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AT THE CROSSROADS OF CONTEMPORARY  
COSMOLOGY AND THE PATRISTIC WORLDVIEW:  
MOVEMENT, RATIONALITY AND PURPOSE IN FATHER  
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**Abstract**

The article signals the challenges posed by the new cosmological paradigm, and proposes the thinking of Fr Stăniloae as a traditional solution regarding the confluence of theology and science. It addresses the author's cosmological elaborations by focusing on three main areas, the movement of the universe, the rationality of the cosmos and the anthropic principle.

**A context**

There is a vast gulf separating the world of the classical sciences, preceding the early twentieth century, and contemporary sciences like physics and cosmology. The established scientific ideas, of modern philosophical inspiration, such as the infinite universe and infinite time perceived as autonomous, unchanging and objective, and the base matter that could be measured only quantitatively, came to be questioned and then inexorably shattered by the arrival of relativity and quantum physics. Furthermore, concepts like the immovable and immutable state of a sidereal expanse within which events occurred, together with the perspective of a cosmos that could be only *thought* of (epistemological engagement with reality) but never *influenced* (ontological engagement with reality) by human observers, disappeared, making room for a new and bewildering worldview. Local or immediate causality came to be complemented by the awareness of a universal causality, for which any unfolding event reverberates beyond its local context, throughout all the levels of reality, and in the process shaping both time and space. The theorisation and discovery of objects such as black holes and singularities confirmed the emergent paradigm, with their peculiar ways of bending if not altogether suspending time and space. Events ceased

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being seen as local occurrences, inconsequential for the cosmos in its entirety – since in each part of the universe were folded (or sub-totalised) the very nature and content of the whole. The universe itself began to be construed as an ongoing event of movement and becoming, of expansion and complexification; an interactive event in which the visible and invisible were constantly mingled, where light and darkness, chaos and order, mind and matter, coexisted within a rich generative matrix – or rather constituted the ineffable algorithm of that matrix. Moreover, the universe began to be seen as an embodied idea, as information translated into an indefinite set of possibilities on their way towards actualisation. Soon, new theories emerged, postulating a mind-blowing diversity consisting of levels of order, information and being, quantum virtuality, the multiverse and alternate realities, a diversity within which the role of the mind or consciousness came to be acknowledged not only as an epistemological factor but also as an ontological agent. Big questions like „why is there something rather than nothing” and answers such as the anthropic conditioning of the cosmos and the survival of consciousness irrespective of the physical end of the universe, became crucial for the understanding of reality. The whole was perceived now as relativistic, both ontologically and epistemologically. Quantum cosmology arrived, describing all things as mutually consistent and multi-connected. Reality disclosed itself as emergent or ever in the making and as an interactive field; even the knowledge of reality was finally understood as resulting from our interaction with beings and things, not just found there, in the universe’s supposedly objective bosom.

The above layman’s depiction could be faulty on many levels, for which I apologise from the outset; nevertheless, this is what a layman might believe the universe of the new science to look like. I will venture to propose furthermore that this, or parts of it at least, is what Fr Dumitru Stăniloae saw in the scientific revolutions of twentieth century. The boldness with which, more or less openly, he acknowledged the validity of contemporary sciences as descriptors of reality, is impressive, matching that of great Church Fathers like St Basil the Great, St Gregory of Nyssa, St Maximus the Confessor, St John Damascene and St Gregory Palamas. His enthusiasm regarding scientific advancements unfortunately remains almost unique within Orthodox Christianity, primarily in those milieus that lost touch with the spirit of patristic tradition. Indeed, frightened by the novel and the unknown, in modern times many Orthodox – educated or not, unable to discern or unwilling to understand – sought refuge in an idealised past, in the false certainties of the known and the familiar. This response was very likely catalysed by the atheistic inferences from certain scientific theories, like the „steady state universe” and the evolution. Thus, at various stages, some ecclesial milieus refused the revised calendar, preferring to trust the calculations of the Late Antique astronomers and thus ended up worshiping, indeed idolising, the products of a defunct scientific culture; others, as idolatrous as the previous ones, returned to the Aristotelian and Ptolemaic cosmos, earth-centred and lim-

ited, without realising that what seemed to them a traditional representation of reality was in fact the science of Antiquity which the early Christians adopted as their natural, and immediate, cultural framework; still others, in turn, refused the possibility of an expanding universe, a universe in motion and change, preferring the static model of early modernity, which in fact poses as many theological challenges as the current one. And the list could continue indefinitely. In their desperate attachment to expired scientific ideas, such milieus have betrayed the very spirit of Orthodoxy, disfiguring tradition according to their weaknesses instead of following the way of the Fathers. Indeed, the early Church Fathers communicated the ecclesial message through the available cultural channels of the time, not without them. In his undertakings, Fr Dumitru Stăniloae reiterated the actual patristic mindset and ethos, for he feared not<sup>1</sup> modernity and the current scientific description of reality; on the contrary, he found in these worthwhile elements that could facilitate the conveyance of the gospel message in ways that have never been on hand before.

This article is focused on Fr Stăniloae's endeavours to theologise within the parameters of the new scientific worldview, an aspect of his creativity that remains largely ignored both in scholarship and the Church<sup>2</sup>. In so doing, I offer a tribute to the memory and legacy of the one who, due to being profoundly familiar with tradition, reiterated for our age the patristic *modus operandi* in all its amplitude. Below I shall outline three aspects pertaining to Fr Stăniloae's cosmological thinking<sup>3</sup>, namely, the themes of universal movement, cosmic rationality and the anthropic perspective. These aspects are well represented in both his works and in contemporary scientific literature. In my analysis, I shall take as accepted the above layman's description of the new scientific paradigm, and so avoid providing details at any step. I shall refer, however, to a few scientists and writings that shaped my own understanding of contemporary cosmolo-

<sup>1</sup> On his lack of fear towards contemporary culture yet without reference to science, see Olivier CLÉMENT, „Geniul Ortodoxiei”, in: Theodor BACONSKY, Bogdan TĂTARU-CAZABAN (eds.), *Dumitru Stăniloae sau Paradoxul Teologiei*, Ed. Anastasia, București, 2003, pp. 29-47, here 32; likewise, Metropolitan Daniel CIOBOTEA, „O dogmatică pentru omul de azi”, in: Th. BACONSKY, B. TĂTARU-CAZABAN (eds.), *Dumitru Stăniloae sau Paradoxul Teologiei*, pp. 87-107, here pp. 90-91.

<sup>2</sup> This dimension of his theological synthesis is discussed, and appreciated, only in little more than a handful of works. See e.g. O. CLÉMENT, „Geniul Ortodoxiei”, p. 42; Fr Dumitru POPESCU, *Teologie și Cultură*, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1993, p. 26; Fr Dumitru POPESCU, *Hristos, Biserică, Societate*, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1998, p. 96; Doru COSTACHE, „Între Alfa și Omega. Spre o teologie ortodoxă a creației”, in: *Tabor – Revistă de Cultură și Spiritualitate Românească* I/4 (2007), pp. 35-42, esp. pp. 37-38. To my knowledge, the only attempt to explore in more depth this dimension belongs to me. See Doru COSTACHE, „Virtualitate și actualitate. De la ontologia cuantică la cosmologia antropică a părintelui Dumitru Stăniloae”, in: Fr Dumitru POPESCU et alii (eds.), *Știință și Teologie. Preliminarii pentru Dialog*, XXI, Ed. Eonul dogmatic, București, 2001, pp. 202-220. The present article continues the above analyses.

<sup>3</sup> All references are to his original writings in Romanian. English translations mine.

gy; as it happens, I suspect that Fr Stăniloae had access to some of their ideas, although pursuing such possible influences falls outside the scope of this article. Finally, I hope that in the course of my analysis it will become obvious how appropriate Olivier Clément's observation was that the thinking of Fr Stăniloae illustrated a cosmic sense of Christianity<sup>4</sup>, and likewise Patriarch Daniel's reference to the synthesis of the great theologian as „a theology of the world”<sup>5</sup>.

