
THE SACRED CONTEXT OF TIME AND SPACE AMID THE ORTHODOX CHURCH DILEMMA OF CALENDAR REFORM

Zoja Kuca* and Aleksy Kucy

Faculty of Philology, University of Łódź, Poland

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Abstract

The concept of time has long fascinated philosophers and theologians, presenting itself as a mystery beyond complete comprehension. It is seen as a divine creation, intrinsically linked to the unfolding of reality, but ultimately beyond human understanding. While linear time can be grasped through the events and movements of the material world, the deeper essence of time, often referred to as angelic time, remains elusive, existing beyond our earthly perceptions. The liturgical calendar, with its cyclical rhythm of sacred dates and events, serves as a tangible manifestation of this sacred time. However, the Orthodox Church's adherence to the traditional Julian calendar has led to discrepancies, particularly in the celebration of Easter in accordance with astronomical phenomena. Despite theological insights and attempts at reform, the Orthodox Church has yet to fully address the issue, deviating from the decree of the First Ecumenical Council to synchronise the vernal equinox with March 21. This unresolved tension highlights the ongoing struggle to reconcile divine time with earthly measures and underscores the enduring mystery of the nature and meaning of time in theological discourse.

Keywords: Linear Time, Angelic Time, Liturgical Calendar, Vernal Equinox, Easter

1. Introduction

In her previous article Zoja Kuca considered the Orthodox philosophical and theological approach to the category of holiness. As it was shown, the phenomenon of holiness can be considered on several semantic fields: 1) holiness as sanctity, i.e. a quality exclusive to God and His elect, the attainment of which is possible in the process of deification; 2) holiness as numinosum, i.e. a special religious dimension that evokes certain spiritual-psychic experiences in the encounter with the consciousness of the individual; 3) holiness as the sacred, i.e. another sphere of being, an ontological reality, a primordial reality revealed in hierophany; and finally, 4) holiness as perfection, i.e. a moral quality attained by the individual in the process of spiritual growth [1]. We believe that this phenomenon is closely related to another equally important categories – time,

* zoja.kuca@uni.lodz.pl, aleksy.kucy@uni.lodz.pl

space, and calendar. In this case, too, we can speak of a certain degree of sacredness, as the famous Romanian religious scholar Mircea Eliade saw it. Both time and space can be sacred. These categories are closely related, and in soteriological terms they are no less important than holiness itself. Let us have a look at what we can find in the orthodox philosophical and theological discourse, the underlying dominants that define the essence of these phenomena, and how we can apply this specifically to the calendar question.

2. The Sacredness of Time

The understanding of the sacredness of time and space, like the phenomenon of holiness, depends on the level from which it is viewed. Orthodox theology in its treatment of the category of time requires from us to overcome two contradictions. On the one hand, Scripture should not be considered only metaphysically, that is, it should not be understood only intellectually, especially when it comes to its symbolism. On the other hand, we must be careful that this caution towards philosophy does not lead us to perceive the symbolism of Scripture literally. The Bible is profound, and its most ancient passages, especially Genesis, “unfold according to the laws of logic, which makes no distinction between the concrete and the abstract, between the image and the idea, between the symbol and the reality it expresses” [2, p. 144]. By losing this depth, eternity can only be transformed into a beginningless and endless ‘stretch of time’, reducing the infinite to the indefinite, in other words, distorting transcendence.

It is necessary to look first at the works of St. Maximus the Confessor, St. Augustine, St. Basil the Great, St. John of Damascus and Pseudo-Dionysius the Areopagite to present a theological interpretation of time. If there is no contradiction on the question of the genesis of time, since its beginning is the moment of origin of the rest of creation, the relationship between time and eternity poses a considerable problem, as does the question of creation *ex nihilo*. The very definition of the concept of the ‘first moment of the universe’, which separates ‘temporality’ from eternity, is fraught with many difficulties, for the first moment cannot be divided, it cannot even be described as infinitely short, it remains outside the temporal dimension: it is a momentary limit and therefore lies outside the sphere of continuity. However, this is the criterion that separates the Creator from creation. The timeless nature of God, including the Logos, as a Hypostasis inseparable from the Father, comes to the fore in St. Gregory the Theologian when he proves the divine nature of Jesus Christ: “For if time is older than the Son, then the Father undoubtedly became the cause of time before the Son. And how could He who is Himself under time be the Creator of time? How could he be Lord of all things if time precedes Him and possesses Him?” [3]. Time appears together with creation and is continuously connected to it. The unresolved question is the ‘beginning’, i.e. the ‘moment’ when it happened.

