The calculation of doomsday
based on *Anno Domini*

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ABSTRACT

Anno Domini, or the year Christ's birth, was an invention made some 1400 years ago by Dionysius Exiguus, who adjusted a new Easter Computus in order to avert end time fever with the pretext to solve a dispute upon the correct date of Easter.

Right at the beginning of Christianity, early Christians expected in the near future the return of Christ, which was associated with the end of the world, together with the Seventh Day of the Lord. Such a scenario ocurred already in the cosmic year Anno Mundi (AM) 6,000 based upon a teleological concept by interpreting the Bible. AM produced a calendrical end time with its year 6000 due to equating the Six Days of Genesis with the verse of the Bible saying one Day of the Lord was the same as 1000 years of mankind. To combat the end of the world fever caused by this time concept at the beginning of the 6th century Dionysius Exiguus created a new temporal hinge point for counting the years: Anno Domini.

Obviously this chronology is not in harmony with ancient historical works, as even former Pope Benedict XVI recognized, but is an end time prophecy by interpreting the Gospel, the Apocalypse, the scientific cosmology of antiquity, and astronomical values. New evidence shows that Dionysius intended to begin his "anni ab incarnatione Iesu Christi" exactly 2000 years before his forcasted Last Day at the prophecied end of the world.

1. INTRODUCTION

As far as we know, we owe the establishment of the Anno Domini count to the Scythian canonist and scholar Dionysius Exiguus (Dennis the Little). Only a few things are known about his life. He lived some 1,500 years ago at the beginning of the sixth century and was a colleague of Cassiodor, who was among the clergy in the court of Theodoric, king of Ostrogoths. Of Cassiodor is well known that he founded in Calabria the *Monasterium Vivariense,* where he collected and compiled Greek and Roman classical literature, which might have studied also Dionysius Exiguus.

He is the author of the Collectio Dionysiana, canons of the councils and synods of Nicea, Constantinople, Calcedon, and Sardica (Peitz 1960). One of his works, which is part of the "Patrologia Latina," is still powerfully influential today, although it is not in harmony with ancient historical facts (Ratzinger 2012). Dennis invented the AD count by establishing a new Easter calculation, which he dedicated in 525 to a Bishop Petronius. (Schwartz 1905) He called his Easter table CYCLUS DECEMNOVENNALIS DIONYSII, (19-year cycle of Dionysius) which now commonly is called LIBER de PASCHATE (Book of Easter) (Krusch 1938).

Dionysius explained that his reason to introduce his new cycle was to avoid counting the years after Diocletian:

…*Because the blessed Cyril began his first cycle in the 153rd year of Diocletian and ended his last cycle in the 247th year of Diocletian, we have to start in the 248th year of this man, who was a tyrant rather than emperor. However, we did not want to preserve the memory of an impious persecutor of Christians in our cycles, but chose rather to mark the times with the years from the incarnation of our Lord Jesus Christ, so that the commencement of our hope will appear more familiar to us and the origin of the redemption of mankind, that is the Passion of our Redeemer, will shine in a more glorious way.* (Translation: Declercq).

1. Controversy over a correct date for Easter
2. The arrival of Anno Mundi 6000
3. The Great Year doctrine
4. Astrological allegories in the Gospels
5. End-time prediction of the Revelation
6. The change of the equinoctial constellations
7. The rate of the precession of the equinoxes
8. Argument and Result

2. CONTROVERSY OVER OF A CORRECT DATE FOR EASTER

Between Constantinople, Alexandria, and Rome (Mosshammer 2009) there existed over the many centuries a severe controversy over the date of Easter (Geerlings 1999). It occurred because of different calendrical systems as well as by different interpretations of the Gospels.

The new Easter Computus of Dionysius was one of many attempts to solve this problem.

3. THE ARRIVAL OF ANNO MUNDI 6000

Another reason was the calendrical end-time because of the imminent arrival of the cosmic year 6000 in the first Christian chronology, called Anno Mundi (AM).

The concept of Anno Mundi (AM) was an invention in 2nd century by Julius Sextus Africanus (Wallraff 2006) and corresponds to a quotation in the New Testament stating that Christ appears in the last hour.

[I John 2:18]: *Children, it is the last hour; and as you have heard that antichrist is coming, so now many antichrists have come; therefore we know that it is the last hour.*

Consequently, in the AM count, the date of Christ's birth was adjusted in the middle of the sixth millennium to the year AM 5500, because it corresponded with the 11th hour of the available 12.

