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THEORIA: THE VENERATION OF ICONS VIA THE TECHNOETIC PROCESS

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THEŌRIA: THE VENERATION OF ICONS
VIA THE TECHNOETIC PROCESS

BY

EKATERINI KAROUSSOS

A thesis submitted to University of Plymouth
in Partial Fulfilment for the Degree of

DOCTOR OF PHILOSOPHY



Planetary Collegium (CAiiA Hub)
School of Art & Media, Faculty of Arts

February 2016

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At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award. The research contained herein was conceptualised by the author and all aspect of this research has been steered by and accomplished by the author.

During the time frame of the author's research, the author attended the required composite sessions of the Planetary Collegium, for the period of three years.

During the research, the author authored numerous papers for books and journals, edited, as guest editor, two publications, presented research at conferences on an international basis, organised conferences, masterclasses, exhibitions and workshops. Moreover, the author has developed projects related to the thesis. The full list of Sessions, Publications, exhibitions, and other relevant material is detailed in Appendix 2.

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Signed

A handwritten signature in black ink, appearing to read 'Karavassos'.

Dated: 16.February 2016

ABSTRACT

THEŌRIA: THE VENERATION OF ICONS VIA THE TECHNOETIC PROCESS

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Plymouth University, 2016

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The Second Council of Nicaea, in 787 AD, marked the end of iconoclasm, while in 843 the Treaty of Verdun laid the foundations of Europe. With these agreements, a sustained period of imageless iconolatry was initiated. However, the veneration of icons was based on the absolute worship of matter and form, which replaced the prime spiritual concept of 'image and likeness'.

Millennia of research and thought resulted in imageless representations of natural phenomena. Pushing aside the topology of the image and its sign, the intelligent man, from the Age of Reason and onwards, considered himself as an auto-authorised and teleological-free entity. To this end, he maximised the intelligibility of his space by designing an all-inclusive Cartesian cocoon in which to secure his mass and form. Yet, there he found his pet (Schrodinger's Cat) to be both dead and alive, and the apple, still forbidden, had become a bouncing ball, serving as evidence of gravity.

Hence, this intelligent design, by default, carries the residual fear of Manichaeism and Augustinian devils, and is deemed to have converted to a *de-sign* crisis.

Relying on literature sources, this dissertation examines two dominant models that govern human cognition and the production of knowledge. Despite remarkable scientific achievements which resulted, the aftermath of human progress was, among others, the maximisation of residual fear, to such an extent that voracious black holes devour all matter.

Inaugurating the transhumanist period, the human becomes a Manchurian Candidate, still an upgraded ape and a victim of his own nature in the Anthropocene.

In an attempt to overcome this *de-sign* crisis, the research presented in this thesis aims to address the necessity of the restoration of icons, as evidenced by Byzantine art and philosophy but neglected in the name of human supremacy and imperialism. This thesis elucidates Classical and Late Antiquity manuscripts in an effort to set a new 'restore point', endeavouring to launch the image in the current organosilicon substances; examples from Scripture narratives as well as from visual arts contribute to this effort.

The proposed concluding scheme is the Module of Theōria, which reflects the major transhumanistic elements such as transmutation,

interaction and fluidity. Theōria functions through noetic mechanisms, using 'image and likeness' as the prime carriers of knowledge.

The anticipated outcome is to reveal a human investment in a *pro-nature* incorruptibility with the advent of Theōria in the field of Technoetics, where one can administer 'image and likeness' to gain capital liquidity.



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CHAPTER 1: INTRODUCTION

Mock on, Mock on, Voltaire, Rousseau;
Mock on, Mock on, 'tis all in vain.
You throw the sand against the wind,
And the wind blows it back again.

And every sand becomes a Gem
Reflected in the beams divine;
Blown back, they blind the mocking Eye,
But still in Israel's paths they shine.

The Atoms of Democritus
And Newton's Particles of light
Are sands upon the Red sea shore
Where Israel's tents do shine so bright.

William Blake (Erdman 1982:477)

In this poem, the mockers were blinded in their effort to search for nature's actual depth, that is, the relentless research, at both the microscopic and macroscopic level, in order to acknowledge the origins of the species and the constitution of the universe. Although Blake's accusations are rather generalised, since they pertain to the entire scientific field with outstanding discoveries, it seems necessary to explore his attitude and to use the mocking eye with respect to its effect in the current transhumanist era. The reason for this necessity lies in the fact that scientists have themselves declared their inefficiency to see nature's actual depth due to the use of inappropriate protocols. Therefore, even if the current knowledge

yields for many-worlds through quantum theories and for transhumanism through the development of emerging technologies, any attempt to live life according to the above states seems impossible. Neither a multiversity in spatial awareness, nor a holometabolic as the biological process of metamorphosis are known as human applications, even if quantum mechanics and biotechnology certify their existence. It seems that the theories of major scientific developments are limited to this single nature as it has been observed through scientific view; a nature-that-is. How did Western mentality of the world's perception, acquire a dogmatic certainty that the validity of the knowledge gained by the seamless research in nature's actual depth (in micro and macro scale) is not to be questioned? At what point, and by whom, was science anointed as the only appropriate knowledge channel to issue protocols for life and nature at large? Accordingly, how did all other knowledge channels come to play a supportive role in this stand-alone version of knowledge? What are the reasons for the visual shift from a knowledge channel to a proofing tool? Why did art become a discipline of knowledge economy, supporting scientific outcomes, even if, evidently, such outcomes have long been embraced by artistic process? From the Enlightenment era and on, many former channels of knowledge, were considered invalid as they wouldn't incorporate into scientific protocols. Since the decay of Greek epistemē to the revival of classical and scientific studies in Europe in the 15th and 16th centuries, a thousand years have passed. This period, called the Middle Ages, founded a holistic channel of

knowledge, enriching Classical Antiquity in an extraordinary way, but, for some reasons, this unity of knowledge was waived. Which were the causes of this abomination and why was the acceptance of a fragmented knowledge, which led to knowledge economy, imperative? As indicated by its name, the period of Middle Ages stood as a medium between the past and the future, and one may assume that this future extends far beyond, into the future of the current era as it shows a noticeable compatibility with recent schemes of holistic perception. Therefore, the research presented in this thesis addresses the fundamental question of whether human capital should give an opportunity to foretell schemata that have suffered considerable discontinuities, to emerge in the current knowledge state, rather than to keep investing in the dogmatic certainty of nature-that-is. This leads to another question concerning the appropriate field where this emergence could not only reveal the schemata but also could reinstate knowledge in its undivided wholeness. To this end, this research investigates the properties associated with the characteristics of the schemata and assesses the space of possibilities, aiming to elucidate a state in which the capacities of contemporary enhanced entities might literally be operational. Consequently, according to the common assumption of current and medieval eras that man can hold more than one nature, of all the possible natures, in which can humans invest their own capital? Could there be a field that can host all the possible natures in order for human capital to venerate the unity of its icons? Lastly, what

kind of vision one should hold in order to enable the veneration of icons of nature(s)?

1.1. The crisis of being in a state-of-the-art

1.1.1. The fragmented knowledge

The modern era has been a period of significant development in the fields of science and technology. It has also been a time of determinism, in which existentialism and individualism have led to a knowledge economy that refers to the investment of human capital in *natural selection*; the validation of Darwinian theory concerning the prevalence of the fittest. This knowledge is seen as fragmented since it is comprised of separated sectors, incapable though to capture human enhancement, within a nature that "*seems to be past its sell by date*" (Ascott, 1993:341-355; Ascott 2013:438-448). Fragmented knowledge leads to a planetary thinking that reveals a prosperous field of transdisciplinary process.¹ However, taking into consideration the above mentioned elements that led to knowledge economy, one may question the interpretation of the Planetary thinking which undoubtedly varies among the schools of thought. Heidegger's call for planetary thinking occurs as part of his attempt to read the Western philosophical tradition as a whole. Although the truth of philosophy is not dependent on the historical actuality of the West, philosophy is, for Heidegger, essentially a Western discourse.

¹ Knowledge fragmentation may contribute to a dynamic system of human awareness because, for gaining a holistic knowledge, it is better to blend fragmented pieces from diverse sources, than to trust one and only governance structure of knowledge management.

To summarise:

If Planetary thinking is a Western discourse,

and

Planetary dimension is universal

Thus

Western discourse is universal

On the other hand, knowledge economy focuses on specific areas that ensure profitable management with a view to sustainable development –in a collective and individual level- through monetary economy.

In other words:

If economy is the art of profitable managing of resources,

and decision support systems engage in knowledge economy,

thus,

Knowledge is managed by decision support systems.

Both the western and the specific, or more precisely, exclusive model of knowledge have been established as the common system in the developments of the arts and sciences. So, one would say that the planetary dimension is just the 6.6% of planet earth since this is the total area of the West, ² as the percentage of the earth. Moreover, one can consider how small the percentage of knowledge economy is, by taking into account the number of Western central decision support systems that manage knowledge economy.

Feyerabend highlighted the denial of abundance that *some individuals and groups* have, considering that in an effort to "*articulate their denial their*

² For Heidegger, the West is Europe per se, since the problem of Dasein can be found in the fate of Europe.

denial, they introduced gross dichotomies such as real/apparent, knowledge/opinion, righteous/sinful" (Feyerabend, 2001:13).

Therefore, the term 'fragmented' cannot correspond to the concept of the distribution of knowledge but to the concept of its disintegration. In this case, both the Aristotelian thinking that the whole is something else than the sum of its parts and Axelos' planetary thinking as *open systems theory* cannot be applied.³ Within this tiny planetary knowledge field, quantum mechanics and system dynamics insist on a variety of *natures* where distribution and transmutation are in the forefront. But what are the barriers that do not allow the everyday use of these mechanisms? Yet, if there was a potentiality of usage could the prevailing economy hold such an investment in this transformable human capital?

1.1.2. Vision as a theoretical and optical faculty

Natures are- operational, no matter if they are captured optically. Hence, whether it is observed or not and also whether it has depth, length or width is subject to human perception rather to natures' mere existence. It is, therefore, reasonable to question "*was the wave function waiting to jump for thousands of millions of years until a single-celled living creature appeared? Or did it have to wait a little longer for some highly qualified measurer - with a PhD?*" (Bell, 1981: 611).

The dominant system of reception and conception, by which observation and representation are the key elements of human knowledge, appears to be

³ Kostas Axelos (Κώστας Αξελός) June 26, 1924 – February 4, 2010 was a Greek-French philosopher. Axelos' thought attempts to question all forms of closure by proposing the open systems theory that he called "planetary thinking" (1964).

insufficient to attain such view. Similar to what Feyerabend stated for the denial of abundance in knowledge and the introduction of gross dichotomies, the appearance of hidden variables relied on the things that cannot be observed and/or represented. Since these hidden variables are not measurable, most of the times, they are inferred from measurements of the observable variables. Therefore, the abundance of conceptions and perceptions of hidden variables are willingly reduced to the tiny viewport of observable knowledge. Furthermore, individualism and existentialism are consistent with a boundary notion with respect to spatial analysis since they favour the domination of the space they inhabit. Therefore, any kind of vagueness and ubiquity in perception is opposed to the prevailing mindset in accordance with the intelligibility of the space. This is evident when one takes into consideration two boundary problems that have been raised: the edge and the shape effect concerning the two types of "*co-variation: integration and intelligibility*" (Hillier et al., 1987: 235). Conclusively, Blake's wish for God's protection against *single vision and Newton's sleep* (Blake, 11.22.1802) can be regarded as the writer prompting towards the reconsideration of the established system of human perception and associated knowledge. The system is supported by observation and representation, and corresponds to a standard model of thought by which knowledge derives from an in-depth inquiry into a linear x sequence that contains all past knowledge, implemented by an observer who has a static XOA angle as the absolute observatory.

Despite their proven insufficiency in relation to the conception of the new scientific knowledge, observation and representation are the prevailing mechanisms for understanding physical and even super-physical

occurrences.⁴ To this end, from the early modern period, vision has gained a place as a specific knowledge area of optics, which has radically overturned previous beliefs that regarded vision as an integrated mechanism of acquiring knowledge. From the time that vision was associated with observation, image became a faithful representation of nature, as attributed by naturalists, geologists, cosmologists, biologists etc. In accordance to vision and the optical mechanism, representation turned the image to a mechanical reproduction, identical to camera resolution. Since Cezanne revealed the nature-as-might-be, there were many scholars and artists who sought for a pre-interpretive seeing that can reveal a visual truth through an innocent eye that claims for a primitive vision of what is unseen rather of what we know (Crowell, 2002: 239). Similar to Einstein's once-so-beautiful science,⁵ the innocent eye asserts that there is an open source vision. Hence, one should seek for viewports that enable the view from the openness of an abstract schema that allow the fluidity of transmutation in the possible natures. However, this vision is not limited to an observation of a representation, but to a provision. Here, it should be noted that the *-pro-* in provision should not be taken as a prefix, like *-pre-*, - that indicates timing. Instead, as it is used in the concept of the *pro-nature incorruptibility* in this

⁴ An example of such insufficiency may be found in the twin paradox, Weeks. R. Jeffrey 2001 'The Twin Paradox in a Closed Universe'. The American Mathematical Monthly, Vol.108, No.8 Aug-Sept. 2001 pp. 585-590 Available from: <http://www.jstor.org/stable/2695267> [8 February 2015] http://www.math.uic.edu/undergraduate/mathclub/talks/Weeks_AMM2001.pdf and (b) quantum superposition, Friedman et. al Quantum superposition of distinct macroscopic states. Letters to Nature. Nature, Vol.406, 6 July 2000. Available from www.nature.com [8 February 2015]

⁵ https://archive.org/stream/TheBornEinsteinLetters/BornTheBornEinsteinLetters_djvu.txt

thesis, it means to convey, support, and consent. Accordingly, provision is neither a prediction, which requires justification, nor a prophecy, which entails superstitious beliefs. Instead the state of provision is the economic plan of the veneration of one's icons (images), because to venerate the icons means to reveal the natures that yield human potentialities and capacities.

1.1.3. Consequences of the crisis and a possible solution

The attempt to maintain human activity on the primacy of the state-of-the-art is analogous to the preservation of the 'fittest to survive' position. As long as 'natural selection' is concerned, man has the knowledge, and, for some, the privilege. However, for the state-of-the-art, man should be appointed as the one who has the excellence in accomplishing an intelligent design. Still, this position is God's, and therefore, man could, at best, act on His behalf. It seems likely that both states have unsettled human capital because, in the current era, nature does not appear to be a mere physical existence; furthermore, it has been confirmed that man may hold more than one nature. On the other hand, design is generally defined as *"the art or action of conceiving of and producing a plan... of something before it is made."*⁶ Hence, a design requires a plan, the schema in its broad sense, to be conceived and produced. Design does not involve natural processes, particularly when it refers to intelligent causes.⁷ Consequently, one might

⁶ Definition for design. Available from <http://www.oxforddictionaries.com/definition/english/design> [29 January 2015]

⁷ "[...] Yet, the scientists arguing for intelligent design do not do so merely because natural processes-chance, laws or the combination of the two-have failed to explain the origin of the information and information processing systems in cells. Instead, they also argue for design because we know from experience that systems possessing these features invariably arise from intelligent causes." Meyer. C. Stephen, 2005 *"Not by chance: From bacterial*

ask: of all the possible natures, in which one would man be selected as the fittest to survive; furthermore, in what unnatural schema should intelligent design be based? To answer these questions, man should encounter the entire range of potentialities and capacities (biological, spiritual, digital etc.) of human capital. To this end, transmutation is required in order to reveal these potentialities. However, the process here is not to be explained as the natural phenomenon of variations of species, nor is to take place at Galápagos Archipélago. In any case, it is not so wonderful for a transhuman to acknowledge that Galápagos's mouse is not the same species with house mice and has been transported from one place to another by a third party such as owls or humans.⁸ Rather, transmutation should be taken here as a transubstantiation that denotes the actual change of becoming, opposed to the evolution process of the change from one state of being to another. In order to reveal the entire deposit of potentialities and capacities of human capital, the references to nature and its schema may be found where the plan of potentialities can be expressed and actualised through a dynamic interaction. It is assumed that one of the most efficient human capacities is that of 'image and likeness' since it refers to the state of a being-to-be in which man has the ability to select the nature(s) to fit and also the schema to design. The thesis intends neither to serve as an analysis of the debate between creationists and evolutionists, nor does it attempt to bring forth religious systems over the scientific ones. Rather, it assesses the concept of

propulsion systems to human DNA, evidence of intelligent design is everywhere." Discovery Institute, Center for Science and Culture Available from:

<http://www.discovery.org/a/3059> [3 February 2015]

⁸ Darwin wrote in his book 'Transmutations Notebooks': "Galápagos mouse not the same species with house mice. It is wonderful how it could have been transported!" , as cited in Grinnell, 1974, The Rise and Fall of Darwin's First Theory of Transmutation Journal of the History of Biology, vol. 7, no. 2 (Fall 1974), pp. 259-273.

'image and likeness' as a mechanism of the convergence of obtained knowledge, aiming to find a way to develop a new configuration that appears likely to celebrate man's deeds, regardless of whether they have been classified as false or extreme. The statement here is that, by lacking the image, the development of human activities - scientific, technological or otherwise - that may well be noted for the primacy of the state-of-the-art, remain ineffective. To disclose the "*Divine beams that still shine in Israel's paths*", means that one should be confident in the provision of their natures, and in the veneration of their images so to be able to invest in them.

1.1.4. Investment on Theōria as a possible recapture of the lost-capital

The lack of images may refer to the long-lasting battle of iconoclasm. As then, so now, the main cause seems to derive from political and economic factors. However, in this late Iconoclastic period, the Iconoclasts are the most bigoted Iconolaters because of their effort for the intelligent design. Taking into consideration the inadequacy of the appropriate protocols to date, this research goes further into the prevailing systems and design approaches, aiming to elucidate a variety of connections among the current practices and the foretold schemata that can constitute a comprehensible argument with respect to the restoration of images. This thesis recalls a suppressed signification of the module of Theōria that once gave outstanding samples of virtual, telematic and immersive awareness, subject to current artistic approaches. The assumption is that Theōria holds the schema and reveals a nature that entails all the potentialities of man. In general, Theōria refers to a conception through the noetic human faculty,

yielding a compounded consciousness of human potentialities. Theōria is envisioned via the schema and implemented via an innate capacity contained within it, for 'image and likeness'. The origins of Theōria are thought to come from the Ancient Greek *theorein*, which means contemplation. Yet, in the Byzantine period, instead of contemplation, the Scriptures used the word *gnosis* to describe Theōria as a "*much stronger term that implies an intimate kind of knowledge involving the whole person, not just the mind*" (Keating, 2002:19). Indeed, going into the Byzantine period, Theōria became a profound organon of human capacity to reach 'image and likeness' and, thus, to gain the provision of energy needed to reveal the potentialities of human capital. Therefore, this dissertation proceeds to question whether this foretold schema could have a dialectic relation with the transhumanistic capacities regarding their supposition for alter states of being. In order to find the most efficient area for this relation, the research suggests that the field of Technoetics may be an ideal space because, in this field, consciousness may be "*accessed, augmented, distributed or transformed*" (Ascott, 2005:7). Technoetics can not only translate the schema of Theōria in the current era, but can also mark the nature(s) in which it may grow and offer the appropriate conditions for the transhuman to become the investor of his own capital.

1. 2. Methodology and Background Research

The principle of identity, as an abstract form of logic, may be self-evident, but, currently, one will be hard pressed to show an actual example of it. "P is P." for instance, identifies that someone justifies that this is true. Whether the one who validates the mentioned axiom is an intelligent agent or not, is an

issue that has been thoroughly investigated for centuries with no lack in terms of its result. Similar to the law of non-contradiction, the principle of identity stands as an obstacle in the flow of thought. The research aimed at exploring the knowledge field on a wider scale than it would have been possible using the principle of identity because this principle is incompetent to reveal the schema of Theōria and her dialectic relation with Technoetics. To this end, Theōria has been approached with the dialectical method. Alike Heraclitus, Plato and Hegelian dialectics, this method is comprised of three dialectical stages of development: a thesis, giving rise to its reaction, an antithesis, which contradicts or negates the thesis, and the tension between the two, being resolved by means of a synthesis. Opposing views of Hegelian dialectics argue that the choice of any antithesis, is located outside of the predicates of the thesis and therefore is subjective. Hence, the synthesis cannot be justified as the most comprehensive, while not objective, in relation to all other possible syntheses. Here, one can realize the inability of many scholars to comprehend the belief that antithesis is internal to things comprising the thesis. This was actually the original interpretation that Heraclitus gave for dialectics. According to this argument, each philosophical concept is partial since it illuminates one side of reality. So, in order for a thesis to be sufficient, it must entail its antithesis. It should be noted, that the resulting synthesis is not an eclectic mingling of the elements comprising the thesis and antithesis. The dialogue between the philosophical discourses, based on literature review, creates a confrontational environment from where a new composition emerges, which according to the Aristotelian logic is other than the sum of its parts.

Although dialectics, as a practice of logical development, appears alienated from its implication with political and economic issues, the researcher's decision to use it was taken after an initial analysis of Theōria which showed that axiomatic theoretical models were unsuitable due to the unconformity that Theōria has with modeling. For example, in this introductory chapter (1.1.1.) a syllogism was given which was based on the Aristotelian thinking. The syllogism used the terms planetary, Western and universal as predicates. Due to the collision of these predicates (thesis), the conclusion emerged was an antithesis because of its apparent falsification: the western discourse cannot be universal. The decision to use dialectics was further supported by the lack of existing theory regarding Theōria. Hence, by showing the antithesis that the thesis contains, the resulting synthesis yields its validity.

1.2.1. The formation of methodology based on background research

1.2.2. Thesis

In principle, the knowledge of Theōria is drawn from the Ancient Greek philosophy and in particular from Aristotle. According to the philosopher, Theōria is a completely disinterested activity, useless and unnecessary in relation to other human activities. Being opposed to the latter, Aristotle ranks Theōria as an Ergon of highest excellence since it is self-sufficient, independent and noble.

This research provides a thorough analysis of the Aristotelian thought, but it is considered that the excellence of Theōria is grounded in her development through the Late Antiquity era. The Cappadocian fathers offered a significant contribution based on the relation of Ancient Greek philosophy and Christian theology. The thesis makes an extensive analysis of their formula: one substance in three persons that share a common universal, their humanity.

The person(s) in communion, namely the Cappadocian formula hereby, was further developed by John of Damascus (675-749). His theory of circumscribed and uncircumscribed entities, has amplify the person(s) in community, to this extend, that humans, angels, birds, and images are sharing the common universal. It is considered that John of Damascus theory was of great importance since he didn't only give to the image her organic character, but also the capacity of enhancement to human being, an assumption that is discussed only in today's scientific community after many centuries. Furthermore, it should be pointed out, that through his theory, he verified that, for Christianity, human was never a sovereign unit, as formulated later with individualism and existentialism. A considerable input to the above theories, made by Nicholaus Cabasilas (1322-1391). Based on the mystical teaching of his mentor Gregory Palamas, Cabasilas declares the another-*our- nature*, as it is called in this thesis. According to this, which pertains the entire Christian mindset, human has the potential to be in communion with what John of Damascus characterized as uncircumscribed.

During the Age of Enlightenment, this significant module of Theōria, that passed from Classical to Middle Ages, suffered from disrespect, discontinuity and, more importantly, misapprehension and disorientation. In the name of scientific method and rationalism, the values of Theōria were questioned, due to the belief that they were engaged with the dogmatism of the Church. However, a latent usage of Theōria is apparent throughout the mentioned period. Although the noticeable inconsistencies with her origins, great intellectuals embraced many of Theōria's elements, even if this embracement was unintentional. The research examined important philosophical positions that developed in the course of Theōria's discount, with a dialectic approach.

According to Kantian transcendental schemata, produced by imagination, human mind can be seen as the transcendental condition of possibility. Moreover, Hegelian idealism was expressed through the phenomenology of spirit as the formation and awakening of self-consciousness. A development of this kind of approach can be found in the twentieth century, with eminent thinkers who contributed to Theōria's preservation. Peter D. Ouspensky with his interpretation concerning the Fourth way theory, Erwin Panofsky with his contribution in the modern academic study of iconography and John Ruskin with his trust in theoretical rather than aesthetic faculty. Moving to the mid-twentieth century, Jacques Derrida examined both Kantian and Hegelian positions and developed the three stages of Natural Religion, while he nominated the artist as a *spiritual laborer*. A number of thinkers, coming from the scientific field, like Michael J. Behe and William A. Dembski claim for an intelligent design through their theories on irreducible and *specified complexity* respectively. Coming closer to the twenty-first century, Antonio Negri and Casarino argue about the "*surplus value as a shared potentiality in the common lives of a double life*" (Casarino & Negri, 2008: 12), whereas Paul Feyerabend's position underlines the "*urgent need of a reformation of science towards a more anarchic and more subjective sense.*" (Feyerabend, 1993:154). Recent developments on interdisciplinary studies raised some important aspects on the relevance of Theōria and science. Steve Fuller and Veronica Lipinska argue about "*reversing the prejudicial positioning of the [supernatural] as some irrationalist misunderstanding of the [natural]*" (Fuller & Lipinska, 2014:46), while James K. A. Smith claims that postmodernism has, too, accepted the agenda set by the Enlightenment (Smith, 2008). Yet, the most important correlation of Theōria with current theoretical

advancements is considered to be the field of Technoetics, initiated by Roy Ascott, which seeks to *"explore consciousness and connectivity through digital, telematic, chemical or spiritual means by the creative use of moist media"* (Roy Ascott, 2003).⁹

1.2.3. Antithesis

By appropriating dialectics as methodology, the thesis analyses another route that has been taken that is considered to be the antithesis of the above evolving process of Theōria. This route has its base in Augustinian doctrine that set the norms of Western theological anthropology and laid the foundations for the long-lasting terror through his dualistic approaches in original sin and predestination.¹⁰ In order to be aligned with Western mentality, Augustine of Hippo connected his inner illumination doctrine with epistemology, arguing that illumination is obtainable to all rational minds and that the state of mind should be intelligent. Hence, rationalism and intelligence were the vehicles for the human to capture their inner illumination. Hence, the relation that many scholars claim, between his theory of *created* and *uncreated* and John of Damascus unity of *circumscribed* and *uncircumscribed* is inappropriate; the first created an impervious distance between them, while the latter refuses any detachment between these two fields. Natural reason and speculative theology has been extended to Western philosophy by Thomas Aquinas. Aquinas developed his theory of Divine Providence, that passed in the 16th century as the theory of 'Middle

⁹ As shown in Technoetic Art Intellect Books Editorial note.