### Nature and movement

More than anything else, Fr Stăniloae was a traditional thinker whose mind and heart were guided by patristic wisdom, and whose theological enterprises were ultimately motivated by the pursuit for holiness. That said, he was likewise a man of his time, paying attention, like the Church Fathers of old, to currents and trends in society and culture. It cannot come as a surprise, therefore, that he did not remain insensible to the scientific mindscape of his age and that he incorporated some of its features into his theological synthesis – whilst resisting the atheistic ideologisation of many scientific theories<sup>6</sup>. This, perhaps, was his way of answering the neopatristic manifesto, and, considering the aspects addressed below, I dare say in a far more consistent manner than its own proponent, Fr George Florovsky<sup>7</sup>. We find in Fr Stăniloae's writings, sometimes in plain sight and at times dissimulated, references to relativity, quantum physics, complexity, the expansion of the universe and evolutionary biology<sup>8</sup>, infor-

<sup>4</sup> Cf. O. CLÉMENT, „Geniul Ortodoxiei”, p. 31. See also Olivier CLÉMENT, „Le père Dumitru Stăniloae et le génie de l'orthodoxie roumaine”, in: Ioan I. Ică Jr. (ed.), *Persoană și comuniune. Prinos de cinsitire Părintelui Profesor Academician Dumitru Stăniloae la împlinirea vârstei de 90 de ani*, Ed. Arhiepiscopiei Ortodoxe a Sibiului, Sibiu, 1993, pp. 82-89, here p. 83.

<sup>5</sup> Cf. Metropolitan D. CIOBOTEA, „O dogmatică pentru omul de azi”, p. 101.

<sup>6</sup> Atheistic ideologisations of the scientific worldview happened already in Antiquity, which did not prevent the early Church Fathers from making use of the various scientific ideas. The epitome of this approach remains the *Hexaemeron* of St Basil the Great. Cf. Doru COSTACHE, „Christian Worldview: Understandings from St Basil the Great” in: *Phronema* XXV (2010), pp. 21-56, esp. 22-28. Such precedents prove the traditional foundation of Fr Stăniloae's own approach.

<sup>7</sup> On Florovsky and the neopatristic manifesto, see Aidan NICHOLS, O.P., *Light from the East. Authors and Themes in Orthodox Theology*, Sheed & Ward, London, <sup>2</sup>1999, pp. 129-45, esp. pp. 132-135 and 140-143. Nichols simply ignores Fr Stăniloae. On Fr Stăniloae's adherence to the neopatristic movement, see Andrew LOUTH, „Dumitru Stăniloae și teologia neo-patristică”, in: Th. BACONSKY, B. TĂTARU-CAZABAN (eds.), *Dumitru Stăniloae sau Paradoxul Teologiei*, pp. 121-154, here p. 128. See also his „The patristic revival and its protagonists”, in: Mary B. CUNNINGHAM, Elizabeth THEOKRITOFF (eds.), *The Cambridge Companion to Orthodox Christian Theology*, Cambridge University Press, Cambridge, 2008, pp. 188-202; at pp. 196-197, LOUTH mentions the neopatristic contributions of Fr Stăniloae but makes no reference to his engaging contemporary sciences.

<sup>8</sup> For references to various aspects of scientific culture, see his *Sfânta Treime sau La început a fost tubirea*, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1993, pp. 58-59.

mation which culturally framed the traditional message of his discourse. Obviously, like other neopatristic theologians, Fr Stăniloae never indulged in doing science; the reader of his works should not expect therefore lengthy and savant digressions on the various scientific theories of the time. Instead, by his very natural way of referring to science as an immediate context, Fr Stăniloae suggested that a Christian mind should appropriate the scientific worldview with discernment, to appreciate its main aspects so as to interpret it theologically – i.e. in the light of God and from an eschatological vantage point. Below, I shall address his insights into the contemporary themes of motion, becoming and change, which very likely prompted him to appreciate such theologians of movement from the first Christian millennium, like St Athanasius the Great and St Maximus the Confessor.

In introducing the Romanian edition of St Athanasius' earlier works, *Against the Pagans* and *On the Incarnation*, which he both translated and commented upon, Fr Stăniloae noticed the presence of a dynamic vision of the universe in the thinking of the great Alexandrine<sup>9</sup>. Whilst emphasising the import of this vision of universal motion, both intrinsically and for its compatibility with the new cosmology, he recommended the next generation of Orthodox theologians to further reflect on St Athanasius' intuitions. According to him, „subsequent to the highlighting, by the natural sciences, of the universal importance of movement and of the energies that sustain it (...), it is a necessary task for the thinkers of tomorrow to develop a theology of movement, [to offer] its theological appraisal”<sup>10</sup>.

One can only guess where this theological reflection was meant to lead, for Fr Stăniloae did not systematically discuss the topic. Nevertheless, in the following I shall point out that he addressed the matter in a variety of contexts, both cosmologically and biologically, so that one can draw from such hints the map of his encompassing vision of the cosmos, life and humanity, as journeying through the ages toward a perfection that will be reached only eschatologically<sup>11</sup>. Features of transformism can be discerned everywhere in such instances, as will be shown below. The reader can see the great freedom with which the father addressed these points, whilst always insisting – like in the same introductory study to the Athanasian corpus – that whereas the rest of creation inexorably

<sup>9</sup> Cf. Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, partea întâi, coll. Părinți și Scriitori Bisericești (henceforth PSB), Vol. 15, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1987, pp. 5-26, here p. 24. See also the numerous occurrences of the topic of movement in his *Teologia dogmatică ortodoxă*, Vols. 1-3, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 2003; e.g. Vol. 1, pp. 346-347, 350 and 389.

<sup>10</sup> Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, p. 24.

<sup>11</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 344.

submits to the natural laws, human beings can transcend the anonymous rhythms of nature<sup>12</sup>.

It is not difficult to realise that, despite contemporary fears that transformism, both cosmologically and biologically, would compromise the dogma of creation, Fr Stăniloae exhibited a different conviction. His starting point, theologically motivated, was the overall positive assessment of the world. In the same introduction to the Athanasian works on creation, providence and salvation, he insisted that the cosmos is founded on a „positive ground” (*temeiul pozitiv*), consisting in God’s power bestowed upon the world through his creative will – or in God’s „thinking, power and will”<sup>13</sup>. In other words, the universe is divinely conditioned on an infrastructural level. Further down, he added,

“As a matter of fact the created as a whole cannot be separated from the uncreated power of God. ... At the foundation of created existence, of its power, lies the uncreated power [of God], so that the created cannot be conceived without the uncreated that brings the former into existence and sustains it. The created cannot be defined therefore only as an existence brought into being out of nothing, but also as an existence at whose foundation lies the continuously active power of the uncreated God (*puterea continuu activă a lui Dumnezeu cel necreat*). In a way, the created permanently draws (*soarbe ... neîncetat*) the power of its existence from the uncreated”<sup>14</sup>.

The divine energies constitute the ultimate ground for the creation, without which the latter could not exist; an idea perfectly consistent with St Athanasius’ thinking<sup>15</sup>, as introduced by Fr Stăniloae. Precisely this divine support for the existence and the movement of the universe inspires the father’s positive understanding of motion and change; nothing that is and happens naturally within the realm of creation is without a divine support or outside the parameters of the principle of synergy. Just as in the beginning, when God descended to meet the creation he brought into existence, God is continuously involved in the „entire movement of the world in time”<sup>16</sup>. Nevertheless, although the natural

<sup>12</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, pp. 22-23; literally, humanity is „above the laws [of nature] although not against the laws”. Cf. Fr. D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 348 and 377.

<sup>13</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 20. It is very likely that this affirmation, recurrent in his writings, represented an implicit answer to theories like that of a „steady state of the universe”, which in combination with Hoyle’s „creation field” (in the 1960s) seemed to make the existence and activity of God in the universe redundant. Cf. Paul DAVIES, *The Mind of God. Science and the Search for Ultimate Meaning*, Penguin Books, London, 1993, pp. 55-57.

<sup>14</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, pp. 21-22. See also Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 347 and 349.

<sup>15</sup> For St Athanasius’ conviction that the created cannot exist without the support of the uncreated, see e.g. *Against the Pagans*, 41-42 (PG 25, 82C-86B).