(6000 : 12 * 11 = 5500).

Even the dimensions of the Ark of the Covenant was used as an analogy for the 5,500 years. [Exodus 25:10] tells that it was 2 1/2 cubits long, 1 1/2 cubits wide, and 1 1/2 cubits high. Irion (Hieron) of the court of Constantinople and Hippolytus both interpreted these dimensions, amounting to 5 1/2 cubits, as symbolic of 5,500 years.

The AM method profoundly influenced early Byzantine and Roman Christian chronology, as shown in the chronicles of Hippolytus in Rome, Sulpicius Severus, Panodoros, and others. Out of this concept arose the Alexandrian method of Annianos, who lived in the year that the patriarch Theophilus died (412 CE).

The Anno Mundi chronological systems became very popular in the first Christian centuries, but created a huge problem: end-of-the-world fever, caused by a looming Seventh Day that equated with the end of the 6000-year period and corresponded to a date some 500 years after Christ's purported birth. At the turn of the fourth to fifth centuries, i.e. precisely the moment when the barbarian invasions may have stirred up apocalyptic anxieties, the North African bishop Julius Hilarianus, for instance, wrote a treatise 'On the Duration of the World,' in which he calculates 5530 years from creation to the Passion of Christ, and 369 years from that event until the consulate of Caesarius and Atticus (AD 397); *there remain,* so he concludes, *101 years to go before the Resurrection of the dead*. (Declercq 2000.)

This world's expiration date as predicted by the AM system was preached by a number of bishops. A century later, this surely caused problems of credibility when the prophesied end did not come! What to do? A new Bible-connected chronology was needed in order to head off hysterical civil and religious disturbance.

There were three strategies available to combat the fear caused by this time concept and avert Chiliasm, Millenarianism, and eschatological fever:

A. Shift the era of creation to the past in order to show that the dreaded year AM 6000 had long passed, as the chronicler John Malalas did by identifying the year 6000 with the passion of Christ. This had the consequence that the Seventh Day had already begun, which surely was inconvenient for Church authorities, since it erased the motivating effect of the Last Judgment on believers.

B. Rejuvenate the age of the world and delay the year AM 6000 into the future, which was the method of the fourth century chronicler Eusebius. Influenced by Jerome, Eusebius delayed the birth date of Christ by three centuries to AM 5199. According to this popular world-year-count, the year 6000 would occur around 800 CE again, which was reason for the Venerable Bede in the ninth century CE to favor Anno Domini (Wallis 1999).

C. Start a new counting of the years from another fictitious point in time: Christ's incarnation. Dionysius Exiguus made the most popular attempt at this when he created a new temporal hinge point for counting the years: Anni ab incarnatione Domini Iesu Christi (The years since the incarnation of Jesus Christ).

Yet, influenced by current perceptions Dionysius in fact postponed the return of Christ again into the far future.

These perceptions were the current doctrine of the Great Year and the effect of the wobble of Earth's axis, both mirrored in New Testament and Christian symbolism.

4.   THE DOCTRINE OF THE GREAT YEAR

The doctrine of the Great Year (Waerden 1952) is based upon the idea of the return of everything. (Staehlin 1960) It states that the planets generate time, and if the planets repeat their movement, then time and all events repeat. (Calatay 1996).

A quote of Eudemos illustrates this idea very vividly:

There is a common multiple of all orbital times, the large year; at its expiration all planets are again in the same place. If one believes the Pythagoreans, then I will return also in the future, as everything after its number returns, and I will tell you here again fairy tales, holding this stick in my hand, while you will sit likewise before me. Likewise everything else will repeat itself. (Eudemos, Aristotle's disciple at the Lykaion at Athens).

