The Transdisciplinary Carats of Patristic Byzantine Tradition

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This article presents three samples of transdisciplinary-like approaches within patristic Byzantine tradition, namely, Chalcedonian Christology (in conversation with Lucian Blaga's notion of dogma), the multilevel interpretation of Scripture in St. Maximus the Confessor, and the Maximian and Palamite ideas of the rapports between science, technology, theology and the spiritual life. The contention of this article is double. First, it proposes that within Byzantine tradition there can be traced a series of transdisciplinary features, which up until recently have remained unknown and which, to be rightly appreciated, require a new appraisal through the lens of current transdisciplinary methodology. Second, and related, it contends that contemporary transdisciplinarity has deep roots within the Christian tradition, as exemplified by the Byzantine antecedents analyzed herein, and that in order to understand better the cultural process that led to transdisciplinarity such roots can no longer be ignored.

Keywords: dogma, hermeneutics, included middle, levels of reality, levels of perception, transdisciplinarity, worldview.

1 Introduction

As a fully articulated object, transdisciplinarity is an intellectual construct for which we are indebted to Basarab Nicolescu, to whom I dedicate this article.

Apart from its technicalities, simply put transdisciplinary methodology represents perhaps the most generous framework for holistic thinking, having as its foundation a vision of the dynamic complexity of reality, a vision which integrates and enunciates the mysteries of being, existence and knowledge, in all their amplitude. As a contemporary worldview, transdisciplinarity largely builds upon quantum physics and its philosophical ramifications; nevertheless, it likewise draws its power from archetypal grounds, the universe of tradition [1, pp. 196-205]. It is unfortunate that a serious transdisciplinary exploration of these traditional grounds is still yet to be undertaken, a lacuna that herein I endeavor to partially address. A transdisciplinary interpretation of tradition is urgent today, in a time when the dichotomy of modernity and tradition jeopardizes the understanding of the very roots of Western culture, together with obscuring the Christian origins of the transdisciplinary methodology and worldview. It is the contention of this article that transdisciplinarity brings to light - or actualizes, in the language of classical philosophy - unknown potencies within the forgotten, or just superficially interpreted, abysses of tradition and the human spirit. Transdisciplinarity therefore gives a clear voice and an articulated expression to tendencies that can be found, true, very often without a conscious exercise, within various traditional cultures. In doing so, it renders a great service to humankind's experience and wisdom.

For instance, and to enter the theme of this article, through the intermediary of such concepts like the levels of reality and perception, and the highlighting of the unifying function of the sacred, transdisciplinarity decisively contributes to the clarification of the *modus operandi* of the Byzantine mind, and of many paradoxical positions exhibited by the Church Fathers.

Indeed, the patristic Byzantine tradition, which I shall explore in what follows, makes no exception in regards to utilizing principles of a transdisciplinary nature [2, pp. 82-84], principles which can be found in most of its theoretical propensities and practical attitudes. I qualified as 'patristic' the aspect of the Byzantine tradition explored herein given that my examples refer primarily to the thinking of some Church Fathers from the Byzantine period; likewise, by the Byzantine era I understand the cultural history of Constantinople and its afferent regions. More precisely, I shall discuss the Christological doctrine of the ecumenical council of Chalcedon, in conversation with the concept of dogma in Lucian Blaga; this analysis will be followed by a review of some aspects pertaining to the multilevel scriptural hermeneutics of St. Maximus the Confessor; finally, I shall address the Byzantine understanding of the relationships between various areas of knowledge and experience, as illustrated by the thought of St. Maximus the Confessor and St. Gregory Palamas. My aim is double. First, it is a matter of highlighting transdisciplinarity as a logical and natural outcome of a process of cultural evolution, which, after being inaugurated by the syntheses of Philo and the early Christians [3, pp. 204-210], at some point in history included the patristic Byzantine tradition. Second, and related, throughout this article I shall point out the significant contribution of transdisciplinarity to the field of patristic studies, since it clarifies certain forgotten and misunderstood aspects pertaining to the tradition of the Holy Fathers of the Byzantine epoch. Given that my effort primarily represents an act of remembrance, and consequently my approach is historical, analytical and interpretive in nature, I have no intention of discussing the possibility of applying my findings to current issues, whether theological in scope or otherwise.