St. Basil the Great, following Plato, understood the first moment as a certain ‘suddenness’, a breakthrough, a sudden turn towards eternity. The suddenness postulated is at once temporal and eternal, on the border between eternity and temporality: “It is said: ‘In the beginning’, because the beginning is something

that has no parts and does not extend. Just as the beginning of a journey is not yet a journey ... so the beginning of time is not yet time, nor even the smallest part of time. If a contentious person says that the beginning of time is time, let him know that he will divide the beginning into parts, and these parts are: the beginning, the middle and the end. ... To signify this, the ancient interpreters, expressing the idea more clearly, said: God created suddenly, that is instantaneous (*ἀκαριαῖον*) and timeless (*ἄχρονον*)” [4]. So, when we say that the Divine Will created ‘in the beginning’, we mean according to St. Basil the Great that acting was ‘instantaneous’ and ‘timeless’.

For St. Augustine, on the other hand, the future always becomes the past, which is why we can never grasp the present in time. The Saint wrote: “a long time is not long except in virtue of a great number of passing moments which cannot all run their course at once? They would see that in eternity nothing passes, for the whole is present, whereas time cannot be present all at once. Can they not see that whatever is past has been pushed out of the way by what was future, and all the future follows on the heels of the past, and the whole of both past and future flows forth from him who is always present, and is by him created? [...] Now, what about those two times, past and future: in what sense do they have real being, if the past no longer exists and the future does not exist yet? As for present time, if that were always present and never slipped away into the past, it would not be time at all; it would be eternity” [5, p. 293]. Orthodox theology, since the concept of the ‘first moment’, therefore explains the moment of the origin of time by its ‘beginning’. This beginning, it is said, is the beginning of creation as such, that is, the time of the calling of this creation out of non-being, which in turn is already by definition subject to change and transformation. Augustine’s statement makes time the sole substitute for creation, beyond which it is simply absent. The Saint adds: “There was therefore never any time when you had not made anything, because you made time itself. And no phases of time are coeternal with you, for you abide, and if they likewise were to abide, they would not be time. For what is time?” [5, p. 295].

It should be emphasised here that time, as an attribute of the created world, is by no means the opposite of God’s eternity. God, as Creator and First Cause of being, is ‘situated’ outside of time and even outside of eternity. Indeed, Pseudo-Dionysius the Areopagite in his Epistle to Timothy puts it this way: “In His sense, the Existent One supernaturally transcends the totality of being, being the One Person Cause and Creator of all that exists: matter, essence, existence, being. He – the Existent One – Is the beginning and the measure of eternity, the cause of time and the measure of time for all that exists, and He who is the general determinant of the formation of all that is formed. [...] This is why He is called the ‘King of Eternity’, because in Him the variety of forms of being exists and through Him the variety of forms of being is preserved, while He Himself – was not born, is not born and will not be born, was not, will not be and, what is more, is not, although in Himself He constitutes an existing being” [6, p. 61]. In St. Augustine we find a clarification of this thought: “How could measureless ages have passed by if You had not made them, since you are the Author and Creator of the ages? Or what epochs of time could have existed, that had not been created

by You? And how could they have passed by, if they had never existed? If there was a ‘time’ before You made heaven and earth, how can it be said that You were not at work then, You who are the Initiator of all times? For of course You would have made that time too; there could not have been any passing times before You created times. If, therefore, there was no time before heaven and earth came to be, how can anyone ask what You were doing then? There was no such thing as ‘then’ when there was no time. Nor can it be said that You are ‘earlier in time’ than all eras of time, for that would mean that there was some kind of time already in existence before You” [5, p. 294-295].

Therefore ‘God’s eternity’ cannot be understood in terms of time or other spatial movement, but in terms of an entirely ‘different’ dimension that lies beyond any temporal-spatial and contingent-existential categories. If movement, change, transition from one state to another are categories of time, then they cannot be opposed, one by one, to the idea of the immobility and unchangeability of some static eternity. “That would be the eternity of the Platonic school of philosophy, not the eternity of the living God. If God lives in eternity, then this eternity should transcend the juxtaposition of the categories of time and fixed eternity” [2, p. 186]. To sum up, God resides in a space beyond time and indeed beyond space.

Furthermore, the notion of ‘God’s eternity’ and material time is linked to another temporal category, that of angelic time, also known as ‘aeonic time’ or ‘created/static eternity’. Aeon time (αιώνιας) by St. Maximus the Confessor, like human time, also has a beginning and passes from non-being to being. It is the ‘time’ in which the immaterial creation, i.e. the heavenly hierarchies, as well as the souls of the dead and fallen angels, reside. The aeonic or angelic eternity is characterised by staticity and immutability. In one of his *Ambiguum* he said: “Eternity is time when it stops moving, and time is eternity when it’s measured, having been when it is measured by motion. And so that I may encompass this with one definition – Eternity is time without motion, and Time is Eternity measured by motion” [7, p. 142]. And as we have said before, in a certain sense, when we speak of spiritual beings residing in it, they can also, like human beings, ‘develop’, to be more precise, ‘grow in the knowledge’ of God, although this process takes place outside earthly temporality and under completely different conditions. It is that time which is yet to be revealed in the eschatological reality, all its ‘physical’ characteristics yet to be known by the reborn humanity. Therefore, although aeonic time is static and unchanging, it can be inferred that spiritual beings can experience some form of spiritual development or degradation within it, which is an interesting aspect of its nature.