Heraclitus Stoicus equates the Olympic Symposium of Gods, which took place after the Titan Prometheus created mankind at a conjunction of the seven naked eye planets:

Some people want the conjunction of the seven planets in one zodiacal sign to be referred to by these words of Homer, and also the universal destruction, whenever this should happen. He (Homer) alludes to the confusion of the universe when he brings together Apollo, i.e., the Sun and Artemis, whom we identify with the Moon, as well as the stars of Aphrodite, Ares, Hermes and Zeus. (Heraclitus Stoicus, Quaestiones homericae, 53)

According to Seneca the astrologer Berossos (of 3rd cent. BC) describes such an end time situation very impressively placing all planets in a straight line:

Berossos, who interpreted the prophecies of Bel, attributed… the end of the world and its aftermath to the movements of the planets. He maintains that the Earth will burn whenever all the planets, which have different orbits, converge... and are so arranged in the same path that a straight line can pass through all their orbs and there will be a further great flood, when the planets so converge in Capricorn. (Seneca, Naturales Questiones 3.29.1) (Verbrugghe and Wickersham. 2001: p 66)

We find an almost perfect pictorial representation of Berossos' idea (Schnabel 1968) of the planets aligned in a straight line in images of the Babylonian planet Mars representing God Nergal (as shown in Figure 1), a Syrian Sun God (Figure 2), and on coins of Roman emperor Constantine (Figure 3) showing a planetary alignment on a military standard.

These iconographies symbolize the heavenly power, with which priests, kings, and rulers give the impression to their followers to be in harmony with the cosmos since the beginning until the end.

Figure 1. The God Nergal with planetary standard http://www.storiadimilano.it/arte/nergal.jpg

Figure 2. Syrian Sun God. The Parthian and Sassanian Dynasties - 249 BC to AD 651" by Roman Ghirshman. Published by Golden Press, New York, 1962. On p. 86

Figure 3. Coin of Contanine with standard. George Beke: CONSTANTINE'S TRUE VISION. From Plato's Chi (X) To The Christian Chi Rho

The huge list of authors of the GY-doctrine shows its circulation until 6th century:

5. c. BC Pythagoras
4. c. BC Plato, Aristotle
3. c. BC Berossos, Eudemos

2. c. BC Posidonios, Alexander Polyhistor, Juba
1. c. BC Diodourus Alexandrinus, Ps.Epikurus Lucretius, Vetusta Placita, Varro, Dydimus, Hyginus, Vitruvius, Eudoros Diodorus Siculus,
1. c. CE Papirius, Fabianus, Polyhistor interpolatus, Seneca, Plinius, Josephus, Pamphilius
2. c. CE Aetios, Ps. Plutarchos, Theophilos Tatianos, Diogenaios, Ailianos Nikomachos
3. c. CE Kleomedes, Censorinus, Abydenos, Hippolytos, Africanus, Clemens Alexandrinus, Athenios
4. c. CE Anonym. Aratum isagoga, Eusebios, Augustinus, Hesychios
5. c. CE Stobaios, Isodoros, Kyrillos, Panodoros, Helladios
6. c. CE Palchos, Versio latina barbara, Scholastica Germanici, Verso Armeniaca, Synkellos, Agathias, Photios

We find iconographic ideas of the heavenly symposium as an allusion to the beyond in pre-Christian funeral scenes (See:Figure 4), such as the sepulcher of Vincentius in Rome. (Nilsson 19889)
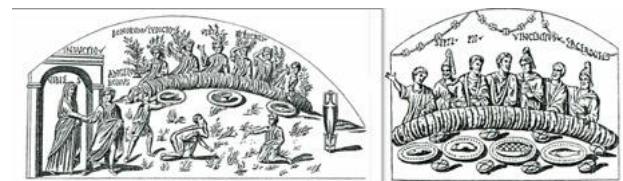

Figure 4. Wall painting of funeral of Vicentius in catacomb, Rome. Vincentius during introduction (left), and as one of the seven sacerdotes in the beyond (right). Nilsson, Martin Persson. Geschichte der griechischen Religion: Die hellenistische und römische Zeit. C.H Beck. 1950

In many variations we find the same idea e.g. in the seven Sages, the seven Rishis during the deluge in India, and the seven Sleepers of Ephesus, which is found also in the Qur'an as Al Kahf, the legend of the cave (Surah 18, verse 9-26).

The Christian legend of the seven Sleepers tells that in year 251 Emperor Decius martyred seven Christians by walling them inside a cave. After 200 (or 372) years they resurrected.

An echo of this idea is found in Grimm's fairy tale of the Seven from Swabia, who chase with one spear a monster in the shape of a hare. Their names point us to the days of the week and thus to the planets. Another example is the fairy tale "Courageous Tailor" also called "Seven with One Stroke," who finally conquers a giant.