2 The Christological Dogma

Among his precursors in transdisciplinary thinking, Basarab Nicolescu mentions as an important contributor Romanian philosopher Lucian Blaga, a genuine 'man of the included middle' who discovered 'the contradictory complementarity' of reality even before Lupasco [4, pp. 62-63]. The reference to Blaga in this context allows me to reiterate his understanding of dogma not as formulated doctrine but as a way of thinking or a methodological approach to truth [3, pp. 198, 263], and as a 'transfigured antinomy' [3, pp. 216-227]. This highly nuanced concept is crucial to the understanding of the logic behind Chalcedonian Christology. But why do we need to visit Chalcedon? Christological logic lies at the very core of the entire intellectual, axiological and practical system of Byzantium, which in the rich diversity of its expressions offers innumerable samples of a transdisciplinary–like, nuanced and inclusive thinking. More precisely, it is the logic of unions and distinctions, of unity in diversity and of diversity in unity, a logic that Nicolescu considers to be characteristic to Tradition in general [1, pp. 179-180] and which I found to have been consciously embraced and consistently utilized by the Byzantines. In the case of the Byzantine synthesis, this at once contradictory and inclusive logic led to the emergence of a whole culture of paradoxes, whose signposts are manifest as we shall discover below in the zenith of theory, in the nadir of the practical life and everywhere in between; a culture of antinomies that are at the same time irreducible and reconcilable. By far the most obvious expression of this culture is Chalcedonian Christology, to which I shall turn a little later. What matters for now is that by understanding the structure of the Christological formula of Chalcedon we are led to comprehend the tradition it represents. This is where the recourse to Blaga's concept of dogma proves to be very useful, a concept that should not be assimilated with the current idea of dogma as an ecclesiastical decree on faith.

According to Blaga [3, pp. 264-265; 5, pp. 315-320, 389-403], there are two kinds of thinking and therefore two ways of knowing reality. The most common is the enstatic intellect, reductionist in nature and ironically associated with the 'paradisal' manner or, technically, the way of 'plus-knowledge,' a way of thinking that operates by accumulation of information and by filling the gaps in the data.

Reduced to the basic operations pertaining to the human mind, the enstatic intellect rejects the mysteries, denies antinomies and avoids their paradoxical expressions, thus producing a unilaterally sketched and non-contradictory image of reality. In turn, as a less common way of thinking, the ecstatic intellect, illustrative of the 'luciferian' manner or the way of 'minus-knowledge,' is contradictory and inclusive in nature, breathing the pure air of the various mysteries and the problems they entail; in other words, the ecstatic intellect deftly moves within the paradoxical world of the antinomic objects. In line with the above, Blaga perceived the morphology of heresy (i.e. God is either one or three; Christ is either God or man) as typical of the enstatic or reductive thinking; the'paradisal' extinction of all the mysteries through overtly simplified representations. In exchange, he considered the Trinitarian and Christological dogmas, which are antinomic in structure and paradoxical in expression (God is both one and three; Christ is both God and man), as bearing the signature of the ecstatic intellect and the 'luciferian' kind of knowledge [3, pp. 212-215], dubbed by the Byzantines as mystical and apophatic. In a transdisciplinary translation, Blaga referred to the two types of logic, binary and ternary. The enstatic intellect arrogantly operates by simplifying the mysteries, and thus allowing the slumber of reason to continue untroubled by the fact that it accepts only the objects it could represent according to the narrow canons of binary logic, the logic of the excluded middle. In turn, the ecstatic intellect stems from a spirit that is both alert and humble, operating by the means of ternary logic, i.e. of the included middle, exhibiting the capacity to accept reality as it perceives it, in all its paradoxical and contradictory complexity, without needing'to logically formalize the contradiction' [4, p. 63]. As a consequence, when it 'dogmatizes' the ecstatic intellect aims at transcending its own limitations, at defeating the temptation of reducing the mysteries of reality, and their logical contradictions, to facile depictions [3, p. 265]; thus it secures the permanence of all mysteries, and furthermore empowers or radicalizes them [5, pp. 384-389, 398-399]. In this fashion, by changing the direction of knowledge [5, p. 392] it arrives to 'dogmatic' or radically antinomic representations of reality – paraphrasing our philosopher, dogma is the articulation of a mystery as mystery – antinomies that reach paradoxical forms through a process of scission or transfiguration [3, pp. 216-224]. Blaga found this last stage of the 'dogmatic' or intellective process, namely, the 'ecstatic' transfiguration of antinomies, to be a concession made to the human mind and its weaknesses [3, p. 221]. For instance, and to bring the discussion closer to our topic, in the Christological dogma about the Savior as both one and double [3, pp. 218-219], the process of transfiguration polishes the edges of the antinomy, or hides it to some extent, by discerning the level of the (one) person and that of the (two) natures. Nevertheless, precisely this stage of the 'dogmatic' process is of interest here since, in my opinion, it illustrates a transdisciplinary kind of thinking, as we shall see in the analysis of Chalcedonian Christology. Before that, however, a few more notes on the operations of the ecstatic intellect are in order.

