
ANTHROPOCENE AND ECONOMY OF SALVATION THEOLOGICAL RELEVANCE OF A GEOLOGICAL CONCEPT

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Abstract

Concepts such as hominization, noosphere, and culture enable us to describe a new planetary situation characterized by intense human activity. The term ‘Anthropocene’, originally coined by geologists, is particularly useful to approach this phenomenon within planetary history. By availing ourselves of the term ‘Anthropocene’, therefore, we strive to point out the great alterations brought about by human activity on various planetary systems. It is our goal to bring together the terms ‘Anthropocene’ and ‘economy/history of salvation’, traditionally put forward by biblically rooted Theology. In other words, we will explore the possibilities, which the Anthropocene may hold, from a theological perspective.

Keywords: Anthropocene, noosphere, economy of salvation, Biblical theology

1. Introduction

Our planet’s critical situation, which can be traced back to the Industrial Revolution but has recently sped up, is currently studied by many sciences and disciplines. For instance, Geology has concluded that Earth is undergoing an all-encompassing change. A new term has been coined to trace a dividing line between the Holocene and the ‘Anthropocene’.

This article aims to narrow down the sense of this term to envisage its possibilities in the field of biblically rooted Theology. We intend to find out whether this new era holds any relevance as far as the theological concept of ‘economy’ or ‘history of salvation’ is concerned. Let our working hypothesis be that the concept of the ‘Anthropocene’ allows us to detect several theologically relevant elements, such as the unity between Creation and redemption, the value of matter, the unity between the human sphere and the biosphere, etc.

A theoretical framework consisting of biblically rooted Theology supplemented by aspects of scientific reasoning underpins our work. From a theological viewpoint, it constitutes an instance of the use of reason within the

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experience of faith (*Fides quaerens intellectum*, in the words of Saint Anselm). Theologically speaking, it deals with the theology of Creation, also known as the theology of Nature (or Science). Formally speaking, it is a genitive-objective theology (that is, the theology ‘of’ a worldly reality) [1] applied to a specific period in the history of Creation (namely, the Anthropocene).

The relationship between Theology and the Anthropocene might well fit into a typology currently applied to the debate regarding Science and religion. It constitutes the equivalent of type 4, i.e. integration in Ian Barbour’s system. From J. Haught’s perspective, it means *contact*. Diachronically speaking, it consists of a post-autonomous use of a relevant scientific concept in a given time [2].

The novelty of this proposal is the inclusion of the scientific category of Anthropocene in the method of Systematic Theology. With this inclusion, Theology can integrate the ecological situation of the planet into the economy of salvation, and then, into the theological disciplines, as the Theology of Creation, the Theological Anthropology and the Eschatology.

To put it another way, the originality of this approach consists in the possibility to reflect about Nature and human beings under the geological category of Anthropocene from the biblical focus. This category has been transformed by the theological method into an element able to allow the access to a new understanding of Creation from the Revelation perspective. Particularly, this theological use of ‘Anthropocene’ gives the possibility to revisit topics as cosmic Christology and soteriology. Also, it allows practice a new reading of the important text of Romans 8.18-21.

2. The Anthropocene - a geological concept

Ever since the beginning of the Industrial Revolution, our planet has been greatly altered by human activity fuelled by technology. This transformation has led geologists to coin the term ‘Anthropocene’ for the current period, thus admitting the urge for a new geological era [3]. This new stage consists of an alteration of the planet’s structural interconnections caused by *Homo Sapiens*. The following elements are included in this alteration: climate change; massive loss of biodiversity, even a sixth mass extinction [4]; soil, water and air pollution; soil degradation and erosion; radical transformation of various ecosystems. The biosphere’s long evolutionary process is undergoing a drastic change due to the actions of one of its products, i.e. Man. Anthropogenic activity endangers the whole evolutionary process. After more than 3,000 million years, the biosphere seems sentenced to a state of extreme fragility. Paradoxically, the cause of this situation can be traced back to a being that originated from the evolutionary process itself. Indeed, *Homo Sapiens* (a relatively new species in evolutionary terms) has managed to develop the possibilities of knowledge and technical ability to an extent that greatly exceeds the performances of other animals, such as other mammals, birds and some types of insects. Thanks to the skilful use of Science and refined tools, human activity has reached even the

remotest regions, far removed from Man's natural habitat. Besides, our species has upset the physical, chemical and biological structure of Earth [5].