From Nemesius, a Christian writer of about 400 CE, we have a witness that the alignment of the sev-

en planets was imagined at the Resurrection of Christ at the end of the world:

According to the Stoics the conflagration and the destruction of all beings is generated, after stated periods of time, by the planets, when they come back,... Then, from the start the world is restored anew. ... There will be again Socrates and Plato and every man, with their friend and fellow-citizen. ... Christians imagine the Resurrection by way of this restoration,... Christ's words instruct that the Resurrection will take place once and not periodically.

For this quote by Nemesius we find con-firmation in several graffiti in early Christian catacombs of Rome (Figure 5), which is usually called the Meal of the Seven (Pillinger 2011), echoing the Olympic symposium of Gods (the alignment of the seven planets) at the beginning of mankind, but also portraying such a situation at its prophesied end.

Figure 5. Early Christian funeral graffiti in the Catacombs of Callixtus Rome. The Meal of the Seven, a Christian imagination of the afterworld. Public domain http://commons.wikimedia.org/wiki/File:Agape_feast_05.jpg

We have witness of the Great Year doctrine also from Scythia, the homeland of Dionysius Exguus, by the recently found treasure of Preslav with the number seven prominent in its design. (see Figure 6)

Figure 6. Treasure of Preslav, Bulgaria 8th cent. Rosette of bronze, with seven astral runes (left), golden necklet with seven enameled lokets (right) (Photo: Rothwangl)

In Bosnia and Herzegovina are still found so called Stecak (as shown in Figure 7), tombstones with seven astral symbols of Bogumils, (Hadzibegovic 2010) a heretic movement based upon Manichean and Zoroastrian ideas, who were related to Paulicians. The Bogumils were banished by the Byzantine Empire and emigrated from the Black Sea region called Scythia the homeland of Dionysius Exiguus.

5. ASTROLOGICAL AND PLANETARY ALLEGORIES IN THE GOSPEL

Like an allegory the Gospel of John 21:1-4 tells that Jesus came back after his crucifixion to seven of his disciples. These had taken up their former occupation as fishermen at Lake Tiberias, but with little success, because they had caught nothing in their nets. Jesus stood on the shore and told them to throw the net on the other side of the boat, after which they caught 153 fish. After eating some fish, Jesus gave Peter three times the missionary order: *feed my lambs* and *pasture my sheep.*

A similar story is told by Luke 5:1-10 about the event at Lake Gennesaret, where seven of his disciples had caught nothing all night. Jesus gave the advice to put the net into deep water and they caught such a large number of fish that their nets began to break. Then Jesus says: *From now on you will fish for men.*

As an astrological allusion these words indicate the shift from the age of Aries to the new age of Pisces.

The comparison of this parable with the Hindu myth of the deluge with Manu and the seven Rishis (Figure 8), which as well represent the seven planets, makes evident the mythic shift of an age, if seven of such characters converge.

Figure 7. Stecaks of Bosnia and Herzegovina, Tombstone of Bogumils. (Zalkida Hadzibegovic, Astronomical Heritage in Bosnia and Herzegovina: Late Medieval Tombstones and Astral Motifs as Their Decoration http://seac-2010.vhs-gilching.org/plaintext/conferences/programme/index.html

Figure 8. Manu and the seven Rishis at the deluge
http://commons.wikimedia.org/wiki/File:The_fish_avatara_of_V
ishnu_saves_Manu_during_the_ great_deluge.jpg (left);
Seven disciples of Jesus fishing, Duccio di Buoninsegna.
http://images.zeno.org/Kunstwerke/I/big/1390036a.jpg (right)

We find in the Gospel another pictorial description of an alignment of all planets at the end of time in the end time parable of Matthew with the marriage scene, where five wise and five foolish virgins with lamps wait for the bridegroom. The marriage is a classic ancient metaphor for an align-ment of sun and moon, at new moon or even at a solar eclipse, when the other planets can be aligned (shine like the lamps of the wise virgins) or not (like the foolish virgins with unlighted lamps):

No one knows either the day or the hour wherein the Son of Man cometh... At that time the kingdom of heaven will be like ten virgins who took their lamps and went out to meet the bridegroom. Five of them were foolish and five were wise. The foolish ones took their lamps but did not take any oil with them. [Mt 25:1-13]

We can conclude that the GY-doctrine is based upon the ancient assumption, what as well as the Bible and Plato told, i.e., that the movements of Sun, of the Moon and of the planets are responsible for the existence of the time itself. Due to their cyclical periods the cosmological idea of the cyclical quality of time and its theory of the eternal return (in Greek: apokatastasis pantoon) was born.