Activity and passivity are what, according to the Saint, distinguish aeonian and material time. The ages of the flesh, in which we now live are characterized by activity, while the future ages in the Spirit, which are to follow the present life, are characterized by the transformation of humanity in passivity. “Existing here and now, we arrive at the end of the ages as active agents and reach the end of the exertion of our power and activity. But in the ages to come we shall undergo by grace the transformation unto deification and no longer be active but passive; and for this reason, we shall not cease from being deified. At that point our passion

will be supernatural, and there will be no principle restrictive of the divine activity in infinitely deifying those who are passive to it. For we are active agents insofar as we have operative, by nature, a rational faculty for performing the virtues, and also a spiritual faculty, unlimited in its potential, capable of receiving all knowledge, capable of transcending the nature of all created beings and known things and even of leaving the ‘ages’ of time behind it” [8, p. 117-118]. In this context, time is presented by St. Maximus as the transformative journey of humanity and its final goal of deification, emphasising the expectation of divine fulfilment and the significance of present virtues pointing to future blessings.

The relationship or connection between linear and aeonic time becomes important. The fact of the documented Old Testament apparitions of angels undoubtedly testifies to the continuing relationship that exists between the two worlds. The New Testament era brought additional data on the properties of the immaterial world. The Gospels do not contain much information about aeonic time and space, but the hagiology does. The main regularities that emerge from them allow us to conclude that it is not possible to equate material and aeonic time in terms of the same determinants of their pace, and to consider that the passage of the soul into the transcendental realm implies for it the complete cessation of the processes of ‘development’ or ‘change’ in relation to the established laws of linear time. It is therefore understandable why the possibility of repentance, of metanoia, ceases with the death of the Christian’s body: this is because these processes of spiritual rebirth take place here and now, in linear time. The transition to another space-time involves the operation of completely different functional regularities, the experience of a created eternity, where the concept of ‘development’ already has a completely different semantic fulfilment.

3. The Sacredness of Space

Orthodox theology speaks of created space-time, of its sanctification, its sacralisation. Christian civilisation, since the time of Dionisius Exiguus and the Venerable Bede has invariably made use of the division of time into before and after Christ, with the countdown of time before our era being carried out by the backward method, not the other way round. This apparently logical regularity is based on the fundamental Christian theological truth of the source of time. God is indeed the Creator of time; therefore, when He appeared in material space-time, it had to submit to Him. This is not a mere scholastic statement. Christ’s coming into the world is a real act of all-cosmic significance, an act that sanctifies our space, including time.

The sacramental life of Christians sanctifies not only time but also space. Thus, the Cross, icons, churches and other holy places of prayer and religious rites sanctify space. The sign of the Cross has several connotations: blessing, protection from demons, confession of faith, as well as a spontaneous reaction to the event. The spatial and temporal aspect of the sacred has been emphasised by many scholars of the past and present. In addition to Christian theologians, representatives of other branches of science – religious studies, philosophy, etc. In the phenomenology of religion, a special place was given to the question of the

sacredness of time and space by Mircea Eliade, who always contrasted sacred time and space, as well as the sacred, with the profane, secular. The scholar shows the sacredness and profanity of time and space through the example of religious and non-religious people. He argues that religious space is characterised by its heterogeneity. Sacred or sanctified territory does not mean like all others, but more important, essential, and significant [9, p. 61]. The scholar's theory of sacred space is linked to the search for the 'centre of the world' to which every religious person aspires. The opposite of sacred space is secular space, which is characterised by homogeneity and neutrality.

Eliade shows the heterogeneity of space for a religious person using the example of a temple. The religionist claims that the gate and the threshold of the temple are the boundary that separates profane and sacred space. The threshold takes on a sacred meaning and becomes a symbol of the transition from the profane to the sacred. From this we can conclude that the church is a 'door' that leads to the higher world and thus provides a link to the world of the gods [9, p. 65].

The concept of the 'centre of the universe' reveals to us the deepest meaning of sacred space. At the centre there is a leap between two levels: the upper world and the lower world. The connection between heaven, earth and the lower realms becomes possible. In the centre of the world there are holy cities, temples, shrines [9, p. 73-75]. Every religious man believes that his country is near the 'centre of the universe', the city is the 'navel of the universe', the temple is the true centre of the universe. The religious man strives to have his own home in the centre and to reproduce the *imago mundi*. The world comes from the centre, the centre is a kind of 'navel' from which it spreads out in all directions. For Christians, the 'centre of the universe' is Golgotha, which marks the top of the cosmic mountain and at the same time the place of Adam's creation and burial [10, p. 397]. On the question of temples, rev. Alexander Schmemmann argued that it was Emperor Constantine who began the tradition of religious veneration of holy places by building temples, first in Rome, then in the East and in Palestine, at sites associated with the events and persons of sacred history. The rise of such local cults, according to the theologian, was determined by the need for a materialised and localised sacred to be introduced 'into the very fabric of natural life as its religious sanction or sanctification'. "It is characteristic, therefore, that where there was no 'holy place' – the tomb of an apostle or martyr, or even the memory of theophany – they began to resort to its artificial creation, through the discovery or transfer of relics, the attribution of minor events of biblical history to certain places, etc. The discovery of the relics of the first martyr Stephen in 415 was like a prototype of such phenomena, which became unusually popular in Byzantine piety. The connection of these holy places with civil life, the obvious tendency to 'sanctify' through them the life and activity of the city, society, and empire, is also characteristic" – the theologian continued [11, p. 134].

