

**STAGES IN THE CONFIGURATION OF THE TRANSDISCIPLINARY
PROJECT OF BASARAB NICOLESCU***

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Introduction. The Dissemination of the Transdisciplinary Project

In the last 25 years transdisciplinarity has developed as a revolutionary model of thinking, a visionary reconfiguration of Reality, a universal methodology applicable to all fields of knowledge, a practical guide for the assimilation of an open mentality adapted to the challenges of our present world, a new humanism restoring the dignity of the human being and an ethical code based on rigor, openness and tolerance. Since it has been launched by Basarab Nicolescu as a revolutionary approach to knowledge, aiming at what is, in the same time, *across* disciplines, *between* disciplines and *beyond* any discipline, transdisciplinarity has turned into a rigorous and flexible project, adaptable to the stringent requirements of the present society, proposing a unifying methodology bringing together hyper-specialized and dispersed human activities from various fields and braches. The theoretical platform of transdisciplinarity has been constantly doubled by relevant tangible achievements which confirmed and stimulated further development of the transdisciplinary project, enlarging its initial goals and prefiguring a continuous and endless multiplication of its aims and ambitions.

The first step after the proposal of the concept in 1985 has been the proper institutionalization of transdisciplinarity through the creation in 1987 of the International Centre of Transdisciplinary Research and Studies (in French: Centre International de Recherches et Études Transdisciplinaires – CIRET), a worldwide organization gathering 165 transdisciplinary researchers from 26 countries. Furthermore, Basarab Nicolescu founded, together with René Berger, the Reflection Group on Transdisciplinarity with UNESCO, involving 16 scientific or cultural personalities into an international strategy of

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implementation of the transdisciplinary methodology in various fields of knowledge and research. Several conferences have been organized worldwide, such as the First World Congress of Transdisciplinarity which took place between the 2nd and the 7th of November 1994 at Convento da Arrábida, Portugal, where was adopted the *Charter of Transdisciplinarity* conceived by Lima de Freitas, Edgar Morin and Basarab Nicolescu.

One of the main aims of transdisciplinarity is the implementation of its principles in education and one of its major achievements in this direction has been the CIRET – UNESCO project *Transdisciplinary evolution of the University*, materialized in the International Congress *What University for Tomorrow? Towards a Transdisciplinary Evolution of the University*, organized between the 30th of April and the 2nd of May 1997 at Locarno in Switzerland, in a Declaration and a set of Recommendations later applied in several transdisciplinary programs in Brazil, Venezuela, Argentina, Canada and in France. Slowly, but decisively, transdisciplinarity gained an international impact especially in superior education, as prestigious universities from all over the world proved opened to the experimentation of transdisciplinary programs, activities and conferences. Moreover, the University Babeş–Bolyai from Cluj–Napoca in Romania and the Stellenbosch University in South Africa have developed transdisciplinary doctoral programs involving competent specialists from various fields of knowledge.

Another important step in the dissemination of the transdisciplinary principles has been made by the elaboration of a corpus of books, collective writings or publications initiating an extending series of transdisciplinary studies. In this direction, Basarab Nicolescu founded and directed several transdisciplinary collections, two in French, the “Transdisciplinary” series at Rocher Publishing House in Monaco and the “Romanians of Paris” series at Oxus Publishing in Paris, and two in Romanian, “Science and Religion” and “Science, Spirituality, Society” at Curtea Veche Publishing in Bucharest. The studies selected by Basarab Nicolescu focus on the collaboration between science, religion, art, poetry, philosophy, psychology or politics in the reconstruction of the lost unity of knowledge and creating the basis of a transdisciplinary hermeneutics.

The institutions, conferences, programs and studies impregnated by the principles of transdisciplinarity have configured a worldwide movement embraced by researchers, scientists and cultural personalities from all continents, a project with 25 years of fertile

history and a promising future ahead. The brain and soul of the transdisciplinary project is undoubtedly Basarab Nicolescu and the recapitulation of the essential stages in the configuration of the transdisciplinary project in his writings enlightens its surprising potentialities and reverberations, revealing its multidimensional profile.