¹⁰ Augustine was one of the first Christian ancient Latin authors with a very clear vision of theological anthropology: <http://plato.stanford.edu/entries/augustine/#PhiAnt>

Knowledge' by which the intelligent man tried to combine the hidden causes with free will.

Descartes' foundationalism, based on the acceptance that reason is the only reliable method of attaining knowledge, has rejected any appeal to teleological parameters in explaining natural phenomena. In the midst of Bacon's Empiricism and Descartes's rationalism and of Hume's Bundle Theory, and Compatibilism, which combined free will with determinism, the stage of scientific revolution was set. Within this stage, that certified the absolute alignment of free will with determinism, the usage of bottom-up reductionist models to recreate empirical/phenomenological patterns and explain these using lower-level mechanistic models, became a common practice of research in general. Yet, by the time this doctrine joined forces with Darwinian *natural selection*, the endeavor to engage transcendental aspects (Husserl) or/and the notion of a *vital force* (Bergson), emerged the *plane of immanence* (Deleuze), a notion of being-in-the-world where selective breeding has numerous aspects of *Dasein* (Heidegger).

1.2.4. Synthesis

It was considered critical for the research to explore both the thesis and the antithesis derived from the literature review. This process should not, in any case, be taken as a speculative research that seeks to combine different methodologies and schools of thought. Neither as an endeavour to indicate the positions and oppositions as pros and cons of various philosophical theories. Instead, by implementing the method of dialectics, the need of the synthesis requires this approach, so as, rather than a sum of the parts, the generated knowledge to emerge as a new module.

1.2.5. Contribution to knowledge

Unchained from Augustinian fears and the outrageous debts of the Enlightenment, both the capital and the investment are not limited to the exhausted nature of individualism, existentialism and imperialism. Rather, in opposition to the nature-that is, they can celebrate a person(s) in communion where integration, transmutation, immersion and emergence are the shares of nature(s)-as-might-be. The ultimate linkage of Theōria with Technoetics, two philosophical fields distant in time, display an exceptional environment where human capital can unfold its entire range of possibilities and capacities. As the conclusion chapter explains, (Chapter 11. 11.7) the module of Theōria via Technoetics claims for a reconsideration on the matter of the Anthropocene, concerning the human capital per se.

As analysed in the thesis, Theōria engenders the veneration of each one's icons – i.e. reveals the nature(s)-as-might-be, through *téchne* and *noesis*. Through this process, Theōria overcomes the obstacle of hidden causes, which is the everlasting issue of science, since these causes are the key points of her existence. Therefore, she is able to facilitate the implementation of scientific achievements as actual applications of life.

1.3. Introductory remarks

1.3.1. Etymological specifications

Given the purpose of the thesis, the text includes numerous terms whose translation from their original Ancient Greek roots into another language poses a risk of falsification of their meaning. Cases of

miscomprehension and misinterpretation are frequently apparent, even when originating from prominent scholars and philosophers. Regardless of whether the importation of a foreign word into another language was made as a loan or a partially substituted word, or even as simply a borrowed word, the semantic change of the word's original meaning is possible mostly due to the effort of integrating the word into a different cultural context (Grzega, 2003 22-4). In the case of this thesis, the attempt to restore the primary roots of ancient terms reveals the subject-matter of the research itself. However, such an operation needs special treatment because Latin behaves like an intermediary between the donor and recipient languages. Therefore, even ancient Greek words have returned as second-order loans in the very country of their origin, where they contain elements of both the original and the Latin languages. In order to achieve greater accuracy with respect to the original meaning of the words, the original semantics of the words are deliberately embedded in the main text rather than in appendices or footnotes. Since it is critical to the justification of the argument of this thesis, words that should disclose their original meaning have not been translated into English but, instead, remain Greek albeit written using Latin characters. Although that the use of Latin characters for Greek words was not by preference, it was considered necessary in order to facilitate the flow of the text.

1.3.2. The words Theōria and Epiphania

- Theōria

The semantics of Theōria unfolds gradually as this thesis progresses. In the course of using the word, from the Ancient Greek Theōria to German

Idealism, its meaning has been changed radically. Considering that the Byzantine approach to Theōria fully uncovered its meaning, this thesis aims to analyse this approach and to find the elements of convergence with the current transhumanistic environment. A significant reason for this lies in the organic character of Theōria and the embedded capacity to mutate and interact. For this reason, the word Theōria is used in the feminine in the main text and it is capitalised, emphasising her organic aspect.

- Epiphania

The word 'epiphania' is the Greek equivalent to the English word 'surface'. On the other hand, the word Epiphany in English corresponds to the Christian Scriptures and the manifestation of Jesus or to a moment of sudden and great revelation or realisation.¹¹ However, Epiphany refers to the celebration of a triple holiday that started most probably from Alexandria and spread throughout the East until the mid-4th century: the birth of Christ, the Adoration of Magi and Jesus Baptism. The word Epiphania covers all these three actions, as the ultimate presentation of the process of transubstantiation. Hence, the course of manifestations is other than the meaning of Epiphany as God's presence. In Christian Scriptures, there are several Epiphanies that draw attention to the human capacity in image and likeness, and not only that of Epiphany, whose Greek word is Theophania. Thus, Epiphania is related to the surface of an event, relevant to the English meaning as something that comes into sight. While Theophania is an

¹¹ Definition for the word epiphany. Available from:
<http://www.oxforddictionaries.com/definition/english/epiphany> [10 February 2015]

actualisation, Epiphania is a process, subject to one's capability in image and likeness. As a process, it may be also related to a plan/schema and it may therefore be linked to the meaning of the surface as a continuous set of points that have length and breadth but no depth.¹² In conclusion, for the purposes of this thesis, Epiphania is considered to be a process of something that comes into sight as the schema of a Theōria and it is capitalised as a proper noun as a means of demonstrating its authority.

1.3.3. Historical specifications

- Chronological order and periodisation

This thesis does not rely on the chronological aspect of historical periods. In many cases, periods are intertwined regardless of their categorisation with respect to their historical timeline. The reason for this is twofold. Firstly, the periodisation often causes mismatches and prevents events having the autonomy to flow. Secondly, it is assumed that arranging events in the order of their occurrence in time cannot generate the interaction between them, which is needed to interpret the meaning of Theōria. Moreover, the assumption here is that an event can match more than one point in the historical timeline since it can extend into the past, the present and the future in a manner other than a straight linear representation of time. Even if one can find references to historical periods in the text (Classical and Late Antiquity, Middle Ages, Enlightenment and Renaissance periods), their usage is not strictly chronological, as it is apparent throughout

¹² Definition for the word surface. Available from: <http://www.oxforddictionaries.com/definition/english/surface> [10 February 2015]

the text that the concepts from which the argument is consisted move abstractly in the historical timeline in order to highlight the schema of Theōria. The approach of this thesis regarding the periods and their timelines is influenced by Aby Warburg's atlas *Mnemosyne* as a "*collision of heterogeneous temporalities*" (Michaud, 2004:13, Forward by Huberman.D. G).

- Byzantium as a display

The most important reason to avoid classification and periodisation according to a linear timeline is the significance of Byzantium on Theōria. In the bibliography, the references to Byzantium implicate a specific time and space, that of the Byzantine Empire. However, the term Byzantium was never used at the time by those that it specified. In general, the term describes a period of medieval history in the countries that formed the Byzantine Empire and it has been named by the first medieval scholars who, for ideological reasons, declined to name the Empire with its name, that is, The Roman Empire. Thus, and also because of the Schism between the Orthodox and Catholic Churches, the Roman Commonwealth has been named after Byzantium. The term Roman Rhōmaîoi (Ρωμῆοι) refers to the Greek Christians and not, as it is usually miscomprehended, to Latin Rome or even Romania.¹³

¹³ In the Middle Ages Rhōmaîoi (Romans) were the Orthodox Greeks while the name Rhōmaîoi prevailed from the period of Ottoman rule until the modern times. It should be noted that the Byzantine Emperors considered themselves as heirs of the Roman emperors rather than Byzantines, calling themselves "Romans". Certainly, after the fall of Constantinople to the Franks in 1204, due to political expediency, Byzantine Greeks were known as "Grakoi" instead of Romans, but the Emperors, for reasons of prestige, continued to regard themselves as Romans.

Through many impurities, internal conflicts and wars of conquest, Byzantium was exterminated; however, the culture of one century passed to the West, through the self-exiled Byzantine Greeks (initially to Rome, Padova and Venice).¹⁴ The ancient-Greek culture that has been rescued from the numerous scriptoria of Byzantine monasteries and the acceptance of the Trinity are the origins of Roman-Greek Byzantium.¹⁵ This thesis attempts to shed light on this particular aspect of Byzantium, considering it as the most reliable source on the transmission of Greek ancient culture as well as a profound body of knowledge that yielded outstanding results in art, science, technology and philosophy. Above all, however, Byzantium is considered as a major field of study in which Theōria remarkably developed all her aspects. The organic character attributed to this field allows her to exist in different environments, regardless of time and space. Therefore, rather than referencing Byzantium as a historical period that might misguide the research, here Byzantium refers to the display of the above mentioned aspects and results.

1.4. Thesis outline: Chapter summaries

The text consists of eleven chapters, including this introduction and the conclusion.

¹⁴ The basic source of these historical data comes from Professor Helene Glykatzi Ahrweiler, former Principal of the University of Paris. A reference to this case can be found in her book: Αρβελέρ-Γλύκατζη Ελένη 2009 Γιατί το Βυζάντιο, Ελληνικά Γράμματα, Αθήνα, Ελλάδα. For information regarding the author see:
http://www.gutenberg.us/articles/helene_glykatzi-ahrweiler
https://en.wikipedia.org/wiki/Helene_Ahrweiler

¹⁵ Scriptorium: A room set apart for writing, especially one in a monastery where manuscripts were copied. Definition of the word available from:
<http://www.oxforddictionaries.com/definition/english/scriptorium> [3 December 2015]

The Second chapter discusses the primary module of human nature concerning man's ultimate purposes. It considers three main elements, appetite, intuition and imagination as the body that features human deeds in general. The notion of displacement of these elements, from their initial teleological aspect to a reversed teleology that seeks for nature's actual depth as man's ultimate purpose, sets the conditions that exemplify the motivation for embarking upon the argument of this thesis. Moreover, it states the overall attitude of human insufficiency in achieving that purpose. This chapter concludes by questioning the alteration that image has undergone in relation to the intelligibility of nature's depth through scientific achievements.

The Third chapter delves into the model of TBJ (truth, belief and justification), which became the prominent course for the acquisition of knowledge from the time that science offered the ability of micro- and macro-visualisation of nature. This chapter analyses the position and the status that man should have in order to gain the authority needed to declare the knowledge of nature's depth. The analysis indicates that the most suitable arrangement, for someone whose knowledge has been gain through TBJ, is the mechanism of representation and causation. Exploring this position, the chapter finishes by assuming that the two basic principles of this triad, those of contradiction and sufficient reason, generate a field of hidden causes that prevent numerous scientific works being implemented.

In an attempt to search for the place of the hidden causes of TBJ, the Fourth chapter starts with a review of spatial awareness, regarding the TBJ position and the schema of representation and causation. The resulting evaluation showed that the geometries of both the position and the schema

do not entail any notion of curvature, which is required for the hidden causes to be revealed since most of them appear to address transcendental aspects that cannot be found in the flat Euclidean space. In contrast, these causes produce hyperbolic geometries, as expected in transcendental conditions, which have been already proven by science with quantum theory. The chapter proceeds with an analysis of a topological space that embeds the curvature, described by a Byzantine scholar in order to find the missing points that keep the causes hidden in the TBJ position. It turns out that the inability of this position to bring about the states of mutation and blessedness prevents fulfilment of the schema. The Byzantine description refers to St. Anna's garden which, by Theōria, unfolds the entire image in an embedded surface (Epiphania). The chapter concludes by highlighting the necessity of restoring the images as an effective process for revealing the hidden causes and, thus, making the TBJ position functional.

The fifth chapter analyses two models of thought, the meandering and standard models, which correspond to an open-knowledge process and knowledge process, respectively. This chapter explores the parameters of each model by describing how the meandering model has been transferred from ancient Greece to Byzantium and how it has been engaged with the standard model of thought. The open-knowledge of Theōria is regarded here as the emerged manifestation of the Epiphania and, therefore, there is an analysis of the concept of Epiphania and its main elements. This chapter concludes with the assumption that Theōria functions through the noetic faculty and uses image and likeness as the carrier of knowledge. It suggests that through this noetic process one can venerate the images (icons) while one can acknowledge the entire range of human potentialities.

Chapter Six delves into the meaning of Theōria. Through the investigation of her course, this chapter describes Theōria's entity as seen from Greek ancient philosophers and follows her development in Byzantium. This chapter also explores Theōria's transfer to the TBJ area and studies the parameters that have been lost due to her relocation. The chapter also attempts to trace the hidden course of Theōria and the loss of image and likeness throughout the time of her neglect from intelligent and aesthetic human nature. The chapter concludes by considering Theōria as an effective module of knowledge in the transhumanistic period because of a pro-nature incorruptibility that she holds.

Chapter Seven analyses the difference in two types of economy that correspond to Theōria and knowledge economy. The distinction regards that the former leads to a holistic open-knowledge economy, while the latter corresponds to a fragmented knowledge economy. The former economy type entails participation and interaction whereas the latter economy type has a deterministic approach, derived from a fragmented knowledge framework. The chapter concludes by considering the economy of Theōria as more effective than knowledge economy, taking into consideration its current status, in terms of the possibilities that are provided, towards the research in nature. The hypothesis here is that the economy of Theōria can be found in knowledge economy, albeit latently. Thus, this section investigates the portals of Theōria that relate to the field of her display into the prevailing system of knowledge economy.

In accordance with the latter hypothesis, Chapter Eight delves into the investigation of the shift in economies in order to find the latent state of Theōria into the 20th century that has shown an imperative need to restore

her elements. It is assumed that Byzantium, as the display of Theōria, has served as a medium in the knowledge economy because of its inherent feature of image and likeness. The inability to use Theōria after the rise of TBJ until today seems to have derived from a late iconoclasm, since knowledge economy uses art as a mere technique of representation. For this reason, this chapter explores Byzantium according to the shift of economies and with respect to Theōria's values. In an attempt to find the most efficient knowledge domain that may reveal these values, this section concludes that *téchne* may stand as the carrier of Theōria, since it always behaved as her integral part.

Chapter Nine examines the change that has occurred in art, along with the shift in economies. While art was regarded as *téchne* before this shift, by the time that visualisation followed the scientific course of micro- and macro-approaches, the prevailing knowledge economy adopted art as a field of aesthetics. However, because of Theōria's latent existence, no matter the historical periodisation, there have been exemplary art works that have revealed the schema of Theōria even if interpreted as masterpieces of high-level aesthetics; Botticelli's *Primavera* and Cézanne's *Sainte-Victoire* painting series are both examined in this chapter. Exploring the veneration of images through these two artworks, the chapter concludes that *téchne* should be taken as a catalytic carrier of the economy of Theōria. Thus, art can stand as the field of knowledge economy that is able to uncover Theōria's schema. At this point, the thesis proceeds by questioning the most effective area for the veneration of images through the practice of Theōria in the transhumanistic era.

Chapter Ten seeks to find the privileged space where the veneration of images through Theōria will be rightful and meaningful. Taking into consideration that Theōria is a noetic process and that the most effective domain to be conducted is *téchne*, this research space should be regarded as transdisciplinary. This is considered advisable because the noetic process needs *epistemē* as

“[...] a specifically discursive apparatus, whereas the apparatus in its general form is both discursive and non-discursive, its elements being much more heterogeneous.” (Foucault, 1980:197).

On the other hand, *téchne* implies the technology of both enchantment and enhancement because of its significance in interaction and “*interconnectedness*” (Ascott, 2006: 65-69). Certainly, this privileged space should be found in the body of the available places, which is considered actual in order to be functional and not be characterised as utopian. Although the available places engage knowledge economy as their key element, it appears that some of them have the flexibility of launching the economy of Theōria due to their dynamic arrangement. One of these places can be found in emerging technologies that are able to transform the human condition, thus, enhancing it with a variety of potentialities that traverse the fields of art, science and technology. In this place, one can find the emergent field of *Technoetics* that:

" [...] seeks to explore consciousness and connectivity through digital, telematic, chemical or spiritual means, embracing both interactive and psychoactive technologies, and the creative use of moistmedia." (Roy Ascott, 2008)

This chapter explores the Technoetic field through one of the most profound telematic artworks, that of *La Plissure du Text (LPDT)*. Through this analysis, it becomes apparent that LPDT can be regarded as an exemplary topos for the economy of Theōria since it embeds her two main features: mutation and

interaction. This chapter concludes the research in terms of its argument about the value of applying the economy of Theōria in the current era and, consequently, the necessity of image and likeness as the core process of Theōria. Furthermore, with the completion of this chapter, Technoetics as the privileged space for the economy of Theōria is proposed; the space in which this economy can operate catalytically so that humankind can claim for an investment in its own capital.

The last chapter, Eleven, deals with the conclusions of the research and its contribution to new knowledge. After a review of the problem as examined in the chapters, a reference is made to the proposed solution. Then, through the analysis of research findings, the thesis proceeds to a description of the implications of the findings of those attributed by the juxtaposition of two main modules, Theōria and Technoetics. The unity of these two sections is explained by the description of their shape and the elements from which they are composed. Finally, the answers to the main questions of Technoetics are given through a description of a transhumanist garden that is considered as a trial application of the *téchne* of Theōria.

The conclusions of the thesis form the contemporary belief that Theōria is able to offer the full range of human potentialities, in an era that is considered to be the epoch of the Anthropocene. With regard to further research, this thesis suggests the establishment of the field of *téchne* as the main *epistemē* of Theōria. Furthermore, future research should be based on the key features of Theōria as revealed in this thesis and to the development of the Technoetics of Theōria at both the theoretical and practical level.

CHAPTER 2: THE AII ORGANON

2.1. The praxes of highest excellence and their teleological nature

It is commonly accepted that every aspiration, endeavour, deed and, similarly, every act and process of choice has a value of purpose. Hence, it can be said that the value is that of which all purposes arise. Taking into consideration the fact that art, technology and science take on many manifestations, there are, likewise, many manifestations of purposes. It can be said that the purpose of medical science is to maintain health, the purpose of the shipping industry is sea transportation of goods, the purpose of war is victory and the purpose of home management is family well-being. If every act has a purpose that is, for its own sake, needed by both the act and its peripheral acts, then life depends exclusively on that, and the purpose can be characterised as the ultimate purpose. This thinking derives from the Aristotelian interpretation of teleology, which analyses the ultimate purpose of every act and expresses the nature of existence. Bearing in mind that, for research, the ultimate purpose (*telos*) is the production of knowledge and practice, it is reasonable to align with the highest excellence given that it is self-sustaining, which, in itself, makes the purpose worthy of choice.

To summarise:

If the ultimate purpose of research is the production of knowledge,
and the ultimate purpose is an act of excellence because it refers to
the teleological nature of humans,
then research is an act of the highest excellence.

Activities of the highest excellence are performed most frequently in specific productions and events related to political, economic, military and

similar affairs that govern our social identity. For example, military activities performed in the pursuit of national peace and medical practice in the pursuit of good health are both actions of the highest excellence according to their explicit purposes. Such activities address derivatives of human existence but not the ultimate purpose per se, which seems to be self-sufficient and teleological. According to Aristotle, teleology and its ultimate purpose seek blessedness (*eudaimonia*), which is the major element for a virtuous life. In this respect, none of these affairs can succeed in a teleological manner because they do not contain self-sufficient purposes; instead, they contain derivatives that fail to exercise the degree of excellence considered reasonable for the teleological nature. Moreover, Aristotle states that in cases where two or more purposes exist, the greatest purpose is that which results from the highest principle. When there are two principles, the highest principle is that from which the maximum effect is generated. Hence, for research to be performed at a level of highest excellence, it requires the greatest value in terms of its purpose. It is apparent from the research literature that the dominant value of research is to understand nature's true depth; that is, to delve into fundamental issues such as those of existence and the nature of the universe. As an example, consider two scientific instruments that were developed as the result of many years of research and development: the telescope and the microscope. Although one can acknowledge their teleological approach and also the grandeur of their outcomes, the ultimate purpose was inferior to the virtue of the greater knowledge. It is assumed that the signifier to these achievements was the supremacy of human authority on all physical and metaphysical phenomena, and, furthermore, the arrogance of human nature to seek to capture the

sublime and to be declared, like Galileo, as the ambassador of God; having the gaze of God means that one is capable of seeing space and time in its true depth, which is something that human physical capacity cannot achieve. Yet, the ultimate purpose of the scientific revolution should not be based on the quest to understand nature in its true depth; because it cannot be proven in the laboratory, since it implicates theosophical reasoning. Furthermore, the mentioned reasons are excluded from any scientific attempt as they are regarded groundless. Hence, in order to sustain a teleological manner and a notion of ultimate purpose, the scientific revolution introduced the technological eye that is able to see things beyond the capability of human capacity. With regard to this technological integration, the act of highest excellence became oriented by its tools, which were far from what nature celebrates. The act of viewing became a legitimate discipline, something that radically overturned convictions that had been sustained through centuries, because the technological eye brought visualisation within the optical faculty, although in earlier times it had been acceptable that external visualisation was possible.

2.2. The technological eye as the gaze of God

In 1969, three centuries following Galileo's discoveries, a million years' worth of moon mythology were compressed into a single televised image; the worldwide monochrome television screening of Neil Armstrong and Buzz Aldrin setting foot on the moon. In 1843, the United States Congress paid \$10,000 to Samuel Morse to lay a telegraph line from Washington DC to Baltimore; the Baltimore-Washington telegraph line was the first long-distance telegraph system set up to run overland in the United States, the intention

being to utilise the Morse Code telegraph code system, invented by Samuel Morse. Morse's first message sent down this line carried the message: *"What hath God wrought!"*¹⁶ It is worth mentioning that in the same year of the moon landing, 1969, the first Internet message was sent between UCLA and Stanford. All the above mentioned technical developments yielded great value and it is of no coincidence that the era in which the telescope and microscope were discovered is known as an era of scientific revolution, since both the microscope and telescope have transformed our understanding of the physical world. People like Galileo, Kepler, Bacon, Descartes and Newton were accountable for transforming the *view from nowhere*, the divine perspective, into nature's true depth. However, what Nagel suggests with *"view from nowhere"* is based on subjective and objective perspectives, claiming that if one was able to say how these two are related, *"it would amount to a world view"* (Nagel, 1986: 3). One should consider, however, the possibility of both subjectivity and objectivity being mind-dependent perspectives. In 2013, CERN scientists discovered the so-called God particle, the Higgs boson, with the theoreticians Peter Higgs and François Englert earning the Nobel Prize for Physics. The Higgs boson (often referred to outside of the scientific community as the God particle) was a long-sought particle whose existence was theorised in the 1960s, the same decade as the moon landing and the first Internet message. As Rolf-Dieter Heuer, the Director General of CERN said on this festive day: *"Everybody should be happy that we discovered this particle, because now we know why we exist,*

¹⁶ Available from: http://en.wikipedia.org/wiki/Baltimore-Washington_telegraph_line
[18 January 2015]

at least partly." ¹⁷ Many scientists claim that this discovery has outstanding effects in our everyday life such as solar energy capture, medical imaging, proton therapy and even the World Wide Web. It is worth emphasising that Heuer did not mention any of these particular results; instead, he just pointed out that we should be happy because we now know our origins in part. CERN receives millions of Euros in funding from its member states, the top three being Germany, France and the UK; this list is ever-growing as more countries clamour to join the well-respected establishment. However, for the Nobel Prize Award, the CERN Director General chose to define the teleological significance of the research through the value of happiness by arguing that *everybody should be happy now*. Therefore, the taxes of member states are used to keep the citizens, who pay them, happy and for everybody to be happy because we *know why we exist, at least partly*.

His syllogism seems to be formed as follows:

If the ultimate purpose of research is to seek bliss and grace,
and its teleological aspect is based on our very existence,
then the confirmation of the existence of the Higgs boson makes us
happy because it enlightens us on the origin of our existence.