3. Anthropocene / Noosphere

Man's dominance in terms of numbers (i.e. population) and scientific breakthroughs can be approached through different theoretical frameworks. Some of them include:

- **Hominization.** This term designates a biological, evolutionary approach that stresses the speciation process of *Homo Sapiens*, as well as its topographical dominance. Hominization implies stretching uniquely human features to the whole planet and even to the nearer regions of outer space (a phenomenon that we have witnessed during the past few decades) [6].
- **Culture.** Continental thinkers have developed the same concept under the name of 'culture' as opposed to 'Nature'. Neo-Kantians, Heideggerians, and others consider that human beings are half-disposed to lead a natural life, and must therefore fill the resulting void by deploying art, scientific and philosophical thinking, technology, etc.
- **Noosphere.** Vernadsky is credited with the introduction of the concept of a 'noosphere', later popularized by P. Teilhard de Chardin [7]. The noosphere comes dynamically into existence through the process of noogenesis, which itself prolongs biogenesis. Noogenesis implies the irruption of conscience and abstract thinking. It is accordingly named after the Greek word 'nous'. Its main feature is its ability to pinpoint the emergence of that which is specifically human within the wider context of evolutionary history.
- **Anthropocene.** This term does not focus on life or human beings. Instead, it refers to the planet, regarded as a unit that suffers the effects of human presence. It may also be defined as the noosphere as seen from the viewpoint of its physical framework.

The theological usefulness of the term 'Anthropocene' may lie in its very limitations. As a non-anthropocentric category, it constitutes a seemingly indirect term within a field of study that deals with the communication between God and human beings. In other words, the value of the term 'Anthropocene' lies in its potential to approach strictly human issues indirectly. It also highlights Earth's situation as the evolutionary cradle of Man, as well as how Man has affected it.

We hasten to add yet another concept that is frequently used in the field of Theology: the history of salvation. This term was coined when the relevance of the historical dimension of Biblical revelation became evident. It is still useful to refer to the historical continuity of the salvific plan, regardless of narrative imperfections in the Biblical tradition [8]. As far as we are concerned, this concept remains as valuable as ever, given that it enables us to combine the biblical narrative with the long history of our Cosmos and the biosphere itself, that is, the place where the history of human salvation takes place [9]. Nature, which exists in Time, yearns to be part of Redemption (cf. Romans 8.18). The

strands of cosmogenesis, biogenesis and noogenesis come together in the deep network of the Anthropocene.

4. Theology of Creation

As evidenced in the Bible, faith in God as a creator arose after the experience of a personal encounter. The oldest texts yield evidence of this encounter with God. The first thing that becomes evident in the history of the people of Israel is its testimonial of an actual dialogue, which formed the basis of a covenant whereby God promised to be faithful to His people in the future. As time went by, and particularly after experiencing slavery, Israel became more explicit regarding its faith in God as a creator (see especially Genesis 1.1-2.4). The biblical account of Creation, which supposedly took place in six days, was drawn from both imagination and observation. A similar phenomenon took place in the early Church. The first Christians experienced the historical Jesus, before and after his Resurrection; later on, they set down the foundations of the Theology of Creation. In terms of the latter, Jesus is the Logos made flesh through whom “everything came into being” (John 1.3). Christ himself is regarded as Creation’s First-born child (Ephesians 1.3-14); He fulfils a cosmic role (Colossians 1.15-20). Early Christians developed this view on Creation through the (predominantly Greek) framework of their time, which helped them formulate theories on what they had experienced and wanted to communicate. Concepts such as ‘Logos’, ‘creation *ex nihilo*’, ‘providence’ and ‘nature’ (among many others) emerged and matured in a Greek environment and were later adopted by Western Europe. In this way, the Greek and Latin worldview was gradually included in early Christianity.