In a pontifical manner, etymologically speaking, dogma (as defined by Blaga) illustrates the tremendous endeavors of the mind to circumscribe diverse and more so contradictory aspects, and therefore to bridge various levels of reality. In order to account for these levels, the ecstatic intellect walks the path of humility and challenges the fundamentally reductionist nature of the human mind, a mind that finds its natural expressions in the Aristotelian non-contradictory logic, in the Cartesian clear and distinct ideas, and in the empirical representations of positivism. Thus, moving outside its comfort zone, the ecstatic intellect seeks to position itself simultaneously on various levels of perception. The ecstatic intellect knows that both the binary logic of non-contradiction and disciplinary limitations will remain forever overwhelmed by the complexity of an otherwise paradoxical reality; it knows that *finitum non capax infinitum* and that therefore it needs to sacrifice its peace in order to make sense of things [3, p. 203]. This realization determines it to attempt the transcending of all excessive specialization, albeit not by annulling disciplinary competences, so that it is enabled to consider the objects of its interest from a variety of epistemological angles. It is as if, when looking at a mountain – the metaphor to which I shall turn in the next section – the ecstatic intellect, typical of a transdisciplinary thinking, has the simultaneous intuition of all of the mountain's sides; it is able to circumscribe the mountain of reality from above and below, giving an account of each and every level of reality by considering them through the lens of various levels of perception.

True, it is hard to believe that a single human mind could arrive at *mathesis universalis* or be capable of all the levels of perception, although I do not doubt that in the existential and cognitive metamorphosis known as the experience of holiness, that remains an open possibility. It is more likely, however, that such an achievement is in hand for a community that operates within the parameters of the ecstatic intellect, a community which I unrestrainedly designate as transdisciplinary. Perhaps the best traditional illustration of a transdisciplinary community – guided by the principle called by St. Maximus the Confessor *synexetasis*, 'careful consideration in togetherness' [6, col. 960B] – is the synod or council, be it local, regional or ecumenical. The very concept of the synod (from the Greek *synodos*, 'common way' or 'traveling together') expresses with great accuracy the foundational principle of a transdisciplinary community. Within such ecclesiastical gatherings the objects of contention, usually doctrinal antinomies, are considered from a variety of perspectives and eventually are formulated in paradoxical terms. The classic case is of course the council of Chalcedon (451 CE) [7, pp. 33-45]. The importance of this council consists in that it articulated the Christological dogma in two different theological languages, which illustrate the perceptions of the two main schools of the time, that of Alexandria and of Antioch. The rivalry and the oppositions between these two schools are well documented. Existentially motivated, Alexandrine theology was interested in the person of Christ and the complex unity of his 'hypostatic' structure, whereas the Antiochene school, hermeneutically motivated, focused on the rapports between the two natures of the Lord. More precisely, the discord referred to the personalist orientation of the former, which found in Christology the interpretive key for the experience of holiness, and the ontological propensities of the latter, which found in the metaphysical approach to the two natures of the Savior a key to comprehending some problematic passages in the gospels. Both demarches came to be genially synthesized at Chalcedon.