6. END-TIME PREDICTION OF THE REVELATION OF JOHN OF PATMOS

Franz Boll says about the astrological and astrological context of the Apocalypse of John of Patmos that the text tells of the starry sky and must have extraordinary meaning at the cusp of a new aeon or age. (Boll 1903, 1914)

Revelation invoking the seven cities equates clearly the seven stars with the lamps or deities of the seven cities.

[Rev 1:11]: *Write what you see in a book and send it to the seven churches, to Ephesus and to Smyrna and to Pergamon and to Thyatira and to Sardis and to Philadelphia and to Laodicea.*

[Rev 1:20]: *As for the mystery of the seven stars which you saw in my right hand, and the seven golden lamp stands, the seven stars are the angels of the seven churches and the seven lamp stands are the seven churches.*

The deities of the seven cities are easy to identify as the gods of the seven planets such as in Ephesus once was the main sanctuary of Artemis, Goddess of the moon; Pergamon with its famous altar of Zeus relates to planet Jupiter and so on. The introducing invocation to the seven cities of the Apocalypse is a hint to the doctrine of the Great Year and to an alignment of all planets at the end of time.

7. THE CHANGE OF THE EQUINOCTIAL CONSTELLATIONS

Precession is a very slow movement of Earth's axis, which can be comprehended only after generations and thus in former times was handed down mostly by cults and religions (Dechend and Santillana 1977). Earth's axis describes by a gyroscopic movement a double cone in the shape of an hourglass, pointing with its center to the poles of the ecliptic. Doe to precession the Northern axis of the Earth describes a circle among the stars, centered on the ecliptic north pole.

The wobble of Earth's axis has the effect that due to precession before a decisive moment of the year, i.e., at the dawn of the day of vernal equinox during many millennia one constellation after the next announces New Year's Day in spring.

New year of many ancient cultures start with the vernal equinox, such as the Persian calendar, which begins with Nauroz (meaning new day) but also the beginning of Dionysius' Anno Domini, is 25th of March, the former feast of Christ's incarnation (now Annunciation). Also the Latin names of the months, September, October, November, and December make sense only if you start counting with March at the vernal equinox.

Due to the gyroscopic wobble of the Earth every about 1500 or 2500 years, depending on the size of the constellations, each succeeding constellation not only announces the New Year's Day, but identifies also the temporal orientation and adoration of the age. The change of these constellations seemingly was noted by a change in worship handed down in myths and idols.

Some 5,500 year ago, when Taurus was at the heliacal rising constellation, we find bull symbolism in different myths and cults of Europe (the myth of king Minos), Middle East (Baal of Mesopotamia and Golden Calf of Bible), and Egypt (Apis bull).

Some 3,500 years ago the next vernal equinox constellation Aries announced the next age and had an effect on the myth of the Argonauts, searching for the Golden Fleece, the wool of a winged ram. Also

Moses appears with horns of a ram, condemning the former bull worship, belittled as the Golden Calf.

Other expressions of this change were the ram-like Amun in Egypt and the Mithrean religion (Strohm 2008) with Mithras slaughtering the celestial bull (Beck 2006) and the myth of Theseus killing the Minotaur, a perversion of the Minoan bull.

Some 2000 years ago fish symbols represented the current equinox constellation Pisces, embodied in first Christian symbols. Jesus was named after the Latinized Greek word for fish: ICHTHYS. Another Christian symbol, the sacrificed lamb, is a parallel to the slaughtered bull after the age of Taurus during the age of Aries (see Figure 9).

If we look now before dawn of vernal equinox to the Eastern horizon of the sky (as shown in Figure 10) we can observe with the next helical vernal equinox constellation the breaking of a new age of precession: Aquarius.