In modern times, the scientific revolution brought about a significant change in man’s view of the Universe and life. Heliocentrism and Evolution, for example, caused many to question their faith in Creation. Suddenly, the biblical God seemed incompatible with man’s fall from the centre of the Universe and life. Moreover, the chronological expansion of the history of the Cosmos and animals (including humans) was perceived as a powerful challenge to faith. Ever since the Theology of Creation has experienced the need to converse with the great scientific theories; its very survival depends on its meaningfulness. It should be noted that the dialogue between Theology and Science takes place in many ways, both peaceful and confrontational [10].

5. Economy of salvation

The idea of a ‘plan’ or ‘project’ often comes up in biblical texts (cf. 1 Timothy 1.4). A divine plan gradually unfolds in time (cf. Ephesians 1.3-14). The Greek Church Fathers coined the term ‘economy’ to define this notion, which refers to a plan that takes place in the realm of history.

God's plan (or 'economy') includes not just Man, but the whole Cosmos. This notion is alluded to in the Bible itself, from Genesis 1.1-2.4 until Romans 8.18-21 [11]. The whole of Creation is part of this economy. (The *Epistle to Diogneto* claims that "God's plans, regarding the regulation of the Universe, have their economy, as well" (IV, 5).)

Saint Irenaeus of Lyon (140-202) was one of the theologians who undertook the study of the economy of salvation. Irenaeus describes one economy, which stretches from Creation until the end of the Universe. God, the good God, the Father, is the Creator of the Universe. Therefore, He can save the flesh (body, plasma). He did create by using his two hands: the Son and the Spirit. The Son existed before anything else came into being. The Spirit holds the Universe together [12]. There is only one economy that encompasses Creation, Incarnation, and the action of the Holy Spirit. Christ's presence is permanent and ubiquitous. In this sense, Irenaeus outlines a kind of cosmic Christology. Moreover, his strong defence of unity between the plans of Creation and redemption helps us to infer the importance of created matter (unlike Gnosticism, which postulated a double economy). Irenaeus stresses this point by insisting on the incarnation. This line of thought enables us to place the Anthropocene within the economy of salvation and regard it as a period during which cosmogenesis and biogenesis encountered the mystery of evil.

One of the key topics contained in Irenaeus's *Adversus Haereses* is the refutation of Marcion's gnostic theory, which postulated the existence of two gods: the Old Testament God, creator of matter, and the New Testament God, the matter-free God of Jesus Christ. Gnosticism's negative view of matter led to the idea that the material world could not possibly have been created by the loving God of Jesus Christ. Two gods implied two economies. Irenaeus of Lyon replied that there is only one God and, therefore, only one economy of salvation. The Father plans and creates the universe through his two hands (the Son and the Holy Spirit). Later, he redeems and sanctifies it. Therefore, matter is included in God's salvific plan as a part of Creation. The incarnation of the Son, who took on the flesh of a human being, makes this even clearer.

This unified economy of salvation, which includes the material world, is theologically relevant to understand what the Anthropocene means. Indeed, the Anthropocene is a temporary fragment of the physical creation on which *Homo Sapiens* (the result of a physical, chemical and biological chain of events) exerts its influence. The Anthropocene is both an effect and a confluence of all living beings contained in the planetary biosphere. Since man is 'something more' than other God-made creatures in relational terms, he should also be ontologically different. Without exception, the Christian biblical and theological tradition has always assumed as much. For this reason, the Anthropocene should be regarded as part of the only economy of salvation, which manifests itself in the peculiar phase our planet is going through.