Resulting from the encounter between the two theological methods, Chalcedonian Christology proposed in anticipation, beyond its doctrinal content, elements of an intellectual schema typical of the transdisciplinary approach – thus representing a genuine dogma, in the sense ascribed by Blaga. More precisely, whilst proclaiming the Christological anti-nomy of unity in distinction, normative for the Byzantine mindset, this dogma discriminated the plans of the contradiction by presenting the mystery of Christ in the 'transfigured' form of a hypostatic or personal unity ('one person and one hypostasis'), echoing the Alexandrine sensitivities, and physical duality ('in two natures'), which addressed the Antiochene criteria [8, p. 180]. The instruments of this discrimination were four famous adverbs, of which two, 'undividedly' and 'inseparably,' typically Alexandrine, referred to the complexity of the person of Christ, whereas the last two, 'without confusion' and 'immovably,' typically Antiochene, signified the permanence and the undamaged aspect of both natures [8, p. 180]. In this fashion the four adverbs made possible a harmonious and creative synthesis of two different theological approaches. Thus, by being of one essence with both the Father and the humankind, the Byzantine Christ is 'truly God and truly a man' [8, p. 180]; nevertheless, at the same time he is an existential or personal unity situated beyond the two natures, divine and human, 'the way what is above nature is higher than the natural,' as later clarified by St. Maximus [9, col. 1097C]. In arriving to this conclusion, whilst making concessions to the human mind by the distinction between person and natures, the Chalcedonian dogma both contained and transcended the specific representations of the two aforementioned theological traditions; it transcended the two representations by harmonizing their main views and tenets, which before were considered as irreconcilable. This exploit was possible only given the capacity of the ecclesial – genuinely ecstatic – mind to utilize, be it implicitly, the transdisciplinary principle of the included middle. Indeed, the Chalcedonian mystery of Christ referred to the Lord as being both one person and two natures. In turn, the heretical mind, illustrative of the enstatic intellect, undertook to speak either of two persons because of the two natures or of one nature because of the single person [3, pp. 218-219]. For the reductionist mind, which operated along the lines of the binary logic of the excluded middle, the notions of unity and duality were incompatible. Instead, at Chalcedon unity and duality were perceived as equally true and mutually consistent, although on two different levels of reality. Thus the Byzantines walked into the valley of astonishment, and, to paraphrase Blaga, they did so without destroying the world's corolla of wonders and without

extinguishing by their thought the mysteries encountered therein. The same 'Chalcedonian' capacity transpires through their other accomplishments, as we shall see in what follows.

3 Levels of Interpretation

I turn now to a special case of the widespread metaphor of the mountain, here Tabor, the place of Christ's transfiguration, as interpreted by St. Maximus the Confessor (d. 662). Although the event of transfiguration was already the object of a lengthy contemplation in his *Ambigua* [9, cols. 1125D-1137C], the Confessor returned to this topic in a section dedicated to the exploration of the mystical meanings signified by the two prophets present there, i.e. Moses and Elijah [9, cols. 1160C-1169B]. Of relevance are the perceptions of the three disciples that witnessed the event, in the interpretation of St. Maximus [9, col. 1160B-D]. I pointed out elsewhere [10, pp. 287-288] how, whilst interpreting the significance of the event, he depicted the two prophets as illustrating two ways of the spiritual life, i.e. marriage and celibacy, which, although very different in their scope and method, are equally venerable since both lead to Christ when approached through virtue [9, col. 1161D]. In commenting on my material referred to at [10], Adam G. Cooper observed that when considered within its immediate context the symmetry I perceived in the passage is relativized by the preference of the Confessor for celibacy and other aspects related to this status [11]. Now, whether symmetrical or asymmetrical, Cooper was right to note that the rapport between marriage and celibacy cannot be properly considered outside the whole section dedicated to the contemplation of the two prophets; in fact he found in this section eight such pairs. More precisely, and according to him, in a symbolic key Moses represents the legal word, wisdom, knowledge, praxis, marriage, death, time and the sensible, whereas Elijah illustrates the prophetic word, kindness, education, contemplation, celibacy, life, nature and the intelligible. Cooper was likewise correct to observe that for St. Maximus the aspects signified by Elijah were more important than those illustrated by Moses. Nevertheless, before moving any further I would like to observe that the imbalance noted by Cooper between the two series of aspects refers in fact to the different ways in which they lead to Christ, easier and in a more diffi-

cult manner, respectively; the series associated with Moses was not altogether discarded by the Confessor, an aspect with which Cooper agreed. That said, what matters is that within the Maximian vision the aspects signified by both Moses and Elijah point to Christ, reaching a synthesis and finding fulfillment in him, a theme to which I shall return.