Sacred time also occupies an important place in Eliade's phenomenology. Like space, according to the Romanian scholar, for a religious person time is not something homogeneous and constant but is divided into the sacred and the secular. The factor that contributes to the interruption of secular time and the

advent of sacred time is the holiday. Eliade calls the festive time the anthological time, which does not change and is not exhausted. Every holiday allows us to approach sacred time [9, p. 97-98].

Indeed, when Christ says that the time is coming when there will be no attachment to places for the worship of God [John 1:21], He presents Himself as a holy place present everywhere, thus eliminating the need for the exclusivity of places of worship. Every visit to the temple now becomes a kind of pilgrimage to holy places, and the need for a central geographical location is eliminated. Instead, Christianity affirms that the priesthood of God pervades the whole earth, and every place of worship becomes the centre of a cosmic unity that connects every point to the upper world. The best biblical image to illustrate the meaning of these representations is Jacob's ladder. Angels ascend and descend it. Heaven is opened and the ladder rests in the centre of the earth, and since Christ is this ladder, it appears in every holy place, in countless centres. This is how St. Augustine interprets it: "James poured oil on the stone, not according to the custom of the idolaters, as if he were making the stone a god; for he neither worshipped the stone nor offered sacrifices to it; but since the name of Christ is derived from *χριστός*, that is, from anointing, something of the great sacrament was undoubtedly projected here. It is this stone that our Savior himself recalls in the Gospel. After saying to Nathanael, 'Behold, a true Israelite, in whom there is no guile', He says in the same place – since Israel, alias James, had the said vision – 'Verily, verily, I say to you, from henceforth you will see heaven opened, and the angels of God ascending and descending to the Son of Man [John 1: 47,51]'" [12, p. 166]. This understanding of Christ as the embodiment of sacred space thus emphasises his universal presence, the spiritual union of believers with him, and the sanctifying influence of his presence in the world. This perspective removes the need for an exclusive place of worship and emphasises the transformative power of encountering Christ wherever believers gather in his name.

4. The Sacredness of Calendar

Finally, another category – calendars – is closely related to and follows directly from the theme of time. The discourse on calendars is very broad. Since antiquity, in different periods of its development, in different religions and astronomical systems, mankind has tried to reproduce the cosmic rhythm, giving it the form of this or that cyclicity and distributing its corresponding elements in a complex system of time calculation. Today, when astronomical and physical sciences have reached a high level of development, any discussion of calendars must be conducted from a strictly scientific point of view. The same applies to the question of the ecclesiastical calendar. Let us look at it in more detail.

In practical terms, Christianity perceives time as a mystical-religious, sacred category. The birth of Christ, His earthly life, His miracles, His suffering on the Cross, His death and His resurrection sanctified not only the places of his bodily presence but also the time in which they took place. The subsequent development of Christianity has only corrected this pattern. Today there is not a single day on which the memory of one of the Christian saints is not

commemorated. Therefore, the liturgical calendar and everything connected with it has a deep sacred value. By commemorating the Gospel and other Christian events in a yearly and weekly cycle, the Church reconsecrates time and spiritual space and anticipates the joy of future life. Christian feasts bring believers into mysterious communion with God, invoke His grace and strengthen the Christian in temporal life. All the Fathers of the Church wrote about the importance of celebrating and observing the Church's feasts: St. Gregory the Theologian, St. John Chrysostom, St. Cyril of Alexandria and others. Christian feasts "remind us of heaven, of the true goal of our life on earth, show us the means to reach this goal, awaken in our hearts the desire for virtue, strengthen in us the determination to 'attain the highest honour' (Phil 3:14) and, by the example of the lives of the saints, to march unceasingly and steadily, as Saint Gregory the Theologian says, 'in the footsteps of that good guide who leads directly to the breadth of the bliss of heaven'" [13, p. 402].

In the light of the above considerations, the question of the liturgical calendar is a not inconsiderable problem. The history of the Orthodox Church is full of interesting events connected with the development of this calendar during the first centuries of Christianity. The most important in this respect is the fact that the Fathers of the Church adopted the so-called Julian calendar, which operated in the orbit of the Roman Empire and was implemented 46 years before Christ, as the calculation system of their mystical life. The Orthodox liturgical calendar owes its modern form to St. John of Damascus, who, in addition to the already existing memorial dates, added the memorial days of many Christian saints, thus setting an example for the next generation of Orthodox apologists and defenders of the faith.