<sup>16</sup> Cf. D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 346.

laws and powers, or energies, have their origin and support in the divine Logos, they properly belong to the created world<sup>17</sup>. In this complex relationship between God and the cosmos, „both the created and the uncreated are active”<sup>18</sup>, to the extent that by virtue of their rational structure (a topic to which I shall return), created beings behave like the divine rays „that radiate through them” and as such are „units of power and life”<sup>19</sup>. With this, Fr Stăniloae introduced another aspect of the cosmic mystery; it is not only the divine ground that matters in the making of the universe; the natural, i.e. created factor, is as important as the divine input. The „laws of nature” make possible the existence of the „created forms” or beings, together with the latter’s (natural) movement and development. Alongside the divine support, nature is itself active and efficient, dynamic and ever fertile<sup>20</sup>. The emphasis on the natural generative power of the creation, together with the synergy between the created and the uncreated, seems to draw more on St Basil’s teaching than that of St Athanasius. Whereas the latter was interested to assert the absolute dependence of the creation on God, to counteract polytheism, the former openly affirmed the goodness of creation and its natural power, against the Manichaean pessimistic cosmology<sup>21</sup>. Nevertheless, it is very possible that the main source of inspiration for Fr Stăniloae’s emphasis of the natural energies was the synergetic Christology and theological anthropology of St Maximus, which he generalised cosmologically<sup>22</sup>.

We now touch upon the very core of this worldview, represented by the concepts of created existence as rationality (here, natural laws) and movement (or dynamism). „The laws preserve and develop the creation in a dynamic fashion”, observed Fr Stăniloae<sup>23</sup>. And again, „dynamism (*dinamicul*) vivifies the existent

<sup>17</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 22. Elsewhere (Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 347) he stated that God bestows special (generative) powers upon the creation.

<sup>18</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 22.

<sup>19</sup> Fr. D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 2, p. 7.

<sup>20</sup> Cf. Fr. D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 339. By considering the laws as natural and as belonging to the very life of the creation, Fr Stăniloae confirmed once again his appreciation for modern sciences. See for instance P. DAVIES, *The Mind of God*, pp. 72-73. P. DAVIES (at p. 75) believes however that for Christians, generally, the laws are not inherent in nature – an opinion contradicted by Fr Stăniloae’s understanding and the patristic sources of his idea.

<sup>21</sup> On St Basil’s elaborations on the principle of synergy, see D. COSTACHE, „Christian Worldview”, pp. 36-42.

<sup>22</sup> See Fr D. STĂNILOAE, „Natură și har în teologia bizantină”, in: *Ortodoxia* XXVI/3 (1974), pp. 392-439, here pp. 392-393, where he noted, „St Maximus is the first to attempt the articulation of a theological anthropology ... He finds the solution to this issue [i.e. how to affirm the human element in the hypostatic union] in the idea of a conformity or harmony between the human and the divine. And since the human element is rooted in the cosmos, St Maximus includes in this harmony the cosmos itself”.

<sup>23</sup> Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 24.

(*onticului*) and sustains it”<sup>24</sup>. Furthermore, universal dynamism gives expression to the rationality of the natural laws as a „dynamic of convergence” given that in their motion all things interact with all things, and support each other’s existence; the rationality of the laws is activated in the universal movement and connectivity as a power of love<sup>25</sup>. All the above determined Fr Stăniloae to conclude that, on the one hand, „existence is dynamic” (*onticul e dinamic*) and, on the other hand, that since it „is maintained and accomplished through a dynamic of love (*dinamica iubirii*)”, „existence is a universal perichoresis (*onticul este o perichoreză universală*)”<sup>26</sup>. The Trinitarian analogy is obvious and meaningful. Like in the Trinitarian communion, where the movement of love does not dilute the hypostatic contours of the three divine persons, this „loving movement between created beings” does not alter their nature. In their interactions and togetherness, created beings remain what they are by nature yet finding more support for their own existence. In a philosophical reflection on the above, Fr Stăniloae noted that this was a representation of reality that surpassed both the Parmenidean static consistency of reality and the Heraclitian perception of fluidity<sup>27</sup>.

Moving to a particular aspect pertaining to the dynamism of creation, namely the evolutionary and/or transformative perspective, we should mention from the onset that in the thought of Fr Stăniloae this perspective cannot be discussed *per se*, as a natural phenomenon. For instance, in his monumental synthesis of dogmatic – or indeed patristic – theology, the movement of the universe is qualified both theologically, from the viewpoint of divine energies, and teleologically, in view of the final perfection. Thus, „the whole dynamism or movement of the creation toward deification has its cause in the dynamism of divine energies, which aim to lead the creation to deification”<sup>28</sup>. Further down, the same idea is repeated in terms of God leading the natural energies of the cosmos in its process of development<sup>29</sup> – from „the current form of the world”, relative, limited and transitory, to a „superior level of existence”<sup>30</sup>. What matters here, alongside these new reiterations of the principle of synergy, is the fact that the evolutionary movement of the cosmos and of everything within it represents a transformative phenomenon. Well placed within patristic tradition, Fr Stăniloae deciphered the whole history of creation as conditioned by an eschatological trajectory yet he presented this process by making use of the contemporary sciences, including evolutionary theory. For example, in the same context he affirmed – without feeling the need to explain the concepts – that both human

<sup>24</sup> Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, p. 22.

<sup>25</sup> Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, pp. 23-24.

<sup>26</sup> Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, p. 24.

<sup>27</sup> Fr D. STĂNILOAE, „Introduction” to Sf. ATANASIE CEL MARE, *Scrieri*, p. 24.

<sup>28</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 154.

<sup>29</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 347 and 349.

<sup>30</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 343.

beings and the cosmos cannot exist forever „in their present form (*în forma lor actuală*) or in that into which they could evolve on their own (*cea în care pot evolua prin ei înșiși*)”<sup>31</sup>. Note that together with believing in an eschatological transformation of the creation, he was convinced that created beings naturally evolve. This conviction does not contradict the previous observations referring to the continuous flux of divine energies, since all of the instances in which Fr Stăniloae mentioned evolution framed it within the parameters of synergy. Thus, anterior levels of reality and already created beings receive from God a generative potential, „something that develops in new orders of existence”<sup>32</sup>. Evolution means change, transformation, and this is an ongoing phenomenon as long as the universe still journeys toward the eschaton. Fr Stăniloae acknowledged the phenomenon of evolution not only for the scale of the universe; the above assertion finds a biological echo in his statement that „a certain evolution of animals could be explained by the potential existence of some new species within the old ones”<sup>33</sup>. This statement was made in a scholion referring to St Maximus the Confessor’s vision of the Logos as diversified into the λόγοι (reasons, principles) of all things, branching out into the informational structure of all creation.

On this note, I turn to the theme of a rational cosmos. We have seen so far that for Fr Stăniloae the universe and everything within it are in a permanent state of motion, and that movement, or evolution, entails successive transformations – until the final, eschatological one. Below, we shall see more in detail how this ongoing process takes place in the parameters of God’s wisdom and intention.

### Cosmic rationality

Whilst advocating the universe’s natural potential for movement, becoming and change, and the reality of a whole creation in motion, paradoxically Fr Stăniloae surmised his worldview from the presupposition that the cosmos is not the outcome of random evolution. The cosmos is well structured, rational and full of sense – indeed enlightened, according to the Romanian word for world, namely, *lume* (light), as he repeatedly pointed out<sup>34</sup> – since it is continuously

<sup>31</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 342. Elsewhere, Fr D. STĂNILOAE wrote: „All of creation is brought into existence so that it progresses through movement (*să progreseze prin mișcare*) in harmony with God. In the nature of all created beings and even more in the human nature this harmony is sown as a given and a tendency (*ca un dat și ca o tendință*), or a dynamic potentiality which is sequentially actualised (*o potență dinamică ce se actualizează treptat*), to be crowned by deification through grace” (Fr D. STĂNILOAE, „Natură și har în teologia bizantină”, p. 393).

<sup>32</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 347.

<sup>33</sup> Sf. MAXIM MĂRTURISITORUL, *Scrisori*, partea întâi, coll. PSB Vol. 80, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1983, p. 294, n. 369.

<sup>34</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 362, and his *Reflecții despre spiritualitatea poporului român*, Ed. Scrisul românesc, Craiova, 1992, p. 161. See also the relevant notes of O. CLÉMENT, „Geniul Ortodoxiei”, pp. 31-32.

created, permeated, vivified, shaped and organised by the Logos, i.e. the divine Reason and Wisdom. One could assume that had Fr Stăniloae been equipped with such tools like the chaos and fractal theories, his depiction of reality would have been perfectly acceptable to educated audiences today. Nevertheless, he captured the essence of a worldview that foremost answers the aspirations of *homo religiosus* for life, meaning and wholeness; a representation of reality that is remote from the cold objectivity of the hard sciences and the fragmented perspective resulting from the gymnastics of the „analytical reason”<sup>35</sup>. Symptomatically, from an inner, personalised or subjectified perspective, for Fr Stăniloae the universe emerges as a sacred space which hosts the encounter and dialogue between various subjects („consciousnesses”), God and humankind, and between the multitude of human persons<sup>36</sup>. This worldview does not require confirmation from any scientific cosmology, and remains relevant to *homo religiosus* irrespective of time and place.