The Embryonic Phase: *Ion Barbu – The Cosmology of the “Second Play”*

The transdisciplinary project can be found in an embryonic form in the first study elaborated by Basarab Nicolescu in 1968, *Ion Barbu – The Cosmology of the “Second Play”*, a dense monographic approach to the literary works of the Romanian poet Ion Barbu, pseudonym of the mathematician Dan Barbilian, where the young physicist discovered, on the osmotic grounds of literary studies, the surprising marriage between science and poetry. The impact of the study in the cultural media of the time was due to its revolutionary premise, venturing to propose a totally new perspective of the refined writings of Ion Barbu: it aims to decipher his poetry in terms of the implications of the scientific theories assimilated by the mathematician, method which proves to be an excellent key for understanding the cosmology of the poet. The thesis of the study is to demonstrate that the poetry written by Ion Barbu, far from being based on a confusing hermetic scheme, as it had been interpreted in various occasions by the literary critics of the time, proves to be an axiomatically elaborated synthesis of the intellect and the affect implying the same rigor as a scientific theory. For this purpose, Basarab Nicolescu selects some unexpected hermeneutic keys from the mathematical field in order to reveal the subtle conversion of the mathematical terms into poetical suggestions.

Basarab Nicolescu’s approach goes beyond the interdisciplinary boundaries, as the fertile collaboration between science and poetry discovered in Ion Barbu’s literary writings is not reduced to the simple juxtaposition of notions selected from the two linguistic spheres, as it is implied by Tudor Vianu in the first monographic approach to the poetry written by Ion Barbu (Vianu [1970], p. 80). On the contrary, the study elaborated by Basarab Nicolescu anticipates the transdisciplinary methodology, as it focuses on the penetration of human understanding beyond the strict boundaries of mathematics and poetry and on revealing that the concepts poetized by Ion Barbu suffer

through the semantic transfer an essential metamorphosis which actualizes the poetical potentialities of the mathematical notions, “transforming the <<definite>> into the <<indefinite>>” (Nicolescu [2004 a], p. 44), converting them into symbols of a trans-language capturing the vibrations of the ineffable.

The Birth Certificate of Transdisciplinarity: *We, the Particle and the World*

The second study written by Basarab Nicolescu was published in 1985, 17 years after his Romanian debut, implying an enlarged perspective, incorporating various fields of analysis opened to a transdisciplinary approach, which brought the theoretical physicist at Pierre and Marie Curie University of Paris, researcher in the fascinating field of the elementary particles, an international notoriety granted by the prestigious French Academy Award in 1986. Although it swerves from literary to scientific hermeneutics, with extensive illustrations from the latest discoveries in elementary physics, this study subtly avoids the trap of using sophisticated specialized formulas hermetically inclosing the message. On the contrary, Basarab Nicolescu aims at mediating a deeper understanding of the complex visions of the contemporary scientific theories, attained by the help of a trans-linguistic lexicon which incorporates poetized concepts similar to those earlier discovered in the “lyrical theorems” conceived by the Romanian poet Ion Barbu.

The starting point of *We, the Particle and the World* can be found in the attempt to analyze the *quantum revolution* and its impact upon the most relevant spheres of knowledge, from sciences to arts and spiritualities. The first chapters of the study expose the corpus of principles and operational concepts which stand at the basis of quantum mechanics – discontinuity, global causality, non-separability, indeterminism – in an attempt to synthesize the breakthroughs of the 20th century scientific paradigm, from the revolutionary theories elaborated by Max Planck and Werner Heisenberg to those concerning, for example, the *full vacuum* (oxymoronic notion which refers to the fluctuations between being and nonbeing which occur at the suddenly apparition and annihilation of particles and antiparticles), *quarks* (constituents of the hadron whose denomination was borrowed from the experimental novel of James Joyce, *Finnegan’s*

Wake, where *quark* was invented as a rhyme for *mark* and *bark*) or *bootstrap* (term which literally means “laces”, a scientific metaphor for the interdependency of all levels of Reality, from quanta to the macro-physical world, which implies the fact that any infinitesimal change at any level irremediably disturbs the entire Universe). All these theories gravitate around the central notion of the study, which will eventually become one of the three pillars of transdisciplinarity, that of “level of Reality”, meaning a “set of systems which are invariant under certain laws” which are no longer valid when are applied to other levels of Reality (Nicolescu [2007 a], p. 142).

This vision of a stratified Reality implies several layers of discontinuity that radically separate each level of Reality from the previous or the next one, the transgression being possible only by means of the principle of the Included Middle, another one of the three pillars of transdisciplinarity. The idea of Reality developed by Basarab Nicolescu goes beyond the simplistic positivist theories based on the classical logic principle of the excluded middle and incorporates the changes in our perspective of the world implied by the amazing scientific discoveries of the last century, which certify the stringent need for the acceptance of complexity, the third pillar of transdisciplinarity. Furthermore, the implications of the theories exposed reach further than the technosciences, as recent scientific experiments, such as quantum cryptology, quantum computers or even quantum teleportation, are related to areas of research apparently unrelated to the hard sciences, such as Gilbert Durand’s thrilling studies of the imaginary, Stéphane Lupasco’s revolutionary logical formalizations or Charles Sanders Pierce’s surprising semiotic approach, perspectives demolishing the malignant prejudice of the impassable gap between science and culture.