The reform of the liturgical calendar is currently the subject of much debate in Orthodox Christendom, due to the introduction by some local Churches of a new system of calculation, the Revised Julian calendar. Leaving aside for a while all the arguments of the above polemic, it is necessary to point out another dimension which, let us be clear, should determine its outcome. It is the mystical dimension. If we look at the liturgical calendar from this point of view, apart from the concrete reckoning of time, it becomes clear that it is not really a system of calculation, but a living mystical thread filled with divine energies. Each day of the Church's life is a link, sanctified by the Holy Spirit, open to the transcendent world. The liturgical calendar is there to be lived, not to count down the days of the weeks and months in anticipation, for example, of the end of Lent. There is therefore an urgent need to put a bold end to the dispute that has led to such a damaging situation, and to give a definitive answer to who is right and who is wrong. We must also find an answer to the question of how to get out of the current situation and how to restore the Orthodox calendar and liturgical unity.

The Scriptures point directly to the connection between astronomy and the manifestation of God's glory in the world. The starry sky is like an open book, sacred like the Bible, and therefore there can be no contradiction between the revelations of one and the other. "The heavens declare the glory of God; And the firmament shows His handiwork. Day unto day utters speech, And night unto night reveals knowledge" [Ps 19:1-3]. For the universe, time is a kind of pulse, a

kind of cosmic rhythm, which mankind has tried to grasp and characterise from the earliest times [14, p. 127-195]. And the first principle of systematicity was its cyclicity, a string or circle of continuously repeating events, manifested in the movement of cosmic bodies and in the seasonality of the seasons when we are talking about the Earth. We can speak of various comparative examples, but when we speak of time and of the Church as a unified organism, the analogy that comes to mind is the human body, where the blood flows along the vessels in a closed system to provide adequate nourishment for the cells of the body. So, this mystical movement of spiritual cells flows along the reckoning system adopted in the Church to provide heavenly nourishment for souls yearning for salvation. Therefore, there cannot be two calendars in the ecclesiastical body, just as there cannot be two separate circulations of blood in the body. There is only one movement, one mystical pace, one closed system. And this pulsation, this rhythm, is not something separate from the rest of the universe because the ultimate soteriological goal is for “God may be all in all” [1 Cor 15:28]. And since God created “the sun to rule by day” and “the moon and the stars to rule by night” [Ps 136: 8-9], they have served mankind since time immemorial to determine this rhythm.

5. The Orthodox Church Dilemma of Calendar Reform

The essence of the calendar reform dilemma is not only, as it is commonly believed, reduced to the question of the delay of the Old Julian calendar from the real solar-tropical time, but also to the question of the celebration of Easter – in fact, the main question, which has not been resolved by the Orthodox Christendom, despite the adoption of the Revised Julian calendar by a number of local Orthodox Churches in 1924, starting with the Ecumenical Patriarchate of Constantinople and the Greek Orthodox Church [15, p. 67-133]. In our view, this happened because most of these Churches, while taking a step in the direction of calendar reform, did so only partially, without taking the second step, properly speaking – taking a half-step and stopping halfway to full reform. The Ecumenical Patriarchate, as we might assume, fearing that its calendar reform would not meet with the approval of other local Orthodox Churches that were absent from the 1923 meeting [15, p. 67-133] due to historical circumstances, introduced the Revised Julian calendar only partially, leaving just fixed feasts and monthly dates.

By leaving the Old Julian calendar to define and celebrate Easter and all the movable celebrations dependent on it in its own ecclesiastical rhythm, Ecumenical Patriarchate gave an argument into the hands of the opponents of any calendar reform and the supporters of the status quo. Unfortunately, even among own flock, there was no proper theological and scientific work to educate both clergy and laity. Hence the emergence of various schisms and other opposition groups within virtually every local Church that joined the partial calendar reform. The apotheosis of such practices can be seen as the return of the entire local Church to the Old calendar, as happened in the case of the Polish Autocephalous Orthodox Church almost a century after the reform. This officially took place on 15 June 2014, based on the decision of the Holy Council of Bishops of the Polish Autocephalous

Council of 18 March 2014. The bishops justified their decision as follows: “In view of the fact that the majority of P.A.K.P. parishes (96.00%) celebrate feasts according to the Old calendar (Julian) and at the request of the faithful, the Holy Council of Bishops revoked the decision of the Council of 12 April 1924 concerning the introduction of the Revised calendar and decided to return to the Old calendar from 15 June 2014. (Sunday of All Saints). Where necessary, the Revised calendar may be used” [Komunikat Kancelarii Św. Soboru Biskupów Polskiego Autokefalicznego Kościoła Prawosławnego, 19.III.2014, Warszawa, online at <https://www.orthodox.pl/wp-content/uploads/2014/03/Komunikat.pdf>]. This was accomplished since most of the clergy and laity of that Church could not fully accept the calendar reform without really understanding the issue at hand. We believe that this was due to a lack of proper pastoral and educational work.