Undoubtedly, Heuer's phrase bestows pure reason to research because the purpose and its teleological significance are perfectly identified since, as mentioned earlier, our life depends exclusively on the ultimate purpose given our teleological nature. So, no-one can claim that there is

¹⁷ Available from: <http://phys.org/news/2013-10-cern-scientists-bask-joy-god.html>
[12 January 2015]

another more important purpose of humankind than that of existence.

Actually, the experimental confirmation of the existence of the Higgs boson is not considered to be a Eureka moment in science. Instead, it is a step forward in scientific progress based on established and accepted scientific theories. The existence of an invisible structure within which particular phenomena exist, has its origins in the ancient world; the ancient Greeks named it ether and stated it as being the fifth essence, the quintessence, and as being super-sensuous and permeating everything. Indeed, it is considered that the removal of such a concept from modern science has the indirect effect of anti- spiritualisation of science and humanity in general. To quote Ramsom:

“[...] in the sixteenth and seventeenth centuries, revolutionary philosophers began to curtail and reject the teleology of the medieval and scholastic Aristotelians, abandoning final causes in favor of a purely mechanistic model of the Universe.” (Ramsom 2008: 23, 24)

Nevertheless, one should question the purpose in proving an axiom in a laboratory environment that has been already proven itself as a natural phenomenon many decades earlier. And yet, if there is a different purpose to the primordial one, one can consider if there might be more than one purpose for a teleological matter. In the case of the Higgs boson, assuming that the ultimate purpose is the discovery of the earliest moments in the formation of the universe, the primordial aspect is absolutely teleological. Hence, it should be in accordance with the highest excellence because the highest principle is the greatest. The grace of the Higgs boson can be regarded as the primary reason since it generates the maximum inasmuch as it recalls the pure essence of a substance: the teleological pathway of mankind. Any other principle and outstanding effects are subjects of the

primordial purpose and can, therefore, be considered as derivatives, underlying the risk of failing to exercise the degree of excellence that is considered reasonable for the teleological nature. In terms of purposes, both theories (existence of Quintessence and the Higgs boson) share the same primordial purpose but not the same outcome. However, one can witness the phenomenon of assuming an outcome that is considered as being beneficial to humanity, to be taken as the prime principle because it is commonly believed that a useful result is greater or the greatest; it cannot, however, be considered in any circumstance as primordial. This, of course, does not entail any form of devaluation of scientific achievement but emphasises the primacy of the ultimate purpose. To illustrate this, one may refer to medical research, which seeks superior outcomes since it relates to human life. Functional magnetic resonance imaging (fMRI) is an imaging technique used to map biological function in the human brain. However, a report concerning fMRI from the Max Planck Institute for Biological Cybernetics explains that less than 3% of the brain volume is occupied by the blood vessels on which fMRI is based, while the other 97% contains 5.5 million neurons:

“Understanding the neuronal mechanisms underlying the function or dysfunction of a particular brain site by looking at such an enormous population of neural elements is practically impossible. The limitations of fMRI are not related to physics or poor engineering, and they are unlikely to be resolved by increasing the sophistication and power of our scanners; instead, they are due to the circuitry and functional organization of the brain itself, as well as to inappropriate experimental protocols that ignore this organization.”¹⁸

¹⁸ Available from: <http://hirnforschung.kyb.mpg.de/en/methods/alternative-methods.html> [30 January 2015]

But then, the question arises as to the extent to which the technological eye is able to see things beyond the human faculty if already set to "*inappropriate experimental protocols that ignore this organisation.*" Whilst one can argue that fMRI can be considered as having an ultimate purpose that can authenticate its significance, it seems to fail to exercise the same degree of excellence as its forerunners, the telescope and the microscope. Therefore, fMRI confronts the impossibility of the human species to see nature's actual depth. Yet, even if technology has shown great progress in the approximation of God's gaze, simulation is unlikely. There are two explanations for this failure: either God, as an intelligent agent, is inaccessible, or the ultimate purpose has been surpassed. If one takes into consideration the inaccessibility of God's gaze, the syllogism seems as follows:

If God's gaze is inaccessible,
and the teleological nature seeks God's gaze,
then the teleological nature is inaccessible,
or
there is no God's gaze.

As for the inexpediency of the ultimate purpose, the syllogism may be developed as such:

If the ultimate purpose is to see nature's actual depth,
and seeing depends exclusively on what humans witness with their
optical faculty,
then they have to extend their optical ability
or
to reduce nature's depth.

These two syllogisms govern the bulk of the development of science, art, philosophy and technology. They contain premises and predicates that play key roles in acts and process of choice, thus shaping people's purposes and manifestations. Through them, many major debates have arisen, such

as subject and object matter, evolution vs. creation (origins debate) or mind and body dichotomy (essentially dualism). However, while we lack the ability to see nature's actual depth and debate these arguments, nature itself continues her strata. As Gould describes:

"Einstein's theory of gravitation replaced Newton's, but apples did not suspend themselves in mid-air, pending the outcome. And humans evolved from apelike ancestors whether they did so by Darwin's proposed mechanism or by some other, yet to be discovered."¹⁹

Certainly, nature is not waiting for any outcome. She holds the teleology that, according to Aristotle, is triggered by two forces; potentiality and actuality. The predicates are subjects of human capacity and not of nature's teleological manner. Nature is a seeing thing, whether it is currently seeing (actuality) or just able to be seen (potentiality). However, what can be seen is inextricably dependent on the ultimate purpose of every act, in accordance with nature's highest excellence. As Aristotle stated: "*It is absurd to suppose that ends are not present [in nature] because we do not see an agent deliberating*" (Aristotle, Physics 2.8, 199b 27-9). According to the two previous syllogisms and considering the developments in the perception of nature, one can clearly discern not only the persistence of God's gaze but also the unrivalled efforts of the arts and sciences to divulge nature's actual depth. Even if this is the ultimate purpose of all philosophical, artistic and scientific research, from the ancient to the modern world, the period of early modern Europe can be considered to be ground-breaking with regards to the

¹⁹ Available from: http://www.stephenjagould.org/library/gould_fact-and-theory.html

[30 January 2015]

dislocation of our point of view at large, including the ultimate purpose. As written in Encyclopaedia Britannica:

“During the 15th, 16th, and 17th centuries, scientific thought underwent a revolution. A new view of nature emerged, replacing the Greek view that had dominated science for almost 2,000 years. Science became an autonomous discipline, distinct from both philosophy and technology, and it came to be regarded as having utilitarian goals. By the end of this period, it may not be too much to say that science had replaced Christianity as the focal point of European civilization. Out of the ferment of the Renaissance and Reformation there arose a new view of science, bringing about the following transformations: the reeducation of common sense in favour of abstract reasoning; the substitution of a quantitative for a qualitative view of nature; the view of nature as a machine rather than as an organism; the development of an experimental method that sought definite answers to certain limited questions couched in the framework of specific theories; the acceptance of new criteria for explanation, stressing the “how” rather than the “why” that had characterized the Aristotelian search for final causes.” (Spencer.B., Osler, M, J., Brush, S, G.)²⁰

The imperative to eliminate any superstitions about the past resulted in limiting human vision to a great extent. Whenever someone claimed to visualise something without proof and the use of prevailing mechanisms and technology, they often accused as being a charlatan or a lunatic. As a result, when searching for God’s gaze, one can easily be classified in one of the mentioned categories. To cope with this, the 18th century *virtuosi* managed to engage mechanical devices that were able to see things on their behalf. They even claimed that both the instruments they invented, as well as the invention per se, were godsend. In *Cosmologia sacra, or, a Discourse of the Universe as it is the Creature and Kingdom of God*, (1701) the scientist

²⁰ Available from Encyclopaedia Britannica Online:
<http://www.britannica.com/EBchecked/topic/458717/physical-science/32541/Islamic-and-medieval-science> [31 March, 2014]

Nehemiah Grew, while complimenting the Majesty, declares that the entire initiative was God's work. On the cover page and under the title, he wrote: *"Chiefly Written, to Demonstrate the Truth and Excellency of the Bible; which contains the Laws of his Kingdom in this Lower World."* Grew claimed not only that he had the gaze of God but also that he acted on His behalf. Moreover, his book is not a description or a research but rather a *"demonstration...as it is."* Therefore, for Grew, as an ambassador of God, similarly to his older fellow Galileo, the intelligent agent [God] is not only accessible but also interpretable. On the other hand, by acting on His behalf he should be able to see nature's actual depth. However, due to being human, he did not have that capacity; otherwise, he could be expelled from academia as a scientist with theosophical attitude. His pioneering work in microscopy gave him the validity he required in academic circles and, as a result, he was appointed Secretary of the Royal Society in 1677. Grew was one of many outstanding scientists of this era who explored nature stressing the *how* rather than the Aristotelian *why*, as Encyclopaedia Britannica states. In this magical realm of dominant perception, where man was able to see nature's depth, the Aristotelian teleology was, considered obsolete and fatalist. The prevailing view around this concept considered that an intelligent agent holds all nature's causes and that view implicated a theosophical aspect. This assumption was in contradiction to the refreshing spirit of human primacy of the Enlightenment and Renaissance eras. It also reflected the major conflicts that scientists had with the Roman Catholic Church. A typical example is undoubtedly that of Galileo before the Holy Inquisition. Writing in 1615 to Madame Christina of Lorraine, the Grand Duchess of Tuscany, he confessed:

“But I do not feel obliged to believe that that same God who has endowed us with senses, reason, and intellect has intended to forgo their use and by some other means to give us knowledge which we can attain by them. He would not require us to deny sense and reason in physical matters which are set before our eyes and minds by direct experience or necessary demonstrations.”²¹

In fact, by this thought, Galileo agrees with Aristotle on the issue of teleology. The latter never claimed that God is the efficient cause of natural objects and that God's purposes are the final cause of the natural objects that He created. On the contrary, he assumed that the intelligent agent, God, is external to the artefacts that impose form on matter. Yet, the final causes of natural objects are internal to those objects. Likewise, Galileo declared that the final cause of man is to search for knowledge through the faculties that He has endowed to humans. One may, therefore, observe that teleology has not changed over the centuries. However, since it was declared that human capacity cannot meet nature's depth, there cannot be any direct experience or reason to acknowledge. On the other hand, extending human ability through technological and mechanical devices cannot stand as a solution because of not having the notion of the actual depth; such devices are assembled from *"inappropriate experimental protocols that ignore this organisation."* Analysing more thoroughly Max Planck Institute's argument for the unawareness of organisation, one has to take into consideration the very meaning of the latter. An organisation is an entity that has a collective goal and is linked to an external environment. The word is derived from the Greek *Organon*, itself derived from the word *Ergon*. Whereas an organon is

²¹ Letter to Madame Christina of Lorraine, the Grand Duchess of Tuscany, Galileo Galilei 1615. Interdisciplinary Encyclopaedia of Religion and Science. Available from: <http://www.inters.org/galilei-madame-christina-Lorraine> [22 October 2013]

a part of the system, the *Organon* is the organisation per se. Indeed, the brain is the most complex organon and in a typical human it is estimated to contain 15-33 billion neurons, each connected by synapses to several thousand other neurons. These neurons communicate with one another by means of axons, which carry signal pulses to distant parts of the brain or body, targeting specific recipient cells and helping the organon (the body) to function. Even if fMRI can reveal brain structures and processes associated with perception, thought and praxis through visual images, sounds and touch stimuli, it lacks the entire entity of the Organon and the ergon (completed praxis). Likewise, even if the existence of the Higgs boson explains why particles have mass, it also lacks the Organon and its ergon. Joseph Lykken, a theoretical physicist at the Fermi National Accelerator Laboratory in Batavia, Illinois, in response to Hawking's warning for possible destruction of the known universe due to the Higgs boson, claimed:

"Most likely it will take 10 to the 100 years [a 1 followed by 100 zeroes] for this to happen, so probably you shouldn't sell your house and you should continue to pay your taxes. On the other hand, it may already happened, and the bubble might be on its way here now. And you won't know because it's going at the speed of light so there's not going to be any warning." ²²

2.3. The All Organon and its ergon

The euphoria of the CERN Director General, together with Hawking's restlessness and Lykken's hopelessness, endow the Higgs boson as a teleological character. If the Higgs field occupies the entire universe and all

²² Available from: <http://www.livescience.com/47737-stephen-hawking-higgs-boson-universe-doomsday.html> Livescience By Kelly Dickerson, Staff Writer, [08 September 2014]

particles acquire their mass by passing through this field with the Higgs boson being the carrier particle, then one should recall the postulation of a first cause; the Aristotelian prime mover. According to Aristotle:

“All movement involves three factors, (1) that which originates the movement, (2) that by means of which it originates it, and (3) that which is moved. The expression ‘that which originates the movement’ is ambiguous: it may mean either (a) something which itself is unmoved or (b) that which at once moves and is moved. Here that which moves without itself being moved is the realizable good, that which at once moves and is moved is the faculty of appetite (for that which is influenced by appetite so far as it is actually so influenced is set in movement, (and appetite in the sense of actual appetite is a kind of movement), while that which is in motion is the animal.” (Aristotle, *The Organon and Other Works*. Chapter 10, *On Soul*).

In order to grasp the notion of the prime mover one should be able to analyse all forces that animate nature (*appetites*) and the organisational sets that are formed in any completed praxis (*ergon*) in the threshold between the beginning and the end, where the praxis finds its teleological conclusion.

Hence:

If an animal that is capable of appetite is also capable of any *ergon*, and the *ergon* of highest excellence is to see nature's depth, then any animal can meet nature's depth.

Certainly, humans cannot speak on behalf of other animals but they can speak with respect to human faculty and all its technological agents. It has been declared that humans cannot seize nature's depth, either the organisation or the *ergon* per se, thus a latent appetite is possible. Human appetite that functions towards the ends does not always contain self-sufficient purposes. If a person is required to walk for an hour per day as a treatment for heart disease and they comply fully with the instructions, their ultimate purpose is to improve their health and, therefore, to increase their life expectancy. Thus, their *ergon* and, consequently, their appetite, have a

teleological purpose but are not self-sufficient because their ergon does not coincide with the purpose for which nature has appointed them. The aim of nature is development toward estrangement until the absolute extinction of an entity in order to bring about a new entity. In this example, the philosophical question of the purpose of existence is not the case but, undoubtedly, the natural ergon leads to death rather than perpetuity of life. Hence, appetite is not consistent with nature's highest excellence but rather with a primeval ultimate purpose of *animality*, to maintain matter and form as long as possible. What defines the person's appetite is the acquired potentiality of their substance, that is to live, which leads to an actuality, that is a living thing, an *animal* [ζῷον (*zōon*)], whose appetites are limited by life itself. Consequently, something, while being-to-be, has acquired its mass, maybe by passing through a Higgs field, and its form by its appointment as a living thing. The combination of mass and form can be defined as substance. In a state, before being a substance, there is a potentiality of animality; this is a phenomenon, not yet an object or a non-object and serves as a principle of potential life in matter. In order to be an object, '*there should be a sense of actual appetite*', that is, a '*kind of movement*.'" During this ergon, the substance-to-be has many potentialities that have the potential to become actualities. Therefore, the appetite and, accordingly, the ultimate purpose of a substance are rather pertinent in these that nature professes. The appetite of a substance-to-be differs from the substance because the latter is forced to confine itself to the ergon of maintaining its mass and form (living). This ergon is undoubtedly teleological and virtuous but not self-sufficient, even if the form of animality is the human species because both *appetition* and purpose are derivatives of those of the substance-to-be; for an object-to-be,

substance should actualise one of its potentialities. The ergon towards animality derives from the prime matter (substance-to-be) and the animal (the completed praxis). Through animality, the object can be transmuted to any of its potentialities. Hence, all species belonging to the animal kingdom have, as their main component, the prime appetite of the substance and they share the appetites of animality. In order to achieve its ultimate purpose and fulfil its appetite, the animal will need to have certain properties. To quote Kant:

“If this conception is to indicate by the term substance, an object that can be given, if it is to become a cognition, we must have at the foundation of the cognition a permanent intuition, as the indispensable condition of its objective reality.” (Kant,2010:241)

If one considers that appetite is the stimulus of mind towards the ergon (movement), then cognition and intuition lead to a means to an end. Appetite, intuition and cognition are properties of various living entities as well, for example insects. As an example, one may refer to ants, which form highly organised ‘colonies’ in order to sustain their mass and form for as long as possible. Even though humans interpret ants’ organisation according to their own mindset, arguing that ants create colonies with human social structures, including workers, soldiers and queens, it is apparent that these insects possess the very principles of substance. In effect, they even have the same teleological perspective as that of humans and one might argue that their teleology is superior to that of humans since they demonstrate great success in the preservation of their kind. As a polymorphic species, ants fulfil their ergon by undergoing complete metamorphosis whereby the larval stage passes through the pupal stage before emerging into the adult stage. To quote Carpenter, the nymph climbs out of the water by ascending

some aquatic plant and awaits the change so graphically sketched by

Tennyson:

“A hidden impulse rent the veil,
Of his old husk, from head to tail,
Came out clear plates of sapphire mail.” (Carpenter, 1913, Chapter IV,
From Water to Air).

There is another example of complete metamorphosis which seems to have the similar *hidden impulse*: According to Mathew: “Jesus [...] was *transfigured before them; his face shone like the sun and his clothes became white as light.*” (Mathew 17:2).²³ Both descriptions come from human intellect, served by appetite, intuition and cognition since it is not possible for a description to come from an insect. Although there is no evident way that humans can acknowledge the nature of insects, since humans do not communicate exclusively with pheromones as ants do, science concludes that the ergon of ants is called metamorphosis and is a purely biological process, while transfiguration, an anthropocentric metamorphosis, is only a Gospel narrative. What led to the belief that man has the ability, as well as the jurisdiction, to draw conclusions and make definitions of micro- and macro-world, is, of course, the human appetite to conceive the meaning of substance. The most important element of this and any other appetite is the process of imagination, which produces the conditions needed to bring up the forms of substances and their characteristics. Any animal or other genre that is capable of appetite has an imaginative faculty that is the main vehicle

²³ Mathew 17:2 New Statement. A translation of the Bible in English can be found at <https://www.biblegateway.com>

of morphism and metamorphism. To be scientifically correct, imaging has been implemented using fMRI in a process where subjects are asked to imagine a visualisation. The test showed activity in central regions of the subject's brains. In their research paper, the scientists argue:

“We do not know how the human brain mediates complex and creative behaviors such as artistic, scientific, and mathematical thought. Scholars theorize that these abilities require conscious experience as realized in a widespread neural network, or “mental workspace,” that represents and manipulates images, symbols, and other mental constructs across a variety of domains. Evidence for such a complex, interconnected network has been difficult to produce with current techniques that mainly study brain activity in isolation and are insensitive to distributed informational processes.” (Schlegel et. al.: 2013).

Once again, witnessing the incapacity to acknowledge the entire entity of the *ergon* (completed praxis) due to *inappropriate experimental protocols*, it seems that imaginative faculty may play a key role in protocol selection. If one considers substance as a field of a finite number of possibilities, the value of appetite is absolutely inter-related to imagination, which enables the tendency to form these possibilities. Hence, the act of highest excellence in a research experiment that seeks to explore the tendencies of a substance towards the completion of the appetite, that is, to seize the meaning of the substance, requires blessedness in imaginative faculty.

To summarise:

If the ultimate purpose of a piece of research seeks bliss and grace, and the imaginative faculty is that which brings the form (morphic or metamorphic),
then, the imaginative faculty requires blessedness.

Undoubtedly a substance field embeds all potentialities and actualities within. One can consider it as *The Organon of organa per se*, that is, nature's actual depth, and there is an integral linkage between *The Organon* and the species. Therefore, any piece of research commences while at the same time acknowledging that there is similarity and linkage between them. Likewise, the Higgs field and findings that are ancillary to the Higgs field are compatible to the field of substance so that there is an ability of a dialectic discourse because, as previously analysed, the prime human appetite for implementing such a piece of research as the Higgs field, is to conceive the meaning of substance. It is probable that these two fields look alike and, for this reason, the Higgs field is rather attractive as a research outcome. Yet, the meaning of *look alike* is not based on human mentality but rather on animality in general. One can find many cases in nature for which this process takes place in non-human species. For example, lizards, cuttlefish, squid and octopuses all have unique dialectic aspects by finding similarities through their colour. Devi Stuart-Fox, an evolutionary biologist at the University of Melbourne, says for chameleons:

"We were wondering whether the ability to change colour could be related to the number of different backgrounds they would need to match, or the particular habitat they are found in. We found that there is no relationship, so that's why we said it hasn't been driven by camouflage. They obviously use it for camouflage – they match very well – but it's a limited range of colours they have to match. Whereas in their social displays when they change colours, they've got pinks and oranges, greens and blues, and a wide range of ultraviolet colours that are visible to chameleons but not to us." ²⁴

²⁴ Available from: <http://blogs.scientificamerican.com/running-ponies/2013/06/03/lizards-and-the-language-of-colour-change/> [10 March 2015]

These 'quick-change artists' are molecular masterminds because they make real-time colour changes at the molecular level. They have several layers of specialised cells called chromophores, which are wired up to the nervous system and are sensitive to chemicals that circulate in their blood stream. Like ants, they communicate via pheromones making them chemo-sensitive; therefore, their so-called imaginative faculty is able to form dynamic similarities while rapidly communicating their appetites. It is worth mentioning here that pheromones are chemicals that are capable of acting outside the body of the secreting individual in order to change the behaviour of the receiving individual. Thus, their mechanism may be closer to the substance field than that of humans because of the immediate and remote mode of their ergon. Therefore, the human tendency to find similarities and morphic resonance with the substance is more or less a characteristic of all animals and in no case, can be described as a stand-alone version of a philosophical and/or scientific enquiry, which can result in research of the highest excellence. Even if pheromones do not appear to be of great importance to the human organism and if colour change is unknown as a manifestation of human appetite, human beings persist in their exploration of these phenomena because their imagination is aligned with the potentialities of the substance field as an inherent capacity of morphic and metamorphic values. The human exploration of similarity in form has a long history, appearing in several disciplines and fields. From Aristotle's Hylomorphism to Werner Heisenberg and quantum mechanics or to Robert Shaldrake's morphic resonance, the concept of look alike intrudes both in science and theology.

After the Enlightenment era, the mindset towards the perception and comprehension of phenomena used scientific laws to express the fundamental principles of the natural world. Consequently, the *ergon* is limited in serviceability to circumstances resembling those already observed and it often fails to exercise a high degree of excellence when extrapolated. As Vesalius confessed: "*I am not accustomed to saying anything with certainty after only one or two observations*" (Vesalius, 1546. *Epistola, Rationem*, 597#1 in O'Malley 1964: 116). So, it can be seen that human understanding of the virtues that nature offers is corrupted by cognitive and moral limitations, and the triad of *appetition*, intuition and imagination is reduced to moral reasoning rather than trusting imaginings as being indicative of deeper realities. Moreover, the schema of this triad is integral to human intellect and concerns the manifestation of form and matter considering the above assumptions: that *appetition* is that of which nature is animated, that intuition is immediate cognition and that imagination is a means to an end. Therefore, and for this purpose, this triad will be written from now on as 'All'. In the mentioned process and for all organisms, All operates as a whole for the most appropriate completion, in accordance with each kind.

From this standpoint, the syllogism is that human research is an act of highest excellence and, therefore, meets the values of blessedness.

The syllogism seems to be as such:

Research is an act of highest excellence

An act of highest excellence is an act of blessedness (since it endeavours to fulfil the ultimate purpose).

Thus, research is an act of blessedness.

Given that All tends to blessedness in the endeavour to reach the meaning of substance, that is, nature's actual depth, there should be an explicit faculty in human organism that meets blessedness. More than one and a half centuries after the publication of Charles R. Darwin's "On the Origin of Species", the origin has been slightly changed as it moved from romantic naturalists to reductionist scientists or else from *Natural Selection* to *Higgs boson (God particle)*. The relay race of science in its attempt to approach the substance and apprehend the likeness within lacks the principle of blessedness. The baton that was given to Darwin was old enough to possess an effective handle and he held it in such a way that he could not possibly possess the imagination that was required for the next race. In a letter to his colleague and friend Alfred R. Wallace,²⁵ he explained his fear in the depiction of *quick-change artists* and their imago process:

"My dear Wallace, —Your kind and sympathetic letter pleased me greatly and did me good, but as you are so busy I did not answer it. I write now because I have just received a very remarkable letter from Fritz Müller (with butterflies' wings gummed on paper as illustrations) on mimicry, etc. I think it is well worth your reading, but I will not send it, unless I receive a 1/2d. card to this effect. He puts the difficulty of first start in imitation excellently, and gives wonderful proof of closeness of the imitation. He hints a curious addition to the theory in relation to sexual selection, which you will think madly hypothetical: it occurred to me in a very different class of cases, but I was afraid to publish it. It would aid the theory of imitative protection, when the colours are bright. He seems much pleased with your caterpillar theory. I wish the letter could be published, but without coloured illustrations [it] would, I fear, be unintelligible...

²⁵ Darwin Correspondence Project Darwin's letter to Wallace Down, Bromley, Kent, S.E. February 23, 1867 Available from: <https://www.darwinproject.ac.uk> [8 March 2015]

Even yours most truly,

Charles Darwin."

(Darwin, C.R. to Wallace, A.R. August 1, 1871).