The term *economy* carries the root *oikos*, i.e. home, as does the expression *ecology*. Although ecological concern has not been on the theological agenda until recently, the unity between Creation and re-creation was obviously within

the horizon of the early Church. The concept of an *economy of Salvation* incorporates both dimensions of God's plan: Creation and redemption. (We choose to uphold the division of the economy of Salvation into two main phases: Creation and redemption. Consummation may be interpreted as an update of redemption. In his work on cosmic Christology, J. Papanicolaou divides soteriological action into three phases: Creation, redemption and consummation [13].)

20th-century Systematic Theology underscores the incorporation of History into its field of study. However, it fails to include the historicity of Creation. The following statement exemplifies this attitude: "From a theological viewpoint, the history of salvation consists of all the historical events which are related to man's salvation, either positively or negatively. Strictly speaking, this concept may refer only to God and man's historical acts, both leading up to salvation..." [9, p. 653] However, Karl Barth suggests that Creation is the external basis of the Covenant, or the place of salvation [14]. From a wider, all-encompassing perspective, the creation of the Universe is the framework that allows the history of salvation to happen. Creation is also a salvific fact, the first step in the history of salvation.

The ecological crisis can easily be incorporated into the history of salvation. Indeed, Ecology deals with interrelations among living beings and their medium; therefore, it describes a part of creation that has entered a critical phase due to the free activity of human beings. In other words, the ecological issue is part of the dynamics of cosmic and human salvation.

6. A newly created phase in the economy of salvation

The concept of the Anthropocene as a geological period indicates that the history of the biosphere has entered a stage of mass destruction by *Homo Sapiens* on the remaining ecosystems and the physical structure of the planet itself. As already pointed out, this requires an interdisciplinary (both evolutionary and ecological) approach. Due to its unique understanding of the process of Creation, Theology can provide a fruitful perspective on the matter. According to biblical revelation, God has manifested himself in the history of the Universe, which includes life and human beings. This is why the biosphere, which is older than *Homo Sapiens*, can fall within the realm of salvation. From this viewpoint, the theological category of the history of salvation may be regarded as part of a cosmic and biological history leading up to the Anthropocene.

The biosphere's unprecedented situation requires a multidimensional analysis within the context of a Covenant-centred evolutionary creation. *Homo Sapiens* is the same 'Adam' who is symbolically described in the book of Genesis as God's image and likeness; the species in which the Logos became flesh, and in whom the Holy Spirit dwells and acts. It is man himself (created, evolved, redeemed, and destined to contribute to divine life) who is carrying out

the destruction of his habitat, the biosphere (which is, in turn, the result of a long and complex evolutionary history).

Only a theological interpretation of the environmental crisis, based on an evolutionary history of Creation, will allow us to reconnect Creation and soteriology [13], both intrinsically linked in the Biblical text. Given that the Biblical faith in Creation has always been closely related to faith in a saving God, an ecological theology would remain incomplete if deprived of soteriology. In essence, God's creative plan aims to transform not only human beings but the whole Universe. The ecological crisis is a critical phase of this plan. Human beings, the central creatures of Biblical creation, come across as being gifted with the possibility of causing irreversible damage to their habitat, thus endangering the final purpose of salvation. However, they also appear as beings who claim their place as administrators and co-creators to guide the ecological process towards its fulfilment, as stated in the New Testament (which proclaims the novelty of Creation and Man, both renewed by the Holy Spirit).

It is possible to attempt an incorporation of the Anthropocene to Systematic Theology. Two authors may help us along the way: P. Teilhard de Chardin, a Jesuit palaeontologist, and H. Urs von Balthasar, a theologian and specialist in literature. From the two different fields, they contribute to think the interfaces between biosphere and Anthropocene.

