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**CENSORINUS AND HIS WORK *DE DIE NATALI***  
*(PhD thesis)*

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## I. Aim of the Thesis, Definition of the Subject

The thesis strives to examine CENSORINUS' only work that survived in a complete form entitled *De die natali* (*The Natal Day*). The thesis consists of six major chapters:

1. An Introductory Essay on CENSORINUS and his Works
2. CENSORINUS, *The Natal Day* (Hungarian literary translation).
3. Commentary on the Work
4. CENSORINUS and the History of Roman Chronology
5. CENSORINUS and the Roman *saecula*
6. CENSORINUS and the Ancient Academies of Medicine

CENSORINUS wrote his work in 238 B.C. to celebrate the 49<sup>th</sup> birthday of the rich and high-born Roman senator, Quintus CAERELLIUS. The *De die natali* has been absolutely popular since the Middle Ages, well indicated by the several medieval manuscripts, incunabula as well as early modern and modern text editions. These days CENSORINUS' work has been brought to the forefront, in the past twenty years two new text editions (*Censorini De die natali liber ad Q. Caerellium accedit Anonymi cuiusdam epitoma disciplinarum (fragmentum Censorini)* ed. Nicolaus Sallmann. Teubner, Leipzig, 1983; *Censorini De die natali liber ad Q. Caerellium*. Prefazione, testo critico, traduzione e commento a cura di Carmelo A. Rapisarda. Patron Editore, Bologna, 1991.) and two translations came out. (Rocca-Serra,

G.: Censorinus *Le jour natal*. Traduction annotée. Par Rocca-Serra, G. Paris, 1980; Censorinus *Betrachtungen zum Tag der Geburt*. 'De die natali' mit deutscher Übersetzung und Anmerkungen herausgegeben von Klaus Sallmann. BSB B.G. Teubner Verlagsgesellschaft, Berlin, 1988.) One of the reasons of its popularity was the fact that it reported of a proportion of the results of ancient medicine, astronomy and chronology in such a simple, clear style and such a form of a compendium that it was undoubtedly used even as a school manual in the Middle and Early Modern Ages. The author, however, did not want to compile a "pocket-encyclopedia" for his prestigious patron, but in the spirit of the contemporarily so much fashionable numerology gave a sketch of the interdependences between human life and numbers.

### The structure of the *De die natali*

#### *Introduction I-III.*

I. caput: Prologue, the purpose of the work.

II-III. caput: The genii, different ancient authors' ideas on the role of the genii.

#### *Medical-anthropological views and opinions on birth IV-XIII.*

IV. caput: The primeval origin of mankind. Ideas on the genesis of man (among others those of Pythagoras, Xenocrates, Aristotle, Anaximander, Empedocles, Parmenides, Democritus, Zeno).

V-VIII. Child-birth. The teaching of ancient academies of medicine on begetting, the development of the foetus and the delivery.

V. The procreation.

VI. The conception.

VII. Embryology, the development of the foetus (the teachings of different academies of medicine on after how many months the baby comes into the world).

VIII. The Chaldeans' teaching on the interrelationship between the stars and child-birth.

IX-XIV. The Pythagoreans' teaching on the development of the foetus, the certain phases of human life from childhood to old age.

IX, XI. The length of pregnancy.

X, XII. The connection between the musical intervals and the certain phases of pregnancy.

XIII. The harmony of the structure of the world.

XIV. The crucial turning-points of human life.

*The centre of the work the laudation of Q. CAERELLIUS: XV. caput.*

*Ancient chronological systems: XVI-XXIV. caput.*

XVI. caput: Greater time units in different chronological systems: lustrum (five-year periods in Roman history), aevum (epoch, the greatest unit).

XVII. caput: The saecula and the so-called *ludi saeculares* (secular games to mark the commencement of a new *saeculum*, generation).

The saecula is of key importance in CENSORINUS' work since not long after it was published Rome celebrated its 1000<sup>th</sup> anniversary (248 A.D.).