What matters for now is that precisely this interest, in formulating a worldview relevant to the spiritual aspirations of humankind, explains Fr Stăniloae’s preference for the words „reason” and „rationality”, which, whilst drawing on the scientific mind of our times, in his use received novel connotations<sup>37</sup>. Within his construct, „rationality” refers to neither rationalism and positivism nor the mathematical and quantitative terminology of the hard sciences nor the speculative and abstract jargon of philosophy and logic; instead, it signifies a metaphor of the complex harmony of reality, full of meaning<sup>38</sup>. Cosmic rationality, for instance, designates the universe in motion of the scientific cosmology yet depicted as a living, enlightened and beautiful universe; and a world that exists for humankind. Similarly, the term „reason” refers mainly to the information or principle that determines the structure, movement and activity of any created being, according to the will of the Creator; furthermore, it points to the existential goal or purpose of the creation, i.e. reaching immortality and an overall transformation. These under-

<sup>35</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 364.

<sup>36</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 374-376. On this, see Doru COSTACHE, „Colocviul fără sfârșit. Rațiunea de a fi a creației în gândirea Părintelui Stăniloae”, in: Th. BACONSKY, B. TĂTARU-CAZABAN (eds.), *Dumitru Stăniloae sau Paradoxul Teologiei*, pp. 183-241, esp. pp. 196-201 and 223-229.

<sup>37</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 360-374.

<sup>38</sup> Fr Dumitru STĂNILOAE, „Natură și har în teologia bizantină”, p. 399. See also Fr Dumitru STĂNILOAE, *Iisus Hristos, lumina lumii și îndumnezeitorul omului*, Ed. Anastasia, București, 1993, pp. 19-26. Briefly on the cosmic rationality yet without reference to the scientific inspiration in Fr Stăniloae’s discourse, Fr Ion BRIA, „The creative vision of D. Stăniloae. An introduction to his theological thought”, in: Ioan I. ICĂ, Jr. (ed.), *Persoană și comuniune*, pp. 74-81, here pp. 76-77.

standings become obvious when one considers the father's thought in the light of its primary source, the wisdom of St Maximus the Confessor<sup>39</sup>.

St Maximus profoundly influenced the perception of Fr Stăniloae, at least from the viewpoint of the latter's elaborations on cosmology. The cornerstone of St Maximus' vision of reality, which corresponds to the focal point of Fr Stăniloae's musings on worldview, is a holistic intuition of the multiple connections between God, humankind and the cosmos; a genuine Byzantine theory of everything<sup>40</sup>. It is a vision of the divine Logos that pervades the whole of creation in the form of the constitutive principles (reasons), or λόγοι, of beings – the ultimate informational ground of the created reality –, principles that on the one hand, as ontological ὄροι or parameters, determine the structure and movement of the universe, and on the other hand define the eschatological τέλος or purpose of the universal becoming. Furthermore, the λόγοι represent in St Maximus more than simple informational patterns; they are in fact energies, active divine thoughts that vivify and shape the universe from within. In turn, the cosmos appears as the outcome of a continuous tension between its natural possibilities, the divine energies that permeate it, and the movement which leads it – through successive extensions (διαστολέζς) and contractions (συστολέζς) – to the actualisation of its potential. In short, a vision of movement and morphological changes framed by rational principles and fuelled by the active and permanent presence of God<sup>41</sup>. The reference to the Maximian vision of reality in this context is very relevant, pointing out the traditional grounds on which Fr Stăniloae assimilated for instance the new, quantum vision of reality. Indeed, in the construct of St Maximus, more precisely in the synthesis of logos/information and becoming/movement lying at its core, we recognise in a nutshell the quantum paradigm that combines, in the language of classical philosophy, the Platonic idea or reason and the Aristotelian potentiality or dynamism.

It cannot come as a surprise, therefore, to see in Fr Stăniloae the principles of beings represented both as informational patterns and „rays of divine life and power which radiate from the [divine] ocean of life and power”, i.e. from the Logos of God<sup>42</sup>. Moreover, and in the same context, he affirmed that the „ulti-

<sup>39</sup> For St Maximus as a source of Fr Stăniloae's thinking, see O. CLÉMENT, „Geniul Ortodoxiei”, p. 41; A. LOUTH, „Dumitru Stăniloae și teologia neo-patristică”, pp. 131-132 and 135.

<sup>40</sup> Cf. Doru COSTACHE, „Seeking Out the Antecedents of the Maximian Theory of Everything: St Gregory the Theologian's *Oration* 38”, in: *Phronema* XXVI/2 (2011), pp. 27-45, esp. pp. 28-30.

<sup>41</sup> For more details on Maximian cosmology, see Andrew LOUTH, *Maximus the Confessor*, Routledge, London and New York, 1996, pp. 61-74; Lars THUNBERG, *Man and the Cosmos. The Vision of St. Maximus the Confessor*, St Vladimir's Seminary Press, Crestwood, 1985, pp. 132-137; Lars THUNBERG, *Microcosm and Mediator. The Theological Anthropology of Maximus the Confessor*, Open Court, Chicago and La Salle, <sup>2</sup>1995, 49-94; Thorstein Theodor TOLLEFSEN, *The Christocentric Cosmology of St Maximus the Confessor*, Oxford University Press, Oxford, 2008, pp. 21-137 etc.

<sup>42</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 2, p. 7.

mate ground” (*ultimul ... substrat*) of the universe is an „energy that contains a sense or a complexity of meanings, and which includes the tendencies of some indefinite connections that produce all these interrelated units”<sup>43</sup>. The energetic, rational and relational infrastructure of the universe irrupts in the emergence of concrete beings. The great theologian inferred from this conclusion that, at the core, created beings are „plasticised reasons” (λόγοι or divine thoughts transposed in the ontological density of concrete things) and consequently behave in accordance with the rational patterns established for them by the Logos, moving towards further unity and coherence.

“The beings are created images (*chipurile create*) of the plasticised divine principles (*ale rațiunilor divine plasticizate*) ..., yet images full of power and moved by the tendency of innumerable mutual references (*tendința unor nenumărate referiri între ele*). In their concrete state they manifest the meaning, the power and the life of the divine principles in their unity within the divine Logos”<sup>44</sup>.

The phrase „plasticised rationality” seems to be inspired by St Gregory of Nyssa’s idea that matter is rational or founded upon a concatenation of λόγοι<sup>45</sup>, and conveys the message that what we usually take as coarse matter is in fact the flexible medium of multiple interactions, between created and uncreated factors. Returning to the passage cited above, we discern a holistic connectivity of created beings, which, like St Maximus in *Difficulty* 7<sup>46</sup>, Fr Stăniloae construed as an outcome of their reflecting the consistency of their principles or „reasons” in the very mind of God. Apart from the theological element, his understanding corresponds to the general perception in contemporary quantum cosmology, for which the indescribable wealth of energy, motion and interaction on a fundamental level seems to be governed by algorithms that – for some reason – make possible the existence of order and complexity on a macrocosmic level, together with the thriving of the universe, of life within it and of ourselves<sup>47</sup>. In other words, discretely, Fr Stăniloae interpreted the scientific vision of reality, which he found as compatible with the traditional worldview of the Church Fathers, from a theological vantage point, as well as giving further

<sup>43</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 2, p. 7.

<sup>44</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 2, p. 7. Briefly on the cosmos as „plasticisation of the invisible”, see O. CLÉMENT, „Geniul Ortodoxiei”, p. 39.

<sup>45</sup> ST GREGORY OF NYSSA, *An Apology for the Hexaemeron* (PG 44, 73A). The text reads: „For everything that came to be, within reason is engendered (λόγω γίνεται), and no things at all can be conceived as existing in God without reason, at random and automatically (ἄλογόν τι καὶ συντυχικὸν καὶ αὐτόματον). We have to believe, therefore, that a certain wise and organising principle/reason (λόγον τινα σοφόν τε καὶ τεχνικόν) lays within (ἐγκεισθαι) each of the [created] beings” (translation mine). See also PG 44, 69C.

<sup>46</sup> Cf. PG 91, 1077C.