In this way, *We, the Particle and the World* has played a major role not only in theorizing the main concepts of transdisciplinarity, but also in putting in practice its principles, extending the analysis to various fields of research, daring to cross the boundaries of disciplines in order to reach the thesaurus of knowledge hidden *across*, *in between* and especially *beyond* any specialization. In fact, this study represents the birth certificate of transdisciplinarity – term previously introduced by Jean Piaget in 1970, but fully developed by Basarab Nicolescu, who added to its anterior meanings that of “beyond any discipline” – as a valid and rigorous way of reaching the understanding of

our present world and fulfilling the imperative of the “unity of human knowledge”, objective firstly formulated by Niels Bohr in 1961. In this way, Basarab Nicolescu is a descendent and continuator of what he considers the “Bohr program” (Nicolescu [2007 a], p. 314-318), an orientation towards the unification of all comprehensive endeavors belonging to different fields of knowledge in an *in vivo* way of understanding as a better alternative for the unilateral *in vitro* research typical for the hyper-specialized disciplines of our (post)modern world. The last chapter of the study, enriched with up-to-date information in an improved edition in 2002, provides a synthetic chronology of transdisciplinarity and essential information about its main principles and goals further developed in *The Manifesto of Transdisciplinarity*, as well as a brief definition and a necessary clarification of the sharp distinction between *interdisciplinarity*, *multidisciplinarity* and *transdisciplinarity* (Nicolescu [2007 a], p. 320-321). While *interdisciplinarity* – the transfer of methods from one discipline to another, eventually creating new disciplines – and *multidisciplinarity* – the study of an object belonging to one discipline by various disciplines in the same time – remain locked in the interior of discipline boundaries, *transdisciplinarity* transgresses any disciplinary boundary, aiming at what is, in the same time, *across* disciplines, *between* disciplines and *beyond* any discipline.

A Case Study of Transdisciplinarity: *Science, Meaning and Evolution – The Cosmology of Jakob Boehme*

The next writing elaborated by Basarab Nicolescu, *Science, Meaning and Evolution – The Cosmology of Jakob Boehme*, published in 1988, can be read as a case study and a corollary of the theoretical system developed in *We, the Particle and the World*, discovering the principles of transdisciplinarity at the basis of both modern science and modern philosophy, in a fundamental work for both fields of knowledge: the writings of Jakob Boehme, considered to be “the first modern philosopher” (G.W.F. Hegel apud Nicolescu [2007 b], p. 18). The monographic study written by Basarab Nicolescu combines, in the opinion of Ioana Pârvulescu, two types of interpretation: the cool analytical perspective of the scientist and the empathic identifying approach of the

humanist (Pârvulescu [1997]). Indeed, Basarab Nicolescu confirms this double perspective, both scientific and empathic, when he finds the roots of his research at the crossroads of “a passion” and “a question”: the fascination of the humanist for the complex cosmology of Jakob Boehme, sharing surprising affinities with the transdisciplinary vision, and the intriguing question of the physicist: “Why modern science was born in the Occident?”, whose answer is closely related to the emergence of the effervescent cultural and spiritual atmosphere which stimulated Jakob Boehme and created the proper conditions for the birth of modern science.

Basarab Nicolescu’s choice for Jakob Boehme is not random, as the highly symbolic cosmology configured in *The Aurora* (Boehme [1993]) prefigures some of the most relevant principles adopted four hundred years later by transdisciplinarity, such as the ternary structure of Reality or sacredness and the Hidden Third. Basarab Nicolescu discovers in Jakob Boehme’s cosmology a “crucial defiance: to reconcile without shading their specificity the rational and the irrational, matter and spirit, finality and non-finality, good and evil, freedom and law, determinism and indeterminism, the imaginary and the reality” (Nicolescu [2007 b], p. 32), prefiguring an enriched understanding which surpasses the mainstream mentality based on binary logic. Basarab Nicolescu proposes a valid interpretation of Jakob Boehme’s cosmology, revealing the subtle links between the ternary of the three worlds – the world of fire, the world of light and the exterior world – with the septenary of the seven qualities which govern them, in fact a virtual nonary, hiding three ternaries, incorporating a symbolic configuration of a veritable thinker of the Third. Basarab Nicolescu’s interpretation is integrated in a solid argumentation which continues the ideas of *We, the Particle and the World*, such as the revelations of the imaginary, the collaboration between science and Tradition and the consequences of the discovery of the levels of Reality. Actually, the coherence of the study is given by the transdisciplinary methodology applied in the interpretation of the ideational system conceived by Jakob Boehme, which proves to be not only compatible with the principles of the transdisciplinary project, but also an unexpected anticipation of this innovating vision, infirming any suspicion of obsolete thinking or inadequacy to the challenges of the present world. Furthermore, the rereading of *The Aurora* can offer an amazing lesson of how “the multiple splendor of Being is reflected into the mirror of Nature” (Nicolescu