But what is the root of the problem? Let’s understand it. To do this, it is necessary to understand that the problem is twofold, on both the astronomical and the theological levels. It is the tropical (or solar) year that is important for our research, since it is defined as the time it takes for the sun to return to the same point on the ecliptic that corresponds to the vernal equinox. It is the vernal equinox that is accepted by the Orthodox Church as the main constant for calculating the date of Easter. A tropical year is roughly the time it takes the Earth to complete one orbit around the Sun, but not exactly. Because of the slight wobble in the Earth’s axial tilt, known as precession, the interval from one March equinox to the next is slightly shorter than the period of the Earth’s orbit around the Sun. The duration of one complete orbit around the Sun is called a sidereal year, which is about 365.25636 days. This calendar belongs to the so-called arithmetical solar calendars: the length of the year is regulated by intercalating the days according to precise rules to keep them in synchrony with the sun [16, p. 41]. Let us first discuss the first astronomical level. In the case of the Julian calendar, it means that on all objective physical and astronomical parameters, it lags behind the terrestrial tropical year by approximately 11 minutes and 14 seconds. Why approximately? Because although it is believed to average 365.2422, the length of the tropical year is variable and can fluctuate. If we want to determine its exact duration in individual years, we will find that it varies slightly and is not constant. Let us look at the examples in the Table 1. to see how it varies from year to year [V. Hocken, *How Long Is a Tropical Year/Solar Year?*, online at <https://www.timeanddate.com/astronomy/tropical-year.html>.]

Table 1. Variation in the length of the year

Years	Days	Hours	Minutes	Seconds	Averaged
March 1986 – March 1987	365	5	48	58	365.2423
March 1987 – March 1988	365	5	46	38	365.2424
March 1989 – March 1990	365	5	51	06	365.2426
March 2012 – March 2013	365	5	47	22	365.2425
March 2016 – March 2017	365	5	58	36	365.2427
March 2019 – March 2020	365	5	51	4	365.2425

As can be seen from such a small example, the interval between successive true equinoxes varies due to nutation and inequality with other planets. In the case

of this table, it is 12 minutes between 1986-87 and 2016-17. However, Edward Richards, after analysing all the available historical data, found the maximum interval to be 18 minutes, noting that “this change was not obvious to the ancients” [14, p. 349-350]. What is the practical effect of this discrepancy on the ecclesiastical calendar? Such that, apart from the offset from the true tropical year, it explains the difficulty of accurately predicting the movements of celestial bodies, especially the Sun and the Moon, which are important from the Orthodox Church’s point of view in determining holidays, especially Easter. When in Orthodox discourse we speak of Easter as the central determinant of the entire calendar cycle of movable feasts and Gospel readings, we mean the arithmetical lunisolar calendar, which attempts to maintain synchrony with both the Moon and the Sun by rule-based intercalation. It is this aspect that proves that a half-hearted, incomplete reform could not be carried out. On the other hand, not to reform and keep the Old calendar is also a very wrong decision and now we will prove it.

The very first argument in favour of a reform of the Old Julian calendar is the conformity with the liturgical tradition of the calculation of the most important feast, Easter. In the Orthodox Church, the Easter cycle is the starting point for determining the annual cycle of Gospel readings. The fathers of the First Ecumenical Council in 325 decided that the date of Easter should be based on the vernal equinox, which was set at 21 March. Although astronomically the day of the vernal equinox is also not a constant and can vary up to 4 days in either direction, there has been no other decision since the First Ecumenical Council. In the 4th century there was a considerable discrepancy between local Churches in the way they calculated Easter. According to the decision of the Council, the Alexandrian Church was called to be responsible for the compilation of Paschalia, where the day of the vernal equinox had long been 21 March. From 328, the Alexandrian Church “began to publish paschal letters based on the Metonic cycle” [14, p. 349-350].

Thus, by refusing today a complete reform of the Old Julian calendar, the local Orthodox Churches are in fact undermining the basis of the decree of the First Ecumenical Council, since the astronomical day of the vernal equinox is almost 13 days earlier than it is foreseen in the Old Julian calendar! At present, therefore, the date of the Orthodox celebration of Easter is an abstract calculation, detached from the cosmic rhythm and contrary to the decrees of the Council of Nicaea. Moreover, ignorance of historical facts leads modern Orthodox scholars to mistaken opinions and confusion as to why exactly 21 March has been accepted by the Church as the day of the vernal equinox. For example, in his latest book [17], Alexei Semenov not only fails to understand the theological and astronomical foundations of the vernal equinox, but also puzzles over the Gregorian reform, in particular “why the Pope did not move the calendar back to the beginning, to the time of Julius Caesar, but to the time of the Council of Nicea, almost 4 centuries later” [17, p. 3]. In other words, the scientist wonders why Gregory XIII’s astronomers shifted the calendar by 10 days instead of 13.