In a previous letter to Wallace, Darwin expressed his difficulty in understanding "*why are caterpillars sometimes so beautifully and artistically coloured?*" and, therefore, he asked Mr. Bates (Henry Walter Bates) who replied: "*You had better ask Wallace*" (Darwin, C.R. to Wallace, A.R. February 23, 1867). Apparently, Darwin insisted in embedding illustrations in order to avoid being *unintelligible* because of the enormous difficulty in admitting the modification of a being. Thus, he was unable to avoid including imagination in the process. The illustrations depicted nature in such a way that they strengthened the theory, depicting the microscopic level with a detailed calligraphy that is usually encountered in the Byzantine manuscripts, albeit with a different technique. He avoided analysing Wallace's caterpillar theory in depth, which, according to the Journal of the Proceedings of the Entomological Society of London for 1886-1867, related to the colouring of larvae as a mechanism of protection, claiming that brilliant colourings were due to *sexual selection* and not *imitative protection* as Wallace had proposed. This argument between Wallace and Darwin ended up with the latter pleading that "*I hope you have not murdered too completely your own and my child*" (Darwin, C.R. to Wallace, A.R. March 27, 1869), meaning the theory of natural selection. Whereas Darwin considered humans as any other evolved animal, Wallace believed in AI, claiming that human capacities such as spirit and mind, and manifestations of arts could not have risen by natural and sexual selection alone, and he insisted that man's mind was created by a

Mind. In contrast, Darwin used these specific human capacities as simple tools whenever and wherever he needed them throughout his theory without imparting any particular value to them. Even though the following quote is taken from a work of fiction, it accurately echoes Darwin's thoughts on the arts: "*there are vague memories in our souls of those misty centuries when the world was in its childhood*" (Doyle, 1887, Chapter V. *Our Advertisement brings a visitor*).²⁶ It is important to mention here that this controversy between Darwin and Wallace took place at a time when reductionist science stood up to medieval beliefs and gave precedence to human nature with the exemption of the latter by any divine judgment. As expected, Darwin, who was one of the leaders of this theory, was the recipient of a grand reputation among the avant-garde circle of evolutionists but, at the same time, he received derogatory comments from many leading scientists and philosophers who were unable to throw aside their own beliefs in the Christian dogma of creation. In 1916-1955 Einstein –Born correspondence, Einstein wrote to Born that *God does not play dice*.²⁷ The most famous confrontation was in 1860 at a public debate on evolution during a meeting of the British Association for the Advancement of Science in Oxford, where the Bishop of Oxford, Samuel Wilberforce, though not opposed to transmutation of species, argued against Darwin's explanation and the descent of humans from apes. Joseph Hooker argued strongly in Darwin's favour, and Thomas Huxley's famous retort that "*he would rather be*

²⁶ Sir Arthur Conan Doyle, physician, author and the creator of Sherlock Holmes character, put Holmes to quote from Darwin making an allusion on investigation and research in general. Available at: <http://www.gutenberg.org/cache/epub/244/pg244.txt> [November 2015].

²⁷ A. Einstein, *Albert Einstein und Max Born, Briefwechsel, 1916-1955, Kommentiert von Max Born* (München: Nymphenburg, 1969), pp. 129-30.

descended from an ape than a man who misused his gifts" (Bowler, 2003: 178-179), came to symbolise a triumph of science over religion. Darwin's liberating ideas were considered to be at the cutting edge of the scientific work of the time and Darwin was elected a fellow of the Royal Society in January 1839. While in August 1858 Wallace and Darwin published jointly on the theory of evolution by natural selection in a paper, it was Darwin's *On the Origin of Species* in the very next year that truly grasped the public's attention. Ultimately, Darwin's and Wallace's child was rescued from the imperative need for an epoch to murder not this child but what had been haunting people since the medieval time. Alfred Russel Wallace is considered to be the forgotten naturalist while his later assumption about an "*Overruling Intelligence*" has been declared as unscientific and classified as religious. In the *Quarterly Review* in April 1869, Wallace argued that one cannot explain the uniquely human attributes of abstract reasoning, mathematical ability, wit, love of music and musical aptitude, art appreciation and artistic talent, and moral sense as being necessary for survival in a state of pure nature through which (by Darwin's own principle) natural selection must operate. Therefore, some other cause or action must be invoked. Wallace called this cause of action *Overruling Intelligence* (Flannery, 2011: 62). Spending most of his time in the jungle, Wallace included art as an integral part of the process of his discoveries based on natural phenomena. Indeed, he considered art as substantiated evidence that led him to renounce a substantial part of his research with Darwin, namely the theory of evolution. Wallace used AI as the foremost value of his research. It seems that the attempt to remove the distress of mankind, given the medieval belief of superpower domination, resulted in the opposite effect, so

that human nature is celebrated as being unique among the animal kingdom. To enable humankind to prevail over other animals as the most evolved species, it was necessary to eliminate any definition that was considered as being a principle or having an effect of religious faith. Hence, even if Darwin believed in the transmutation of species, he attributed it exclusively to natural selection, in order to avoid any teleological assumptions that might lead to a religious context. As Grinnell points out:

“The extent to which he was willing to push one model, and after its collapse, to entertain new models suggests that he was philosophically inclined to transmutation theories for reasons that transcended the empirical data which he originally worked.” (Grinnell, 1974:273)

Hence, one can argue that Darwin may also have applied, in the same way as his successors, *inappropriate experimental protocols that ignore the organisation*, thus the entire ergon. The usage of the word ‘protocol’, as previously cited from the Max Planck Institute for Biological Cybernetics, can be used to refer to a plan for a course of medical treatment or for a scientific experiment. Other definitions address diplomatic, military and political affairs. Yet, the original meaning of the word *protocol* refers to what is first glued or the first sheet of a manuscript.²⁸ The most popular kind of manuscript was a book made up of a stacked number of sheets glued together, named a Codex, and the first sheet was frequently an invocation to a higher substance (muse, saint, god) asking for a contribution to the ergon completion. As an example, one may refer to the Codex Gigas, the largest extant medieval manuscript in the world, richly illustrated throughout. Legend

²⁸Latin *protocollum*, from Late Greek *prōtokollon* sheet glued to the front of a manuscript, from proto- + *kolla* glue. Definition available from <http://www.thefreedictionary.com/protocol> [22 March 2015]

says that the Codex Gigas was created by a monk who sold his soul to the devil. According to this legend, the scribe was a monk who broke his monastic commitments and was punished by immurement. In order to forbear the punishment, the monk swore to create a book, overnight, that would contain all knowledge, in order to worship the monastery. Since the monk knew that he could not succeed in such a short time, he prayed to God and to the fallen angel Lucifer for help, asking them to finish the manuscript in exchange for his soul. The devil completed the manuscript and the monk added the devil's picture out of gratitude for his aid. Although this story is considered a myth, it contains certain behaviour that does not deviate from what medieval historical evidence has shown to be common at the time.

Another invocation mentioned earlier in this chapter from the scientist Nehemiah Grew in *Cosmologia Sacra* is not very different from the latter, in terms of the concept of protocol per se. Both behaviours engage with *protocolological* aspects as a form of teleological praxis, whether this is called God, Lucifer or Majesty; a praxis that reflects, in an absolute way, their ultimate purpose. Although the notified party changes along with the era and determines the variations of appetite accordingly, the most important parameter that underlines the difference between these two invocations is the requested plan: the monk asked for the completion of the manuscript without his intervention, whereas the scientist asked for the same thing, although he requested to write the manuscript himself through the agency of his referee (per procurationem). Hence, the monk asked for per-primam completion while the scientist asked to complete the work per proxy. In other words, whilst the monk was immersed in his ergon because of its teleological aspect (he exchanged his soul), the scientist was detached from his ergon

as he was acting on His behalf. Accordingly, their appetites were different in nature: the monk's appetite reflects his potentiality (and tendency) for transmutation, manifesting the imago process, while the scientist's appetite seeks to empower his permanent condition as the prevailing animal. The story of the monk's transubstantiation is considered to be a myth because it is not apt to a logical mechanism since no human being can envision the full depth of nature by having God's perspective. Thus, the story is fictional and falls into the category of medieval excesses. In contrast, the scientist, as an ambassador of God and with His blessing, having adequate equipment to help him, can be considered to interpret God's gaze and to 'demonstrate' nature's actual depth on His behalf. In short, the involvement of protocol in the appetite is a social matter and, to this extent, it has political implications, shaping a dominant mechanism of formalising appetites that are always consistent with socio-political structures. To recall the first argument of this chapter, these structures do not contain self-sufficient purposes, so they often fail to manifest The Organon and its organisation (the very nature).

According to the above syllogism, one can conclude:

If the protocol defines the appetite,
and appetite is the stimulus of mind towards an ergon (animate nature),
then any ergon is defined by a protocol.

The argument here is not whether this is right or wrong; besides, there are countless debates around this issue and it seems that it is recycled in perpetuity, or more accurately, it revolves around itself. One can say that this rotation is due to the very protocol itself. After the scientific revolution and the formulation of the theory of natural selection, nature was interpreted

via protocols and models. It was a century after natural selection was first proposed that Foucault wondered how starting from the 18th century, *modern Western societies took on board the fundamental biological fact that human beings are a species* (Foucault, 2009:1).

2.4. Conclusion

It might be considered that, through the development of science, technology and social progress in general, a peculiar shift has occurred in terms of teleology: the ultimate purpose of any ergon aims towards the eternal quest for the origins of substance, the first cause, the proton, the first molecule etc. This shift can be characterised as a *reverse teleology* because if one draws a line with two points A (first) and Ω (last), teleology tends to Ω (Omega) and not A. This reverse viewpoint has, undoubtedly, a relation with All and the necessity of morphic resonance with The Organon, assuming that, due to the likeness, a human can reach nature's depth through endoscopic research, which leads to the origin. However, it is important to mention the factors that enabled *reverse teleology* to prevail after the early modern period: the anthropocentric and the reductive aspect, indicating the fragmentation of nature and, accordingly, of the ultimate purpose.

Nevertheless, the ultimate purpose of essences and substances cannot be met in the beginning of their development, but in the final form to which they are tending to become, because the assertion here is that their nature is apparent from the destination and not the origin. The difference in these two aspects of teleology is significant and has a catalytic effect to the mechanism of All and especially to that of imagination, which is the very element that produces the condition to bring up the ultimate form of a substance to

become. What has been really tampered with is the image itself; as stated in Genesis: *in the image and likeness (Imago Dei)*. In the context of image, Imago Dei is best understood as *imago*, which, in biology, is the last stage an insect attains during its metamorphosis, its process of growth and development.

On the other hand, in the context of likeness, Imago Dei refers to the process of selection from a variety of potentialities and actualities in order for one to reach the ultimate image (*Dei*).

CHAPTER 3: THE TBJ ORGANON

3.1. Synopsis

Assuming that one detects the path that a researcher takes in order to obtain knowledge, especially the very knowledge of nature's actual depth, then two basic convictions that govern Western thinking and are based on Aristotelian axioms are apparent: (i) *Principium contradictionis* (the principle of contradiction by which no thing can be in contradiction with itself, i.e. it cannot exist and not-exist at the same time,²⁹ and (ii) *Principium rationis sufficientis* (the principle of sufficient reason) by which no thing is true if it is not a necessary sequence of another.³⁰ Hence, the research path depends on *causality* (Schopenhauer), at least in general, as it lies in the particular cognition area in which the aforementioned principles exist, even before any experience. Moreover, the path shows a temporal ordering that causes a "*time dimensionality*" (Kant) of knowledge as it moves along a given timeline, focussing always on past experiences to prove present hypotheses. In this process, a future point of reference within the path can be considered as a prophecy and is, therefore, unacceptable, at least without interference of causality. A contemporary assessment of the adequacy of this path is unfavourable for the representational naturalness that has been campaigned for as well as for the resultant vision (impressionism, expressionism and

²⁹ The principle of contradiction by which no thing can be in contradiction to itself: This principle states that the research depends on actual facts that the researcher can observe and test. If something does not exist it does not pertain to nature and therefore is unnecessary to address it.

³⁰ The principle of sufficient reason: This principle is common to '*hihil fit ex nihilo*' which means that out of nothing, nothing becomes. The word nothing here is literally the absence of any 'thing', physical or non-physical, seen or unseen.

abstraction). The argument here is that the shift of vision in logical representations, by analysing the essence in matter and form, may have caused the exclusion of incarnation of the very being due to the lack of reference to image and likeness paramount appetite. The contemporary attempt towards economic reconciliation failed to restore or reform the reference to image and likeness because appetite does not depend on the subjective sense but, rather, on the tendency to become before any subjective and/or objective phenomenon.

3.2. The X sequence

If one was able to trace the path of knowledge in a planned manner using causality and time dimensionality, it seems to follow that:

X is a human with appetite and intuition.

X's innate appetite is to find the meaning of x.

The x can be universal or particular but, in any case, it has a sufficient reason to exist.

Thus for X to reveal the meaning of x, X should first search for all x^n and x_n that constitute the sequence of x (Fig.1). Yet, by the time X captures the x^n or x_n , X should follow his own sequences, continuing into perpetuity. A way to escape from this vicious circle is to define x in a specific spatiotemporal dimension and set the research in a linear time frame so that x^n and x_n can determine negative and positive values of the x sequence. In this case x, as the objective of study, exists in an extremely definite context, both spatially and temporally. In this state, in McTaggart's specious *present* (Sharma:2015), X can see small fragments of the past and the future, as well as a spatial dimension which encompasses what X acknowledged, either known or

unknown. From this point of view, X can observe, test and demonstrate major scientific outcomes. On searching the Nobel Prize list from 1900-2014, one realises that all X winners have searched for a specific x sequence, reaching the outermost of x^n and x_n , supposing that they had the appropriate protocols to see with a kind of God's gaze.

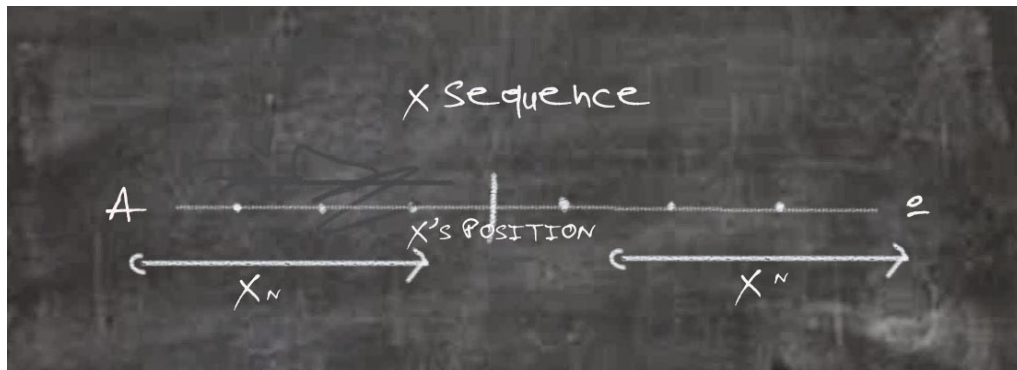


Figure 1. Plan1: The x sequence © Katerina Karoussos 2015

Yet, what is particularly important is the alignment in the categories because if each year there is no other x sequence, then one and only one sequence should be examined by all disciplines in order to ensure the satisfactory preservation of form and mass both in terms of solids and animality, with the hope that it will exist in perpetuity.

Thus, most of the Nobel Prizes in Physics and Chemistry concern the same x sequence in macroscopic and microscopic research. Alongside, the Nobel Prize in Medicine is concerned with the effects and risks occurring from the first x sequence, and with solutions that may eliminate those effects and risks, whereas the Nobel Prizes for Literature and Peace are given for research which describes and combats, respectively, the above effects and risks.

For example, the 2013 Nobel Prize in Physics was awarded to Francois E. and Higgs P., *"for the theoretical discovery of a mechanism that*

contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle, by the ATLAS and CMS experiments at CERN's Large Hadron Collider." The same year, Karplus M., Levitt M. and Warshel A. were awarded with the Nobel Prize in Chemistry *"for the development of multiscale models for complex chemical systems."* In brief, the research concerned the in-silico simulation of molecular reactions. The Nobel Prize in Medicine (and/or Physiology) was given to Rothman E.J., Schekman W.R., and Sudhof C.T., *"for their discoveries of machinery regulating vesicle traffic, a major transport system in our cells."* In simple terms, the research concerned the organisation of cellular transportation of molecular entities within living organisms. The Nobel Prize in Literature was given to Munro A., for the *master of the contemporary short story*" which describes *"how people struggle for a decent life often result in difficult relationships and moral conflicts."* Finally, the Organisation for the Prohibition of Chemical Weapons (OPCW) was awarded with the Nobel Peace Prize *"for its extensive efforts to eliminate chemical weapons."* ³¹

From this outline of the 2013 Nobel Prize Awards, it is evident that all the research included in the awards that year involved human prevalence in the process of natural selection, molecular mass and its processes. It seems that researchers in physics, chemistry and medicine all concern themselves with fundamental physical processes which, in the case of errant biochemical processes in living organisms, may even cause illnesses and disease. However, when humans attempt to replicate aspects of their own biochemical

³¹ The data of the Nobel prizes for 2013 have been retrieved from http://www.nobelprize.org/nobel_prizes/lists/all/index.html [17 March 2015]

makeup in man-made technologies such as biological weapons this is regarded as ethically unacceptable even though the human body is the only prototype from which the technology can be developed. In cases of such manifestations the Nobel Prize is awarded to Xs who have worked to prevent such situations (Nobel Peace Prize). The natural world generates chemical reagents, including in living organisms. Living organisms are able to attack themselves through inappropriate immune responses that result in autoimmune disease and, as a logical coherence, humans replicate their internal biochemical process in moral and political processes. Ultimately, by moving in either direction through the x sequence (x^n and x_n), X faces the risk of the extinction of his mass and form.

The research list is vast and so are the outcomes. One can assume that the increasingly expanding technological possibilities of collecting, analysing, measuring and visualising various scientific data enable new, more sophisticated technological tools to be developed. This trend is based primarily on the growing capabilities of technologies that allow scientists to "see" nature at the micro- (for example molecules, genes) and macro- (for example stars and galaxies) scale, obtaining new knowledge of the world and the universe. This is due to the inherent operation of All that humans have, which is manifested through their impetuous appetite to see nature's actual depth. However, even if this innate appetite guides the ultimate purpose of the ergon, it often appears that man has neither this capacity nor the protocols. Indeed, one can interpret this phenomenon as an endless reciprocal production of social and vital norms in the human as living being (Foucault, 2013: 75). The persistence of the human mind to see nature's actual depth is encountered in all areas of research and practice Whether the

research occurs in a scientific laboratory such as a particle accelerator, on an island studying butterflies, or in an art studio depicting the forms of nature, the ultimate purpose is the same: to see nature's actual depth.

Whether physical or metaphysical, theological or logical, philosophical or artistic, the outcome of the research is the beginning of a new piece of research. One can consider the body of numerous and remarkable results as outstanding human achievements, but man, himself, withdraws them by the time he sees the outcome in order to try again. This phenomenon can be considered as a paradox: how can research that aims to produce knowledge of nature's depth fail to reach the final output, even after thousands of years of work but, at the same time, produce a wealth of derivative results? One would expect this research, as an *ergon*, to be complete. Others may claim that this ultimate knowledge cannot be gained by a single research effort and that the only way to accomplish ultimate knowledge seems to be incrementally. To this end, each derivative, as a final result of research, brings the ultimate knowledge closer. Regarding great achievements in humanities, art and science throughout history, one realises that each individual achievement gave the impression that the ultimate knowledge had been achieved.

From observing a falling apple to the observations of micro- and macro-worlds, from early naturalists to rationalists and from Palaeolithic cave paintings to the Impressionists, all achievements were assessed as the final adjudicates of the ultimate knowledge regarding nature's actual depth. However, this can be regarded as something opposed to nature per se, as she always seeks completion of the ultimate purpose. For instance, a pair of birds may have the ultimate purpose to build a nest, as nature dictates, for the

purpose of propagation of the species, and both the male and female will work until the nest is finished. Whether they will succeed or not depends on many factors, some anticipated and others not anticipated. However, even if they do not succeed, the course of nature will continue to the final end, namely, the birth of the neonates and later on the flock migration. There is no way for the bird pair not to accept this course. Failure to comply, regardless of cause, means the death of the birds and entails an imbalance in nature since a part of her system will be caused to dysfunction. The question raised here is whether there is any key difference in humans compared to other species that releases humans from a teleological scheme, even if their ultimate purpose is exclusively teleological. This is rather peculiar since, when one seeks for the essence of nature, the ergon has to be in accordance with the protocols that nature commands, or else success is impossible.

As described in the previous chapter, there is a general assumption, in scientific circles at least, for a deficit of appropriate protocols towards the completion of the ergon. In contrast, one can rightfully argue that the protocols of nature are commonly known by all species and, moreover, that most of them are innate. Therefore, the syllogism may appear as follows:

It has been declared that men might not have the appropriate protocols,
and the protocols of nature are apparent and are, moreover, innate,
then,
either
the research and the knowledge that is produced do not confront the
essence of nature,
or/and
the protocols used are not those of nature.

For X, his innate appetite to reveal the essence of nature (x and its sequence) via a system of protocols yields a wide range of completed

research but not a sufficiently contemplated ergon. It is deemed that the difference between completion and contemplation plays a significant role in the human endeavour to see nature's actual depth. This difference is based on the pattern of the process and also on its outcome. Whereas completion requires compliance with existing protocols, contemplation holds a stochastic model of formulating hidden variables, monitors randomness and synthesises a pattern. The synthesised pattern is generated topologically rather than protocologically in order to reveal the geometry of knowledge. Bearing in mind the geometry of knowledge, one could assume that the completed ergon of research provides a formal representation of knowledge (hierarchical) while the contemplated ergon of research imparts a visualisation of knowledge (non-hierarchical).

3.3. The acquisition of knowledge

The Merriam-Webster Online Dictionary defines research as the "*careful study that is done to find and report new knowledge about something*", mentioning that the earliest recorded use of the term was in 1577. Since the objective is the *new knowledge*, to be founded and reported, it should be assessed according to both its kind and the outlined conditions. Back in 1913, Russell argued that:

"Theory of knowledge or epistemology, is more difficult [than this of the notion of 'presuppose'] to define, To begin with, no definition can be satisfactory which introduces the word knowledge, both because the word is highly ambiguous, and because every one of its possible meanings can only be made clear after much epistemological discussion." (Russell, 2013: 46)

Similarly to Russell's assumption of the inability to define what knowledge is, Williamson argues that knowledge cannot be taken as

something to be analysed in anything like the traditional way, but rather that knowledge is something to be used in the elucidation of other concepts.

Williamson's belief in the vagueness of knowledge can be expressed by his so-called 'margin for error principles' in which the representation of inexact knowledge includes the possibility of modification within the defined margin.

Theory of knowledge, as examined by scholars, is a complex system that has been analysed by a range of disciplines according to various cognitive relations. The study of knowledge, its justification and limits, as well as its characteristics and sources have generated strong philosophical controversies. A major debate on explicit and tacit knowledge took place during the 17th and 18th centuries, involving a controversy between a priori and a posteriori knowledge.

Kant defined knowledge as a set of representations that are born within the consciousness and that have been compared and linked together. The definition of knowledge through representation raises the question of how representations are generated within human consciousness. This notion of knowledge was already declared by ancient Greek philosophers. Plato, in his dialogues *Theaetetus* and *Sophist*, describes the generation of knowledge as an overall process that originates from the influence of the objects on the sensory or aesthetic power of consciousness, formatting cognitive schemata. Following Plato's theories, Aristotle believed that the activation of sentience leads to the acquisition of knowledge. The activation of senses produces noticeable images which, in turn, cause the activation of the mind and the production of concepts.

Therefore, the acquisition of knowledge is represented as an overall process, which can be named as a cognitive process, and which unfolds in

two temporal steps: (i) the capture of perceptible representations and (ii) the generation of coherent representations through intellect. Yet, the theory of knowledge as a philosophical subject was different in ancient times compared to that of modern times. Plato and Aristotle analysed knowledge in terms of *epistémé*, whereas scholars from the 17th century onwards laid the basis for the establishment of an autonomous field, although in the framework of philosophy; the field was termed epistemology only in the 19th century, when Ferrier coined the term in his book *Institutes of Metaphysic the Theory of Knowing and Being* (1854).

In principle, the word *επιστήμη* (*epistémé*) derives from (*επι*) and (*ισταμαι*). [*Επι*] is a prefix that can be used to describe a spatiotemporal condition as standing on, beside or face-to-face with something, or a period of time. [*ισταμαι*] means I exist, I have presence. Therefore, in a broad sense, *epistémé* means that I exist in a space and in a time, and also that I can manifest it. In addition, *epistémé* and *technê* were always intertwined and constitute the indispensable basis of man's virtue. Epistemology is a branch of philosophy concerned with the nature and scope of knowledge, and how it relates to connected notions such as truth, belief and justification. To quote Ferrier:

“This section of the science is properly termed the Epistemology- the doctrine or theory of knowing, just as ontology is the doctrine or theory of being (λόγος της επιστήμης – the science of true knowing.” (Ferrier, 1854: 46)

Therefore, one can assume that the conversion of the term *epistémé* denatured the disintegration of knowledge and being, since according to its primary etymological root the word contains both knowing and being. In short, to reveal knowledge, as a state of mind, apart from the being itself, seems to

be a process in which X is outside of the entire x sequence and, therefore, he may not have any vision or supervision in relation to x in order to represent it.