[2007 b], p. 191), creating the premises for formulating a new Philosophy of Nature, a reliable mediator between science and sense, the imperative task of the transdisciplinary project and the aim of Basarab Nicolescu's following writings.

The Potential Program of Transdisciplinarity: *Poetical Theorems*

Basarab Nicolescu's next writing has a special history, as it was conceived under auspicious circumstances, as a result of two fundamental experiences recalled by the author in several confessions. The first one took place in the 19th of November 1989 in Paris, near the Cathedral of Notre-Dame, and is considered by Basarab Nicolescu to be his "true birth" (Nicolescu, [2004 b], p. 7), as it provoked a profound process of auto-transformation. This epiphany, which has never repeated, consisted in a short but sharp intensification of perceptions, especially of a bright fluid light which haloed all objects and beings, illumination which revealed the sacred beauty of the world around, as well as a revelation that "everything is false", including the radical relativism of postmodern thinking, which apparently sustains this assertion, but refuses instead to recognize its own error. Basarab Nicolescu recalls that after this revelation he was confronted with unexpected "waves of information" transcribed as in a trance in hundreds of flashes of condensed wisdom, later arranged in the 13 chapters of *Poetical Theorems*. The same impression that "Great creation is like a possession: something speaks through us" (Nicolescu, [1996], p. 95), as it is noted in a poetical theorem, can be also detected in the other experience that led to the writing of the book: a special meeting with two other transdisciplinary thinkers, Michel Camus and Roberto Juarroz, which took place in the 9th of February 1991, when the three friends assisted with astonishment at the emergence of totally new ideas conceived outright in their interaction as in a trance, as for example that of the term "the Secretly Included Middle", one of the key words of transdisciplinarity, which will eventually become the Hidden Third.

The *Poetical Theorems*, published in 1994, closes the circle started in 1968 in the monographic study dedicated to Ion Barbu, where Basarab Nicolescu uses an almost identical term, "lyrical theorem", and opens a spiral towards an enlarged Philosophy of Nature, incorporating both the scientific and the poetic spirit. The *poetical theorems* are

not a new literary or philosophical genre, as they are defined as being “neither theorems, nor poems and even less aphorisms or philosophical meditations”, but simply a “converging point of quantum physics, Philosophy of Nature and interior experience” (Nicolescu, [1996], p. 13). This condensed formula has been preferred because the *poetical theorems* unsystematically transcribe concepts and ideas which concentrate in a few pages potential theories which would have taken years to be exposed in tens of volumes in scientific and academic discourse. In this way, in this compendium it can be found the potential program of transdisciplinarity, with its roots, its principles, its objectives and its values, the poetical theorems functioning as percussive shortcuts to an enlarged understanding mediated by the poetical suggestions of trans-linguistic formulas. The 13 chapters of the volume, each gathering tens of poetical theorems, focus on some turning points which have transfigured the present way of understanding Reality, such as the discovery of the levels of Reality, the emergence of a vivid rationality which incorporates both the rational and the irrational, the fertile marriage between science and Tradition or the astonishing isomorphism between quantum and poetical knowledge.

A group of poetical theorems deal with the controversial distinction between modernity seen as an “anti-alchemy transforming gold into garbage” (Nicolescu, [1996], p. 112) and post-modernity perceived as a morbid attraction towards the apocalyptic “black sun of the end” (Nicolescu, [1996], p. 109), dilemma solved by including into the equation a third concept, that of “cosmodernity - a brilliant proof of the modernity of tradition” (Nicolescu, [1996], p. 119), which promises a revolutionary adjustment of our retrogressive mentalities to the scientific discoveries of the last century and to the challenges of the present world. This vision implies a resurrection of the Subject, ignored or even repressed for centuries in an obstinate search for objectivity, as Basarab Nicolescu’s cosmodernity – or “transmodernity” in the terminological adjustment proposed by Pompiliu Crăciunescu (Crăciunescu [2003], p. 75) – surpasses the binary separation of the Object and the Subject by their ternary unification into what will later become the Hidden Third, the Secretly Included Middle, the subtle interaction between the Subject and the Object into the ineffable zone of sacredness. In fact, this focalization on the complexity of the human Subject represents Basarab Nicolescu’s solution to the “crisis of the category of the individual” discovered in the core of the modernist paradigm