It seems that John of Patmos has prophesied it with these words:

[Rev 14:2] *And I heard a voice from heaven like the sound of many waters and like the sound of loud thunder.*

Figure 9. Petroglyphs in early Christian Roman catacombs. Rome. Photos of Postcards.
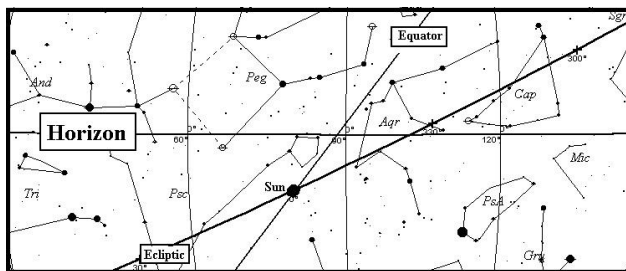

Figure 10. Star map of predawn at vernal equinox 2000, view to Eastern horizon. (starchart created with SkyMap pro v11.0.3)

8. THE RATE OF THE PRECESSION

One of the first to calculate how the constellations shift against the equinoxes and solstices was Hipparchos, of whom Ptolemy reported:

On the variability of the solstices and equinoxes Hipparchos compared lunar eclipses of his time with such in former times of Timocharis [approx. 150 years before] and came to the result that the star Spica was 8° apart from the signs of autumn equinox, but at Timocharis' time almost 6° distant. (Ptolemäus 1963)

This report as well as calculations of Ptolemy himself show both could have known better of an approximate rate of 75y/1° but instead used and handed down a rate of 100y/1°, giving 3000y each 30°, which was used in the Western civilization until the time of Kepler.

Because the correct rate is about 71.6y/1° (2148y/30°) soon mediaeval astronomers of the Middle East (Hartner 1979) realized that Ptolemy's rate was wrong and used a faster rate estimating only 2000y for 30° which equals 66y/1°.

List of oriental medieval astronomers using the rate 2000y each 30°:
- Early Indian Brahmin rate (Bennedik 2007, de La Galaisière 1789)
- Theon of Alexandria (4th Cent.) a changing rate (trepidation) of 66 y/1
- Tables of the Shah (Zij-i Shah, 6th Cent.) (Burckhardt and Waerden 1969)
- Al-Khwarizmi, al zij Sindhind (9th Cent.)
- Tabulae probatae or az-Zig al-mumtan (9th Cent.)
- Al-Battani, called Albategnius, al-Zij (c. 880)
- al-Sufi, also called Azophi (c. 965)
- Al Biruni (973-1048), al Canon al Masud
- Arabian fixed star cataloque of 1st Oct. 1112 CE (ed. Paul Kunitzsch)
- Libros del Saber of Alfons of Kastilla (1252-1284)
- Judah ben Verga of Lissabon (c. 1470) (Goldstein 2001)

Apart of mythic handed down values of precession with the rate 666 y/1° one of the earliest such value we find in India. The French astronomer Guillaume Joseph Hyacinthe Jean-Baptiste LE GENTIL de la Galaisiere was in India to observe the Venus transits of 1761 and 1769. From this journey, he produced a report with material about the ancient trading connection and scientific exchanges that occurred between Arabia and India. Le Gentil gives an account of precession and the Indian calculation of the age of the world, claiming that he had discussed the matter with an Indian Brahmin, who kept his knowledge secret from the common people. The Brahmin said that Indian astronomy was improved and renewed under the king Salivaganam 1691 years ago (calculated from the year 1769 CE, this would be 78 CE). The Brahmins use a period of 60 years and its

multiple for chronology, and the stars precede in the following way:

Each year 54 arcsec.   In 60 years 54 min.   In 3600 (60*60) years 54 degree.   Any step between this periods differs by a factor 60, and the rate of precession conform to 66 y/1°, 666 y/10°, 2000 y/30°, or 24,000 years for the precession's cycle as a whole. The Brahmins use 4,320,000 years as a value for the duration of the world and divide it into four ages:

- 1st age, 1,728,000 years .
- 2nd age, 1,296,000 years (3/4 of 1st age)   .
- 3rd age, 864,000 years (2/3 of 2nd age)
- 4th age, 432,000 years (1/2 of 3rd age).

The current Indian age, the Kali Yuga thus lasts 432,000 years. In sexagesimal system (base 60) it results in 2*60*60*60, thus written in this system it gives 2.0.0.0. For an ignorant, who misinterprets this number system as decimal, it could easily result in 2000 years, as already van der Waerden indicates. Another assertion of the Brahmin was that in 1762 CE, 4863 years of the fourth age, the Kali Yuga (Calyougan) had passed. By this calculation, the Kali Yuga started in -3101 (3102 BCE), the year Aryabhata of Kusumpara reports and as Berossos asserts as being the date of the deluge. This strongly suggests the ancient transfer of astronomical and chronological knowledge between Inda and Greece.