XVIII. caput: The different "great years".

XIX. caput: The tenure term "natural year" (*vertens*) of the Greeks and the Egyptians.

XX-XXI. caput: The development of the Roman natural year from the Age of the Monarchy to the calendar reform of Julius CAESAR. CENSORINUS uses a dating in his work on the basis of seven calendar systems (Roman consular year, the Greek Olympias-calendar, the era of the foundation of Rome, the Julian-calendar, the Aktion-era of Emperor AUGUSTUS, the Babylonian NABONASSAR-era and the Macedonian PHILIP-era).

XXII. caput: The Roman months.

XXIII. caput: The days of the Roman calendar.

XXIV. caput: The Roman sections of the day.

The *De die natali* provides especially relevant contributions to Presocratic philosophy, it is only CENSORINUS that recites the cosmogonic ideas of several Presocratic philosophers. There are valuable data provided for the history of ancient medicine, for instance one can get acquainted with the notions of the ancient Greek academies of medicine on the development of the *foetus* and the baby. The most of these concepts are of interest rather from the point of view of numerology than of the history of medicine, for CENSORINUS

gave an outline of the interdependences between human life and numbers in the spirit of the so much fashionable numerology of his days. CENSORINUS is one of the most significant source to investigate the Roman *saeculum*-computation and *Secular Games*.

## II. The Outline of Methods Used

Of the several earlier and modern publications of CENSORINUS' *De die natali* I used the text editions of SALLMANN and RAPISARDA, but on examining the debated textual passages I endeavoured to embrace the critical apparatus of all possible former text editions. A most beneficial aid was given by the review of GRAFTON, which amended SALLMANN's text in several passages and commentaries (GRAFTON, A. T.: Censorinus' Aureolus Libellus. *CR* 35, 1985, 46-48). In terms of concordance and textual criticism examinations I made use of the database *IntraText Digital Library* (<http://www.intratext.com/y/LAT0197.HTM>) comprising the works of Classical authors, as well as that of the Packard Institute, entitled *PHI CD ROM #5. 3 Latin texts*, illetve *TLG CD ROM 32 Greek Texts*.

The earlier research, doubting the authenticity of CENSORINUS found the *De die natali* as a quite successful compilation, rather than an original composition having an independent conception, which was able to survive due to the fact that as opposed to its "*monumental*" sources it was capable of presenting a quite brief and concise description of the scientific knowledge of classical antiquity. The working theory of the thesis was the hypothesis that the *De die natali* is a composition having an absolutely independent conception, the author of which, making use of the results of the former scientific works written by 'professional' chronologers, wished to prove the interrelationship between human life and numbers. To justify my

presumption I was to investigate both the sources of CENSORINUS and their treatment. The author mentions altogether 180 names in his work: historical personages, gods and mythical figures. For the most part he cites philosophers (on 103 occasions he mentions the names of 37 philosophers), secondly he cites chronologers (at 61 places 32 scientists are named). Gods and mythical figures are referred in considerably less cases (altogether 34 citations), therefore in Classical respects the *De die natali* could just as well be seen as a piece of professional scientific chronology. The two most often quoted authority are the Augustan-age Roman antiquarian and scientist Terentius VARRO (13 quotations), as well as the sixth-century B.C. southern Italian philosopher, PYTHAGORAS (12 quotations). They are followed by ARISTOTLE (9 citations), EMPEDOCLES and HIPPON (8-8 citations), ANAXAGORAS (7 citations) and DEMOCRITUS as well as Julius CAESAR (both in 6-6 places). CENSORINUS does not mention on any occasion PLINY, but GELLIUS is only cited once, though he is justified to have used the works of both of theirs.