by another potential transdisciplinary thinker, Ioana Em. Petrescu (Petrescu [2003], p. 25-36). In his cosmology, Basarab Nicolescu reserves for the human being a special position, as he can be seen simultaneously as a privileged being, “infinitely more complex than a galaxy” (Nicolescu, [1996], p. 149), crossing all the levels of Reality, and a limited creature, submitted to the laws that govern Reality, as the forewarning message of transdisciplinarity encodes a Pascalian urge for humbleness and for an imperative awakening of consciousness. Far from being aphoristic, *Poetical Theorems* reveal an amazing coherence, as the dispersed fragments of wisdom gather into a hidden network of potential meanings silent clues of the unity of knowledge, the ultimate aim of transdisciplinarity.

An Axiomatic Synopsis: *The Manifesto of Transdisciplinarity*

After more than a decade since it has been conceptualized in the *We, the Particle and the World*, transdisciplinarity needed in order to gain the necessary planetary impact a synthetic overview in a synoptic recapitulation of its theoretical foundation and practical goals. If *Poetical Theorems* can be seen as the virtual program of transdisciplinarity – a network of potentialities whose visible knots, the poetical theorems, vibrate in a hidden web of interconnections – , its manifested form is, as the title confirms, the *Manifesto of Transdisciplinarity*, an axiomatic presentation of the concepts, principles and objectives of this innovative project. Actually, *The Manifesto of Transdisciplinarity*, published in 1996, is an attempt to systemize the intuitive flashes of wisdom gathered in *Poetical Theorems* on the theoretical basis configured in *We, the Particle and the World* in order to give an alternative to the “mortifying” (post)modern proclamation of an endless chain of deaths (of God, of the human, of the history): a “recovery of hope” in a “manifesto for the return to history” (Spiridon, [2006], p. 20), for a bold confrontation with the challenging crises of the present world. Indeed, there are two possible attitudes towards the severe “poly-crisis” of the present, materialized in the two alternatives described by Edgar Morin, another transdisciplinary thinker (Morin, [1999], p. 150-151): either we chose to remain prisoners *inside* the “double-binds” of the simplifying binary thinking, the comfortable inertia that can lead to self-destruction, or

we dare to convert the crisis into an opportunity to go *beyond* the frustrating contradictions and double-binds and to discover the marvelous complexity of our Reality. In total consent with this second alternative, Basarab Nicolescu is one of the few temerarious Seekers after Truth who accept the challenge to go *beyond*: he assumes the present crisis as both a spectrum of a triple self-destruction – material, biological and spiritual - and a privilege to discover tolerance and wisdom. The present society is at a crossroads at equal distance from the catastrophic extremes of the utopian totalitarianism and the dystopia of relativism and the only way to go beyond this double-bind is an imperative awakening of consciousness, one of the main goals of transdisciplinarity.

Like every manifesto, the study starts with the rejection of a retrograde paradigm, in this case that of the simplifying scientism based on the binary logic of the excluded middle, and proposes instead an innovative model of thinking establishing a new idea of Reality more adequate to the complexity of the present world and advancing a ternary logic integrating the Included Middle. The first part of the manifesto is a resumption of the theoretical ground of transdisciplinarity, focusing on its three pillars: the logical axiom of the Included Middle, previously conceptualized by Stéphane Lupasco in his *dynamic logic of the contradictory* (Lupasco [1956]), the ontological axiom of the levels of Reality, the key-concept developed by Basarab Nicolescu in *We, the Particle and the World*, and the epistemological axiom of complexity, which reveals an open gödelian structure of Reality. Basarab Nicolescu establishes a distinction between the Reality, understood as an ideational construct, which “resists to our experiences, representations, descriptions, images and mathematical formalizations” and the Real, defined as “what it is”, the veiled ontic which cannot be totally penetrated by reason. The Real interposes a “transcendent censorship”, in the formula of Lucian Blaga (Blaga [2003 a]), which assures the incomprehensibility of the zone of total transparency “which does not resist to our experiences, representations, descriptions, images and mathematical formalizations” (Nicolescu [1999], p. 64). This zone of non-resistance plays an essential role in the interaction of the Transdisciplinary Object, “the ensemble of the levels of Reality and its complementary zone of non-resistance” and the Transdisciplinary Subject, “the ensemble of the levels of perception”, using a concept proposed by Edmund Husserl in *Cartesian Meditations* (Husserl [1994]), “and its complementary zone of non-

resistance”, as it forms the third term of this fundamental ternary, the Hidden Third, the guardian of our sacred irreducible mystery, the guarantor of our “freedom and responsibility” and the “source of our ultimate values” (Nicolescu [1999], p. 150).

