: Aristotle (Cilliers 2004: 352). - Slower development of the female foetus due to lack of warmth: Hippocrates, Aristotle, Galen (Cilliers 2004: 354).
Mens. IV.31		
Mens. IV.40	Stoics <i>Doxographi Graeci</i> 486a8 sqq.	
Mens. IV.65		
Mens. IV.66	"The natural philosophers"	
Mens. IV.80	Numenius	
Mens. IV.84	Plato (Strato) <i>Doxographi Graeci</i> 421a1 Empedocles <i>Doxographi Graeci</i> 420a20	
Mens. IV.89	Aristotle, <i>Historia Animalium</i> VII.4 Heraclides	<ul style="list-style-type: none"> - Wondrous birth of five: Aulus Gellius, <i>Noctes Atticae</i>, X.2. - Inability of the male to project semen well into the uterus as a cause of infertility: Hippocrates, <i>Aphorismi</i>, V.63, Dioscorides of Carystus (Hanson 2004: 299-302).
Mens. IV.102	"The ancients" "The historians" Valens <i>Hist. Rom. Fragm.</i> (ed. H. Peter 378)	

Mens. IV.105	"Many of the historians"	
Mens. IV.106		
Mens. IV.148	Plutarch	
Mens. IV.162	Ps.-Nicomachus, <i>Theologumena Arithm.</i> p. 55,25 Ast.	- Number symbolism number seven: Greco-Roman medicine (Cilliers 2004: 362-363). - Viability of the foetus in the seventh month, the eight-month unfavourable for birth: Greco-Roman medicine, Hippocratic writings, Aristotle, Soranus, Jewish literature (Cilliers 2004: 362-363).
Ost. 44	Apuleius	- Arrian ap. Stobaeum ecl. phys. I.29, 237, Pliny, <i>Nat. Hist.</i> II.137 (Rackham 1944: 274).

6. Bibliography

- BANDY, A. C. (1983), *Ioannes Lydus On Powers or The Magistracies of the Roman State* (The American Philosophical Society: Memoirs Series, 149). Philadelphia, Edwin Mellen Press.
- BANDY, A. C. (2013), (ed.) *Ioannes Lydus On the Months (De Mensibus)*. Lewiston, Edwin Mellen Press.
- BARROSO, M. D. S. (2013), "Post-mortem Cesarean Section and Embryotomy: Myth, Medicine, and Gender in Greco-Roman Culture": *Acta medico-historica Adriatica* 1.1 (2013) 75-88.
- BEKE, W. (1945), *La spiritualité chez les démocrates-chrétiens de l'Orient médiéval*. Leopoldsburg, Brepols.
- BJORNLIE, M.S. (2013), *Politics and Tradition between Rome, Ravenna and Constantinople: A Study of Cassiodorus and the Variae* (Cambridge Studies in Medieval Life and Thought Fourth Series, 89). Cambridge, Cambridge University Press.
- CAIMI, J. (1984), *Burocrazia e diritto nel De Magistratibus di Giovanni Lido* (Università di Genova Fondazione Nobile Agostino Poggi, 16). Milan, Dott. A. Giuffrè Editore.

- CARNEY, T. F. (1971), *Bureaucracy in Traditional Society: Romano-Byzantine Bureaucracies Viewed from Within. Book Two: Byzantine Bureaucracy from Within*. Lawrence (Ks.), Coronado press.
- CHASTAGNOL, A. (1960), *La prefecture urbaine à Rome sous le bas-empire*. Paris, Presses Univ. de France.
- CILLIERS, L. (2004), "Vindicianus' *Gynaecia* and Theories on Generation and Embryology from the Babylonians up to Graeco-Roman Times": H. F. J. HORSTMANSHOFF - S. STOL (eds.) (2004), *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine* (Studies in Ancient Medicine, 27). Leiden, Brill, 343-369.
- DOMENICI, I. (2007), "Introduzione": I. Domenici - E. Maderna (eds.) (2007), *Giovanni Lido: Sui Segni celesti* (Collana Le Porpore, 29). Milano, Medusa, 7-43.
- DRIJVERS, J.-W. et alii (2018), "Introduction": J.-W. DRIJVERS et alii (eds.) (2018), *Mapping Antiquarianism in Late Antiquity*, (Revue belge de philologie et d'histoire Fasc. 3. Antiquité, 96). Bruxelles, Société pour le progrès des études philologiques et historiques, 1-13.
- GREATREX, G. (2016), "Malalas and Procopius": M. MEIER - C. RADTKI - F. SCHULZ (eds.), *Die Weltchronik des Johannes Malalas: Autor - Werk - Überlieferung* (Malalas Studien: Schriften zur Chronik des Johannes Malalas, 1). Stuttgart, F. Steiner, 169-185.
- HANSON, A.E. (2004), "Aphorismi 5.28-63 and the Gynaecological Texts of the *Corpus Hippocraticum*": H. F. J. HORSTMANSHOFF - S. STOL (eds.), *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine* (Studies in Ancient Medicine, 27). Leiden, Brill, 277-304.
- HONORÉ, T. (1978), *Tribonian*. London, Duckworth.
- JEFFREYS, E. - JEFFREYS, M. - SCOTT, R. (1986), *The Chronicle of John Malalas: A Translation* (Byzantina Australiensia, 4). Melbourne, Australian Association for Byzantine Studies.
- KALDELLIS, A. (2003), "The Religion of Ioannes Lydos": *Phoenix* 3/4 (2003) 300-316.
- KALDELLIS, A. (2004), "Identifying Dissident Circles in Sixth-Century Byzantium: The Friendship of Prokopios and Ioannes Lydos": *Florilegium* 21 (2004) 1-17.
- KALDELLIS, A. (2005), "Republican theory and political dissidence in Ioannes Lydos": *Byzantine and Modern Greek Studies* 29.1 (2005) 1-16.