P. Teilhard de Chardin does not deal with the subject straightforwardly, although he does study it indirectly through his own evolutive and theological framework [15]. From this perspective, heavily weighted by Science, we are entitled to think that the ecological crisis of the Anthropocene is a critical point in the history of biogenesis and noogenesis, both contained in Christogenesis [16]. God's plan, propelled to the future by the Omega Point (from a scientific viewpoint) and by Christ's Second Coming (from a theological viewpoint), will eventually resolve the ecological crisis of the Anthropocene [17]. This line of thought underpins Teilhard's view of progress, rooted in an optimism based on the idea that evolution leads the Universe to fulfilment, and Christ in his Glory will come to rescue it.

On the other hand, in terms of Hans Urs von Balthasar, a theologian who favours a literary and philosophical approach, the crisis of the Anthropocene could be regarded as yet another act of the salvific 'theodrama' [18, 19]. Von Balthasar compares the history of salvation with theatrical drama [20]. Theodrama is the history of salvation or salvific economy seen from the play of God's absolute freedom and finite freedoms. The drama's characters (*dramatis personae*) are all creatures, human being and the Holy Trinity. During the climax and the dénouement of the play (in which Jesus Christ fully accepts the cosmic and human condition), human and divine freedom collide with each other. The redemption of Creation is at stake; this soteriology implies a cosmic dimension. Within this theological and literary context, we could hazard to say that the crisis of the Anthropocene is also part of the theodrama.

In other words, Creation is part of the ‘*dramatis personae*’ or characters of the drama. The introduction of the concept of Anthropocene in the history of salvation allows us to think of a new phase of salvation history. The Earth becomes a more active part of it, due to its profound relationship with the human. The affirmation of Romans 8.12-21, which links Creation with human action, takes on a deeper meaning. The Anthropocene is thus an introduction of the cosmos into the theodramatic process. Nature, at least that which is close to the human being, integrates the economy of salvation, not only as the scene of salvation, but also as the recipient of God’s salvific action.

7. Conclusions

We have proposed to use the concept ‘Anthropocene’ in the field of biblically rooted theology. Even though it originated in Geology, it holds great promise in theological terms. The Anthropocene is a phase of Earth’s history in which cosmogenesis, biogenesis, and noogenesis collide. The evolutionary process brings the biological and the human worlds together in a dramatic way. This situation deserves to be theologically assessed.

In the past few years, a theological ecology (or Ecotheology) has emerged. It aims to analyse the ecological crisis from the combined perspectives of the Theology of Creation, theological anthropology, and moral, pastoral and spiritual theology. We strongly believe that the Anthropocene, regarded as a category, could be a valuable part of this discipline. For instance, it firmly includes Ecology in the evolutionary history of life. By doing so, it enables us to examine it and add it to the bigger theological narrative, which is contained in the word ‘economy’. Indeed, from a practical point of view, it allows us to add the Anthropocene to the history of salvation.

The Anthropocene is a phase during which the biosphere openly states its solidarity with the noosphere. In other words, it is a parcel of planetary history in which the link between humanity and Nature strikingly stands out (Romans 8.18-21). The radical intervention carried out by *Homo Sapiens* on Earth’s structural systems highlights the existing connection between noosphere and the biosphere.

By uniting Theology and Science, the theology of the Anthropocene can explore the deep interconnection underlying Creation’s eschatological destiny - a field that has hardly been studied so far. The fate of both man and Creation appears to be inextricably linked: man’s actions affect the biosphere, which in turn reacts by affecting man. This appears to foreshadow the joint destiny of man and world, which biblical eschatology envisages in different ways.

Other theological issues could be analysed by adding the category of the Anthropocene to a scientific and theological epistemology: Anthropology, the originality of Earth in the known universe, the transparent and opaque trinitary shades of impoverished Nature, Christology and cosmic soteriology [13, 21], etc. Since the Anthropocene is a scientific concept that semantically implies the

structural and historical interconnection between the Universe and Man, we look forward to a fruitful development of a theology of the Anthropocene.