This theoretical preamble opens towards a large palette of practical applications of transdisciplinarity, systemized too in the *Charter of Transdisciplinarity*, adopted in the 6th of November 1994 at Convento da Arrábida and annexed at the end of *Manifesto of Transdisciplinarity*. The essential mission of transdisciplinarity is the metamorphosis of the most important human activities according to the principles of this revolutionary paradigm, based on the three axiomatic pillars of the levels of Reality, the Included Middle and the complexity of the world. Its efforts are focused on the implementation of a *transdisciplinary education*, founded on the four “Pillars of Learning” of the Delors Report to UNESCO: “learning to know, learning to do, learning to live together and learning to be” (Nicolescu [1999], p. 154), a *transdisciplinary economy* “in the service of the human being and not the other way around” (Nicolescu [1999], p. 175) and a *transdisciplinary ethics* based on the mutual respect of our individual and collective diversities. Transdisciplinarity promotes the *trans-cultural*, the opening of all cultures towards what can be found across and beyond them, the *trans-national* which guarantees that every human being belongs both to a nation and to humanity, the *trans-religious*, which encourages the recognition of sacredness in every religion and, in this way, the dismantle of tensional religious conflicts by cultivating mutual respect and tolerance. Transdisciplinarity discovers *trans-language* – which sees the words as quanta, a universal language which goes beyond words, incorporating both the silence between words and the infinite silence hidden in the meaning of a word, *trans-history* – which focuses on the vivid time of the present instant “potentially containing both the past and the future” (Nicolescu [1999], p. 128) and *trans-humanism* – which restores the inherent dignity to the human being seen as *homo sui transcendentalis*, free to explore the potentialities of both the exterior and the interior transcendence. The ultimate aim of the transdisciplinary project is the emergence of a *transdisciplinary attitude*, term proposed by Roberto Juarroz meaning a “constant orientation, unchanged” in any circumstance, a behavioral model based on rigor, open-mindedness and tolerance, or, in other words, those of Ionuț Isac, the configuration of a transdisciplinary ethos, “a unitary morality of

thought, feeling and action in agreement with the transdisciplinary principles” (Isac, [2007], 128).

A Trans-temporal Dialogue: *What is Reality? Reflections on the Work of Stéphane Lupasco*

A new monographic approach can be found in Basarab Nicolescu’s recent study *What is Reality?*, this time concerning the complex ideational system constructed by the visionary philosopher Stéphane Lupasco, perfectly integrated in the transdisciplinary paradigm and entirely revealed in the light of the key-concept of *level of Reality* firstly developed in *We, the Particle and the World*. In fact, the study can be read as a subtle trans-temporal dialogue, as Stéphane Lupasco’s ontological model of *the three matters* – macro-physical, biological and psychical – and tri-dialectic formula of the *dynamic logic of the contradictory* – A, non-A and the T-state or the Included Middle – are constantly reflected into Basarab Nicolescu’s model of *Transreality*, including various levels of Reality separated by successive layers of discontinuity and unified by the logic of the Included Middle, assuring the daring leap from one level of Reality to another. The three pillars of transdisciplinarity – the levels of Reality, the Included Middle and complexity – are interconnected in a trans-vision gravitating around the core of Transreality: the Hidden Third, the marvelous discontinuity between the Object and the Subject which mediates their interaction and the source of sacredness revealing the amazing auto-consistency of the universe. This participation to the sacred zone of non-resistance to rationalization unifies the Included Middle and the Hidden Third, despite their obvious differences – the first one is a logical operator, belonging to the Reality, while the second one is a-logical, entirely hidden by the veil of the Real. In fact, they constantly reflect one into the other, subtly “nurturing” one another, assuring a continuously re-enchantment of the world, as the Included Middle proves to be, as Pompiliu Crăciunescu sharply intuitively (Crăciunescu [2010], p.85), the “onto-logical incorporation of the Hidden Third”, its “revealed energy”, its plain manifestation into the Reality.