- KALDELLIS, A. (2013), "The Making of Hagia Sophia and the Last Pagans of New Rome": *Journal of Late Antiquity* 6/2 (2013) 347-366.
- KAZHDAN, A. (1991), "University of Constantinople": A. Kazhdan (ed.), *The Oxford Dictionary of Byzantium*. Oxford, Oxford University Press, 2143.
- KELLY, C. (2004), *Ruling the Later Roman Empire* (Revealing Antiquity, 15). Cambridge, Belknap Press of Harvard University Press.
- MAAS, M. (1992), *John Lydus and the Roman past: Antiquarianism and politics in the age of Justinian*. London, Routledge.
- MISTRY, Z. (2015), *Abortion in the Early Middle Ages c. 500-900*. Cornwall, York Medieval Press.
- MOMIGLIANO, A. (1966), "Cassiodorus and the Italian Culture of his Time": A. Momigliano (ed.), *Studies in Historiography*. London, Weidenfeld and Nicolson 181-210.
- NARDI, E. (1971), *Procurato aborto nel mondo Greco Romano*. Milan, Dott. A. Giuffrè Editore.
- PANIDIS, Y. (2013), "Avortement: La φθορά (phthora) provoquée de l'embryon dans les textes médicaux de l'antiquité": *Philosophia* 43 (2013) 221-240.
- RACKHAM, H. (1961), *Cicero De natura deorum, Academica* (The Loeb Classical Library). London, Harvard University Press.
- RAPP, C. (2005), "Literary Culture under Justinian": M. MAAS (ed.), *The Cambridge Companion to the Age of Justinian*. Cambridge, Cambridge University Press, 376-399.
- RAWSON, E. (1985), "Antiquarianism": E. RAWSON (ed.), *Intellectual Life in the Late Roman Republic*. London, Duckworth, 233-249.
- SCHAMP, J. (2006a), *Jean le Lydien : Des magistratures de l'état Romain Tome I 1ère partie Introduction générale texte établi, traduit et commenté par Jacques Schamp* (Collection des universités de France publiée sous le patronage de l'Association Guillaume Budé). Paris, Les Belles Lettres.
- SCHAMP, J. (2006b), *Jean le Lydien : Des magistratures de l'état Romain Tome II Livres II et III texte établi, traduit et commenté par Jacques Schamp* (Collection des universités de France publiée sous le patronage de l'Association Guillaume Budé). Paris, Les Belles Lettres.
- STEVENSON, A.J. (2004), "Gellius and The Roman Antiquarian Tradition": L. HOLFORD-STREVEENS (ed.), *The Worlds of Aulus Gellius*. Oxford, Oxford University Press, 118-155.
- STOL, M. (2009), "Embryology in Babylonia and the Bible": V. R. SASSON - J. M. LAW (eds.), *Imagining the Fetus: The Unborn in Myth, Religion and Culture*