After collecting the name-material I compared the congener parts of the works of the authors mentioned with those of CENSORINUS. The thesis investigates in greater detail the related places of Terentius VARRO, PLINY the Elder and GELLIUS. Besides them I compared the extracts of Presocratic philosophers (DIELS, H. - KRANZ, W.: *Die Fragmente der Vorsokratiker*. I-III. Berlin 1951<sup>6</sup>.) with the congener related places of the *De die natali*. I examined CENSORINUS' Greek in a separate chapter.



In the chapters dealing with chronology, besides the works of classic authors I also studied the epigraphic evidence, in the case of the *fasti* the survived tables of the FASTI CAPITOLINI, FASTI ANTIATES and FASTI OSTIENSES, in the case of the *ludi saeculares* those erected to the memory of the *Secular Games*.

### III. Summary of the Results of the Thesis

The thesis on the one hand reconfirms the results of home and international scholarly research on CENSORINUS, on the other, it modifies and at a couple of points refines them.

1. The thesis has stated the following regarding the biography of CENSORINUS. The author was a third-century A.D. Roman *grammaticus* whose relationship is not to possible to be justified either with those named CENSORINUS who lived previously or afterwards. In contrast to the views held by some authors of formerly published articles, the author was ascertainably not a member of the Roman leading layer as a *grammaticus*.

2. Through a comparison of the data of the caput XXI. 6-9. it is to be confirmed that the *De die natali* was written between June 25 and August 28, 238 A.D.

3. The *De die natali* does not belong to any classical genre category, the nearest to which it stands is VARRO's *Logistoricus*-works, but it is unquestionably to be taken as an independent genre.

4. The major source of CENSORINUS was Terentius VARRO, he must have used the following works: *Atticus. De numeris* (Cens. II. 2), a *Tubero. De origine humana* (Cens. IX. 1); *De scaenicis originibus* (Cens. XVII. 8); *Antiquitates Rerum Humanarum*; *Antiquitates Rerum Divinarum* (Cens. XVII. 15). Besides VARRO he is proved to have used PLINY the Elder's *Historia Naturalis*, furthermore, the work of the Augustan-age antiquarian Granius FLACCUS entitled *De*

*indigitamentis* (III. 2.). As a *grammaticus* he certainly knew Roman poetry (there are references to LUCILIUS and HORATIUS as well). Although he had an excellent command of Greek, he must have most probably cited the Greek authors from secondary sources (VARRO, PLINY). There are still scholars, even today, who are inclined to take CENSORINUS as a compendiator of great Roman pieces of literature. In one thing they are right: CENSORINUS had the *De die natali* constructed out of his noted predecessors, but he did it on the basis of an independent conception.

5. CENSORINUS' work is one of the most important sources to investigate the history of ancient chronology, the author gives a detailed overview of the three phases of the development of Roman chronology: the year of *Romulus* (lunar), the *Pre-Julian* (luni-solar) as well as the *Caesarean* (solar). In addition to the *De die natali* in examining the debated issues of early Roman calendar I applied the works of several other authors and epigraphic sources. CENSORINUS himself quotes two distinct traditions in connection with the earliest Roman calendar: the ten-month (304-day) and the 12-month year.

After taking all our sources into account it is to be pointed out that the earliest Roman year was ten months long, as indicated by the names of the months from the Quintilis to December (these month-denominations were formed through a suffixation of ordinal numbers), and the year consisted of synodic months (i.e. complete cycles of lunar phases). This latter is signified by the denotation of the distinctive days of the week: the *Kalendae* (which is derived from the

verb '*kalare*' meaning the ceremonial indiction of the start of the new moon), as well as the *Idus* (which was in connection with the crescent, '*iduo = dividere*'). When examining calendars, however, one has to be aware that although the astronomic and chronological knowledge CENSORINUS had corresponded to the standards of the age, his work was not made to be a professional piece of astronomy, thus, in many cases one is most probably to come across with numerological enlargement instead of reality.