Given the transdisciplinary carats of this approach, which I shall address soon, of interest here is the fact that St. Maximus highlighted a variety of nuances implied by the two prophets and also that he made no special effort in bringing these aspects to a total accord. We recognize features of Blaga's 'luciferian' knowledge, which is primarily concerned with the rough contours pertaining to the mysteries and their associated problems, not with making them palatable [5, pp. 317-318]. And indeed, far from imposing the vertical reading seemingly suggested by Cooper, e.g. a reading of the Moses series in which the principle or spirit of the law would correspond to wisdom, knowledge, asceticism, marriage, life, time and the sensible creation [9, cols. 1161A-1164A], the saint rather proposed a problematic horizontal reading, in polarizing pairs, as he also did elsewhere [12, cols. 684D-685A]. For instance, in a horizontal reading, and without these pairs losing their edges, the spirit of the law corresponds to the prophetic spirit, wisdom to kindness, knowledge to education, asceticism to contemplation, marriage to celibacy, and so on and so forth. Although a vertical reading would be consistent with the bridges the Confessor built elsewhere [9, cols. 1304D-1308C] over the abysses separating realities, our text does not explicitly attempt a vertical harmonization of the eight aspects; instead, and anticipating the transdisciplinary perspective of the levels of reality and perception, it proposes their horizontal unification, in pairs, of which four make reference to Christ and/or God as pivotal for their respective syntheses. More precisely, these pairs highlight Christ and/or God as their 'higher' points of convergence.

To be more specific, the passage proposes from the outset the presence of Moses and Elijah next to Christ as pointing to the fact that the Lord, as Logos and God, is the origin and content of all the proclamations of the Law and the Prophets; literally, Christ is 'the one from whom [originate] and about whom' are all those proclamations [9, cols. 1161A, 1164A]. Similarly, the second interpretation shows wisdom and kindness as united to Christ both di-

rectly and through the two prophets who symbolize them [9, col. 1161A]; further down, both marriage through Moses and celibacy through Elijah are in the proximity of divine Logos and lead mystically to him [9, col. 1161D]; even further down, the two saints signify the fact that both nature and time are close to God, who is their 'cause and creator' [9, col. 1164A]. All the other pairs, namely, knowledge and education, asceticism and contemplation, life and death, sensible and intelligible, are discussed only as signified by the two prophets, with no regard to their possible unification. Nevertheless, this does not mean that they could not be 'bridged' to form higher syntheses; it just means that St. Maximus was not interested in addressing such matters within this context. In various other places, the Confessor showed at least some of them as brought to a synthesis [12, cols. 668C-669D; 13, col. 681]. Such Maximian parallels confirm the interpretation of the whole section in terms of a horizontal unification or synthesis, and as unification with reference to the 'higher' point represented by Christ, the latter being within, between and beyond these pairs [9, cols. 1164A, 1165D-1168A] – an idea that pervades the *Ambigua* [see e.g. 9, cols. 1129CD, 1152CD].

There is no need to address the specifics of the eight pairs. In turn, noteworthy is the significance ascribed to the two prophetic figures within St. Maximus' interpretation, a significance which was considered from eight different viewpoints, antedating the transdisciplinary levels of perception. Indeed, within the Maximian multilevel approach we identify various disciplinary competences, from the study of Scripture to the contemplation of the cosmos, from ethics to epistemology, and from theory to being, all of which are complexly inferred from the symbolic figures of the two prophets; moreover, the comprehensive symbol of the two prophets present on the mountain appears to signify an overarching framework where the various perspectives converge into depicting a multilayered reality. Through symbols and beyond them, the Confessor sketched the elements of a method endowed with high transdisciplinary intensity, although he could in no way apply these elements along the lines of the modern exigencies pertaining to transdisciplinary methodology. Although in the brief prologue of the section St. Maximus reiterated that such perceptions are available only to those who, like the apostles, contemplate the mysteries of reality 'in ways that are truly gnos-

tic' [9, col. 1160A], his hermeneutical system could be readily represented through the typical transdisciplinary metaphor of the mountain of knowledge [1, pp. 187-189; 14, pp. 46-47], as a methodical approach to reality. This metaphor conveys the message that disciplinary competences – like the various sides and altitudes of the mountain – and their outcomes should be interpreted within the framework of a whole that traverses them, is present in and between them, and likewise goes beyond them. This conclusion is confirmed by the reference to Christ, in four of the eight pairs and throughout the Maximian corpus [see e.g. 13, 620C-621C], as a 'higher' mediating principle in which can be identified the transdisciplinary included middle. For the Confessor, therefore, Christ is the ternary mediator of all polarities, which brings to synthesis all the levels of reality and perception without melting them into an indistinct whole.

The great lesson of St. Maximus' multilevel interpretation of the two prophets consists precisely in presenting the dynamic unity of the whole as effected without a reduction of the levels of perception and reality – the hallmark of a dogmatic attitude in the sense given by Blaga, and of a transdisciplinary approach for Nicolescu. As a matter of fact, it seems that the Confessor already worked out that transdisciplinary hermeneutics centered on Christ, which Nicolescu is seeking [2, p. 84].