3.4. The TBJ Organon and its representational ergon

The separation of the theory of knowledge and the theory of being as two different states of mind has its base within the social structures that are governed by the major aspects of epistemology: truth, belief and justification (TBJ), which constitute the ultimate triad of modern times. To generate the TBJ triad was not an easy task and the underlying causes that triggered this mechanism were vital. Most important was the need to remove medieval dogmatism aimed at liberation from an omnipresent force that determined everything. The status quo has been continuously and radically changed, especially before 1815, by various ideological, political, intellectual and artistic changes, extensive and difficult wars, explorations away from the European continent and revolutions. The establishment of TBJ was more or less a political issue since socio-political structures appeared to generate dominant mechanisms of shaping appetites. Later, in Ferrier's text, one can meet the absolute rupture of the All in the name of an epistemological analysis based on a rationalistic aspect. Ferrier openly accused the Scottish philosopher Thomas Reid for using the word imagination as a key element of acknowledgement, saying that:

"The history of philosophical controversy has no more memorable mistake to record than this of Dr. Reid, in which he supposed that his adversaries understood by representation what he meant by that term: he meant imagination, and supposed that they did the same; they, however, meant intuition, which was precisely the point in defence of which Dr Reid was contending; so that in reality there was no controversy at all between them, or at most a purely verbal one." (Ferrier, 1854: 291).

In his book, Ferrier tried to unlink any relation that imagination could have with his field of epistemology by naming some related mental activities which lead to representation, a "*play of imagination*", claiming also that although this can "*fabricate representations*, the generated experience *has furnished no exact type or pattern*." (Ferrier 1854: 286). Furthermore, in addition to the depreciation of the term imagination, Ferrier also modified the term intuition in an attempt to rationalise it so that it could be classified within his *epistemology*, thus challenging Kant and Platonic interpretations. Specifically, he stated that there has been a misinterpretation of the Platonic analysis "*in which elements were mistaken for kinds*" a fact that *has "played such havoc in philosophy"* and claimed that Kant was so much influenced by this and exhibited its "*fatal presence* in his *psychological museum, in all his elaborate preparations*" (Ferrier, 1854:280). In order to detain the meaning of the term intuition with a simple registration as perception, Ferrier corrects Kant by saying that "*he falls just as often, perhaps oftener, over into the counter-statement, that the sensible intuitions are not mere elements, but are a kind of cognition*" (Ferrier, 1854: 279). It is apparent that whoever fights against imagination employs the word representation as a substitute for direct interaction with the actual essence.

Thus, to reveal knowledge there should be a different organon to All that is able to specify the space between the surrogate and its intended referent in the world. For example, if X (surrogate) seeks to acknowledge nature's actual depth (intended referent) and there is something else other than the innate All that functions as the organon towards the realisation of this ergon, then this other has given X a *carte blanche* to represent at his own initiative.

The most important parameter provided by free representation is the belief that there are schemata or patterns that are not subjects to the protocols of nature. This caused the difference between imagination and pure intellection. When Descartes wondered how a chiliagon may be present and captured through the human mind, he concluded that the power of imagination is not a part of human essence so that the intended referent may not be represented through the protocols that nature predicts. Although Descartes' rationalism was so intense that it could not even stand for subsequent scientific interpretations; he mentioned that an object that is material, and at the same time representative, must, if it represents by itself, represent intentionally (*intentionaliter*); in other words, it must resemble the object it represents, or be the image and likeness of it (Descartes, 1912:245). Following this belief, Putnam played eloquently with an ant and Winston Churchill whereby an ant sketches Churchill as it crawls, deploying the word *denotation* as a synonym to what he meant with representation and reference, while he argued that the ant simply traced a line that we can 'see as' a picture of Churchill (Putman, 1981: XII).

If knowledge is a set of representations that are born within the consciousness and, according to the above, human intellect can represent, refer and denote a part of the innate All, then X can shape any form outside of nature. Distant from the metabolic properties of the origin of appetite, as well as from imagination and intuition, X stands outside the entire x sequence, since knowledge and being have been detached from each other. Therefore, acting as a surrogate to his own nature, X can represent the intended referent that remains to be the nature despite the freedom that has been granted to X for acting otherwise.

In this position, TBJ can be seen as the determining organon between the self and nature. Assuming that a line A sets the level that X is laying (if outside of x sequence), this sequence determines the range of knowledge and research towards nature's actual depth. The line R states what X may represent and the point O determines the XOA angle, which can be named the angle of representation determined by the relation of A and X (Fig.2).

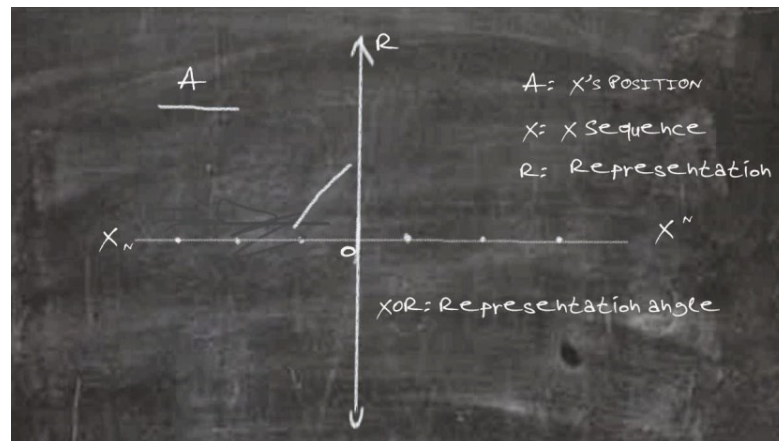


Figure 2. Plan2: The XOR Re-representation angle © Katerina Karoussos 2015

3.5. The TBJ operation and its hidden causes

Even if TBJ does not appear to function under such conditions, as will be argued below, it is remarkable how humans have made the most intelligent manoeuvre and managed to slide from All to TBJ. This venture sets the conditions for humans to stand at the front line in relation to the classification of the viability of the fittest and it also ensures the integrity of humans' mass and form.

The TBJ mechanism operates as follows:

P is true if and only if:

1. P is true
2. S believes that P is true, and
3. S is justified in believing that P is true

However, TBJ is confronted by three major difficulties:

- i. The greatest difficulty occurs in the first predicate, namely the <P is true>

since it is universal and similar to the dogmatic aspects that are needed to be demolished. Indeed, it was the first phrase of the Bible which was almost non-negotiable: *"And God said: Let there be Light, and there was light."* To solve this difficulty, the method of deductive reasoning was used to bring justification to the front line of the triad.

As a result, TBJ has been reformulated as such:

X is justified that P is true

Thus, P is true.

- ii. Another basic obstacle confronted by TBJ is the first Aristotelian maxim by which no concept can be in contradiction to itself, thus it cannot exist and not-exist at the same time. Taking into consideration that TBJ is an organon of liberation from past doctrinal values, the idea arises of free will as the ability of man to make choices without being intercepted by certain elements. Therefore, X has the free will to believe both x and not-x so X is in contradiction to himself as x is in contradiction to not-x. Putting an end to this abysmal controversy, Kant coined the famous Formula of Universal Law in his Categorical Imperative by *"which it is still impossible to 'will' that their [he referred to 'some actions'] maxim should be raised to the universality of a law*

of nature, because such a will would contradict itself " (Korsgaard, 1985: 24-47). Kant claimed that the power of judgment is twofold: (i) deductive as the determining power of judgment and (ii) inductive as the reflecting power of judgment.

iii. Considering the x sequence as a definite timeline containing a certain amount of past and future, one must question how X can relate the subjective sequence to an objective temporal order given that he is outside of the sequence and is, thus, unable to 'see' it. Kant's response was that it is originally a case of phenomenology as a description of X's experience of an objective temporal order (Longuenesse, 2001:328). Yet, it should be a remote experience from a surrogate who undertakes to represent reality by trusting the past in order to make future judgments. Taking in consideration Hume's assumption that "*instances, of which we have no experience, must necessarily, resemble those of which we have*", does not reveal the secret causes of referent operations, which, most of the time, embrace contrary principles (Hume, 1888: 89). Despite Hume's opposition to Kant's statement about the trust of past experience, both of them set strict restrictions concerning human knowledge limitations, very similar to those declared for inappropriate experimental protocols that ignore organisation. Specifically, and after the famous Kantian dictum *Ding an sich*, although Hume argued that there are *secret causes*, he confessed: "*I am afraid that such an enterprise is beyond the reach of human understanding*" (Hume, 1888: 64).

Due to this human inability, there should be someone who is able to register the representations to be addressed as protocols; thus, an authorised guide should be appointed and act according to TBJ. As an example, one may refer to the Codex Gigas, which was stolen during the Thirty Years' War

by the Swedish army (1649-2007) and was turned from a spiritual scripture into a laboratory specimen. The manuscript is kept in the Swedish Royal Library in Stockholm where scientists examined it manually as well as using X-rays and pigment/paper testing; the results of this research ended up as a National Geographic fiction documentary that announced it as being written by a "*Super-Human Scribe*", pointing out that after a thorough analysis, researchers discover that this massive 165-pound medieval manuscript was written by a single man.³² It is indeed worthy for someone to read the description of '*devil's portrait*' provided on The National Library of Sweden official website about Codex Gigas, where the painting is described by TBJ protocols leaving no clue of the portrait's metaphysical dimension. Instead, it has been described as an attempt "*to show the advantages of a good life and the disadvantages of a bad one.*"³³ The interpretation of good and bad life refers mostly to social behaviour as long as explanations within a theosophical teleology were unacceptable. The devil's portrait depicts a boogeyman who, via his abominable figure, indicates that if a citizen does not comply with the moral principles which the authorities demand, the citizen should suffer the *disadvantages* (Fig.3). Although this was firstly a bullying method of the Church, it has passed easily into the socio-political scene. Any other hidden meanings are considered as medieval superstition and, thus, irrelevant to the intelligent man of the Age of Reason.

³² The CodexGigas (English: Giant Book) is the largest extant medieval manuscript in the world. It is also known as the Devil's Bible because of a large illustration of the devil on the inside and the legend surrounding its creation. More information about Godex Gigas and the Devil's portrait are available at the National Library of Sweden website: <http://www.kb.se/codex-gigas/eng/highlights/devil>

³³ Available from Super-Human Scribe. The video is available from National Geographic Channel at: <http://channel.nationalgeographic.com/the-truth-behind/videos/super-human-scribe/>

Thus, the justification of the *hidden causes* has taken a socio-political position, which appears to be relevant to the virtues of man in Plato's Republic.



Figure 3: The Codex Gigas. © Kungl. biblioteket,
<http://web.archive.org/web/20050410211557/http://www.kb.se/ENG/Copyright.htm>

Through the Socratic dialogue, Plato described the three virtues in which the rational should govern the spiritual and the latter should obey as an assistant to the former so that appetite and passion do not to rule over the rational as they are positioned in the lower part of the soul. According to Plato, justice consists of the harmonious development of the virtues only if the spiritual go along with the rational and it is, indeed, the advantage of the stronger who is able to control this harmony. The appropriation of this "*genuine justice*" (Plato, Republic 433e) gave permission, since it was acceptable and appreciated centuries ago, for TBJ to prevail over any other knowledge system.

3.6. TBJ surrogates

TBJ controls the development of human mentality from the Age of Reason onwards, having at the top the justification to have power over the rest of the chain. Different theories of justification turn every time the other two elements: true and belief. TBJ is undoubtedly a human endeavour to appropriate God's ergon, who let there be light and there was light. Likewise, Galileo and Grew, as the ambassadors of God, and Kant, as His surrogate, as well as many other outstanding scientists and scholars not mentioned here, justified that x is true and therefore x is true. If there was a doubt, justification could be used to support the claim by using empiricism, testimony and/or logical deduction-induction. In Christian theology, justification is God's act of removing the guilt and penalty of sin while at the same time declaring a sinner righteous through Christ's atoning sacrifice. In Protestantism, righteousness from God is viewed as being credited to the sinner's account through faith alone, without works.³⁴ This particular interpretation of the Bible is very convenient since it is able to provide radical justification by negating any guilt and punishment of those who hold the positions to *act-as*; moreover, it is able to punish any other opposition to non-questionable faith. Even if the aim was to eliminate all religious beliefs and to acknowledge nature through reason based on evidence and proof, religion has often encouraged scientific endeavour, although the most important parameter of justification is to recognise who justifies those who justify. It is absolutely reasonable for one to wonder how Kant was granted the authorisation for the constitution of the

³⁴ This reference, from Wikipedia, is considered to disclose the meaning of justification required in this analysis because it highlights an action without the human effort. Available from: http://en.wikipedia.org/wiki/Justification_theology [14 February 2015]

Universal Law. It was, therefore, imperative to have a power that could provide authorisation and, simultaneously, give absolution for any negligent or false judgments. So, the word *Lord*, as a title of deference for a power that has authority and control over others, is encountered frequently in treatises since it provided the required authorisation for justification. Accordingly, 'Lord' was used as an appellation not only for a deity but also for a person who has authority. Although the era of Enlightenment questioned the justness of an absolute monarch and the idea of the authority of the European divine right (that monarchs were infallible because the titles were granted by God), the idea of a control power had not been eliminated. This happens partly due to the power of finance since the research has to be funded somehow. From Galileo to the era of Big Science, when funding became a state concern, the authorities, deity and monarch were all honoured so that the scholars could credit the benefits. It was, therefore, a combination of theological and political approval. Historically, science has been largely supported through *private patronage* and *church sponsorship*, if not self-financed. Among the first atheists, "*Galileo's work, in the 16th and 17th centuries, was supported mainly by wealthy individuals, including the Pope. Darwin's Beagle voyage in the 19th century was, on the other hand, funded by the British government.*"³⁵ In his astronomical treatise '*Sidereal Messenger*', Galileo named the recently discovered moons the 'Medician Stars', after the Medici family, and he was soon rewarded for using the name of the powerful family by being appointed the *First Mathematician of the University of Pisa, and the First Mathematician*

³⁵ Available from: http://undsci.berkeley.edu/article/0_0_0/who_pays [9 February 2015]

and Philosopher to the Grand Duke, with a considerable annual salary. He also dedicated the book to the Grand Duke of Tuscany, Cosimo II de' Medici. It is worth mentioning that Galileo first went to Venice enjoying the honours bestowed upon him by the Venetian Senate. In this first published scientific work, and in the preface, he honoured both authorities firstly by ensuring that it "*evidently fell to my lot by God's will, to serve your highness*" (referring to the Duke), while he pointed out that *He was his subject "not only by inclination, but also by my very birth and lineage."* He concluded:

Accept, then, most clement Prince, this addition to the glory of your family, reserved by the stars for you; and may you enjoy for many years those good blessings, which are sent to you not so much from the stars as from God, the Maker and Governor of the stars.

Your Highness's most devoted servant,

Galileo Galilei (Stafford, 1610: 6)

Along with Lord's authorisation on the representative, capable for justifications, there was also a noticeable reference to the technological support by which the representations were evident. In the same book, Kepler favours Galileo's discovery mentioning that the telescope is the "*instrument of much knowledge, more precious than any sceptre.*" He uses the word 'sceptre' to highlight its symbolic meaning as the insignia characteristic of a sovereign; he honoured the man who holds the telescope "*king and lord of the works of God*" (Carlos, 1610: 86). This kind of technical sophistication brought technology, ³⁶ where epistemé changed its meaning to epistemology;

³⁶ The original meaning of technology derived from *Téchne* (art) and *Logos* (to tell) where the latter had a broader sense. *Logos* was used for the uttered word (λόγος προφορικός) and the inner word (λόγος ενδιάθετος) as Philo had described. Moreover, the latter used by Stoics as the universal idea that governs everything and got great extent in theology as seminal *Logos* (λόγος σπερματικός) which is an inner human energy of revealing the truth by the likeness of God when *Logos* and *pneuma* were 'on the verge of being personified' Augustine of Hippo, *The Trinity*, Edmund Hill, John E. Rotelle p35. By the Age of

in the competent organon of TBJ. Therefore, it is apparent that scientists had the jurisdiction to *act-as* since both they and their technology was both blessed by God and approved by the respective authorities. They had the license to *act-as* without a teleological aspect, while dangling between "*Augustinian and Manichean devils*" (Wiener, 1989: 34), as they suspended between All and TBJ as well as between political superpowers or left-right politics. Even with TBJ, major improvements occurred in terms of human knowledge and it seems that this suspension held humanity back from being envisioned in what had already been discovered through cognitive science and reason. The controversy between the above mentioned devils can be described through Antony Valentini's explanation for philosophical fallout, where Kant left people saying that one cannot really know the world as it is, opening the door to quantum theory. Later in the early 20th century, Austrian and German physicists "*had the idea that you shouldn't speculate about what might be hidden behind the appearances*, so they effectively closed the door to questioning quantum uncertainty" (Martin, 2007:2). ³⁷

3.7. The TBJ oxymoron

Throughout the path to knowledge, there have been profound approaches to the ergon of rendering nature's actual depth. However, the

Reason, Logos was attached to reasoning while tekhnē was annexed to craft and technical skills. Technology ended up to be defined as "the study and knowledge of the practical, especially industrial use of scientific discoveries". Available from: <http://dictionary.cambridge.org/dictionary/british/technology> [23 March 2015]

³⁷ Martin.M. 2007. Teaching an Old Wave New Tricks. The Foundational Questions Institute. 7/10/2007 Available from: http://www.fqxi.org/data/articles/Valentini_Antony.pdf [30 March 2015]

ergon presents an oxymoron, since neither natural nor social selection can be aligned to the x sequence:

I. From the Empiristic motto to remain scientific to the Rationalistic trend to follow Reason, from the Idealistic spectrum where ideas are the very reality, to the analysis of the mind addressed by phenomenology and to the post-modernistic approach of deconstruction or to the later rhizomatic structures, the interpellation was the same with the primary question: nature's actual depth.

Under this fascination, every step towards revealing her depth concludes in apes. In the journal 'Nature' there is a recent announcement of a new piece of research based on old Darwinian theories of insights into hominid evolution from the gorilla genome sequence. Scientists claim that "*With the use of the genome sequence in these and future analyses will promote a deeper understanding of great ape biology and evolution*" (Durbin et al., 2012:169-175). Hence, there is a possibility of men standing in front of quantum theory as curious gorillas staring at the monolith (Space Odyssey 2001, Stanley Kubrick). The difference here is that the monolith is not gorillas' ergon, whereas quantum theory is the ergon of humanity. After the shift of AI to TBJ, the question lies in the lack of the corresponding shift from natural selection to irregular selection. The insistence on referring to any object under investigation as 'nature' appears to be similar to the medieval doctrine of accepting nature as the theological object.

II. According to social selection, and in respect to the human race, one might argue that research should at least correspond to all people on planet Earth. In accordance with TBJ, the highest excellence refers to the moral superiority that the new intellectual being gained through this triad and the

virtues contained therein. In the modern era, research generally aims to improve the quality of life, especially in underdeveloped countries where vital issues need to be addressed. Indeed, much public and private research funding is directed towards such issues. Moreover, and due to this moral superiority, research is also responsible for nature itself. Namely, while during the Industrial Age the highest excellence related to control nature through the development of technology, in the Post-Industrial era, the highest excellence refers to the deduction of industrial capacity or activity, again, through the development of technology. In recent years, ecological morality, whereby excellence refers to re-green what was once green and became un-green by the same man's excellence, is one of the most valued research agendas. Just as the door to quantum theory opens and closes, according to Valentini, so here too, one can observe a back-and-forth movement in x sequence.

It is truly remarkable, though, how X, while standing outside the x sequence, and through a rather unilateral organon, like the TBJ, managed to signify quantum theory based on a teleological nature without the teleological aspect within. However, such a success stumbles upon a major issue of representation because the assumption that things are outside any teleology or dualism appears not to be enough.³⁸ It is apparent that all research has been performed based on the notion of human likeness to God, regardless of any endeavour to demolish theological aspects.

Humans always have the tendency 'to act as' not in terms of ' instead of' but rather as 'on behalf of' because acting 'instead of' requires two parts,

³⁸ Things may include any mass and form as well as concepts, ideas and relations that x sequence contains.

while when one is acting 'on behalf', the parts are interrelated. Moreover, the latter concerns the idea of likeness to God and, therefore, science has managed to get closer to theology more than ever with TBJ, reaching even the notion of omnipresence (quantum theory). However, the same TBJ is an organon that has established an extremely hierarchical system of representation, so that the angle of representation (XOA) is disproportionate to the line of representation (R). Therefore, what is to be seen is very limited in accordance to the capacity that line R has, that is, to extend to infinity. This disproportion between the angle XOA and the line R may rely on the sterile conversion of imagination to mere perception, as the intelligent man seeks to *"satisfy his reason by convincing the argument that his perceptions are connected to external object"* (Hume, 1888:80). Alternatively, it may be due to the interpretation of representation as *cogitation* (Ferrier), or it may be the reconstruction of the past as *"the remembrance of some experienced situation"* (Ferrier, 1854:285).

Whatever the case, a further step is required to address the question of representation per se. In a specific x sequence, yielding the greatest of x^n and x_n , although outside of it, the surrogate seeks to represent it in n -dimensions (God's gaze). Yet, scrolling back and forth in x sequence, even with the Deleuzian dislocated viewpoint of Bergson's *Élan vital*, the path is full of gorillas; the only morphogenetic origin that TBJ provided. Throughout this course, one can observe a *vectorial* approach with hierarchical rules in the knowledge of nature by natural selection (Darwinian tree) and, accordingly, in all of its manifestations (spatiotemporal, socio-political).

The prevailing method appears to be a mechanism whereby knowledge is provided by past experience since it seeks to reveal the depth of nature in

the first cause; there where both gorillas and God are located. In this linear approach, the organisation, the horizontal organisation, is a back-and-forth process while the vertical one is top-down. Both processes reflect the TBJ organon of divide and conquer, on one hand, and of the successive refinement, on the other. Therefore, it reflects both the survival of the fittest as well as the authorised surrogate. This horizontal line in space and time (x sequence) appears to be in contradiction with the line R (representation line) because even from the new observatory (position A), both lines represent a linear back-and-forth process that leads to the *representation of the old present* (Deleuze & Guattari 2004:325). In this topological manifold, the surface of representation is an area, locally Euclidean, governed by the property of additivity, thus the sum of the area's parts. Specifically, if a surface S is a union of $S_1 \dots S_r$ that do not overlap, then, $S = S_1 + \dots + S_r$.

However, this sequence requires homogeneity of the parts in opposition to the relevant Aristotelian axiom, which reads as “the whole is more than the sum of its parts”. The difference lies in the word ‘more’ which, in the Aristotelian thought, refers to something other than the sum of its parts (Koffka, 1935:176).

This translation means that there are objects and relations which are fundamentally different from mere collections of parts. In this respect, *the plane of immanence* (Deleuze), an echo of Hume's *bundle* theory, may be the same topological manifold in which the ancestral and fallen apple now can gain a set of properties (colour, shape, taste) and, therefore, it can consider to be a sum of its properties.

3.8. Conclusion

It is evident that TBJ operates in an exemplified manner according to the completion of an ergon. It can observe, test and represent any 'thing' that exists on an 'S' Representational Surface and archive it as 'nature'(Fig.4).

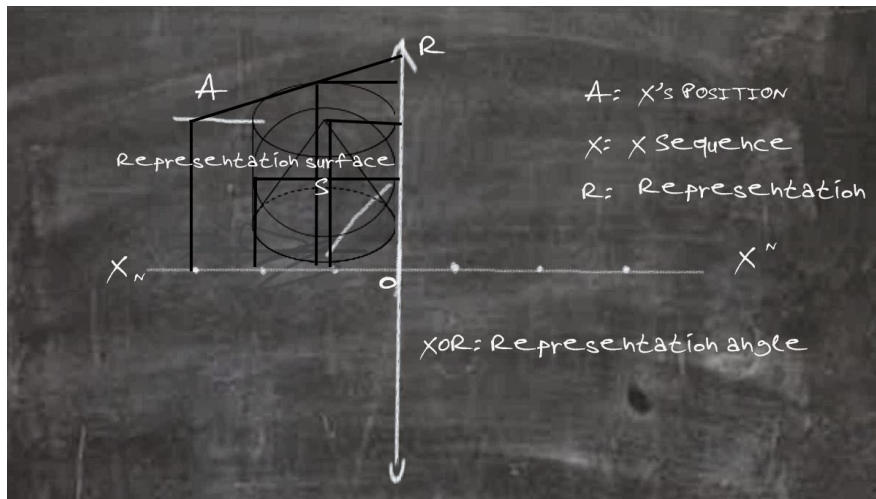


Figure 4. Plan3: The XOR Re-representational surface © Katerina Karoussos 2015

Into this surface, the cone, the sphere and the cylinder are universal forms. As Descartes writes:

“When I imagine a triangle, even though such a figure may exist nowhere in the world except in my thought, indeed may never have existed, there is nonetheless a certain nature or form, or particular essence, of this figure that is immutable and eternal, which I did not invent, and which in no way depends on my mind.” (Descartes: 1912:121)

Therefore, in Descartes' thoughts there were things that did not depend on his mind and that he had not invented. Millennia of research and thought resulted in a mere representation of a one and only phenomenon called nature, elbowing aside all hidden causes which authorities were unable to justify. If the latest *plane of immanence* (Deleuze & Guattari, 2004:233) is the representational surface, then the appearance of things seems to be similar to a ground plan or a sectional view and in no way to their geometry at large.