The answer to this question is our second argument. Again, ignorance of historical facts by such researchers as Alexey Semenov, who instead of clarifying the essence of events, mislead the so-called defenders of ‘the true calendar’. In

fact, Roman astronomers restored a calendar based on the tropical year, which was oriented to the year 325, and not to the time of the introduction of the Julian calendar in 46 BC. And the answer to this question is banally simple, though not obvious at first sight.

The fact is that at the same First Ecumenical Council another important reform was carried out, namely the first reform of the Julian calendar in the history of the Church and the Roman Empire. In the year 325 the calendar was already three days behind the real time. It was precisely the fact that the calendar dates were shifting in relation to astronomical events that prompted the Church Fathers to carry out this important reform. The Council decided to move the calendar year forward by three days to restore the correspondence between calendar dates and real astronomical observations. This brought the calendar back into line with the solar year and ensured that the dates of church festivals, especially Easter, which is central to the Christian calendar, were accurately determined. This development was loudly reminded in 1948 by Professor Archpriest Petre Vintilescu, one of the leading theologians of the Romanian Orthodox Church and Dean of the Faculty of Theology at the University of Bucharest, who was actively involved in discussions on calendar reform. In his works, such as *Some Considerations in Connection with the Correction of the Calendar* [18, p. 432-441], presented at a meeting of heads and representatives of the autocephalous Orthodox Churches in Moscow in 1948. Vintilescu analysed the problems of calendar reform and proposed solutions to harmonise the different calendars within the Orthodox Church. Fr. prof. Vintilescu's contribution to the debate on the calendar issue was significant and influenced the subsequent discussions and decisions taken by the Church hierarchy. Archpriest Petre Vintilescu was known for his active position and deep knowledge of theological issues, which allowed him to become an important figure in the religious debates of the time. His writings and speeches were often quoted and discussed at various church meetings and conferences, confirming his authority and importance in Orthodox theology.

The same thesis was apparently repeated by Bishop Vitaly Vvedensky, whose article was published 7 years after his death in the *Journal of the Moscow Patriarchate* in 1957 [19]. This fact is neglected by many scholars, but in our opinion, it is the central argument in the discussion of the Church calendar. Perhaps the lack of direct documentary evidence would cast doubt on the thesis presented, but this is not a problem. The evidence for the first reform of the Julian calendar by the First Ecumenical Council can be found empirically. Indeed, if we take into account the astronomical-mathematical properties of the Julian calendar, namely that it lags behind real time by more than 11 minutes per year, and if we take as axiomatic the scientifically proven figure that the Julian calendar lags behind by about 0.78 days per century, or about one day every 128 years, we can calculate the daily accumulation up to our days without much difficulty. With this in mind, we now turn our attention to Table 2.

So, according to the data we have, we can clearly see that in 325 the Julian calendar was really lagging the tropical year by almost 3 days. If the reform had not been carried out by First Ecumenical Council, today the difference would be 16 days instead of the current 13 days. This not only proves the reform, but also

underlines once again the importance of this decision, which already in the 4th century reduced the discrepancy between calendar dates and real astronomical events, allowing a more accurate determination of the dates of church holidays such as Easter. Why the Orthodox Patriarchs remained inactive for so long until the Gregorian reform is still an open question.

Taking into account the reform of 325 and the Gregorian reform of 1582, our calculations are presented in Table 3.

Table 2. Julian calendar lag over time

Year	Lag from the tropical year (days)
46 BC	0
83 AC	1
211	2
339	3
467	4
595	5
723	6
851	7
979	8
1107	9
1235	10
1363	11
1491	12
1619	13
1747	14
1875	15
2003	16

Table 3. Julian calendar lag and Gregorian reform adjustments

Year	Lag from the tropical year (day)	Lag from the Gregorian calendar (day)
325	0	-
453	1	-
581	2	-
709	3	-
837	4	-
965	5	-
1093	6	-
1221	7	-
1349	8	-
1477	9	-
1582	10	0
1605	10	10
1733	11	11
1861	12	12
1989	13	13
2117	14	14

Empirical mathematical calculations show why Pope Gregory XIII did not shift the calendar by 13 days, as Alexei Semyonov claims, but by 10 days, precisely because of the reform of 325.

Our final argument follows from the whole of this article, especially from the thesis that the life of any living organism must follow an optimal rhythm; the Church, as the living Body of Christ, is also a living organism. The rhythm of her liturgical life, on the one hand, cannot be divided, cannot flow according to two different calendars: one for the calculation of Easter and the other for the fixed feasts. On the other hand, it cannot lag the rhythm established by the Creator Himself. So, it must be synchronised with the cosmic rhythm of the celestial bodies and whole universe.