4 Science, Technology, Theology and the Spiritual Life

The complexities pertaining to the Byzantine synthesis cannot be reduced to the diaphanous zones of the spiritual progress and of contemplative accomplishments, even though the value of these aspects for the human experience in general and transdisciplinarity in particular could not be ignored. In the following I shall provide examples of a practical transdisciplinary attitude in Byzantium by referring to two patristic paradigms, namely, the Maximian bipolarity of civilization and the spiritual life, and the tripartite epistemology of St. Gregory Palamas.

We have become familiar with St. Maximus the Confessor, almost unanimously considered as the most significant Byzantine theologian. One of his fascinating contributions is the elaboration of a theory of everything [15; 16], a generous multilayered representation of reality [9, 1304D-1316A; 13, 436AB] as

understood by the Byzantines. This encompassing worldview, which was explored by many contemporary scholars [17; 18; 19; 20; 21], yet not in a transdisciplinary perspective, proposes five polarities or levels of reality, each level containing two elements that are either contradictory or at least engaged in tense relationships; from the viewpoint of this pattern, the five polarities look identical to the eight pairs discussed above in regards to Moses and Elijah. The five polarities (uncreated and created, intelligible and sensible, sky and earth, paradise and civilization, and male and female) appear as challenges addressed to the human conscience, the latter being called to achieve its transcendent destiny (signified by the term *anthropos*, the being that both gazes and grows upwards) [9, col. 1305B] by synthesizing all these polarized levels. The process of unification unfolds in the inverse order of the list of polarities, thus beginning with the anthropological synthesis and continuing with the terrestrial unification of civilization and the paradise, and so on up to the highest communion, of the created and the uncreated. It is true that for our purposes the entire theory would be relevant, since it confirms the transdisciplinary carats of Byzantine thinking; however, I shall address here only the second unification, which falls within the scope of this section.

The five Maximian syntheses do not entail a fusion of the elements pertaining to the five polarities [15, pp. 139-140]; unification or synthesis takes place through the building of existential bridges between the various elements, so that both their specific differences are protected and their convergence is secured. We recognize here the traces of the Chalcedonian logic of unions and distinctions [22, pp. 22-23, 49-51; 23, pp. 200-201, 203-205]. Before addressing the content of the second synthesis, it is useful to identify the issue that it undertakes to solve within the framework of Chalcedonian logic. Behind the idea of the second synthesis there is the tension, sometimes unbearable even in our age, between the spiritual life and the world of science and technology; it is a matter of evidence that most scientifically minded people ignore spirituality and, likewise, that most people that are on a spiritual quest fear science and despise technology; however, this is not a new issue, and since it was present in his own time the Confessor felt the need to offer a solution. To depict this tension, St. Maximus chose the metaphor of paradise and the inhabited or civilized space [9, col. 1305A,D].

It must be noted that the Maximian paradise is not just an allusion to the scriptural narrative of Adam and Eve; most often it refers to the spiritual life in general or rather the experience of holiness [10].

In the days of the Confessor, still affected by the extreme spiritualism of the later Origenist tradition, certain monastic circles cultivated a kind of civilizational decontextualization that was characterized, among other aspects, by the prohibition of technology. Technology was despised for belonging with the ephemeral things and more so to the fallen state of humankind. True, following in the footsteps of St. Gregory the Theologian, the Confessor designated the paradisal or spiritual experience as 'non-technological life' [9, col. 1356A; 24, col. 632C] yet in full agreement with the Cappadocian theologian he understood by this the independence, the freedom of Christ and the saints from all tools or instruments, without implying a negative connotation in regards to technology. As a matter of fact, against the monastic milieus that displayed reticence toward science and technology in the name of detachment from things material, and likewise against those completely dependent on tools and technological means, for whom the spiritual journey was meaningless, St. Maximus proposed the integrative perspective of a paradisal life within the civilized world. Civilization, science and technology, are not inherently evil; taken at face value, most instruments created by humankind are neutral from an ethical viewpoint; the only thing that could impose on them a negative connotation is their incorrect, irrational employment; their misuse. The Confessor insisted on the process through which the misuse of things and instruments becomes possible. It is the unfolding of human activities in a mindless way and against nature, through orientation towards things 'lesser than the human being,' upon which the human being was divinely appointed to rule [9, col. 1308C; 13, col. 253A-D]. Somewhere else St. Maximus returned to the idea with even more intensity, by construing an antithesis between the 'original' freedom of human beings from things under, around and within them, and the present human existence that unfolds under the tyranny of necessity; necessity coerces humankind to explore the 'principles of arts/techniques' in order to make tools, upon which it depends for its survival [9, col. 1353C]. Beyond the scriptural suggestion it contains, this contrast is not about the lack of usefulness of tools; it actually refers to the fact that

ultimately the human being should be the master of technology and not dominated by it, or by any anonymous powers for that matter.