O'MARA, for instance, in a recent article of his questions the authenticity of the data given by CENSORINUS concerning the rising of *Sothis* (Cens. XXI. 11), which occurred according to the author on July 20, 139 A.D., yet is set by different ancient sources between 136 and 139 A.D. This is also only "by a happy chance" that Q. CAERELLIUS' birthday just coincided with the 100<sup>th</sup> year following the rising of *Sothis* (besides the numbers seven and nine the hundred has also an emphasized role in the *De die natali*, since what CENSORINUS finds historically authentic are unquestionably the hundred-year *saecula*, and his work might just as well be seen as a kind of anticipation of the celebration of the oncoming ten times one-hundredth anniversary of Rome). Consequently, I think feasible that CENSORINUS simply faked up the date just so as to adulate his mighty patron, too. Similar is the case with the 355-day year instituted by NUMA POMPILIUS, which was even explained by Pythagorean numerology by CENSORINUS himself. (Cens. XX. 4.).

6. CENSORINUS is one of the most important sources to study the Etruscan-Roman *saecula* and *ludi saeculares*. Concerning these, the author provides the following remarkable pieces of information.

a) The *saecula* has two distinct types, the natural (*saeculum naturale*) and civil ones (*saeculum civile*). The natural *saeculum* represented the longest human life in a generation, lasting from birth to death, the civil one is an artificial system established by a clerical body of some community or by a scholar.

In accordance with this was the 100-, or 110-year tradition of *saecula* being shaped. The expression *saeculum* underwent a long development in Latin language: it had long been misinterpreted through generations, as confused with the Greek term *genea* (Lat. *aetas*); later on it was to mean a time period of an ambiguous length, then an average human life-span (*saeculum vitale*), and finally a longer time unit (a kind of "*annus magnus*", i.e. great year).

b) The diverse cyclic periods have a significant role in the *De die natali*, which, besides the idea of decay, bear in themselves that of rebirth as well. The concern about the *saecula* and the *ludi saeculares* was constantly present in the Roman public and intellectual life from the second-first centuries B.C. onwards, when, due to the crisis of the Republic the Roman elite were very much affected by Etruscan (10 *saecula* followed by a revival of the world) as well as Hellenistic (the Aristotelian and the Chaldean "*great year*") conception. The *saecula* (the Roman version of the "*great year*") meant as a matter of fact the feast of cyclic regeneration, the end of an old period, and the

commencement of a new, happier one. CENSORINUS, born in the tenth *saeculum* did definitely deeply feel the extraordinariness of this round anniversary. (Cens. XVII. 15)

c) As far as the tradition of the *ludi saeculares* is concerned, it can be concluded that the games nourished from two major traditions. The first lever of the games was constituted by the kindred feast of the *gens Valeria*, the *ludi Tarentini*, the second was given by the festivals marking the end of the *saecula* of Etruscan origin. The 100-year version of the *ludi saeculares* had neither Greek, nor Roman variant, (it is by no means related to the ceremony of the election of the *dictator clavi figendi*).

d) The history of the Republican-age *ludi saeculares* survived in the accounts of VARRO and CENSORINUS, or, through an intermediary, Valerius ANTIAS, who as a faithful of the Valerius kindred must have most likely been manipulating the data so as to increase the fame of the *gens Valeria*. It is just because that the Republican-age tradition of the *ludi saeculares* is to be accepted with certain reservations, the chronologic order of the games is not possible to be satisfactorily defined because of the paradoxes of ancient authors and the lack of epigraphic evidence.

e) The first *Secular Games* possible to be documented historically were organized by Emperor AUGUSTUS in 17 B.C., and the games that can be justified by authentic historical evidence to have been organized by Roman emperors are as follows.

According to the 110-year *saeculum*-count

Emperor Augustus: a. U. c. 737; 17 B.C.

Domitian: a. U. c. 841; 88 A.D.

Septimius Severus: a. U. c. 957; 204 A.D.

According to the 100-year *saeculum*-count

Claudius: a. U. c. 800; 47 A.D.