References

- [1] Z. Alszegehy and M. Flick, *Cómo se hace la teología*, Ediciones Paulinas, Madrid, 1976, 113-125.
- [2] L. Florio and L. Oviedo, *Eur. J. Sci. Theol.*, **16(5)** (2021) 1-11.
- [3] P.J. Crutzen and E. Stoermer, *Global Change Newsletter*, **41** (2000) 17-18.
- [4] G. Ceballos, A.H. Ehrlich and P.R. Ehrlich, *The Annihilation of Nature. Human Extinction of Birds and Mammals*, Johns Hopkins University Press, Baltimore, 2015.
- [5] E. Priest, *Zygon*, **58(2)** (2023) 384-404.
- [6] M.B. Fagan and J. Maienschein, *Theories of Biological Development*, in *The Stanford Encyclopedia of Philosophy*, E.N. Zalta (ed.), Stanford University, Stanford, 2022, <https://plato.stanford.edu/archives/sum2022/entries/theories-biological-development/>.
- [7] Z. Plašienková and S. Vertranová, *La concepción de 'Biósfera' y 'Noósfera' en V.I. Vernadskiy y P. Teilhard de Chardin y la inspiración de su legado en el actual pensamiento ambiental*, Proc. of X Congreso Latinoamericano de Ciencia y Religión: La originalidad y fragilidad de la vida en el planeta Tierra, DeCyR, DeCyR City Bell, La Plata, 2020, 201-215.
- [8] G. Lohfink, *Le nostre grandi parole*, Paideia, Brescia, 1984, 87-104.
- [9] A. Darlapp, *Historia de la salvación. Elaboración sistemática*, in *Conceptos fundamentales de la teología T.I.*, H. Fries (ed.), Cristiandad, Madrid, 1979, 652-658.
- [10] J. Brooke, *Ciencia y religión. Perspectivas históricas*, Sal Terrae, Madrid, 2016.
- [11] P. Bläser, *Historia de la salvación. I Sagrada Escritura*, in *Conceptos fundamentales de la teología T.I.*, H. Fries (ed.), Cristiandad, Madrid, 1979, 640-652.
- [12] S. Zanartu, *Teología y vidam*, **54(1)** (2013) 43-78.
- [13] J. Papanicolau, *Cristología cósmica. Fundamentos bíblicos, aproximación histórica y reflexión sistemática*, Epifanía, Buenos Aires, 2005, 269.
- [14] M. Conradie, *Creation and Salvation*, Vol. 2: *A Companion on Recent Theological Movements*, LIT Verlag, Münster, 2012, 126-131.
- [15] G. Giustozzi, *Pierre Teilhard de Chardin. La 'reinvención' de la experiencia religiosa*, Eucasal, Salta, 2023.
- [16] G. Chantraine, *Evolution According To Teilhard de Chardin*, in *Biological Evolution: Facts and Theories. A Critical Appraisal 150 Years After 'The Origin of Species'*, G. Auletta, M. Leclerc & R. Martínez (eds.), Gregorian & Biblical Press, Roma, 2011, 613-644.
- [17] L. Galleni, *Teilhard de Chardin: Moving Towards Humankind?*, in *Biological Evolution: Facts and Theories. A Critical Appraisal 150 Years After 'The Origin of Species'*, G. Auletta, M. Leclerc & R. Martínez (eds.), Gregorian & Biblical Press, Roma, 2011, 493-516.
- [18] H.U. von Balthasar, *Theodramatik*, Johannes Verlag, Benziger, Einsiedeln, 1973.
- [19] R. Schwager, *Banished from Eden: Original Sin and Evolutionary Theory in the Drama of Salvation*, Gracewing, London, 2006.
- [20] L. Florio, *Communio*, **3** (2005) 33-49.

- [21] C. Deane-Drummond, *Christ and Evolution. Wonder and Wisdom*, SCM Press, London, 2009, 33-59.