- (American Academy of Religion Cultural Criticism Series). Oxford, Oxford University Press, 137-155.
- THURN, H. (2000), *Ioannis Malalae Chronographia* (Corpus fontium historiae Byzantinae. Series Berolinensis, 35). Berlin, de Gruyter.
- TREADGOLD, W. (2007), *The Early Byzantine Historians*. London, Palgrave Macmillan.
- TSIRPANLIS, C. N. (1995), "Marriage, family values and 'ecumenical vision' in the legislation of Justinian the Great (527-565)": *Patristic and Byzantine Review* 14 (1995) 59-69.
- TURFA, J. M. (2012), *Divining the Etruscan World: The Brontoscopic Calendar and Religious Practice*. Cambridge, Cambridge University Press.
- VAN DONGEN, P. W. J. (2009), "Caesarean section - etymology and early history": *South African Journal of Obstetrics and Gynaecology* 15.2 (2009) 62-66.
- VAN HOOFF, L. - VAN NUFFELEN, P. (2017) "The Historiography of Crisis: Jordanes, Cassiodorus and Justinian in mid-sixth-century Constantinople": *The Journal of Roman Studies* 107 (2017) 1-26.
- VAN NUFFELEN, P. - VAN HOOFF, L. (2020) (ed.) *Clavis Historicorum Antiquitatis Posterioris: An Inventory of Late Antique Historiography* (A.D. 300-800) (Corpus Christianorum Claves Subsidia, 5). Turnhout, Brepols.
- WACHSMUTH, C. (1897), *Ioannis Laurentiis Lydi liber de ostentis et calendaria Graeca omnia* (Bibliotheca scriptorum Graecorum et Romanorum Teubneriana), Teubner Verlag.
- WÜNSCH, R. (1898), *Ioannis Laurentiis Lydi liber de mensibus* (Bibliotheca scriptorum Graecorum et Romanorum Teubneriana), Teubner Verlag.
- ZINGG, E. (2019), "Rund um den Anonymus Treu (Par. suppl. gr. 607A): Eine verwirrende Ecke im Stemma von Iohannes Lydos, Peri mēnōn": *Byzantion: Revue Internationale Des Études Byzantines* 89 (2019) 513-559.
- ZINGG, E. (2021), "Les fragments de Jean le Lydien, Sur les mois IV, 147-150 ; 154-156 dans le Par. suppl. gr. 257": *L'Antiquité Classique* 90 (2021) 47-106.

* * * * *

Resumo: Este artigo visa contribuir para a história cultural da embriologia e ginecologia da antiguidade tardia, focalizando o historiador John Lydus (ca. 490 DC - ca. 565). Numa visão geral de suas numerosas passagens sobre ginecologia, mostramos que ele tinha uma visão coerente dessas ciências. Iremos contextualizar o interesse de João da Lídia por um assunto que está ostensivamente distante de seus interesses históricos, levando em consideração três fatores: 1) o contexto legal da política imperial, 2) a função da ginecologia no pensamento histórico de João, e 3) as preocupações pessoais do autor.

Palavras-chave: John Lydus; historiografia do séc. XVI; simbolismo dos números; leis de Justiniano; estudo das origens; Júlio César.

Resumen: Este artículo pretende contribuir a la historia cultural de la embriología y ginecología tardoantigua, centrándose en el historiador Juan Lido (ca. 490 – ca. 565 d.C.). Mediante una panorámica general de sus numerosos pasajes sobre ginecología, mostraremos que tenía una visión coherente de estas ciencias. Contextualizaremos el interés de Juan Lido por un asunto que está aparentemente alejado de sus intereses históricos, tomando en consideración tres factores: 1) el contexto legal de la política imperial, 2) la función de la ginecología en su pensamiento histórico, y 3) las preocupaciones personales del autor.

Palabras clave: Juan Lido; historiografía del siglo XVI; simbolismo numérico; leyes de Justiniano; estudio de los orígenes; Julio César.

Résumé : Cet article vise à contribuer à l'histoire culturelle de l'embryologie et de la gynécologie de la fin de l'Antiquité, en se concentrant sur l'historien Jean le Lydien (vers 490 - vers 565 après J.-C.). Dans un tour d'horizon de ses nombreux passages sur la gynécologie, nous montrons qu'il avait une vision cohérente de ces sciences. Nous mettrons en contexte l'intérêt de Jean le Lydien pour un sujet qui est apparemment éloigné de ses intérêts historiques, en prenant en considération trois facteurs : 1) le contexte juridique de la politique impériale, 2) la fonction de la gynécologie dans la pensée historique de Jean, et 3) les préoccupations personnelles de l'auteur.

Mots clés : Jean le Lydien ; historiographie du VI^{ème} siècle ; symbolisme des nombres ; les lois de Justinien ; étude des origines ; Jules César.