The existing discrepancy between astronomical phenomena and the dates established by the Old Julian calendar leads to significant discrepancies that affect the entire liturgical life of the Church. In particular, the 13-day difference between the Julian calendar and the tropical year means that important events such as the vernal equinox do not coincide with their astronomical dates, which not only complicates the determination of the dates of Easter, but also creates a gap between the ecclesiastical calendar and the cosmic cycle, contrary to the principles established by the First Ecumenical Council. In this context, the Revised Julian calendar proposed by the Serbian astronomer Milutin Milanković represents a reasonable solution. While preserving many traditional aspects of the Julian calendar, it introduces the correction of leap years, which significantly reduces the accumulation of errors over time and aligns it with the tropical year. The scientific and astronomical validity of the Revised Julian calendar is also confirmed by its conformity with the Metonic cycle, which considers both the solar and lunar cycles.

At the end of our conclusions, we should note that the modern level of astrophysiological and scientific research is so high that the reform of the Old Julian calendar is not such a difficult task as it was in previous epochs. Considering the accumulated knowledge, it is possible to develop at least several different variants of the reform, which to a greater or lesser extent will consider both canonical and scientific requirements. To prove the above, we can offer our own vision of calendar reform, which may help to find a way out of the current impasse.

To improve the Julian calendar, we can introduce different rules for leap years, namely the exclusion of a leap year every 128 years. Such a rule would help to reduce the accumulation of errors associated with the Old Julian calendar but would preserve its traditional structure. Since an important factor for the Orthodox Easter is that the dates, days of the week and phases of the moon should be repeated with the same values, considering both the solar year and the lunar month, the use of the Metonic cycle of 19 years, in accordance with the Alexandrian tradition, is the best option. This cycle brings the solar and lunar calendars closer together and consists of 19 tropical years, or about 6940 days. The lunar cycle (synodic month) is about 29.53059 days, and 235 lunar months are about 6940 days. For the dates, days of the week and phases of the moon to match exactly, all three elements must return to their original state.

For the Revised Julian calendar, with our proposed rule of excluding a leap year every 128 years, the periodicity of the coincidences does not change, because for 19 years there are 4 leap years. For 19 years in the Julian calendar, 19 years of 365 days makes 6935 days, plus 4 leap years gives an additional 4 days, making a total of 6939 days. This confirms that for the reformed Julian calendar, as well as for the traditional Metonic cycle, the coincidence period is 6940 days (just one day difference). For all the elements (date, day of the week, phase of the moon) to coincide, they must return to the starting point after 6940 days (or 19 years). This is exactly what the Metonic cycle achieves. For example, since 21 March 2024 fell on a Thursday and the new moon occurred on 10 March, the next such combination will apparently occur exactly 19 years from now, on 21 March 2043, when it will also be a Thursday and the new moon will again occur on 10 March.

The advantages of such a reform are obvious. The periodicity of leap years in the reformed calendar means that, on average, the calendar year almost coincides with the tropical year. By abandoning the leap year every 128 years, the Julian calendar will retain all aspects of the traditional Julian calendar, which should make it easier to adopt by local Churches aiming to preserve their historical roots.

6. Summary

To sum up, in the philosophical and theological consideration of space-time issues, the main point is the division of time into categories according to the sphere of being. Thus, God's being, which transcends the very notion of 'being', leads Christian theologians to conclude that there is a divine eternity that is incomparable with any temporal frame, and even transcends the very notion of rational 'eternity'. The existence of the high non-temporal world presupposes the existence of an eonian eternity, characterised by a static nature, in which some processes nevertheless take place. At this time, the being of the visible world exists in creaturely time, associated with constant change, movement and dynamics of events. Phenomenological studies, on the other hand, concentrate on the consideration of precisely created time, in which the temporal spheres of the sacred and the profane are distinguished.

The liturgical calendar of the Church is a fundamental element in the life of the Church. Its role is not only to calculate the dates of feasts, but also to create the rhythm of liturgical life, which synchronises temporal processes with the cosmic rhythm established by the Creator. The reform of the Old Julian calendar, considering modern astronomical data and preserving canonical traditions, is essential to maintain harmony between ecclesiastical and astronomical time. This will ensure accuracy in determining the dates of the Church's feasts, strengthen liturgical unity, and allow the faithful to feel a deep connection with the divine order of the universe.

Reform of the calendar is also necessary from the point of view of stopping the schism and obscurantism associated with the Church's calendar lagging behind real astronomical time. The elimination of calendar and time chaos will not only ensure a more accurate observance of sacred dates but will also increase

the authority of the Orthodox Church both in the scientific community and among the faithful. The adoption of a scientifically sound and canonically required reform will demonstrate the Church's willingness to pursue its primary ideal of conformity with Divine Truth, while preserving its spiritual traditions and its mission of proclaiming the Good News 'unto all nations' [Mt 24:14].

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