The Brahmin asserts also that 20,400 years before the beginning of the Kali Yuga, a conjunction of all the planets had occurred. This is very interesting because 20,400 = 24,000 – 3,600! As shown above, 3600 years also represents exactly the precessional shift (by the Brahmin value) of 54°. 24,000 / 3,600 gives the same relation as a result, namely 20/3, as the ominous number 666. The adjustment of the Indian Yuga system is thus based upon both the Great Year doctrine with the return of the alignment of all planets, and the Brahmin constant of precession 666 y/10°.

Further Indian rate of the shift of the colure we find with Pingree, who reports of Bhaskara (around 600 CE), that he know from earlier times a value of about 1° in 60 years. Pingree supplies Indian sources as Varahamira and Haridatta, which cite the shift of the equinoxes 27° in 1800, what is 1° in 66.6 years or 30° in 2000 years.

Another transfer of knowledge from India to the Mediterranean at the end of antiquity is ascertained by the 9th century patriarch Photius of Constantinople, as well as by Cedrenus in the 11th century: During the reign of Constantine in 4th century, Metrodorus, who created a 532-year-period Easter cycle, visited India to study philosophy with the Brahmins.

This rate of 2000 years for 30° results in 666 years each decan of 10°. The ceiling of the temple of Dendera shows the 36 decans as human characters. The apocalyptic number 666 thus reflects the rate of precession for each decan.

[Rev 13:18]: *This calls for wisdom: let him who has understanding reckon the number of the beast, for it is the number of a human, its number is six hundred and sixty-six.*

It seems that a medieval star map from about 800 CE expresses the imminent threatening new age with the image of the horned beast of Apocalypse, showing this beast at the position between Pisces and Capricorn (see Figure 11), where usually is found Aquarius. (Haffner 1997)

The illustrator of this medieval commentary of Aratos seemed to be influenced by John of Patmos and identifying the future vernal equinox constellation Aquarius with the beast of Revelation.

[Rev 13:11] *Then I saw another beast coming up out of the earth; and he had two horns like a lamb and he spoke as a dragon.*

Revelation also gives an astrological prophesy not only to Aquarius' rising on the Eastern horizon but also of the recent view to the Western horizon of the vernal equinox predawn, where Leo is setting:

 [Rev 10:1-2] *And he set his right foot on the sea, and his left foot on the land, and called out with a loud voice, like a lion roaring.*

The comparison of an image of the beast of Revelation on the wall-carpet of Angers (Figure 12) with the view to the Western horizon at predawn at vernal equinox (Figure 13) shows impressive parallels.

Figure 11. Illustration of constellations.   Commentary of Germanicus on the Phenomena of Aratos.   Codex Basiliensis of about 800 CE. Haffner, Mechthild: Ein antiker Sternbilderzyklus und seine Tradierung in Handschriften vom frühen Mittelalter bis zum Humanismus. Untersuchungen zu den Illustrationen der Aratea des Germanicus. Hildesheim. 1997

Figure 12. Illustration of Revelation; wall-carpet of Angers http://upload.wikimedia.org/wikipedia/commons/4/4b/La_Bête_de_la_Mer.jpg

How to interpret Revelation [Rev 10:1-2] and the lion stepping with one foot out the sea, we can learn from the myth of Kallisto, which tells that she "could never take a bath in the Sea", but which describes in "Mythic" (which Herta von Dechend called the scientific languade of the pst) the constellation of the Greater Bear as circumpolar and thus never setting. "To take a bath in the Sea" thus means "to set". The roaring lion stepping out of the Sea with its left foot on the land thus describes Leo as half risen due to precession. Remember Leo's precessional predecessor at this position, Virgo, attributing Christ being born out of a virgin 2000 years ago.
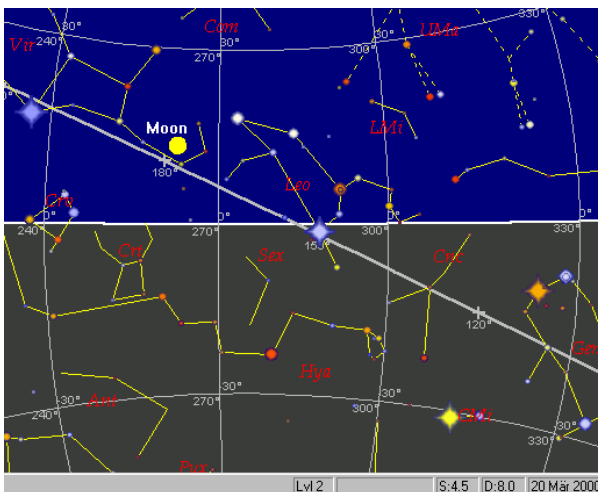