<sup>47</sup> Cf. John D. BARROW, *The Origin of the Universe*, Science Masters series, Basic Books, New York, 1994, p. xiv.

strength to the patristic representation of reality by redrafting it along the lines of quantum cosmology. Which means, to say it plainly, that he accepted the contemporary scientific worldview as valid. On this note, I would suggest that whilst explicitly building on the teachings of St Maximus, he tacitly reiterated elements pertaining to the contemporary paradigm, such as the rationality of the natural laws, the indefinite potentialities (or, as he preferred, virtualities)<sup>48</sup> of the quantum infrastructure of reality, and the universe involved in a movement of both expansion and complexification. I would further suggest that specifically these elements shaped his understanding of the Confessor's ideas – a phenomenon of cultural assimilation that was earlier illustrated by the demarche of Fr Pierre Teilhard de Chardin<sup>49</sup>. What matters here is that, in his views, Maximian tradition and quantum cosmology go hand in hand towards representing the world as rationally structured, a rationality that refers both to the universe as a whole, and each and every being within it. This approach should not come as a surprise; there are scientists that believe many contemporary cosmological ideas to have stemmed from medieval intuitions<sup>50</sup>.

Before moving any further, I shall exemplify this tacit achievement, which the father never claimed as such, by his discovery of how significantly patristic tradition reinterpreted the classical concept of matter. The above similarities between St Maximus' teaching and the overall patristic tradition, on the one hand, and quantum physics on the other hand, led Fr Stăniloae to the realisation that the Holy Fathers of old accomplished a profound cultural revolution, precisely by appraising matter as rationally constituted. In the following passage, which addresses this point, one can sense the impact of contemporary physics – despite no reference being made to science.

“For the Holy Fathers, matter was an amorphous mass, wholly unenlightened, whose transfiguration was difficult to comprehend. They inherited from Greek philosophy the notion of a matter that was opposite to the divine Logos, and to any logos at that. Nevertheless, some of them – like St Maximus the Confessor – reached the idea of the principles of beings that have their origin in the divine Logos. Today, we are able to see the rationality, both full and flexible, of matter, its rational transparency (*transparența ei rațională*), its capacity to be moulded by the human reason and

<sup>48</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 374-91. This designation corresponds to Paul Davies' view of creation as actualisation of possibilities; cf. *The Mind of God*, 69.

<sup>49</sup> On the affinities between de Chardin and the Confessor, and the reiteration of the latter's ideas by the former, see L. THUNBERG, *Man and the Cosmos*, 137; Fr Constantin VOICU, „Hristologia cosmică după Sf. Maxim Mărturisitorul”, in: Ioan I. ICA, Jr. (ed.), *Persoană și comuniune*, pp. 589-607, esp. pp. 604-605; Doru COSTACHE, „Pierre Teilhard de Chardin sau încercarea unei perspective integrale”, in: Fr Dumitru POPESCU et alii (eds.), *Știință și Teologie*, pp. 220-235.

<sup>50</sup> J. BARROW, *The Origin of the Universe*, pp. 109-110.

conscious actions – like a metal that can be given many shapes – and whose light is discovered by [our] reason”<sup>51</sup>.

The passage discusses matter as seen by St Maximus and other Fathers who, on the one hand inherited a philosophical concept that did not allow them to articulate properly the mystery of the resurrection and transfiguration of matter, yet on the other hand – forced by the evidence of Christ’s glorified body – had to reinterpret this concept. Thus they arrived at a comprehension of matter as rationally structured and flexible, an understanding that modern people are better qualified to appreciate. The allusion to quantum physics is undeniable, at least from the viewpoint of the similar conceptual challenges that confronted early twentieth century quantum physicists<sup>52</sup>. It is moreover inescapable that Fr Stăniloae proposed a Heisenberg-like idea<sup>53</sup> that matter and reality as a whole emerge from the interaction between human beings and the quantum virtualities. In all likelihood, it is the Heisenberg interpretation of quantum physics that we witness in Fr Stăniloae, a vision of reality that allows for human beings to be more than observers – true agents or active participants in the making of reality as it is. In continuing the above passage, Fr Stăniloae pointed out, again without explicitly referring to science, that it is the responsibility of human beings to activate the world in ways that lead to the final, resurrectional transformation.

“[T]his flexible rationality [pertaining to matter] receives a fuller sense – through the actualisation of this flexibility – only if human reason is driven in its actions by ethical principles together with a responsibility toward human community and God. This [type of action] inaugurates the perspective of a transparency and transfiguration that can lead to resurrection,

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<sup>51</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 376. St Maximus’ thinking seems to be the main source for this vision of the eschatological transparency of the creation, if we consider e.g. his *Mystagogy*, 7 (PG 91, 685BC). Nevertheless, the imagery of the remoulded metal as a metaphor of the eschatological transformation of the creation rehearses St Symeon the New Theologian’s identical approach in *First Ethical Discourse*, 4, which Fr D. Stăniloae translated in *Filocalia*, Vol. 6, Ed. Institutului Biblic și de Misiune al Bisericii Ortodoxe Române, București, 1977, pp. 119-182, here p. 136. On the eschatological transparency of the creation, see Fr STĂNILOAE’s scholia on the *First Ethical Discourse*, in *Filocalia*, Vol. 6, n. 276, pp. 140-141; n. 277, p. 144. Far more developed, Fr D. Stăniloae presented this genuine „physics of immortality” in Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 3, pp. 404-420, with frequent references to the eschatological vision of St Symeon. On the sanctification of creation in Fr D. STĂNILOAE, see Metropolitan D. CIOBOTEA, „O dogmatică pentru omul de azi”, pp. 104-106.

<sup>52</sup> Cf. Henry P. STAPP, *Mindful Universe. Quantum Mechanics and the Participating Observer*, Springer-Verlag, Berlin and Heidelberg, <sup>2</sup>2011, pp. 6-7.

<sup>53</sup> Cf. Werner HEISENBERG, *Physics and Philosophy. The Revolution in Modern Science*, George Allen & Unwin, Ltd., London, <sup>3</sup>1971, pp. 55 and 127. See also STAPP, *Mindful Universe*, pp. 11-12.

[matter] being overwhelmed by the light and power of a human spirit that is filled by the light and power of the Holy Spirit"<sup>54</sup>.

The rationality of matter and the rationality of the universe, if we generalise the above assertions, are intensified by human reason, and more so by the rational exercise of the latter; to be noted furthermore that by the rational exercise of human beings Fr Stăniloae understood an ethical or, as he said elsewhere, ascetical approach to everything<sup>55</sup>. What matters here is that, alongside the divine support discussed in the previous section, precisely because of this rational background of reality and the rational activity of a Spirit-filled humanity the universe can defeat the natural law of entropy – its natural mortality, as St Athanasius had it<sup>56</sup> – and hope for a better future. We discern in the above the skilful synthesis operated by Fr Stăniloae between the main lines of the traditional thinking and contemporary science. I turn now to his construal of the universe's purpose and its dependence on the anthropic principle.

### The anthropic principle and the purpose of the universe

The world contemplated by Fr Stăniloae is characterised by order, sense and purpose, signs of an „underlying rationality” which, to paraphrase John Barrow, transcends the material universe<sup>57</sup>. Founded on divine rationality, this universe is no longer the Cartesian *res extensa*, an aspect of reality that can be measured exclusively in quantitative terms; likewise, the beings within it are no longer Descartes' *res corporeae*, coarse material objects<sup>58</sup>. Instead, as we have seen above, created beings are accretions of reason and information, phenomena or dense expressions of the divine principles, structures of potentiality on their way toward full actualisation, engaged in innumerable mutual references, whose „plasticity” or concrete existence reveals the divine λόγοι that are recapitulated in the Logos. We have also discovered that, for Fr Stăniloae, the rational making of the universe translates into dynamic attributes and that, by nature, all of creation experiences movement and change. Nevertheless, the rational movement of the universe, and of everything within it, is a purposeful movement. This purpose is in

<sup>54</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 376. On the importance of ethical principles in Fr Stăniloae, see Metropolitan D. CIOBOTEA, „O dogmatică pentru omul de azi”, p. 101.

<sup>55</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 357-358; Fr D. STĂNILOAE, „Introduction” to Sf. MAXIM MĂRTURISITORUL, *Scrieri*, pp. 5-42, here p. 32. See also the notes of Fr I. BRIA, „The creative vision of D. Stăniloae”, p. 79.

<sup>56</sup> Cf. ST ATHANASIUS, *Against the Pagans*, 41 (PG 25, 81D-84A).