This geometry involves learning "*to imagine the cube, for example, simultaneously from all sides*" (Ouspensky, 1920: 24). Cezanne argued to treat nature by the cylinder, the sphere and the cone, while he wrote to Gasquet saying that:

"Everything I am telling you about - the sphere, the cone, cylinder, concave shadow – on mornings when I'm tired these notions of mine get me going, they stimulate me, I soon forget them once I start using my eyes." Gasquet 1991:163-164)

Contending that things cannot simply shown themselves (representation) but are generated within their appearance, as in the appearance they generate (contemplation), their relation follows an organic process. In the last century, Cezanne astonished Paris with an apple; nowadays, with the awareness of nth cybernetics and the nth of quantum field theory, it is probably the time to question whether man has to eventually eat the apple rather than throw it up and down or to be astonished by it. Even if the nth space-time has been launched, when it is perceived with the "*fourfold root of the principle of sufficient reason*" (Schopenhauer), the apple remains a representation of a universal form that can be only viewed according to the properties attributed to it by TBJ. Accordingly, the devil's portrait in the Codex Gigas remains that of a *boogeyman*, insomuch as the apple is still a representation, because of the risk of *disadvantages*. Hence, the attempt here is to find a way for participation than remaining in a mere form of representation (Fig.5).

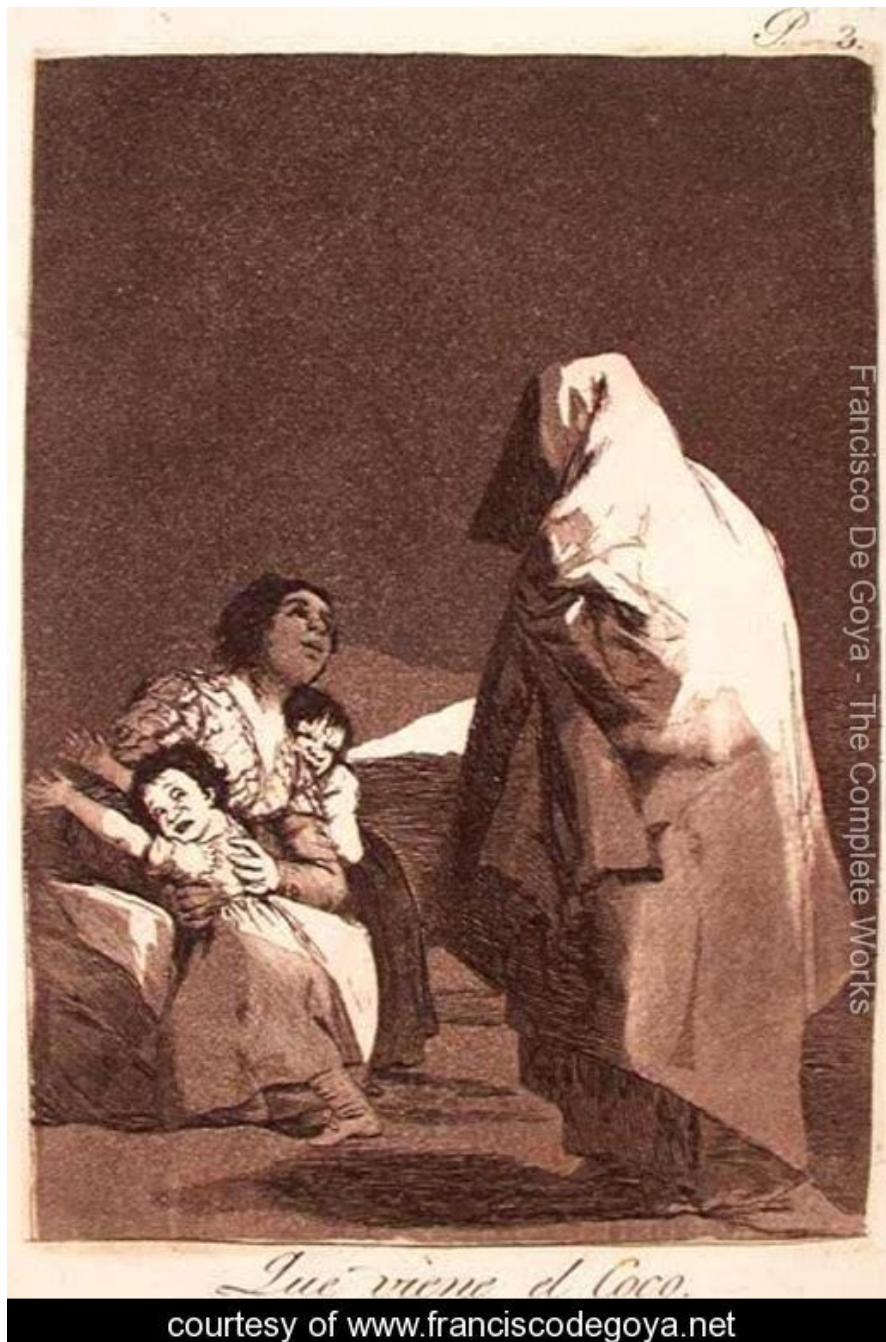


Figure 5 : Que vien e el coco (Here comes the boogeyman)

Freancisco de Goya © <http://www.franciscodegoya.net/>

CHAPTER 4: TOPOS AND SCHEMA

4.1 Synopsis

Spatial knowledge can be gained from observation and personal navigation as well as from the analysis of spatial properties (topological, geometric or geographic). Furthermore, *"topology is a general notion that can be applied to many different kinds of space"* (Worboys, Duckham. 2004: 99). A geographic system of locating objects, the so-called geocentric system, uses Cartesian coordinates with the Earth as the orbital centre for all celestial bodies. The basic problem of the geocentric system is that the Earth moves constantly and this requires the addition of a temporal component to locate objects in space and time. Additionally, it is difficult to trace the elliptical path of the Sun relative to the spatiotemporal position of the Earth in the geocentric system.³⁹ Thus, the geocentric model was gradually superseded from the late 16th century by the heliocentric model of Copernicus, Galileo and Kepler. This topocentric system uses the location of the observer as the reference point and has a reference plane that can be aligned either with the Earth's equator, the plane of the elliptic, or with a galaxy. The distances are very large compared to the velocities, so that time as a variant is not significant in the calculations of location. Both systems (geocentric and topocentric) share the

³⁹ Along with the ecliptic path of the Sun throughout a course of a year, the Earth is not coplanar with the ecliptic plane, but is inclined to it by the angle of about 23.4° which is known as obliquity of the ecliptic. Besides, the eccentricity of the Earth's orbit around the Sun is about 0.0167. As for the moon, its orbit is distinctly elliptical with an average eccentricity of 0.0549. The non-circular form of the lunar orbit causes variations in the Moon's angular speed and apparent size as it moves towards and away from an observer on Earth.

boundary logic for spatial analysis, where one can observe the problem of the *shape effect* that results from the artificial shape that is delineated by the boundary. Specifically, the analysis depends exclusively on an area that has fixed natural boundaries outside of which neighbours do not exist, or an area included in a larger region defined by arbitrary artificial boundaries; "*a form of stationarity*" (Henley, 1981:67). Boundaries distinguish the inside from the outside and even if they represent a collection of set boundaries, they shape a nested spatial structure that can be translated in the Cartesian system.

This seems, more or less, to be the spatial organisation of the A position, the new observatory, and its representational angle XOR is as explained in the previous chapter. Even if one regards the A position as a *plane of immanence* (Spinoza, Deleuze, and Badiou) that "*knows only longitudes and latitudes, movement and rest*" (Deleuze & Guattari, 2004:266), without the strict restrictions of the Cartesian system, this very plane is based on a system of boundaries. Distant from Dualism (Descartes) and Idealism (Hegel), the later Deleuzian rhizomatic arrangement, argues that spatial knowledge is based on a vectorial boundary space; in fact, it shows a diverse ontology of a philosophical transcendentalism that approaches, even more deeply, theological concepts such as Hesychasm,⁴⁰ where you "*enter into thy closet and when thou hast*

⁴⁰ Hesychasm, in Eastern Christianity, is a type of monastic life in which practitioners seek divine quietness (Greek ησυχία, hēsychia) through the contemplation of God in uninterrupted prayer. Such prayer, involving the entire human being—soul, mind, and body—is often called “pure,” or “intellectual,” prayer.

shut thy door, pray to thy Father which is in secret; and thy Father which seeth in secret shall reward thee openly" (Matthew, 6:6).⁴¹

This so-called *plane of immanence*, which one can in fact meet in most of religions, concerns the process, in trance, of retiring inward in order to capture the invisible and the hidden requires an extremely solid boundary form, which becomes, essentially, an impassable cocoon without any adjacent elements. The intelligent man managed to broaden this cocoon to the extent that it can contain all things, his mass and his technology.

Consequently, from the ancient times to the Age of Cybernetics, it seems that there has been no significant shift in finding an ultimate shape that is able to contain the new conditions of space-time in which "*this new void, the vacuum of speed replaces all extensions and all depth of field, including geometry and geophysics*" (Virilio, 1991:43).

Beyond any scientific, philosophical and artistic processes, the basic necessity seems to be still the image and likeness, and, in order to achieve this, man must extend his opaque body (mass) to reach his image (form). This relentless effort to conquer every inch of space (and outer space) so as to create a giant cocoon seems to take place in the very same boundary system. Thus, it has to do with the survival of the fittest and its socio-political implications as well as with the fear of *disadvantages*, since an extended mass occupies most of space and is able to control the *disadvantages*. The one who owns this mass cannot be expelled from a place, even after mass

⁴¹ Συ όμως, όταν θέλεις να προσευχηθείς, προτίμα το ιδιαίτερον δωμάτιόν σου, κλείσε την θύραν και κάμε την προσευχήν σου στον Πατέρα σου, που είναι αόρατος και σαν κρυμμένος. Και ο Πατήρ σου, που βλέπει και τα πλέον απόκρυφα, θα σου αποδώσῃ εἰς τα φανερά την αμοιβήν σου. For the English translation on Mathew's Gospel: <https://www.biblegateway.com>

distortion, since he is within the place as an integral part of the place.

Research on spatial analysis continues, aiming to discover a spatial cognition that will allow humans to acknowledge the *new void* and which may be justified, or not, depending on the above mentioned factors. It seems however, this endeavour is exhausted in the mass; the image is still pending since it can only be represented. From the A position, one can see, by the XOR, those contained in the boundary as well as those that are represented but not within. This occurs solely with the authorisation of representation through logic and technology; the visibility is, however, very limited.

The most normal thing for someone to do, when they have no visibility, is to change their position; their aim is not to seek a new position instead of A, since one more dislocation is regarded here as a rather misplaced ergon. The A position can be classified as a privileged place because, as already analysed, it can be teleological-free, auto-authorised and, more or less, all inclusive. Yet, to find another position triggers the investigation for a new organon that is different to All and TBJ, and which does not seem necessary, given the collateral damage that will occur at a socio-political and cultural level.

Both All and TBJ were established through lengthy battles that resulted in the loss of lives, cultures and values. The idea of causing a disaster towards the revival has been a common mechanism, always based on the human tendency to return to the starting point so as to obtain a clear vision. Searching for the mediations in scientific process, Heelan argues:

"First, the initial problem presents itself as an experience in the pre-theoretical life-world of a scientific community that does not understand it and is ready to take the steps to come to the understanding of it." (Heelan, 2002:447-448)

However, getting back to x sequence with All as the only organon is rather a setback. Hence, in this very same A position translated by TBJ's choice of the boundary system, the question is whether this system can *"create life that promotes encounter and interaction among those who live there"* (Hillier et al., 1987: 234).⁴² The hypothesis here is that the shape effect problem (the artificial shape of the giant cocoon) should be seen as *"a kind of design problem"* (Park, 2009:Ref 086:2).⁴³ To this end, and because this shape is an appearance of the representation rather than of manifestation per se, the analysis of the schema and its manifestation, rather than the shape, is regarded as being more efficient.

4.2. Design of the schema

Schema describes a pattern of thought or a system of organising and perceiving new information. The word schema derives from the Greek word *σχήμα*, meaning morph, form and also plan. It refers both to text and image, revealing special attributes for each of them. A schema may be interpreted as a set of slots that can be filled in by context or by additional information from the user. Often, what is filled in for one slot may affect what can be filled in for other slots. For example, according to a textual schema, if the surface being

⁴² Hillier et al. have argued for a model of measurement which they called dynamic measure (choice) and stands as an opposition to static measures of a fixed spatial system, using two major parameters: integration and intelligibility. The latter is defined as the correlation between connectivity and integration. As they state, this is because intelligibility *indexes the degree to which the number of immediate connections a line has – which can therefore be seen from that line- are a reliable guide to the importance of that line in the system as a whole. Thus, if the lines are only connected but not integrating the correlation is weak and as a result the whole cannot be seen from the parts.*

⁴³ Available at:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.579.6875&rep=rep1&type=pdf>
[June 2015]

written upon is the sky, then the implementation is likely to be an aeroplane. When no specific information is provided for a particular slot, users tend to fill the slots with their normal expectations or their 'default values'.

Schemata fill in the slots by noetic fermentations rather than actual perceptions. According to mathematical logic, a schema is a complex system consisting of its template and side condition, whereas the first refers to a syntactic string composed of symbols and blanks, with the latter specifying how the blanks are to be filled in order to obtain instances (manifestations). Tarski's schema (T-schema) gives an inductive definition of truth and, therefore, is evidently associated with TBJ as it gives the following postulation: < [blank]...is a true sentence if and only if... [blank]>. In this postulation, the second blank is to be filled in with a (declarative) sentence and the first blank by a name for that sentence.⁴⁴ In contrast, analytic philosophers associate the notion of schema with the form as derived from the dialectic relation between shape and concept. This occurs when subjective intuition and imagination (*transcendental schema*) create a representation of an external object upon conception. In Kantian philosophy, a schema is the procedural rule by which a category or pure concept is associated with a mental image of an object. It is supposedly produced by the imagination in relation to time. For Kant, a schema is not an image, but a capacity to form images or (perhaps) to construct models. As described by Eco, the schema is not an image, because the image is a product of the reproductive imagination, while the schema of sensible concepts (also of

⁴⁴ Available at: <http://plato.stanford.edu/entries/schema/> [6 May 2015]

figures in space) is a product of the pure a priori capacity to imagine. Kant defined the schema as the formal and pure condition of sensibility to which the conception of the understanding is restricted to its employment. He believed that schema is a mere product of imagination and the image is a product of the productive imagination. Kant also assumes that schemata are *a priori determinations of time* that follow exclusively the logical coherence of categorical organisation. However, Kantian *Schematism* involves space as well as time, since it "*derives from the nature of our representations of space and time, and from the elementary conceptions of the understanding*" (Kant, 2010:16). Herein, one can detect an oxymoron: TBJ and All somehow share common ground in the generation of the schema. Also of interest is Kant's declaration of the *transcendental schema*.

Here, there seems to be a mismatch because the inductive definition of the mathematical logic and the logical coherence of pure reason cannot intersect intuition, imagination and, under no circumstances, transcendence; this is because the resulting schema will be a representation of what has been already neglected by the intelligent man of the Age of Reason. So, one could agree with Ferrier, who strongly criticised Kant saying that he has "*played such havoc in philosophy.*" Kant's attempt to integrate All and TBJ failed, as expected, because for that to happen the intelligent man should divest A position; something foolish, taking into account the advantages of this very position. On the other hand, those who reinstated order and celebrate TBJ as the only organon had, as their ultimate purpose, to increase their mass and, respectively, their space boundaries, even with a broken schema, which would carry the shape effect problem. This schema can be only represented by linear transformation (morphism) of vector space with a

two-point perspective, excluding anything which seems inconsistent with its isomorphic feature.

4.2.1. Curvature

In the late 4th and early 5th centuries AD, Hypatia, the legendary astronomer of Alexandria, was accused of being a witch and executed for studying the elliptical orbit of the Earth around the Sun; the Christian bishop, Cyril, claimed that she propounded heretical teachings, including experimental science and paganism. As Hypatia was driving her chariot through Alexandria, she was kidnapped by Cyril's party, who dragged her along the ground, stripped her, killed her, cut her flesh from her bones, scattered her body parts throughout the city and burned some remaining parts in the library of Caesarea. Her works met with a similar fate, being destroyed when the library of Alexandria burned down and the scrolls were burned in order to heat baths.

Plato and Aristotle launched the geocentric model in the 4th century BC, with Plato stating that all phenomena in the heavens can be explained with uniform circular motion, and Aristotle arguing that the planets and the Sun orbited the Earth, standardising the Ptolemaic system of the 2nd century BC. Before the Age of Enlightenment, there has been remarkable progress in the study of astronomy, especially with Byzantine and Islamic science (*Ibn al-Shatir*), establishing the first astronomical observatories in the Muslim world. By the late Byzantine period, the most advanced solar observatories were the churches and it is of no wonder that *"the church gave financial and social support to the study of astronomy for over six centuries from the recovery of ancient learning during the Middle Ages into the Enlightenment"* (Heilborn,

1999:3). This study was neglected by the Western mentality due to its theosophical and metaphysical basis, leaving it in the 'dark' (namely the Dark Ages). However, when Copernicus, Kepler and Galileo became accepted authorities due to their technologies (telescope), Middle Age astronomy entered into the era of scientific revolution, as a new discovery being approved by TBJ.

Remote from the theosophical and philosophical basis, the work lost a significant part that, essentially, constitutes its schema; from an abstract topological space, it became a representation of an observation. The most important shift was that of spatial interpretation from a polar to a Cartesian coordinate system: While Cartesian coordinates (x, y) determine how far *along* and how far *up* a spatial point of reference is, polar coordinates determine the location of a point by its *distance* and its *angle* with respect to the poles (r, θ). The conversion from Cartesian to polar coordinates is attributed initially to Newton with his Method of Fluxions (1671), which reads as:

$$x = r \times \cos \theta$$

$$y = r \times \sin \theta$$

and produces a representation angle of the polar angle. However, this representation angle refers to a planar (trigonometric) transformation of a curvature.

At this point one can see clearly the nature of the design problem since the Cartesian method lacks the schema of curvature and, therefore, it misses a whole range of the significance of the space, such as parabolic and hyperbolic curves. Indeed, this was what many Cartesian-oriented scientists

of 17th century searched for (Saint-Vincent, Cavalieri and Newton) in order to interpret the Archimedes spiral ($r(\varphi) = \alpha + b\varphi$).

The aftermath can be understood from Albert Einstein who, in 1944, wrote a letter to Max Born, saying:

"You believe in the God who plays dice, and I in complete law and order in a world which objectively exists, and which I, in a wildly speculative way, am trying to capture." (Einstein 1971: 149)

In his letter, Einstein was unsure that the dice-playing assumption was not the case for acts of God because he felt that something was missing in their scientific processes and results. Einstein's distrust, even after the success of quantum theory, is probably based on the same *shape effect* which leaves the schema absent, if spatial analysis is still a matter of transformation, rotation and scale, along horizontal and vertical axes. Given the specific A position and its angle, a solution to this particular design problem would be to consider space as a topological field. This endeavour can, perhaps, yields the lost semantics of space since topos, as a concept, maintains its geometrical schema in terms of its transcendental aspect.

4.2.2. Topos as the schema of space

The idea of topology as a field of study of geometry and set theory goes back to Ancient Greek philosophers and later to Leibniz (the geometry of space) and Listing who, in the 19th century, introduced the term topology which, in the 20th century, became a major branch of mathematics. In mathematical terms, 'topos' (τόπος) is a type of category that behaves like sheaves of sets on a topological space (a site). In the usual category of sets, this is the two-element set of Boolean operations. Unlike the Cartesian

system, which uses transformations such as translation, scale and rotation, the earlier system of topology uses a Boolean-type model to perform operations such as union, intersection and subtraction; Boolean methods were unknown in ancient times. In Boolean logic, every k -ary* Boolean function can be expressed as a formula in k variables $x_1 \dots x_k$.⁴⁵

Additionally, *topos* relates to rhetoric which, according to Aristotle, can build an argument not of a certain form but with a certain predicate, or can enable emotions to be aroused in different contexts even if they do not contribute to argumentation in the strictest sense. For example, a specific *topos* of a speech can be read as: "*The excellence of the body is health; that is, a condition which allows us, while keeping free from disease, to have the use of our bodies*" (Aristotle, Rhetoric I, 5).

Likewise, an example of a *topos* that arouses emotions is:

"[...] a sick man is angered by disregard of his illness, a poor man by disregard of his poverty, a man aging war by disregard of the war he is waging, a lover by disregard of his love, and so throughout, any other sort of slight being enough if special slights are wanting." (Aristotle, Rhetoric II, 2)

Hence, both *topoi* (plural of *topos*) can be seen as planes to which the *orator has to speak so as to bring his hearers into a frame of mind* in order to *dispose* them (Aristotle, Rhetoric II, 2) in the exact place so as to convince them of his argument. Lastly, the term *topos* is used in horticultural practice as *topiary*, referring to an ornamental landscape where the *topiarus* (the creator of *topia*) gives geometrical shapes to trees and shrubs. In this framework, *topiography* is a word that is still in use in Greek language,

⁴⁵ 'k' is a non-negative integer called the arity of the function.

referring to landscape painting. All variations of the word *topos* share a *theoretical* notion of space that contains attributes that cannot be captured by a boundary system that uses only x and y axes that can only transform, rotate and scale. Instead, it seems that there are other interpretations more likely able to convey a broader range of interactions within the space, thus potentially resolving the *shape effect* problem.

4.3. Description of Anna's garden

In order to analyse topological space, research elucidates a previously neglected text by the early 14th century scholar, Theodore Hyrtakenos, the “Description of the Garden of St. Anna”. Theodore Hytrakenos (r. 1282 - 1328), a court official of the Byzantine Empire, was well known for his rhetoric and *belles lettres*. This rhetorical description reeks of allusions, textual and visual, pertaining to a different kind of spatiotemporal awareness, and is an outstanding example of a specialist literature type, formulated in Byzantine era, under the name of *Ekphrasis*.⁴⁶

The design of St. Anna's garden, together with visual evidence from paintings of this period, suggests a synthetic vision of space and time.

⁴⁶ Ekphrasis is a Greek word that means “expression” in a broad sense. This kind of literature has been accused of prolixity and of aesthetic heterogeneity. It is often confused with explicitness when used by orators for political and judicial speeches as well as for panegyric occasions. A panegyric is a formal public speech, or (in later use) written verse, delivered in high praise of a person or thing, a generally highly studied and discriminating eulogy, not expected to be critical. Henry Maguire quoting from John Onians points out that: “from the second to the sixth centuries orators as they are embroidered what they saw increasingly read more into images than was actually there. Amplification encouraged the development of imaginative faculties of the orators and their hearers, who by the sixth century were able to see more in an abstract image than their predecessors”. (Maguire, 2008: p.722) (Maguire, H. (2008). *Art and Text. The Oxford handbook of Byzantine studies* Oxford Handbooks in Classics and Ancient History, Elizabeth Jeffreys, John F. Haldon, Robin Cormack, Oxford University Press)

'Topos', as Hytrakenos described the garden, is a set of metaphysical states associated with a transcendental event as a mechanical mode of functioning. However, in order for the garden to function, the reader/viewer should be absorbed into the text/image rather than simply interpret it; likewise, the author/artist should manifest it rather than represent it. Hence, by refusing to interpret the portrayal of the garden into a coherent statement, one might claim that the text/image refers to a deeply topological space with a geometrical aspect rather than a description-depiction of a romantic topiary. This text was chosen because it is considered to be one of the most typical examples of the philosophy and visibility of a space prevailing during the Middle Ages.

According to the manuscripts, Joachim and Anna (Virgin Mary's parents) had reached an advanced age and had become sterile. They had retired to a remote mountain and Anna was mourning for her suffering in her garden. Archangel Gabriel came to the garden to announce the conception of the Virgin Mary. The most important part of the text, for the analysis of the topological space, is the beginning of the description, which refers to the garden: its shape, topos and the enclosure (Fig.6).⁴⁷

⁴⁷ "Those [citizens] who could afford to do so created for their own delight a larger *paradeisos* [paradise], an enclosed garden in imitation of the garden of Eden. Finally, although we have inadequate information, it appears that those who continued until the fifteenth century to copy and study the *Geoponika* and *Dioscourides* and to prepare drawings of the various plants, and to write poems on flowers or rhetorical *ekphraseis* on gardens, represent the continuity of a garden culture that was preserved in the east until the end of the Byzantine Empire. In Constantinople in the spring of 1453, when the great city was destroyed by the heavy artillery of the Ottoman Turks and looted by the illiterate soldiers of Mehmet II, the flowers were blooming and the fruits were ripe for picking by the hands of another culture. But even this was not the end, for the Turks themselves began to replant the gardens, and admiration of the splendor of the city and the persistence of ideals in the Greco-Roman tradition had already traveled from the city to reach Italy." (Constantinides. N. Costas 2002 *Byzantine Gardens and Horticulture in the Late Byzantine Period, 1204–1453: The Secular Sources in Byzantine Garden Culture*. Ed. Littlewood. A., Maguire.H., Bulmahn.W.J. Dumbarton Oaks, Washington, D.C).



Figure 6. Byzantine mosaic of 12th century, depicting the Annunciation to St. Anna situated at the Church of the Holy Saviour in Chora (Turkish: Kariye Müzesi, Kariye Camii) Constantinople (Istanbul). The image here is from Underwood.A.P.publication, *The Kariye Djami*. Vol.II 1966. Routledge & Kegan Paul, London.