Antoninus Pius: a. U. c. 900; 147/8 A.D.

Emperor Philippus Arabs: U. c. 1001; 248 A.D.

The imperial-age *ludi saeculares* was in the service of the imperial propaganda that be, the games marking the end of both of the 100-, and 110-year *saecula* were passing off in the framework established by AUGUSTUS, and the history of which are well-known on the grounds of the sources of historical literature and epigraphy. The *ludi saeculares* in this age meant the gorgeous overture of a new golden age brought forward by the emperors instead of the aboriginal rite of purging the community.

7. Conclusions. CENSORINUS' work is an important collection of the scientific knowledge of classical antiquity. Although owing to its length it carries considerably less information as compared to other authors' works, yet it has some quite valuable additions to ancient medicine, Presocratic philosophy and ancient chronology. However, the *De die natali* is not a mere compilation compendiating former

works, since numerology plays a particularly important role in CENSORINUS. This is what the characteristic conception of the work is built on: the author wrote such a birthday congratulation, in which he gave an outline of his peculiar anthropological and chronological views. At the *laudatio* of Q. CAERELLIUS CENSORINUS makes it perfectly clear that the celebrated person is just holding his 49<sup>th</sup> birthday-fest (i.e. seven times seven. It is quite natural that the author, who is well acquainted both with the medicine and astrology of the day, wishes to please his prestigious patron, thus concludes that in human life it is those years that are critical that consist of the multiplications of the numbers 7 and 9: i.e. the 49<sup>th</sup> (7 times 7), the 63<sup>th</sup> (7 times 9) and the 81<sup>st</sup> (9 times 9) birthdays.

As CAERELLIUS completed the critical 49<sup>th</sup> year (for he celebrated his birthday), therefore now he is to live a old age, since until the 63<sup>th</sup> year of age nothing could endanger him, in addition, at the age of 63 much less people die than either at the age of 49, or 81. To prove this, the author makes a quite lengthy enumeration of those notable persons who passed over this critical age. Unfortunately, it is not known whether the prophecy of CENSORINUS was at all realized, since we have no knowledge of the life of Quintus CAERELLIUS apart from this citation.



#### IV.

##### **Papers read in the field of the thesis:**

May 20, 2000: 4<sup>th</sup> *Conference of Classics in Hungary* (organized by the Hungarian Association of Classics): "*The great year in ancient literature*"

October 12, 2001, Debrecen: *Conference on Ancient Medicine and Epigraphs* (co-organized by the Department of Ancient History, the University of Debrecen and the Working Committee of Epigraphics of the Debrecen Branch of the Hungarian Academy of Arts and Sciences): "*Censorinus and the Ancient Academies of Medicine*"

##### **Publications in the field of the thesis, together with those under publication and accepted for edition:**

##### **Books:**

Polybius' *Historical Books*. eds. Imre Tegye Imre – Péter Forisek. Attraktor Publishing House, Máriabesnyő-Gödöllő, 2002. Chronological commentaries on certain Books as well as a "*Chronological Chart*", pp. 482-486.

under publication: Censorinus: *The Natal Day*. translated, commentaries and postface essays written by Péter Forisek. Attraktor Publishing House, Máriabesnyő-Gödöllő.

### **Articles:**

Péter Forisek: "Numerology and medicine. Censorinus and the ancient academies of medicine", *Ókor* 2 (2003) 2-3: 53-57.

under publication: Péter Forisek: "Censorinus and his work *De die natali*", *Történeti Tanulmányok* Vol. XI. (ed. Péter Takács) Debrecen, 2003.

### **Reviews:**

Péter Forisek: "Livius and early Rome" (Forsythe, Gary: *Livy and Early Rome. A Study in Historical Method and Judgement*. Franz Steiner Verlag, Stuttgart, 1999. Historia Einzelschriften 132.) *Klió* 2000/3.