Given all of this, the second synthesis cannot come as a surprise; the spiritual life and technology are not fundamentally incompatible and therefore paradise can thrive in the midst of the civilized world [9, col. 1305D]. This is precisely the message of the second Maximian unification, a synthesis which was effected by Christ who sanctified the civilized world [9, col. 1309B] and is continuously achieved by the human beings that adopt a life of holiness ('a life befitting the saints') [9, col. 1305D]. We can safely surmise from the above that for St. Maximus human perfection cannot be reached unilaterally on account of either the inner life or the civilizational progress. By promoting both aspects without advising their fusion, the Confessor reconfirmed the transdisciplinary propensities of the patristic Byzantine tradition. His solution, of a holistic kind, anticipated and made possible the Palamite articulation of the complex rapports between science and/or technology, theology and spirituality.

St. Gregory Palamas (d. 1359) followed closely in the footsteps of St. Maximus, in more than one matter. A practitioner of hesychast mysticism, i.e. the Byzantine way of the inner peace, and a theoretician of humankind's participation in the divine uncreated energies [25, pp. 234-242], Palamas was also an encyclopedic mind, like the Confessor himself and almost all the scholars of the time. The alliance between these two sides of his formation, scientific-philosophical and theological-spiritual, permitted him to undertake creative excursions into most of these areas [26; 27; 28; 29]. Relevant here is the fact that, without abandoning it St. Gregory displayed an incredible freedom from the constraints of the Aristotelian logic of non-contradiction and the excluded middle. For instance, Yangazoglou [30, p. 10] observed that in discussing demonstrative syllogisms Palamas affirmed that they are both applicable and inapplicable to God. This approach, denoting the ecstatic logic of the included middle, recalls Blaga's transfigured antinomies; indeed, further nuancing his statement Palamas discriminated the plans of the contradiction by showing how demonstrative syllogisms can be utilized in regards to divine energies but not with reference to the inner life, or essence, of God. The same goes for St. Gregory's reference to God as 'one' and 'not-one,' discussed by Bradshaw [25, pp. 240-241].

We encounter a similar freedom in the manner in which St. Gregory operated within an integrative schema of a hierarchical type, where the word 'hierarchy' does not signify an ordering of the objects in terms of superior and inferior. More precisely, Palamas worked in the parameters of a stratified worldview for which, in a transdisciplinary rendition, the various levels of perception corresponded to the respective levels of reality. For example, in writing *A Hundred and Fifty Chapters* [31] the saint evidenced the polygonal character of his vision, by showing his acumen as both a theologian and a scientist, according to the measure of that age. What we find in this writing, perhaps to the surprise of a reader who would expect some sort of syncretistic approach, is not an amalgamation of scientific and theological data; instead, we discover a clear disciplinary demarcation of the topics discussed and the methods utilized by the author. Indeed, therein it is as a scientist that St Gregory addressed matters such as the natural energy of created things, against the mythologizing tendencies to ascribe to their movement animistic qualities [31, pp. 84-86, 88, 96-98]; also, it is as a scientist that he manifested reservations toward the questionable information gathered by sensorial perceptions [31, pp. 98-102]. Furthermore, he highlighted the usefulness of scientific research that leads to technological innovation [31, p. 102; 30, p. 14], which in turn contributes to the quality of human life. Free from any disciplinary confusion, throughout the Palamite chapters dedicated to natural knowledge there is almost no reference to theology. Similarly, in the chapters on theology – which basically constitute an overview of the classical narrative about creation, fall and salvation [31, pp. 114-150], Palamas made no reference to the sciences. The saint operated consciously on two disciplinary fronts or levels of perception, which he understood as autonomous in regards to their specific competences. In his terms, it was about the plan of natural knowledge (*physike*), which explored the diversity of cosmic phenomena, and the spiritual knowledge (*pneumatike*), competent in things 'pertaining to the Spirit' [31, p. 102; 29, pp. 40-43]. This disciplinary demarcation corresponds to the distinction, fundamental for the Palamite demarche, between knowledge within the limits of the created, and mystical knowledge, which operates beyond such created parameters [32, pp. 226, 230; 25,

pp. 236-237].