Therefore, the analysis is based in these aspects because, as will be analysed later, they will constitute the notion of topos. The text begins and ends with Anna's childless fate. The description coincides with the *Annunciation of Anna*, which took place in this very garden. Hytrakenos's description of St. Anna's garden sets forth several topoi, beginning with a vivid image of the enclosure surrounding the garden: "*The garden had a surrounding wall in the shape of a ring; the shape of the ring is circular.*" ⁴⁸

⁴⁸ The English translation of Hytrakenos's text, as well as the references from manuscripts have been taken from the book: "Byzantine Garden Culture" edited by Antony Littlewood, Henry Maguire, and Joachim Wolschke-Bulmahn published by Dumbarton Oaks Research Library and Collection Washington, D.C. "Theodore Hyrtakenos' Description of the Garden of St. Anna and the Ekphrasis of Gardens" Mary-Lyon Dolezal and Maria Mavroudi. 2002 Dumbarton Oaks, Washington D.C.)

Epistemēs, particularly geometry, astronomy and mathematics were, for most medieval scholars, connected to the divine, and many believed that there was something intrinsically ‘supreme’ that could be found in circles. However, because medieval thought did not use a single focal point as the central reference, these scholars were not referring only to a circle as a Euclidean closed curve that is translated as a plane in which all points are placed at a given distance from a given point, the centre. The one and only central point has been transferred from Antiquity to the Renaissance without traversing the Medieval period.

During this period, many focal points were used as references, constructing a variety of curves. Although, in the translation, the authors used the word ‘circular’ to translate what Hytrakenos meant by the word “περιφερές” (*periphery*), there is also the possibility of an alternative meaning for the word, which seems more appropriate given the transcendental aspect of the text.⁴⁹ The shape of the garden is described as a revolving ring; this revolving ring has curvature properties since it is likened to a sling. This shape can be translated in very different ways demonstrating different approaches both to science as well as to philosophy and art. Hence, for the geometric ring that derives from the Latin word *annulus*, the meaning is an area between two concentric circles, for example an open cylinder.

⁴⁹ The original text is: “Περόβολος ἦν ἐκείνω σχήμα φέρων σφενδόνης, τη σφενδόνῃ το σχήμα περιφερές”. In their notes, Dolezal and Mavroudi point out that: “The word “σφενδόνη” is translated as “sling” and “περιφερές” as “revolving, rounded or curved” in H. G. Liddell and R. Scott, Greek- English Lexicon with a Supplement, Oxford, 1968. (Dolezal – Mavroudi, 2002 p.143)

According to its algebraic structure, a ring is a set with two binary operations (usually addition and multiplication), where each operation combines two elements to form a third element. By this process, a set of rings can be used to build up a matrix ring. In abstract algebra,⁵⁰ the matrix ring is the set of all $n \times n$ matrices over an arbitrary ring R . Matrix ring theory may be used to understand symmetry phenomena in molecular chemistry. It seems that the use of the ring-sling with its algebraic-geometrical structure of Hytrakenos's description is more relevant than that of a circular shape. In relation to algebra, this revolving ring can refer to a hyperbolic form. Originating from the Greek word *υπερβολή*, hyperbole literally means extravagance; hyperboles are exaggerations that create emphasis or effect.

To use a hyperbole in oral or written language, one inserts a 'lie' in a set of truths. The 'lie' entered in the context, which is otherwise true, relays emotions. It is apparent that Hytrakenos used this rhetorical device as a means of setting the conditions that led to the Annunciation. He continually uses the words '*fruit*', '*fruitful*' and '*fertile garden*' to cast out Anna's unpleasant condition (sterility). Thus, the garden blossomed even if the Annunciation of Anna "*was celebrated on 9th of December not a time of year associated with either fertility or renewal*" (Dolezal & Mavroudi, 2002:138). Likewise, and apart from their geometrical aspects, parabolic forms also have a narrative meaning, coming from the word *παραβολή* (*parabolē*, *parable*). Literally, the word means to put two or more objects in juxtaposition

⁵⁰ Byzantine scholars were much more influenced by their Persian colleagues, than from the Latin ones, so they used algebra (al-jabr) and geometry as a basic source of knowledge. Three outstanding scientists, Ibn al-Haytham, Khayyam and al-Tusi had made considerable contribution to geometry as they embodied theorems of the hyperbolic and the elliptic geometries. Therefore, Byzantine scholars had a common knowledge platform with their medieval Islamic colleagues and there were close associations with them.

(*παραβάλλω*); however, according to its meaning in narrative, a parable is a metaphor that has been extended to form a brief, coherent narrative.

Therefore, hyperbola and parabola are metaphors of curvature, and the notion of curvature can be expressed in a topology in which it can be envisioned by any means. Moreover, and with respect to Hytrakenos's Ekphrasis, the conception concerns an incident which was performed by the Archangel. Since the Archangel is a flying entity, most often descending from the heavens, the incident endorses motion within. In addition, the very meaning of conception requires an *ergon* which is, in itself, the panacea of movement. Therefore, if one creates a geometrical topos of an incident <M> that moves on the circumference of a circle, while the circle transfers parallel to its plane (descending), a spiral trajectory results.

A significant attribute of a ring, due to its association with binary operations, is its multiplication by the extension of its integers. A familiar example is a commutative ring in which a pair of elements are multiplied without a change of the result; this multiplication generates a spiral. The spiral is one of the oldest symbols since the Stone Age; its power can be found everywhere and in many ancient cultures around the world. One can find the spiral form through physical and metaphysical manifestations such as in ancient shellfish and the formation of galaxies to its metaphysical connection to the navel as the centre of power and life.

A spiral is a curve which emanates from a central point, getting progressively further away as it revolves around the point. A two-dimensional spiral can be described using polar coordinates and this is the way that was described by Archimedes in his work: "On Spirals". However, St. Anna's garden has, undoubtedly, a hyperbolic notion given its transcendent

properties; thus, it may be interpreted as the so-called *reciprocal spiral*, which is the opposite of an Archimedean spiral (Bowser, 1880: 232). Yet, hyperbolic geometry is a non-Euclidean geometry. Euclid's fifth postulate reads that, in a two-dimensional space, for any given line l and point P , there is exactly one line through P that does not intersect l and is, thus, parallel to l . In contrast, in hyperbolic geometry there are at least two distinct lines through P that do not intersect l . According to hyperbolic geometry, the inclination of a plane to the base of a cone exceeds that of the side of the cone.

To date, Euclidean or non-Euclidean, no theories have yet translated hyperbolic spirals, despite their creative use from the Bronze Age and religious patterns to current artistic practices. So, *for convenience*, scientific analysis displays hyperbolic spirals by choosing a Euclidean model of hyperbolic geometry "*as there is no smooth distance-preserving embedding of hyperbolic geometry in Euclidean space.*" ⁵¹ Thus, hyperbolic points and lines are the interior points and arcs of the same boundary circle (impassable cocoon) which seeks to translate everything in the x, y and z axes, even if the definition given for the hyperbolic spiral reads as a *transcendental plane curve*. When Newton and the Royal Society members were trying to interpret orbital forces, they most probably came across this transcendental *plane curve* without being able to interpret it as such:

"[...] in 1684 Dr. Halley made Sir Isaac a visit at Cambridge and there in a conversation the Dr. asked him what he thought the Curve would be that would be described by the Planets supposing the force of attraction towards the Sun to be reciprocal to the square of their distances from it. Sir Isaac replied immediately that it would be an Ellipsis. The Doctor struck with joy and amazement asked him how he knew it. Why saith he I have calculated it. Where upon Dr. Halley asked him for his calculation without any further delay. Sir Isaac

⁵¹ Dunham. D. Hyperbolic Spirals and Spiral Patterns. Available from: <https://www.d.umn.edu/~ddunham/dunbrid03.pdf> [25 May 2015]

looked among his papers but could not find it, but he promised him to renew it, and then to send it to him.” (Turnbull, 1960. Vol. II)

Sir Isaac did not arise at his calculations due to the fact that, once again, a scientist did not have the *appropriate protocols* to acknowledge this transcendental plane because he depended on TBJ in order to reveal them. Consequently, science has a number of problems, such as the *Hyperbolic problem*, that require further research since their solutions are essential for uncovering the structure and formation of the universe; to see nature’s actual depth. It is apparent that a modern bridging between the most recent developments in scientific theories and contemporary application areas is essential. However, in order for this to be achieved, it would be beneficial for science to focus on the *shape effect* as the most important design problem rather than to insist on its minor derivatives.

4.4. Shape effect problem

Despite that most of the analyses made by scholars and art historians point to religious, scientific and artistic aspects of Hytrakenos’ text, there is still no interpretation that elucidates the topology of St. Anna’s garden. While some scholars claim that the description is an Ekphrasis of a painting seen by Hytrakenos, others argue that it is just a fictional story, and the most progressive argue that it is an early treatise on mechanics and automata since it contains a full explanation of an automated watering system generated by a fountain. Still, the very fountain of the garden is one of the major elements that generated this place as a topological field.

Hytrakenos described first the location of the fountain: “*At one point there was a landmark*”. In their footnotes, the authors point out that in this

sentence, "*Hytrakenos is playing with the multiple meaning of the word 'σημείον' 'point' in geometry and 'sign', 'portent', 'token', 'landmark' etc. in other contexts*" (Dolezal & Mavroudi, 2002:144). To enrich to this interpretation, one can also refer to the sign (from *sēmeion* point and/or from *sēma* sign) as the visible manifestation of this very topology. Hytrakenos continues:

"[...] a fountain that could both reserve water and gush it forth, occupying the place of the center, as if setting up to view evenly all the lines flowing from the center towards the periphery and again rebounding toward the center." (Dolezal & Mavroudi, 2002: 144).

One may find a resemblance of this '*landmark*' with the A position, although this Byzantine Ekphrasis dates back to the Middle Ages, when TBJ had not yet been formed. This hypothesis is based on the fact that these two positions are privileged according to their topological behaviour because their spatial conditions can provide auto-authorisation, all-inclusiveness and, finally, they can offer a teleological-free access. A more thorough analysis could bring up a totally different viewpoint of these three features; this is likely to confer the appropriate *intelligibility of the area it encloses* and, moreover, it could alter the assumption that the shape effect is not to be considered as a design problem, but rather as a *de-sign* of the schema.

4.4.1. Auto-authorisation

According to some interpretations, as mentioned above, Hytrakenos's Ekphrasis may stand as an early treatise on *automata*. In fact, the tradition of *automata* continued in the Greek world well into the Middle Ages and, once again, the Byzantium and Muslim worlds were in close partnership on this

matter. A remarkable example is Al-Jazari's *Book of Knowledge of Ingenious Mechanical Devices* (1206).

An automaton (plural automata) is a machine that performs a range of functions according to a predetermined set of code instructions.⁵² This word was first used by Homer to describe an automatic movement of wheeled tripods.⁵³ *Automaton* derives from Greek 'αυτόματος' meaning 'acting of itself', from 'αυτός' which means 'self'. Although in a broad sense this can be considered as an auto-authorised mechanism, it has a totally different approach from TBJ's auto-authorisation plane. The difference lies in two important parameters of an automaton: (i) it operates as a coefficient and (ii) its ergon requires correlation and integration, unlike TBJ's parameters, which render the surrogate as a representative operation towards an imperialistic ergon (giant cocoon). What makes an automaton act of itself is its role as an organon (device, apparatus), which is self-referential not in terms of its physical environment but in terms of its organisation, and which aims to reach the highest level of ergonomics. To achieve a high-standard ergonomic environment requires an intelligent design with respect to the interaction between the organon and the organisation in order to take account of all elements of the system to ensure that tasks, functions, information and the environment suit each other. Therefore, an automaton operates as a

⁵² Definition of the word 'automaton' available from Oxford Dictionaries: <http://www.oxforddictionaries.com/definition/english/automaton> [25 May 2015]

⁵³ [...] imperishable, decked with stars, preeminent among the houses of immortals, wrought all of bronze, that the crook-foot god himself had built him. Him she found sweating with toil as he moved to and fro about his bellows in eager haste; for he was fashioning tripods, twenty in all, to stand around the wall of his well-built hall, and golden wheels had he set beneath the base of each that of themselves they might enter the gathering of the gods at his wish and again return to his house, a wonder to behold." Homer, *Illiad* 18.371 Available from: <http://www.perseus.tufts.edu> [20 May 2015]

coefficient in the ergonomic process, while seeking for correlations, towards the integration of its system.

In St. Anna's Garden, the fountain (automaton) is able to *reserve water and gush it forth*. While one might claim that this is a common function of fountains, it should be remembered that the description dates back to medieval times (Fig.7). Nevertheless, the intelligibility in the design of this automaton, with regards to its self-referential organisation, is based in the fountain's ability "*to view evenly all the lines flowing from the center.*" Apart from the fact that the fountain can actually *see*, the important thing is that, according to the description, the *landmark* sets up a topology in which to *view evenly all the lines*; this entails participation and not representation. This is also evident by the description's metaphorical meaning since Anna (who is herself the fountain) could not *reserve* and *gush* if she had not acted as an active participant in order to conceive and deliver.

4.4.2. All-inclusiveness

The other factor that makes the fountain's landmark similar to A position, is the all-inclusive factor. It is assumed that, from the A position, one can have God's gaze by scrolling back and forth along the x, y and z axes in a linear approach with horizontal and vertical organisation that corresponds to bottom-up and top-down practice. Moreover, and by extending the mass, a giant cocoon has been created in order to include whatever is excluded from the XOA angle, which is the A's position point of view. In the case of St. Anna's garden, the *landmark*, where the fountain is located, has also a similar privilege because, from there, one can *see evenly all the lines*. However, as

Hytrakenos describes, these lines are" *flowing from the center towards the periphery and again rebounding toward the center.*"



**Figure 7. The fountain in Anna's garden. From the fresco of The Annunciation of St. Anna at St. Panteleimon church
© Katerina Karoussos**

This course does not seem to have a systematic behaviour as that of A position's linear organisation. As already analysed, before the Age of Enlightenment and, especially, in the Medieval era, the polar coordinate system was the most common system of spatial dimensions. This system entails curvature and all the epiphenomena of its geometry. Therefore, for something to flow towards the periphery, a radial motion is declared and, given the garden's shape (sling), the radius is capable of hyperbolic and

parabolic geometries. The essential thing for the examination of the topology is the importance of two words from the text: the adjective 'evenly' and the verb 'flowing'. The first defines the way of viewing and the second defines the substance of those found in the *landmark*:

- See evenly all the lines:

This particular way of viewing translates space in a lateral manner as the gaze revolves through the full 360° and rebounds without losing the viewing angle throughout the entire periphery. Everything is placed into this topology in a 'lateral staggering' (Panofsky, 1997:105), and, therefore, attributes such as up and down, back and front, right and left are irrelevant.

- These lines flowing:

The notion of fluidity is used widely in Hytrakenos's text, thereby determining the nature of the elements found in the garden that do not relate to unconditional solid-state but rather to fluid entities as subsets of the phases of matter. Unlike solids, liquids can take any shape and fill the entire volume. With such a topology as this very garden, where the lines flow, the translation of space with a system that measures x, y and z axes is, most probably, inadequate. Moreover, *"if the imaginary fluid were in fact present, pressures at the two sides of the surface would be identical and the net force reduced to zero"* (Ward-Smith, 2012:66). An endeavour to interpret the garden's fluidity using fluid mechanics meets a similar description of Hytrakenos' Ekphrasis:

"Since, then, every molecule of a liquid is pulling on every other molecule, any body of liquid which is free to take its natural shape that is which is acted on only by its own cohesive forces, must draw itself together until it has the smallest possible surface compatible with its volume; for, since every molecule in the surface is drawn toward the interior by the attraction of the molecules within, it is clear that molecules

must continually move toward the center of the mass until the whole has reached the most compact form possible. Now the geometrical figure which has the smallest area for a given volume is a sphere.” (Millikan 1906:114)

This postulation is an updated version of Archimedes’ (Ancient Greek mathematician. c. 287 BC – c. 212 BC) *law of equilibrium of fluids* which proves that water will adopt a spherical form around the centre of gravity. Consequently, in the case of the garden, the fluid lines that flow in the centre and rebound towards the centre may take the geometrical form of a sphere, whereas there is no possible way of scrolling in a linear manner along the Cartesian axes.

Yet, to translate the sphere into this topology, one has to focus on its schema and not on its shape, because, if they focus on its shape, they will translate it in the aforementioned boundary system. In contrast, the schema of a sphere requires that the sphere is unfolded in order to reveal the surface and to view its topological expansion. According to Millikan and Gale, the liquid draws itself inwards until it reaches the smallest possible surface area. Indeed, the surface to volume ratio is at a minimum for a spherical configuration; for example, if one blows up a balloon, it forms a roughly spherical volume as that is the state of the lowest energy state of the balloon material for a given volume of air. Archimedes proved a range of geometrical theorems including the surface area and volume of a sphere as well as the area under a parabola. The last words attributed to him are ‘*Do not disturb my circles*’, wherein Archimedes was referring to his studies when a Roman soldier came to execute him. Archimedes had proven that the sphere is $\frac{2}{3}$ of the volume of the cylinder surface (including the latter's base) and this is considered as the largest of the mathematical achievements (Hat-Box

theorem).⁵⁴ Through the *reductio ad absurdum* (reduction to absurdity) Archimedes gave answers to hidden variables to an arbitrary degree of accuracy by identifying the boundaries within which the response was effective. This method is known as the *method of exhaustion* and applied to approximate the value of the number π .

4.4.3. Teleological-free

It is not valid to ascribe teleological characteristics in the garden due to the task assigned to the entities of the garden (i.e. the conception of Theotokos). This is because the conception had already taken place before it was announced by the Archangel, so there is no ultimate purpose for this event. In the Scriptures, all events are self-evident and the process of their evidence is the *en-vision* of their manifestation. Furthermore, because teleology is an integral part of nature as it concerns a natural process of a being directed towards an end, it cannot be defined as a value of the garden given the Archangel's words to Anna: "*That which is foretold is not subservient to the laws of nature.*" [John of Damascus. Sermon I., 159]. So, the event was foretold and was not compatible with teleology by means of the laws of nature. As much as the garden exceeds the conventional Cartesian system of spatial analysis, it simultaneously acquires other special concepts.

To recall, the *landmark* of the fountain is both a point and a sign (*sēmeion*: point -*sēma*: sign), and the event may be only contacted at a point since it has no dimensionality in physical means but rather it manifests itself

⁵⁴ A description of Archimedes Hat-Box is available at:
https://www.researchgate.net/publication/242052423_AN_APPLICATION_OF_THE_ARCHIMEDES_HAT-BOX_THEOREM

instantaneously at a point with a form of a sign. From this point, a free surface is deployed because the point/sign (the Announcement) is the surface per se. The English word 'Epiphania' (epiphany), meaning surface in Modern Greek, is derived from its ancient Greek root *ἐπι-φαίνω*, to reveal oneself. The geometrical definition of the word *surface* corresponds to *a continuous set of points that has length and breadth*; this relates to a Euclidean postulation that one can find in the first book of the *Elements* and reads as "*surface is this that has only length and width*".⁵⁵

As previously mentioned, and in relation to the garden, the surface of a fluid (free surface) is subject to negligible perpendicular force, therefore there is no vertical component to the force and, consequently, there is no length and depth because there is no line that intersects the only line which corresponds to the width. As already said, TBJ translates the horizontal line (x sequence) as a serial back-and-forth process and it is commonly used to describe a timeline or any other concept that takes positive and negative values. On the other hand, a surface which consists of points/signs, as an epiphany, lies in self-manifestation.

St. Anna's garden is a space where the point manifests itself and its epiphenomena, unfolding a surface that can only be envisioned and not represented (striking appearance). From the time that TBJ dominate the entire spectrum of human consciousness, there were really few performances of this topology and its surface (*Epiphania*). But there is an exceptional example of the 20th century painter, Cezanne, who devoted his life to en-

⁵⁵ Definition of the word 'surface' available from Oxford Dictionaries:
<http://www.oxforddictionaries.com/definition/english/surface> [22 May 2015]

vision his 'geological strata' of Mount Saint-Victoire. He ended up with the ultimate surface (*Epiphania*):

"Colour is the place where our brain and the universe meet. That's why colour appears so entirely dramatic, to true painters. Look at Sainte-Victoire there; How it soars, how imperiously it thirsts for the sun... ...For a long time I was quite unable to paint Sainte-Victoire; I had no idea to go about it because, like others who just look at it, I imagined the shadow to be concave, whereas in fact it's convex, it disperses outward from the centre. Instead of accumulating, it evaporates, becomes fluid, bluish, participating in the movements of the surrounding air." (Gasquet, 1991:153)

4.5. Conclusion

Even if Cezanne did not capture the very topology in which a convex and a concave surface can co-exist, he certainly saw the Epiphania of Mount Saint-Victoire without the need to fragment the space. The artist was able to acknowledge that the sign manifested itself (*appears so entirely dramatic*) before he captured it. For, if it was to *accumulate*, the mount would be collapsible because one would have to zoom in so close as to reach a point that one could assume to be the sign. This fragmentation of space and time in multiple and tiny fields of view, the telescopic approach, so to say, was the reason for the lack of both the sign and the surface. The most important point, however, is the fact that intelligent man assumed that the point that was reached by searching nature in-depth through this microscopic view from XOA angle, is the sign per se and this belief is still considered as the dominant viewpoint. Cartesian depth became synonymous with the ultimate purpose (nature's actual depth) of research, since, according to the prevailing perception, depth is equivalent to the first cause in which the sign is assumed to subsist.

Moreover, and because it is considered as the first cause, it scrolls the linear timeline to the past, trusting it to future judgments. So, for someone to find the *real meaning* of something, they should look inwards, in-depth and backwards. It is well known that good research is that which seeks knowledge in-depth rather than on-surface, and is translated through rigorous practice; research that is conducted on-surface is considered to be thoughtless. The endeavour here is to acknowledge that the *real meaning* lies on the surface, where both the sign and its manifestation exist. In other words, one should look outwards, lengthwise and onwards.

CHAPTER 5: THE EPIPHANIA OF THEŌRIA AND ITS ELEMENTS

5.1. Synopsis

Aristotle's Lyceum dates from around 335 BC, when Aristotle began teaching. It was an informal institution whose members conducted philosophical and scientific enquiry. The school was termed peripatetic and the philosophers were peripatetics. The Greek word *peripatetic* (περιπατητικός) refers to the act of walking and, as an adjective, 'peripatetic' is often used to mean itinerant, wandering, meandering or walking about. It is said that Aristotle enjoyed walking while lecturing. Indeed, we can infer that most Greek philosophers enjoyed walking if we consider the physical environment they occupied: colonnade buildings with long sequences of columns leading to open courtyards, the peristyle architectural form. Indeed, movement was included in the theoretical corpus of the peripatetic school as an important aspect of science and philosophy. Therefore, by following the path of the promenade at the *Agora*,⁵⁶ one can actually walk around an open field of theories. The peripatetic movement served as a metaphor for tracking and mapping an area of knowledge. It concerns a rounded movement with regards to the etymology of the word, which is comprised from 'περί' (around) and 'πάτος' (the beaten track). This meandering model of knowledge tracking

⁵⁶ . Definition for the word "Agora" in Encyclopaedia Britannica: Agora, in ancient Greek cities, was an open space that served as a meeting ground for various activities of the citizens. The name, first found in the works of Homer, connotes both the assembly of the people as well as the physical setting; it was applied by the Classical Greeks of the 5th century BC to what they regarded as a typical feature of their life: their daily religious, political, judicial, social, and commercial activity. The agora was located either in the middle of the city or near the harbour, which was surrounded by public buildings and by temples Available from <http://www.britannica.com/EBchecked/topic/9404/agora> [27 March 2015]

does not apply to the physical movement itself but rather to the notion of meandering around a field of *noumena* (noetic perceptions).

To meander (from the Greek μαίανδρος, maiandros), is to follow a turning course; meander can also refer to fluidity since the word is connected to river flow. In addition, in its geometrical form, meander refers to an ornamental pattern of winding and intertwining lines. The established contemporary meaning of meander is to wonder around i.e., to move aimlessly and idly without a fixed direction or to speak of loosely connected topics. By lacking a fixed direction, meandering sits outside the model of knowledge that has become acceptable from the scientific revolution and beyond (x sequence). In this respect, the meandering philosopher became a caricature of one who accumulates and loosely connects empirical data from a variety of fields. Indeed, this contradicts what is evidenced historically by nominating the peripatetic school as part of the cradle of Western civilisation. According to Greek mythology, Meander was the patron deity of the Meander River located in Caria, in southern Asia Minor. Meander was the son of Oceanus and Tethys (Hesiod's Theogony) and a father of Cyaneë, as described by Ovid (Ovid, 43 BC – AD 17/18): "*Cyaneë, who was known to be the daughter of the stream Maeander, which with many a twist and turn flows wandering there*" (Ovid, Metamorphoses 1 A.C.E.IX, 450). As a shape, the meander has become one of the most important design patterns; however, although always considered to be a transcendental form, its sign failed to follow its schema that embeds geometric shapes, like the spiral, hyperbola and parabola, due to the *de-sign* problem. Having the characteristics of an Epiphania, it is regarded as a sinusoid wave, one-line thick, and, in the case of a stream, the width must be taken into consideration when it takes a

circular form. On condition of a loop, the stream has both a convex and a concave row, which is something abnormal from the x sequence view, since the latter is absolutely fixed, being both solid and linear. Hence, having failed to maintain meander's schema and sign, meandering is a model of knowledge that cannot be applied to the standard model of thought, the x sequence. For the purpose of revealing the mechanism of the Epiphania, since it reveals the schema of Theōria, this chapter analyses the most important elements by which an Epiphania can manifest itself.