Figure 13. Star map of predawn at vernal equinox 2000, view to Western horizon. ((starchart created with SkyMap pro v11.0.3))

It is a matter of fact that in May 2000 a salient massing of the classical planets occurred.
The alignment of all planets on 5-May-2000:
JDN 2451670.   Right Ascension:
Moon 3h 55m;
Sun 2h 51m;

Mercury 2h 34m;
Venus 2h 14m;
Mars 3h 55m;
Jupiter 3h 0m;
Saturn 3h 11m.

Why does this planetary massing occur in year 2000 of all years? The claim of this article is the thesis, that the appearance and temporal coincidence of this planetary event with the calendrical second millennium was calculated and planned.

It is not of random origin but based upon the plan of Dionysius, who forecast this alignment with commensurable planetary periods known to him and dated it together with another astronomical phenomenon: precession.

9.   ARGUMENT AND RESULT

Dionysius searched for an alignment of all planets in order to find Christ's second coming, the main topic of early and still Christian belief. After having found such a planetary massing 1500 years ahead of his time he assumed to have found the date of the Last Day at the end of the age of Pisces.   Then, 2000 years before this calculated alignment he dated the beginning of his Anno Domini years according the value of precession of 2000 year each 30° at the vernal equinox (the former feast day of incantation of Christ). He must have sought to be in harmony with the beginning of the Age of Pisces (ICHTHYS), the first symbol of Christians. In addition he searched for a solution for the calendrical end of the world. It occurred during his lifetime by arrival of Anno Mundi 6000 and by his AD-adjustment he postponed this end into the far future: AD 2000.

As a result in year 2000 of all years a planetary massing took place, within a span of 26°. Such a massing, where all planets are in pro-grade motion are very rare.

p (6000y, 30°) = 0,026

Yet, Dionysius gives us no hint of how he has performed his calculation. No doubt he could have done it, just like his contemporary Aryabhata of Kusumpara (Clark 1930), who calculated the start of the Kali Yuga some 3600 years backwards from his lifetime to a conjunction of all planets on 17th February 3102 BC. Interestingly Abu Mashar dated at the very same year the deluge of Noah (Pingree 1968, Waerden 1980).

Dionysius' reckoning could have been based on the known common multiple planetary periods shown also in the so-called goal year texts, (Hunger 2006) the periods of the inscription of Keskinthos, (Jones 2006) or the know-ledge that enabled to construct the Antikythera mechanism.

Some commensurable planetary periods. i.e. periods, after which planets conjunct again:

- 3 Conj (J&S) = 2 Saturn = 5 Jupiter (59 years)
- 43 Conj (J&S) = 29 Saturn = 72 Jupiter = 400 Mars = 854 years
- 65 Jupiter = 875 Moon
- 152 Venus = 243 years
- 5 Venus = 99 moon = 8 years = 2920 days
- 101 Conj (J&S) = 2006 years.
  (Rothwangl 2004)

CONCLUSION

The invention of Anno Domini was based upon an end-time-plan with the correct calculation of a forecast of a massing of the classical seven planets. Yet, the dating of Christ's incarnation happened with a wrong value of precession.

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Anno Domini is based upon a now unrealistic cosmological concept, which postulates that the world would end at the planetary alignment of May 2000 together with the second coming of Christ.

However, the orientation towards a massing of all planets has worldwide parallels in timekeeping such as in the Kali Yuga or the Deluge in 3102 BCE, or the Zhuanxu dynasty and its calendar in 1953 BC.

An astronomical project in the Austrian Alps has actualized this idea in the Planetary Trail "Heaven upon Earth." Models in the scale of 1 : 1 Billion show in size and distance the massing of the classical planets, but as well together with the modern planets Uranus and Neptune. The next such alignment, which will occur exactly at vernal equinox in 660 years. (20-03-2675).

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