The panoramic synthesis of Stéphane Lupasco’s vision is followed by a comparative and integrative quest for rendering the affinities and reverberations of the

revolutionary ideational system developed by the philosopher in order to emphasize its major impact upon the present understanding of our complex Reality. Stéphane Lupasco's vision irradiates in various directions of the 20th century scientific and artistic culture, exercising a magnetic fascination and a fertile catalytic influence over innovative artists and thinkers like André Breton, Salvador Dali, Eugène Ionesco, Benjamin Fondane or Emil Cioran. Stéphane Lupasco's vision is integrated in the same reconciliatory paradigm with those of C.G. Jung and Wolfgang Pauli, a paradigm based on the logic of the Included Middle, which should not be confused with the "hermetic irrationalism" defined by Umberto Eco (Eco, 2007, p. 55) as a hermeneutic drift with the roots in the *Coincidentia Oppositorum* principle which links everything in a linguistic net suspending the classical principles of identity and non-contradiction as every word can be substituted with any other in an infinite semiosis. Basarab Nicolescu rectifies Umberto Eco's seducing theory, clarifying that only the third principle of the classical logic of Aristotle, that of the excluded middle, is declined by the logic developed by Stéphane Lupasco, and implicitly by the logical axiom of transdisciplinarity, while the other two principles, those of identity and of non-contradiction, are not only preserved, but also strengthened. Basarab Nicolescu returns to this essential clarification in the chapter *The Interrupted Dialogue: Fondane, Lupasco and Cioran*, where he focuses on the main reproach formulated by Benjamin Fondane in his essay dedicated to Stéphane Lupasco (Fondane [2000]), that of the metamorphosis, for the sake of formalization, of the innovative contradiction into the traditional non-contradiction. If Fondane interprets this fidelity for the principle of non-contradiction as an impedimental retraction, a cautious bridge over the meta-logical gap which Lupasco himself dared to open (Fondane [2000], p. 86), Basarab Nicolescu sees it as the guarantor of the compulsory coherence of an alternative logical system resistant to formalization. On these bases, the transdisciplinary answer to the question formulated by Charles Sanders Pierce that inspired the title of the study – "What is reality?" (apud Nicolescu [2009 a], p. 127) – implies a daring reconfiguration of the idea of reality compatible with the complexity of the universe, opened to diversity, but rigorously submitted to a rational unifying Sense: a Transreality which proves to be "plastic" and "multifaceted", simultaneously rational and trans-rational, cognoscible and

mysterious, exterior and interior, a reflected image of our thoughts, feelings and actions we are entirely responsible for.

The Unwritten History of Transdisciplinarity: *In the Mirror of Destiny – Autobiographical Essays*

The unifying transdisciplinary vision is reaffirmed in Basarab Nicolescu's latest book, *In the Mirror of Destiny – Autobiographical Essays*, a sum of articles, studies and interviews published in the foreign and Romanian press configuring the spiritual profile of the author in the light of some transfiguring experiences. Furthermore, Basarab Nicolescu's attraction for "confessional literature" detected by Emanuela Ilie in her monographic study (Ilie [2008], p. 11), gains a transdisciplinary significance, as this collection of "autobiographical essays" (an oxymoronic phrase suggested by Eugen Simion) proves to be an "Included Middle which reveals the path to an interior unification, transgressing the boundaries between the quantum physicist, the transdisciplinary researcher and the truth searcher of the secret of his interior life" (Nicolescu [2009 b], p. 138). In the same time, the book can be placed under the revealing motto "In the long way towards yourself, you should rather explore the Other with the infinite of his being" (Nicolescu [2009 b], p. 364). This double encounter, with his Self and with the Other, is placed under the sign of the Mirror, a true *obsessive metaphor*, in the terms of Charles Maurron (Maurron [2001]), configuring the *personal myth* of Basarab Nicolescu. The focalization on the interior is doubled by a constant reflection into Otherness, as self-knowledge implies marvelous reflections into the Mirror through exemplary encounters, revealing dialogues, spiritual affinities and resonant friendships. These catalytic reflections have a decisive role in the crystallization of the transdisciplinary vision, *In the Mirror of Destiny – Autobiographical Essays* being in the same time a synthesis of the anterior theoretical studies and the beginning of a new cycle which transposes onto a superior level the methodology from the manifesto of transdisciplinarity in the applicative field of transdisciplinary hermeneutics.