<sup>57</sup> J. BARROW affirms that, „we must admit to a rationality larger than the material universe” (*The Origin of the Universe*, p. 45). He mentions the „underlying rationality” of the cosmos at p. 110. Similarly, P. DAVIES (*The Mind of God*, p. 57) asserts that the „reason [of the universe's origin] must lie beyond physics”.

<sup>58</sup> See in W. HEISENBERG, *Physics and Philosophy*, pp. 71-84, the story of the quantum dismantling of the Cartesian worldview.

fact double, as an anthropic („humanwards”, I would say) evolution of the universe and as the creation’s journey to immortality, conditioned by the human factor.

The very idea of a purpose, double or otherwise, requires that the whole evolution of the creation is not a random happening. As we have seen earlier, for Fr Stăniloae the divine Logos continually permeates the universe, activating the potentialities sowed in beings and things. Interestingly, this process of activation reaches a peak when the universe arrives at a level of complexity where it can express itself consciously and freely, in the form of humankind. Thus led by the Logos and through the human mouthpiece, the cosmos can answer God’s initiative and call, conveyed through the principles and voices of beings, to enter the endless joy of communication and communion with God<sup>59</sup>. Fr Stăniloae, indeed, believed that there is no other purpose of the creation than to participate in the life of God, its creator, and so to be granted immortality, a purpose which is not achievable however without the mediation of human persons. These aspects are clearly articulated in the following dynamic – i.e. evolutionary – description of the history of creation.

„[C]reated consciousness is brought into existence in an ontological connection (*legătură ontologică*) with the plasticised rationality of the world, which the Logos continues to think efficiently (*continuuă să o gândească eficient*) after creation and to lead toward a state in which human consciousness will be able to exist and function within it. For this reason, he [i.e. the Logos] makes use likewise of an impulse of development (*impuls de dezvoltare*) infused in the very plasticised rationality of the world. Thus the creation reaches a state of complex organisation, close to that of a body suitable to the conscious soul, which [in turn] is brought into existence by the supreme conscious Spirit. Then the conscious soul is brought into existence through a special act of the Logos, which also initiates a dialogue with it. The purpose of the creation is achieved therefore through the bringing into existence of the created conscious person, since the Creator is likewise a Person and since the creation has as a goal a dialogue between the supreme Person and the created persons”<sup>60</sup>.

The passage just quoted depicts an image of the cosmos, designated once again by the catchphrase „plasticised rationality”, in motion, evolving under divine guidance towards a state of higher complexity. Conditioned by its inner rationality, which is the instrument used by the Logos in governing the universe, the world moves toward a point in which it can engage in a dialogue with the Creator; that point corresponds to the emergence within the creation of the human body, a milieu capable of accommodating the presence of the conscious soul, breathed as it were by God. Here, Fr Stăniloae was not interested in dis-

<sup>59</sup> Cf. Fr D. STĂNILOAE, „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 19; Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 352-354.

<sup>60</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 394-395.

cussing the origin of the soul *per se*; in the cited passage the emphasis falls upon the capability of the „conscious soul” to communicate with God, an aptitude which has to be used as a medium of conversation between the Creator and the whole of the created. But more so, the topic of this text is the anthropic potential of a universe that is designed to evolve – true, in the parameters of divine rationality and led by the Source of this rationality – toward the rise of consciousness or more precisely humankind<sup>61</sup>. Our race appears here as an immediate purpose of the entire cosmic movement. This realisation leads to another major topic in the thinking of Fr Stăniloae, namely, the connection between humanity and the universe, also known as the anthropic cosmological principle.

Seemingly aware of the various formulations of the anthropic principle, although he never referred to it explicitly or to the relevant literature (or any scientific literature for that matter), Fr Stăniloae had the intuition of a compatibility and connection between the human presence and the parameters, or the constants, of the universe; moreover, an intuition of the human, i.e. anthropic, conditioning of the cosmos. He termed these rapports and this conditioning as an „anthropocentric” potential and structure of the cosmos, an idea that should be taken in a teleological rather than ontological sense. For instance, along the lines of the strong formulation of the anthropic principle<sup>62</sup>, he affirmed, „the world as nature is created for the human subjects [i.e. persons]. It has an anthropocentric character. Only in them [i.e. human persons] the world manifests and accomplishes its purpose”<sup>63</sup>. He returned elsewhere to this theme by pointing out how „the rationality of the world is for the human being and culminates in the human being; not the human being exists for the rationality of the world. A person [i.e. God] thought of the human person when creating the world”<sup>64</sup>. In the light of our previous discoveries, these statements could not be solely ascribed to the traditional anthropocentrism of either antiquity or modernity. With or without referring to the anthropic trait of the cosmos, Fr Stăniloae discussed the theme of the human conditioning of the creation within the framework of an

<sup>61</sup> Cf. D. COSTACHE, „Virtualitate și actualitate”, pp. 214-215.

<sup>62</sup> Cf. John D. BARROW and Frank J. TIPLER, *The Anthropic Cosmological Principle*, Clarendon Press and Oxford University Press, Oxford and New York, 1986. The authors formulated this version as follows, „the Universe must have those properties which allow life to develop within it at some stage in history” (p. 21). The finalist or teleological formulation of the principle goes even further, „intelligent information-processing must come into existence in the Universe, and, once it comes into existence, it will never die out” (p. 23). Interestingly, just one year after the publication of *The Anthropic Cosmological Principle*, and although without mentioning it, Fr D. Stăniloae affirmed in a similar way that created consciousness was not brought to a pointless existence, being destined to live forever; furthermore, he inferred from this conviction that the cosmos within which human beings exist cannot be deprived of purpose. Cf. his „Introduction” to SF. ATANASIE CEL MARE, *Scrieri*, p. 18.

<sup>63</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 354.

<sup>64</sup> Fr D. STĂNILOAE, *Iisus Hristos, lumina lumii și îndumnezeitorul omului*, pp. 31-32.

evolving and rational universe, precisely that of contemporary quantum cosmology. Nevertheless, even in this matter he seems to have been guided by the wisdom of St Maximus the Confessor.

For the Confessor, human beings hold a central position within the creation, again without this implying a literal anthropocentrism. This centrality, which cannot be maintained outside their communion with the Logos and an appropriate or virtuous lifestyle, represents, rather than a privilege, a task and a function. Endowed with the natural „characteristic of being related to the parts” of the universe («τῶν ... μερῶν σχετικῆς ιδιότητος») and a unifying capacity («τὴν πρὸς ἔνωσιν δύναμιν»), human beings are called to work along the lines of divine intention and thus to bring the whole creation to unity and harmony<sup>65</sup>. This human task can be performed given the informational background of the universe, the λόγοι, which quicken the capacity of the cosmos for coherence and in turn are activated by those human beings that adopt a virtuous lifestyle. The outcome of this interaction between humankind, the divine λόγοι and the created beings, is the attaining of a state of complete transparency of the universe to God’s presence<sup>66</sup>; furthermore, it is the inauguration of a state of mutual participation of the created and the uncreated in each other’s existences<sup>67</sup>. These achievements correspond to the state of deification reached by the saints, through which the whole cosmos is deified<sup>68</sup>. In short, according to St Maximus the more human beings commit themselves to the path of holiness, the more they contribute to the wellbeing, wholeness and perfection of the universe. It is likewise true that St Maximus perceived human beings’ disconnection from God as a condemnation of all creation to experience precariousness and dissolution<sup>69</sup>. Considered within the framework of the classical, cosmocentric culture, of which it was still a part at least from a morphological viewpoint, St Maximus’ construct represented a genuine revolution and step forward, for affirming the dependence of the cosmos on the existence and choices of humankind.

Except for the reference to holiness as the existential mode that conditions creation’s deification, and without the notion of a sanctified universe, the elaborations of St Maximus predate by more than a millennium the contemporary anthropic cosmology, for which, in the words of John A. Wheeler, „it is not

<sup>65</sup> Cf. ST MAXIMUS THE CONFESSOR, *Difficulty 41* (PG 91, 1305B).

<sup>66</sup> See above n. 51. The idea was reiterated as such by Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 391. For a similar assessment of Fr Stăniloae’s thinking yet without details from St Maximus, see O. CLÉMENT, „Geniul Ortodoxiei”, pp. 40-41.