What matters here is that whilst clearly demarcating the two epistemological fields, Palamas adopted a transdisciplinary attitude and did not hesitate to situate himself within both of them, in order to consider the objects at hand. In the light of this very accomplishment, Palamas himself could be considered the 'higher' point for the synthesis between theology and science! To a large extent his approach corresponds to the Maximian multilevel hermeneutics, discussed above, St. Gregory showing the rare capacity to attack the mountain of knowledge from various cardinal points; more importantly, he displayed an ability to understand the disciplinary boundaries perhaps better than anyone before him in tradition. Furthermore, by adding a third dimension, he consciously proposed a tripartite methodology that allowed him to explore nature scientifically, to interpret theologically the meaning of both human and cosmic existence, and to promote the spiritual life as a privileged way to achieve human perfection. In other words, this tripartite hierarchical, or multilevel, schema refers to scientific information, theological formation and spiritual transformation, as the perfect algorithm of a holistic progress [28, pp. 50-51; 29, pp. 41-42], in which we trace, amplified, St. Maximus' program of unifying civilization and the paradisal experience. In so doing, Palamas proved consistency with his notion of the three types of perception, i.e. empirical, reflective and mystical [31, pp. 156-158; 32, p. 236], and likewise with St Basil the Great's provisions concerning the qualities required from a Christian researcher, namely, personal purification and contemplative capacity, scientific inquisitiveness and a theological mind [33, col. 4A]. The result of this approach was not the chaos of syncretism; the three levels of perception constituted together a tree, or a mountain, of knowledge whose regions preserved their distinctiveness whilst converging into a stratified map of reality.

St Gregory Palamas' message is as generous as that of his predecessors in the Byzantine tradition; within the hierarchical schema of St Gregory, transdisciplinary in nature, each field of knowledge can bring unhindered its specific input, thus contributing to the great effort of construing a multilevel representation of reality. More so, this approach affirms the possibility for a person from the sphere of theology and the spiritual life to be able to make scientific and technological contributions, and vice versa, the possibility of a scientist or engineer to undertake the spiritual transformation. As a matter of fact, this program, which functioned more or less implicitly in the Byzantine world, proved to be a factor that generated amazing innovations that still wait for a proper appraisal [34; 35].

5 Conclusion

We have seen above how, through a series of theoretical accomplishments, some of the most prominent Holy Fathers of the Byzantine tradition have exhibited, more or less instinctively, the ability to utilize principles pertaining to what is currently known as transdisciplinarity. Among these principles, they copiously referred to the complexity of reality, which they contemplated as structured on various levels. These findings confirm Basarab Nicolescu's intuitions regarding the transdisciplinary propensities of the Church Fathers. We have seen also how their theoretical choices found practical echoes in the integrative attitude of the Byzantines, who learnt to respect the competences of the various disciplines, granting to all of them autonomy, the right to be, within a holistic worldview. As a result, they formed a generous concept of the possibility of experiencing a spiritual life within the context of the civilized world. The cultural history of transdisciplinarity should enshrine these contributions within its hall of fame. True, given that, according to an observation of philosopher David Bradshaw [25, pp. 263-264], the West obstinately ignored Byzantium and its accomplishments since the threshold of the first two Christian millennia, it is no surprise that it likewise forgot about the transdisciplinary carats of the Byzantine tradition. Transdisciplinarity is the way for our culture to remember what was forgotten both in the West and among those who are the ostensible inheritors of the Byzantine tradition, namely, contemporary Orthodox Christians.

Another noteworthy aspect that emerges from the above analyses is the fact that the transdisciplinary potential of the patristic Byzantine tradition could not have been highlighted in all its power if transdisciplinarity did not literally irrupt in our day and age. As the messianic significance of Hebrew Scripture was evidenced by the advent of Christ, likewise the transdisciplinary potential of Byzantine tradition comes to light when considered through the lens of

contemporary transdisciplinarity. In this sense, both the patristic Byzantine tradition in particular and the traditions of the world in general profit significantly from the light projected by transdisciplinarity upon their quests, values and aspirations.

Acknowledgments

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