The first part of *In the Mirror of Destiny – Autobiographical Essays*, *The Founders*, is dedicated to the tutelary figures of Basarab Nicolescu's personality and the

precursors of transdisciplinarity – Lucian Blaga, Ion Barbu, Mircea Eliade, Eugen Ionescu, Emil Cioran, Benjamin Fondane, Stéphane Lupasco – who had overcome the Romanian complex of the linguistic and cultural marginality reaching through their innovative vision a universal destiny, becoming authentic „models of transgression” and anticipators of transdisciplinarity defined as „generalised transgression”. While the essays about Ion Barbu or Stéphane Lupasco can be read as an extension of the monographic studies dedicated to their writings, the chapter evoking the first founder, Lucian Blaga, reveals an amazing affinity with another “thinker of the Third”, a true “precursor of transdisciplinarity”. The cognitive pattern of the “dogmatic paradox” theorized by the Romanian philosopher (Blaga [2003 b], p. 69-70), implying a synthesis of the two opposites of an antinomy “in discord with the concrete” and “postulated in the transcendence” resembles the transdisciplinary triangular model of the Included Middle and Lucian Blaga’s “transfigured antinomy” can be integrated in the same paradigmatic chain as Stéphane Lupasco’s logical Included Middle and Basarab Nicolescu’s ontological Included Middle. If Lucian Blaga’s starting point constituted the dogmas established by the early Christian Church, which offered the prototype of a laic model for a paradoxical methodology, Basarab Nicolescu’s trajectory has been contrariwise traced: firstly, he configured a transdisciplinary methodology for investigating the Reality based on the Included Middle, which eventually led him to the ineffable transparency of sacredness governed by the Hidden Third.

The second part of *In the Mirror of Destiny – Autobiographical Essays* is dedicated to *The Mentors* who contributed to Basarab Nicolescu “initiation through culture” – Mircea Eliade’s emblematic phrase converted into a leitmotif of the essays. The first one, the teacher of Mathematics Ion Grigore discovered the two complementary dimensions of his eminent student’s personality: the openness to diversity expressed in an “obsession for multiple solutions” and the unifying tendency for totality defining a “structure of a Renaissance thinker” adherent to a new Humanism in “search of the links between various fields of knowledge” eventually found in transdisciplinarity (Nicolescu [2009 b], p. 78). The second one, Alexandru Rosetti, the editor of Ion Barbu’s literary writings, stimulated the young physicist to think about the *mathematical humanism* implied in the “lyrical theorems” of the poet which prefigured the transdisciplinary

efforts of reuniting science and culture, mathematics and poetry. The set of essays gathered under the title *The Marvelous Miracle of Friendship* is subtly linked with the last part of *In the Mirror of Destiny – Autobiographical Essays, Spiritual Interferences*, intercalating the portraits of some co-participants at the revolutionary project of transdisciplinarity, like André Chouraqui, Roberto Juarroz or Michel Camus, with those of other Romanians from the exile and other poets, artists or scientists with strong affinities with Basarab Nicolescu's complex personality, revealing the vivid unwritten history of the birth and development of the transdisciplinary project. The strong core of the volume remains the section of essays and interviews *The Endless Way*, a retrospective synthesis of the transdisciplinary project and a reinforcement of its goals and motivations for further development, focusing especially on the axiological dimension of transdisciplinarity, on its ethical resources and promises of spiritual revival.

Conclusions

This study focuses on the configuration and development of the transdisciplinary project of Basarab Nicolescu, from its embryonic phase in his first study, *Ion Barbu – The Cosmology of the “Second Play”* (1968) to its revelation in the scientific approach of *We, the Particle and the World* (1985) which can be considered the birth certificate of transdisciplinarity and to the case study that applies the transdisciplinary principles to the philosophical field in *Science, Meaning and Evolution – The Cosmology of Jakob Boehme* (1988), to its potential program captured in *Poetical Theorems* (1994) and its axiomatic synopsis compressed in a systematical manner in *The Manifesto of Transdisciplinarity* (1996) and, finally, to its connections to its roots in the trans-temporal dialogue of the monographic perspective of *What is Reality? Reflections on the Work of Stéphane Lupasco* (2009) and its integration to its paradigmatic net of interconnections, influences and affinities in the synthetic volume of essays and interviews *In the Mirror of Destiny – Autobiographical Essays* (2009). The transdisciplinary project, based on the logical axiom of the Included Middle, the ontological axiom of the levels of Reality and the epistemological axiom of complexity, has augmented through each study conceived by Basarab Nicolescu, generating a revolution of human understanding with a worldwide

impact in all cultural fields which promises a re-enchantment of our Reality and a resurrection of our humanity.

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