<sup>67</sup> On these matters, see L. THUNBERG, *Microcosm and Mediator*, pp. 137-143. Cf. Bernardo DE ANGELIS, *Natura, persona, libertà: L’antropologia di Massimo il Confessore*, Armando Editore, Roma, 2002, pp. 174-180; Vladimir LOSSKY, *The Mystical Theology of the Eastern Church*, St Vladimir’s Seminary Press, Crestwood, 2002, pp. 108-110.

<sup>68</sup> Cf. Jean-Claude LARCHET, *La divinisation de l’homme selon Saint Maxime le Confesseur*, Cerf, Paris, 1996, p. 107.

<sup>69</sup> Cf. ST MAXIMUS THE CONFESSOR, *Difficulty 41* (PG 91, 1308CD).

only that man is adapted to the universe. The universe is adapted to man<sup>70</sup>, an idea furthered in the postulate, „observers are necessary to bring the universe into being<sup>71</sup>. Although not yet ready to accept the immediate effects of the human presence and action within the universe, above the quantum level, the promoters of the anthropic principle go as far as to suggest the possibility of a macrocosmic impact of our race in the distant future<sup>72</sup>. The cosmological thinking of Fr Stăniloae echoes these concepts, St Maximus' contributions playing again, it seems, the function of mediating between the traditional worldview and contemporary science.

In all likelihood drawing on the new quantum ontology and cosmology, for which the mind appears as a crucial ingredient of the universal existence<sup>73</sup>, Fr Stăniloae added further nuances to St Maximus' understanding of being, or existence, as entailing rationality, order and purpose, as shown by the passage cited at length earlier. More precisely, he construed cosmic rationality as a potential for consciousness, a potential actualised on the level of the human mind, and moreover within the generalised dialogue – to paraphrase Mihai Şora – of the various minds, divine, angelic and human. Without this dialogue the rationality of the cosmos would be pointless and the creation reduced to futility<sup>74</sup>; precisely this generalised dialogue reveals the great responsibility of humankind towards God, for the destiny of all creation<sup>75</sup>. That said, Fr Stăniloae shared with St Maximus the conviction that although the cosmos was created „in view of the human being<sup>76</sup>, the anthropic perspective could not be simply reduced to the creation of the universe *for* human beings, in other words to ignore humankind as an active factor within the cosmos.

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<sup>70</sup> Cf. John A. WHEELER, „Foreword”, in: J. BARROW, F. TIPLER, *The Anthropic Cosmological Principle*, p. vii. See also Clairette KARAKASH, Otto SCHÄFER-GUIGNIER, „Typologie des articulations entre science et foi religieuse”, in: Pierre BÜHLER, Clairette KARAKASH (eds.), *Science et foi font système: Une approche herméneutique*, Labor et Fides, Genève, 1992, pp. 45-72, here p. 51.

<sup>71</sup> J. BARROW, F. TIPLER, *The Anthropic Cosmological Principle*, p. 22.

<sup>72</sup> Cf. J. BARROW, F. TIPLER, *The Anthropic Cosmological Principle*, pp. 22-23, 613-625, and more so pp. 658-77. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 3, pp. 371-73, pointed out that the human presence and actions already mark the universe, a mark that will become even more visible eschatologically. The difference between the scientific promoters of the anthropic principle and the representatives of tradition consists in that, whilst the former believe in a technological transformation of the universe, the latter postulate the impact of a holy life. Cf. St Gregory the Theologian's description of the paradisaical or holy living as characterised by «τῆ ἀπλότητι καὶ ζωῆ ἀτέχνῳ» or «simplicity and non-technical lifestyle» (*Oration on Pascha*, 8; PG 36, 632C), reiterated by St Maximus (PG 91, 1356A).

<sup>73</sup> See e.g. the work of H. STAPP, *Mindful Universe and Mind, Matter and Quantum Mechanics*, Springer-Verlag, Berlin and Heidelberg, <sup>3</sup>2009.

<sup>74</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 386 and 390.

<sup>75</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 360-374 and 394-395. See also his observations in Sf. MAXIM MĂRTURISITORUL, *Scrieri*, pp. 291-292, n. 366.

<sup>76</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 349.

Fr Stăniloae nuanced his views first of all in terms of the world as designed to serve human beings' advancement in both the spiritual and material life<sup>77</sup>, and as endowed with a metamorphic potential that could be actualised either constructively, as happened in the case of Christ, or destructively, like in the case of Adam<sup>78</sup>. As he noted, „[natural] laws contain an adaptable potential (*posibilitate elastică*) and contingency that are placed at the human being's disposal, so that one can variously actualise them, according to one's needs and the content of understandings one has reached<sup>79</sup>. Nevertheless, and second, Fr Stăniloae expressed the conviction that the universe could not attain its ultimate purpose – immortality and perfection – without the mediation of human beings; in a way, albeit partially, the human beings are making the world (*crează în parte și lumea*) whilst recreating their own selves spiritually<sup>80</sup>. The whole complexity of these nuances is sharply encapsulated by a few lines, in the beginning of his great chapter on the creation of the visible world: neither „the human being could be regarded outside the cosmic nature” nor „nature could fulfil its purpose without the human being<sup>81</sup>. In its „cosmic ascension towards God<sup>82</sup>, the human being progresses not only from the viewpoint of its consciousness; it likewise brings along its body, which is part of the mould and the „plasticised rationality” of the universe. Given their solidarity, consequently, through the human body and together with it the cosmos itself ascends to God<sup>83</sup>.

Behind the traditional vocabulary used by Fr Stăniloae, strongly evocative of that of Saints Athanasius and Maximus, we recognise – if not the certainties – at least the hopes of a growing body of scientists who no longer work with the abstractions of a cosmology unable to account for the human presence in the universe. By his anthropic elaborations, Fr Stăniloae comes across as an ally of these scientists – not unlike the Christian apologists of old, who catalysed the philosophical quest for the Logos by their own contributions in the area.

## Conclusion

Being essentially a patristic theologian, Fr Dumitru Stăniloae undertook, and successfully so, a reconstruction of the ecclesial worldview within the pa-

<sup>77</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 354, 360-361 and 374-376. O. CLÉMENT („Le père Dumitru Stăniloae et le génie de l'orthodoxie roumaine”, pp. 85-87; „Geniul Ortodoxiei”, p. 37) noticed in Fr Stăniloae a sense of the spiritual dimension of the world, an aspect of his theological discourse that offers a traditionally Christian answer to contemporary soul-searching.

<sup>78</sup> Cf. Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 376.

<sup>79</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 378.

<sup>80</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 375. See also D. COSTACHE, „Virtualitate și actualitate”, p. 217.

<sup>81</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, pp. 337-338.

<sup>82</sup> Fr D. STĂNILOAE, „Introduction” to Sf. MAXIM MĂRTURISITORUL, *Scrieri*, p. 32.

<sup>83</sup> Fr D. STĂNILOAE, „Introduction” to Sf. MAXIM MĂRTURISITORUL, *Scrieri*, p. 31.

rameters of contemporary science, specifically scientific cosmology. As problematic as this reconstruction might seem to traditionalists, the great theologian was motivated in this challenging endeavour precisely by the spirit of the Fathers in whose name, currently, many Christians cultivate an obtuse and counterproductive anachronism, denying any value to the contemporary sciences. Like the early Church Fathers, Fr Stăniloae believed that the ecclesial message can and should be conveyed through cultural channels that make the message readily accessible to its audiences. For this reason, he utilised the scientific theories and concepts of our time to convey efficiently none other than the traditional message of the Church – the way for instance earlier Christian theologians had proceeded when translating the scriptural teachings on creation from the Semitic to the Hellenistic context. In so doing, both the early Fathers and our theologian proved that the ecclesial message can be conveyed through many cultural channels, and that when addressing the testimonies of the past one should be able to discern between the content and the form, the spirit of that message and the cultural means used for its conveyance in the past. This principle, of neopatristic inspiration, was clearly stated by Fr Stăniloae in the preface of his synthesis of theology: „We have endeavoured to understand the teaching of the Church in the spirit of the Fathers, but also to understand it the way we believe that they would have understood it today. For they would have not ignored our time, the way they did not ignore their own time”<sup>84</sup>.

In other words, the solutions offered by the earlier Fathers to the challenges of their times can not be taken verbatim, as invariable solutions for contemporary issues. Ecclesial theology is therefore called today to reiterate the lesson of the early Fathers, but not to repeat what they said within their own times, in the contexts of cultural paradigms that are now extinct.

At the end of this presentation, which could not claim to have explored all the facets of the theme, I dare propose a summary of Fr Stăniloae’s cosmological thinking, in which we recognise the traditional teaching of the Church only rendered by means of the contemporary scientific culture. In the views of Fr Stăniloae, God did not bring the universe into being in a state of perfection but rather as a sum of rational potentialities – or virtualities – that bear the mark of the divine Logos. These potentialities are engaged in a process of dynamic actualisation, which corresponds to the movement of the universe both in terms of expansion and complexification. Entailing the ongoing interaction of divine and natural energies, this dynamic process presupposes an indefinite series of changes, transformations that refer to both the cosmos as a whole and each of its parts, including life on earth and humankind. The final term of this process is the complete transfiguration and immortalisation of the universe, God’s creation.

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<sup>84</sup> Fr D. STĂNILOAE, *Teologia dogmatică ortodoxă*, Vol. 1, p. 6. For a reiteration of this aspect as central in Fr Stăniloae, see Metropolitan D. CIOBOTEA, „O dogmatică pentru omul de azi”, pp. 95-96.

Nevertheless, the reaching of this eschatological state of perfection is conditioned by another factor, that of the human consciousness together with its very presence and actions. Human beings are seen as responsible for the nature, form and purpose of the world, the discrete factor that selects and actualises the quantum virtualities that make the infrastructure of created reality. Related to the last aspect, perhaps the most important contribution of this worldview, otherwise shared in its general lines by contemporary cosmologists, is the emphasis on the necessity of human transformation – according to ethical criteria and more so in the experience of holiness – as a prerequisite for the fulfilment of God's plan concerning the universe. It is obvious that whilst redefining the traditional worldview of the Church along the lines of contemporary cosmology, Fr Stăniloae implicitly proposed a theological and spiritual interpretation of the various scientific theories, including the anthropic principle.

Emerging at the crossroads of tradition and the scientific culture of today, Fr Stăniloae's cosmological thinking, a trailblazing neopatristic contribution, has yet to receive clear echoes in contemporary Orthodoxy.

### **Rezumat: Cosmologia contemporană și viziunea patristică despre lume: mișcare, raționalitate și sens la Părintele Dumitru Stăniloae**

Articolul începe prin a discuta dificultățile întâmpinate de tradiționaliști, în condițiile instalării unei noi paradigme cosmologice la începuturile secolului trecut. Într-adevăr, noua viziune științifică despre universul în expansiune și diversele interpretări ale fizicii cuantice, ideea chiar a întregii realități în mișcare, devenire și schimbare, au ridicat probleme serioase pentru anumite medii din cadrul Bisericii. Reacțiile acestora, de la opoziția totală față de noua paradigmă la întoarcerea idolatră către științele antichității târzii, au pus în evidență – deopotrivă cu inabilitatea acestor medii de a angaja noul context – dificultăți de natură internă, mai precis lipsa lor de adecvare cu spiritul tradiției patristice. În viziunea autorului, aceste dificultăți au provenit din incapacitatea mediilor respective de a discerne – în contextul tradiției eclesiale – miezul mesajului patristic dincolo de diversele forme culturale în care acest mesaj a fost comunicat în primele secole creștine.

În contrast, prin intermediul vastei sale opera, Păr. Dumitru Stăniloae a demonstrat aptitudinea de a discerne cele două aspecte și astfel, perfect întemeiat în tradiția Sfinților Părinți, a procedat la translarea mesajului eclesial din cadrele culturale ale antichității târzii și ale evului mediu bizantin în cele ale culturii științifice contemporane. Prin această reușită, părintele s-a afirmat încă o dată ca un strălucit exponent al mișcării neopatristice. Articolul analizează trei exemple relevante din gândirea cosmologică a Părintelui Stăniloae, mai precis tema dinamismului creației, a raționalității cosmosului și a principiului antropic, în propunerea cărora marele teolog a prezentat mesajul tradiției patristice cu mijloacele paradigmei științifice curente.

Prima secțiune a studiului, „Natură și mișcare”, explorează dinamismul creației în concepția Părintelui Stăniloae. Marele teolog a contemplat universul atât în imensitatea acestuia cât și în impresionanta sa desfășurare de forțe, potrivit descrierii științifice a zilei. Interesant, departe de a se teme de consecințele acestei viziuni, Părintele Stăniloae a asumat tema universului în mișcare și transformare, căutând în tradiția Părinților repere care să-i permită o reflecție teologică de profunzime. Printre sursele sale favorite, în această privință, se numără scrieri ale Sf. Atanasie cel Mare și Sf. Maxim Mărturisitorul, pe care părintele le-a tradus și adnotat pentru cititorul român. Din aceste scrieri, teologul nostru a împrumutat perspectiva patristică a creației angajată într-un dinamism determinat în același timp de factori divini și naturali. Mai precis, el a repus în circuitul teologic tema patristică a creației străbătută și susținută permanent de energiile divine, care l-a condus la conceperea realității create în termeni de interacțiune și sinergie. Într-adevăr, părintele a reprezentat universul și viața pe pământ ca urmând un traseu ce duce spre desăvârșirea eshatologică, traseu în care întreaga mișcare naturală a creației apare ca potențată și îndrumată de prezența energetică sau activă a Logosului divin. Tocmai această neîncetată îndrumare divină a dinamicii universale i-a permis Părintelui Stăniloae să accepte, până la un punct, posibilitatea evoluției și a transformării atât la nivel cosmic cât și biologic. Ceea ce contează este faptul că, pe urmele celor doi Părinți menționați mai sus, marele teolog a propus premisele unui viguros dialog între teologi și oamenii de știință, un dialog care pentru ambele grupuri poate porni din același punct, al universului în mișcare.

Secțiunea intitulată „Raționalitatea cosmică” discută un alt aspect legat de viziunea cosmologică a marelui teolog, aspect care nu poate fi separat de marea temă a mișcării sau evoluției universale. Părintele a scos în evidență faptul că prezența divină susținătoare a întregii creații reprezintă numai o latură a raporturilor dintre Dumnezeu și cosmos. Astfel, ceea ce permite operarea continuă a Logosului divin în univers este faptul că lumea este produsul gândirii Logosului însuși, fapt pentru care universul poartă amprenta Creatorului său. Părintele a prezentat această amprentă în sensul configurării raționale a creației, o configurare care pe de o parte menține cosmosul deschis către Dumnezeu iar pe de altă parte permite universului să se dezvolte în direcția complexității și a superorganizării. Săgeata acestui proces de dezvoltare indică spre ființa umană, prin a cărei conștiință primește glas raționalitatea universului. Așadar, desfășurându-se în parametrii infrastructurii sale raționale, mișcarea întregului cosmos sau evoluția lumii rămâne departe de a reprezenta un proces dominat de factori aleatorii. Pentru a media acest mesaj într-un limbaj accesibil omului contemporan, Părintele Stăniloae a inserat discret în discursul său cosmologic elemente care evocă noua fizică, cuantică. Printre aceste elemente se numără *conceptul virtualităților cuantice* prezente în structura internă a materiei, potențe care fac posibilă determinarea antropică a realității.

Logic, tema celei de a treia secțiuni este tocmai „Principiul antropic și finalitatea universului”. Potrivit marelui teolog, există o interdependență între structura cosmosului și natura ființei umane. Această complexă relație ontologică – dată în raționalitatea creației și în virtualitățile cuantice, toate fiind condiționate spre a pregăti calea omului – se manifestă la un anumit nivel ca *reciprocitate funcțională*. Mai precis, cosmosul oferă umanității condițiile necesare vieții naturale și sporirii spirituale, mai întâi prin raționalitatea sa flexibilă și apoi prin informația despre Dumnezeu pe care o conține și pe care omul accesând-o își împlinește propria rațiune de a fi. La rândul său, omenirea, în măsura în care se alinază voinței dumnezeiești, contribuie decisiv la actualizarea potențelor universului în sensul aducerii acestuia la starea desăvârșită pentru care a și fost

creat. Pentru clarificarea acestor idei, părintele a utilizat, pe lângă înțelepciunea tradițională a Sfântului Maxim, idei formulate de cosmologii contemporani în jurul principiului antropic.

Articolul se încheie cu un sumar al descoperirilor rezultate în urma cercetării operei marelui teolog, descoperiri care pe de o parte confirmă apartenența Părintelui Stăniloae la tradiția neopatristică iar pe de alta invită aprofundarea și generalizarea acestui tip al discursului teologic la nivelul conștiinței eclesiale.

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