5.2. Meandering and standard models of thought

Although the aim here is to analyse the notion of a model of meandering and not to make a comparative analysis with other models of knowledge, it is essential, for a better comprehension of *Theōria*, to highlight two main differences between the meandering and the standard models: (i) their coordinates and (ii) their (magnetic) fields.

In this respect, the x sequence model will stand as the reference for the conventional way of obtaining knowledge at large. For this purpose, the x sequence model will be termed the standard model and the peripatetic model will be termed the meandering model (Fig.8).

The standard model is governed by two main principles: observation and Cartesian coordinates. According to TBJ, knowledge derives from observation and, for observation, there should be a fixed distance between the observer and the observed. It is, therefore, a process of perceiving the knowledge from the outside world through the senses and intellect by linear movements from point A to point B and from B to C, and so on.



Figure 8. Plan4: The meandering flow © Katerina Karoussos 2015

i. Coordinates

. The perceived data are verified by the recorded data through scientific instruments and past experience. In contrast, the meandering model behaves like a motion track, contributing to the notion of peripatos while the one who meanders is in the system and can follow the traces in a rotary motion. This is because this model is more relevant to a system of polar coordinates since the reference points are mostly curvature points and do not follow the linear movement of a Cartesian system. Before the establishment of the Cartesian coordinate system by Descartes in the 17th century, the most popular systems were those of polar coordinates as well as spherical and cylindrical coordinates for three-dimensional space. The meandering model requires direct participation since the formulation depends on the one who meanders.

ii. Magnetic fields

Magnetic fields correspond to both meandering and the standard model of thought. The difference between these models of thought relies on their topological behaviour and the interactions occurring within. Newton's law of universal gravitation states that:

"Every point mass attracts every single other point mass by a force pointing along the line intersecting both points. The force is proportional to the product of the two masses and inversely proportional to the square of the distance between them." (Newton Principia, Proposition 75, Theorem 35)

Although in general relativity the effects of gravitation are ascribed to the space-time curvature of a force, this curvature is defined only by its declination from the linear axis (x sequence). It is, therefore, based on a fixed position, tending to keep the line straight. With the entry of quantum mechanics, it became clear that general relativity is incompatible with quantum field theory (Maddox, 1999: 62-67). This assumption based on the hidden parameters of the system; however, according to TBJ, it was imperative to associate them *"only with the observed system and also with the measuring apparatus"* (Bohm, 1951: 169). In the meandering model, and because of its fluidity, magnetism has a totally different aspect since it formulates fractal structures that are based on both internal and external parameters. The caused effect manifests itself on the Epiphania and, as long as the latter contains the sign, it can be interpreted as the hidden parameter. Thus, one can assume that the magnetic force is the sign per se and, therefore, those on the surface are not subject to universal gravitation. Alongside, by expressing space through polar coordinates, all elements of this model are always self-referential and they interact as such because, even in the case of maximum degradation, each part maintains its own poles. Moreover, according to the curvature, the positions of magnetic north and magnetic south are interchanged. For example, if a new sea floor becomes magnetised in the direction of a magnetic field, then it will change its polarity when the magnetic field reverses (Drummond, 1963: 947–949).

Consequently, there may be no fixed up and down position, and, accordingly there is no solidity in curvature. Empirical locality in the three-dimensional Newtonian universe was replaced by the quantum wave function in the space of all possible configurations and quantum correlation, mostly known to scientific circles by an earlier phrase: "*Correlation does not imply causation.*" The phrase has been appropriated from Pearson's theory who, in his book *The Grammar of Science* of 1892, claimed that there was no causation 'behind' correlation, because of "*the transition of correlation into causation*" (Pearson, 1990:397).

Even if quantum theory seems to have relevance to the notion of Epiphania, Bohm's effort to explain quantum mechanics through observation of natural and supernatural forces led to the same *de-sign* problem of Newtonian space. For an apple falling down to the ground, the gravitational pull is not a sign but a description because it lacks its Epiphania. If all things in the universe are "*scaled down versions of the cosmic process*" (Sheldrake, 2012:150), then the universe is the giant cocoon that represents the apple that always falls down but cannot be eaten. On the other hand, the meandering model has the ability to acknowledge the apple's Epiphania by unfolding the entire range of its curvature. However, this is not subject to linear movement or to the attraction of a nearby mass in order to maintain the straight line. Conclusively, the curvature demands a different kind of accessibility in acknowledging its Epiphania to that of the standard model.

5.3. Limitations of the A position and XOA angle

The uncertainty principle, illustrated in the quantum cat (Schrödinger's cat) thought experiment, has been observed as a real physical phenomenon

and is frequently presented as a paradox. One might consider what would have happened if it had been envisioned as a noumenon; the fact that it was not considered as a miraculous event is simply due to the fact that it came from the elite of the scientific intelligentsia. In any other case, it would have gained the meaning of a religious fiction or, worse, a practice of witchcraft and Schrödinger would have received accusations similar to those received by Hypatia.

According to the thought experiment devised by Schrödinger (Erwin Rudolf Josef Alexander Schrödinger 1887-1961), a cat is put in a sealed box and its life or death is dependent on the quantum state of a subatomic particle. Thus, a description of the cat during the course of the experiment becomes a *blur* of *living and dead cat*. But this cannot be accurate because it implies the cat is actually both dead and alive until the box is opened to check on it, causing the quantum waveform to collapse into one of its two possible states. The cat, if it survives, will only remember being alive. Schrödinger resists so naively "*accepting as valid a blurred model for representing reality*" (Schrödinger, 1935:124). As an extension of this thought experiment, in the so-called Wigner's friend test (Eugene Paul Wigner 1902-1995), a friend is placed in the box together with the cat. In this condition, the external observer believes that the cat is in a state of *blur* whereas the friend perceives that the cat is alive. To interpret this phenomenon was difficult for the intellectual scientists since it contained anomalies and discontinuities according to the standard model and TBJ organon. It was also in opposition to the very basic principles by which TBJ was founded: *Principium contradictionis* (the principle of contradiction) and *Principium rationis sufficientis* (the principle of sufficient reason). The obstacle was to acknowledge an <object> as being

simultaneously a wave and a particle because, according to the standard model, the experience is completely structured by the given linear representations in which any transcendental concept is interpreted as a paradox or an anomaly.

The idea that objects are fixed, even as pre-existing essences, leads to a predetermined space in which all possibilities are defined in advance. Into this space, the interpretation set of Bohr (Niels Henrik David Bohr 1885-1962) and Heisenberg (Werner Karl Heisenberg 1901-1976) depends on the positioning and is known as the Copenhagen Interpretation. According to this theory, if Wigner's friend is positioned on the same side of the box as the external observer, the wave function will collapse for both observers. If Wigner's friend is positioned on the cat's side, his interaction with the cat is not considered a measurement since "*the fundamentally necessary uncertainty at this point is then transmitted via the measuring apparatus into the atomic event*" (Heisenberg, 1933:298).⁵⁷ For Bohr, the wave and particle appearances, or the visual and causal representations, are '*complementary*' to each other.

Yet, according to Heisenberg, the path of an object first comes into existence when it is observed and, thereby, an unobserved object may be a mixture of both wave and particle until the experimenter chooses what to observe in a given experiment. Both scientists agreed that this selection contains a limitation of seeing nature's actual depth. This limitation is expressed by Heisenberg as *uncertainty relations*, and by Bohr as

⁵⁷ Heisenberg, W. The development of quantum mechanics, Nobel Lecture, December 11, 1933. Available from: http://www.nobelprize.org/nobel_prizes/physics/laureates/1932/heisenberg-lecture.pdf [12 March 2015]

complementarity relationship. The space in which these relations take place is the cut in dualistic terms:

“This split (sometimes called Cartesian cut) destroys the primordial wholeness of the background reality, and “synchronistic” correlations between mind and matter remain as remnants of the lost wholeness.”⁵⁸ (Atmanspacher et al., 2001: 6)

Deeply rooted in TBJ mentality, Darwinian dualism was unable to accept something that, in earlier times, had been unchallenged: that the nature of any entity is apparent from the destination and not the origin, and, thereby, the unobserved object is able to maintain its polymorphic character. The so-called cut was translated according to the Cartesian cut,⁵⁹ which is a projection in space according to Descartes' distinction of *res cogitans* [thinking substance] and *res extensa* [extended substance] (Fig.9).

While the elements of *res cogitans* are mental (non-material) entities like ideas, models, or concepts, the elements of *res extensa* are material facts, events or data. The conventional referents of all natural sciences belong to the latter regime. Apparently, the paradox here is not the phenomenon of the quantum cat but rather its categorisation as a phenomenon.

The cat has been observed as a phenomenon and, therefore, it is seen from A's position, at which the X observer can view only the XOA representational angle.

⁵⁸ Atmanspacher Harald et al. 2001 Weak Quantum Theory: Complementarity and Entanglement in Physics and Beyond. Available from:

<http://arxiv.org/abs/quant-ph/0104109v2> [20 March 2015]

⁵⁹ A definition of Cartesian cut can be found at

http://see.library.utoronto.ca/pages/heisenberg_cutdef.html.

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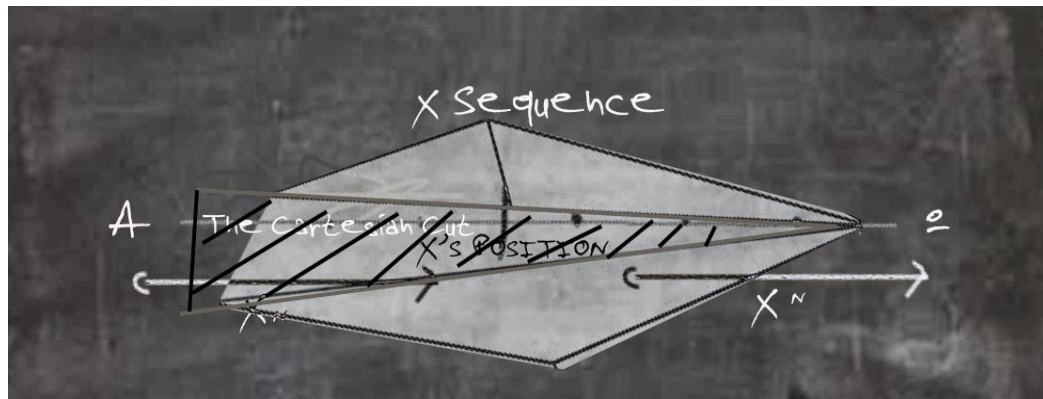


Figure 9. Plan5: The Cartesian cut © Katerina Karoussos

The quantum cat is one of the few evident cases where science was trapped by its own results due to the inability to see the Epiphania rather than the depth, which was considered as synonymous to the first cause. If the interpretation is based on the position of the observer, then the risk is to remain only with the All since to find another position requires going back to the start, due to the linearity of the x sequence. In that case, intuition would trigger the appetite of the observer to choose the position from all the potentialities included and the appetite would be the vehicle of actualisation. Even if All always operates as an innate organon of all animals, no contemporary thinker would admit that it could function as a stand-alone organon for humans. To neglect TBJ would be catastrophic since the entire body of scientific revolution was based on it. On the other hand, it is imperative to acknowledge the dual condition of the cat since the knowledge acquired so far requires joining the forces of *"theology and biology to become one in the aptly named field of genetics"* (Fuller & Lipinska, 2014:15). This means that it is no longer a possibility or impossibility of a phenomenon but a horizon of noumenon which captures the event without releasing scientific aspects. Since the state of the cat is not valid under the legitimising basis of

TBJ, and an Epiphania is, perhaps, futile for the scientific community taking into account the inevitable mortality of the animal at a later stage, one should perhaps seek practices that subvert the natural necessity. The recognition of a manifestation that is rebellious in linear perspectives of the standard model and supported by fluidity in nature and its curvature in the topology can redefine the persecuted teleology as an open end rather than as a doctrinal punishment.

5.4. Key elements of an Epiphania

5.4.1. Manifestation

One can meet manifestation events in the Synoptic Gospels, which were commonplace in the Hellenistic, the ancient Greek and Christian era, in Buddhist religion as well as in Central Asian and North American shamanism. A manifestation that can depict this accessibility is a *peripatos* that refers to Jesus' sea walk in the New Testament and the Gospels. Scholars have interpreted this event in many ways, the most appealing being that of a miracle in terms of a projected image (Young, 1999:3). Nevertheless, all scholars claimed that this event should be analysed by literary critical methods since it cannot be explained through a historical analysis. As Ehrman states:

" [...] it is probably better to think of miracles, not as supernatural violations of natural laws, but as events that contradict the normal workings of nature in such a way as to be virtually beyond belief and to require an acknowledgement that supernatural forces have been at work." (Ehrman, 1997:198)

To explain Jesus' sea walk as a miracle means to lose both the sign and the Epiphania. Hence, no manifestation can occur and, accordingly, without the sign as a force, no ergon can occur, natural or supernatural, because

there is no apparent energy within. Only the Gospel of John (c.90-100 CE) translates the event through the meandering model, because it contains both the sign and, consequently, it deploys the Epiphania of the event. In John's narration there is an extra line that reads: "*They were willing therefore to receive him into the boat: and straightway the boat was at the land whither they were going.*" (John, 6:15-21). This event requires the meandering motion track that takes place within the noetic faculty so as to manifest itself, beyond the physical or even metaphysical environment, characterised by parameters such as axial coordinates, mass, gravity etc. No other TBJ knowledge model can accommodate such an event because it cannot capture it.

Similarly, as previously mentioned, the first phrase of the Bible states an Epiphania because the light manifested itself (*and there was light*) once requested. Yet, even for the modern scientific approaches regarding the creation of the universe, a notion of Epiphania appears, as scientist's state, that the universe started its existence in a very high density state and then expanded. The impression of a great explosion is more negotiable than a striking manifestation only because in the first case, traces of evidence can be found whereas in the second case, they are embedded since the meandering model has the one who meanders within it; aside from this, each interpretation complements the other. In the case of a striking manifestation, the event occurred without the need for explanation because the meandering model of knowledge does not require an observation since Epiphania is visualised even before its manifestation as a noetic process. It is not at all unlikely that the way the light manifested itself was through an explosion but this is of no interest for someone who participated in its manifestation because he had already contemplated it and most probably submitted it as

such. In any case, the one who seeks nature's actual depth throughout the x sequence cannot verify the meandering model because they cannot actually capture it since it has no depth while it flows in width without a fixed shape. Indeed, this particular model is based on its schema and not on a form and, therefore, it cannot be interpreted as a model at all; modelling requires a representation of a solid structure upon observation, whereas meandering seeks for its schema. Cezanne wrote a letter to Pissarro expressing his view for L'Estaque bay:

"It is like a playing card. Red roofs on a blue sea. The sun is so terrifying that it seems as though the objects are silhouetted, not only in black and white, but in blue, red, brown, and violet. I may be mistaken, but it seems to me to be the very opposite of modelling." (Rewald, 1950:109).

Akin to the fluidity of the Meander river, Cezanne followed the light to capture the Epiphania of L'Estaque bay, by inverting the masses to an outline manifestation (*objects are silhouetted*). Into this Epiphania, the visible becomes apparent before its visibility and absorption by its manifestation. Even if Dembski argues about the existence of an intelligent design as "*a theory for detecting and measuring information, explaining its origin, and tracing its flow*" (Dembski, 2002),⁶⁰ it seems that this lends even greater distancing from the Epiphania. By positioning the intelligent design outside of space-time, he considers sign as extraordinary. He, then, places a dualistic relationship between the *sign-giver* and the *sign-seeker*, leaving the latter completely uninvolved. The only activity available to the sign-seeker is under the test conditional: "*if sign, then decision*" (Dembski, 2002:28).

⁶⁰ Dembski, A.W. 1998 Intelligent Design and a Theory of Information. Available from http://www.arn.org/docs/dembski/wd_idtheory.htm [14 April 2015]

From a biological viewpoint, Behe argues that "*the appearance of design is even more overwhelming at the molecular level than at higher levels of biology*" (Behe, 2006:265). As a biologist, Behe points out that, due to the "*irreducible complexity (IC), the removal of any one of the parts causes the system to effectively cease functioning—system, not parts*" (Behe, 2006:265), and, therefore, such complex system is an intelligent design. Even if, in this case, there is a notion of interaction within the system, the design still lacks the sign since it is like a *mousetrap*,⁶¹ that is, a linear organisation with five components in a logical (x) sequence. Also, according to the biologist Kenneth Miller, it skips over the case that many, if not all, parts are already available in their own right, at the time that the need for a mousetrap arises.⁶² Yet, the sign exists in a topology where knowledge does not require observation, detection or measurement, since Epiphania manifests itself by itself without the need for decision making.

Rather than an extraordinary or supernatural phenomenon, the sign is a noumenon.⁶³ Science abhors cuts and gaps in the homogeneous natural

⁶¹ "A good example of such a system is a mechanical mousetrap. ... The mousetrap depends critically on the presence of all five of its components; if there were no spring, the mouse would not be pinned to the base; if there were no platform, the other pieces would fall apart; and so on. The function of the mousetrap requires all the pieces: you cannot catch a few mice with just a platform, add a spring and catch a few more mice, add a holding bar and catch a few more. All of the components have to be in place before any mice are caught. Thus the mousetrap is irreducibly complex." [MJ Behe, 1998, "Intelligent Design Theory as a Tool for Analyzing Biochemical Systems," in Mere Creation, p. 178]. [MJ Behe, 1998, "Intelligent Design Theory as a Tool for Analyzing Biochemical Systems," in Mere Creation, p. 178] Citation url:

<http://www.millerandlevine.com/km/evol/DI/Mousetrap.html> [18 April 2015]

⁶² Blind Evolution or Intelligent Design? Bill Dembski/Michael Behe vs. Kenneth Miller/Robert Renneck, American Museum of Natural History April 23, 2002. https://www.youtube.com/watch?v=Ewg9kIG_8Ek [18 April 2015]

⁶³ Here, the meaning of noumenon can be based on Kant's definition, which reads as the thing-in-itself (*das Ding an sich*) as opposed to what Kant called the phenomenon, i.e. the thing as it appears to an observer.

<http://www.britannica.com/EBchecked/topic/420847/noumenon> [19 April 2015]

order but it does not exclude cases that address psycho-physiological, para-psychological and telepathetic phenomena if and only if they do not infringe its ethics. To achieve an effective interpretation of such phenomena, the quantum cat should be observed as such, as long as the apple should always follow Newtonian laws. For example, when a manifestation exceeds the permissible limits, set by its boundaries in the circle of theology, then it may be transferred to the field of psychiatry, in the circle of science but in no case, for example, can it pass the door of physics. In any case, the process is observation implemented via a remote observer who stands in a fixed position that enables the observation. The latter employs the senses as well as technological devices in order to acquire information from a primary source. By this operation, performed via the standard model, tracking and mapping the area of knowledge are not feasible since the observer is not a participant in the phenomenon, in contrast to the meandering model that cannot be operational if the onlooker is not an actual participant. The only way for a manifestation to be visualised is by the one who participates and unfolds its noumenon; or more accurately, by the one who can absorb its noumenon.

5.4.2. Absorption

Absorption is the incorporation of a substance from one state into another from a different state. The mechanism of absorption is essential for the successful flow of Epiphania and its dissemination into an open field of potentialities. One of the most illustrating examples of an absorbed noumenon comes from the author of Revelation.

John the Apostle describes that he saw a mighty, descending angel holding a small scroll, planting one foot on the sea and the other on the land.

Then, he heard a voice that told him to take the scroll from the angel and eat it: *"Take it and eat it. It will turn your stomach sour, but in your mouth it will be as sweet as honey."* When he ate it, his mouth became sweet and his stomach turned sour. Then, the voice told him that now is the time for *"prophesy about peoples, nations, languages and kings."* (*The Apocalypse, John the Apostle 10.8-8, 10, 11*). The prophet ate the angel's book that was sweet in his mouth so that he could absorb it, but bitter to his stomach because it had to irritate him to take it off in order to communicate it.

This specific form of absorption and subsequent communication of the absorbed element is the manifestation per se. There are some other descriptions with the same process and it seems that it was the only way, in this era, that one could acknowledge the Epiphania. For example, one can meet the process of absorption in the Nativity Hymn. Saint Romanos the Melodist became known for his Kontakion (Hymn) of the Nativity, still chanted today at Christmas. Saint Romanos was not considered as a great reader or singer. Around the year 518, he went to the Feast of the Nativity of Christ to read some verses from the Psalter but his reading was so bad that he had to be replaced. During the service, he fell asleep and the Virgin Mary appeared to him with a scroll and commanded him to eat it. As soon as he ate it, he woke up and started to chant his famous hymn. The icon accompanying the manuscript depicts the moment when the Virgin Mary forces the scroll into the Saint's mouth. (Fig.10)

These two examples of absorbing the noumenon by the bodily practice of digestion and striking manifestation may find similarities with the first and last man who ate the apple.



Figure 10. A miniature from a late 10th century manuscript preserved in Vatican Menologion, Codex Vaticanus graecus 1613.

Furthermore, and as a consequence, the glutton Hades devours living people from the creation of the world. Hence, eating and vomiting are practices of absorption and manifestation of an Epiphania (Agapitos 2006). Even if the above mentioned manifestations have been interpreted differently via philosophy or psychiatry and science in general, their significance in this analysis is based on the edible sign that each one has, which triggers a dynamic participation of all included in this topology.

5.4.3. Logos

The outcome of the absorbed sign is a trans-textual and trans-pictorial type of the manifestation, which signifies the very meaning of Logos. Here, the meaning of Logos is used with its theosophical aspect, as written in the first chapter of the Gospel of John: "*In the beginning was the Word*" (John

1:1–5, *NIV*). This choice aims to describe the fluidity that the concept has when it contains both the sign and the manifestation of the Epiphania, unlike its interpretation through reasoning and the order of knowledge in cognitive terms. Alongside this, it explains more so than through any other approaches the dynamic participation and, certainly, the meaning of the *image and likeness*. Philo of Alexandria (Greek: Φίλων, *Philōn*; c. 25 BCE – c. 50 CE) was the earliest author who stated that Logos is comprised of two different categories: internal Logos (Λόγος ἐνδιάθετος) and uttered Logos (Λόγος Προφορικός) (logos prophorikos).

Logoi are interconnected because the uttered Logos is the vehicle of rendering the internal one. Moses and Aaron were the two biblical brothers that often symbolised Logos. Moses represents the internal Logos and Aaron the uttered Logos. God spoke within Moses and Aaron transited the content. One can meet another pair of brothers who represent the two Logoi in Greek Mythology in the story of Aloades in Homer's Iliad. The Aloadae brothers, two giants named Otus and Ephialtes, are referred to in the text as heroes and supernatural beings: they grew up each year a fathom in height and width. At the age of 9 they were more than 15 meters tall and around 8 metres wide. Their strength was such that they bound the God of War, Ares, and held him prisoner for 13 months inside a large bronze vessel. Certainly, the whole text of Iliad is an allegorical poem and, as such, Homer named the state of anger as Ares and the two brothers as the two Logoi. The uttered Logos was Otus and the internal Logos was Ephialtes.⁶⁴ Ares (anger) was bound by both of

⁶⁴ In Greek, Otus means ear and Ephialtes means nightmare. The latter refers to the inner Logos because a manifestation is a noetic process that does not involve the stimulus of senses

them and was put under duress for a long period of time, because the Logoi educate and teach men to restrain anger and desire, and to engage anger only occasionally. Moses, the inner Logos, apprehends by means of “*sight of mind*’ and occurs and develops spontaneously, whereas Aaron, the uttered Logos, is associated with the flow of transmitting the content. If these two forms of Logos become separated, there will be no flow; thus, no dynamic energy can exist and, consequently no manifestation can appear.

The idea of a ‘brotherly’ synergy between the two forms of Logos cannot occur in any standard model of knowledge because it loses its fluidity. Therefore, this synergy is something that the scientific mentality has tried hard to avoid, in order to prevent any case of affecting adversely the mass in general (both in physical and spatio-temporal terms). Hence, if Logos is observed as a phenomenon according to the stimulus of senses, assisted by the technological apparatus, what is to be seen is only the mere representation of a *de-sign*, shaped and manipulated according to a selective memory scrolled back and forth or up and down within the Cartesian x sequence. On the other hand, in the manuscripts, one can meet internal Logos rendered as seminal Logos.

Additionally, in Classical Antiquity, semen is an organic fluid and, according to Pythagoreans, “*semen is a drop of the brain*” (Smith, 2006:5). In some pre-industrial societies, semen and other bodily fluids were highly respected because they were believed to be transcendental. Blood is an example of such a fluid, but semen was also considered to be of supernatural origin and, as a result, was considered holy or sacred. In any case, if Logos is

to be observed as a phenomenon, it should be engaged with the kind of science that can observe non-solid things.

However, science has engaged Logos with irrelevant fields. Logos appears as synonymous to the ratio and is used in Euclidian mathematics as the relationship between two numbers of the same kind to express the multiple of quantity. Moreover, when Logos is interpreted by analytical physiology it is even more a case of the standard model of thought. Carl Jung contrasted the critical and rational faculties of Logos with the emotional, non-reason oriented and mythical elements of *eros*. He represented it as "*science vs. mysticism*", or "*reason vs. imagination*" or "*conscious activity vs. the unconscious*" (Shelburne, 1988:4).

Apparently, Jung was one of the fearless scientists who managed to place the notion of Logos to the co-eternal binary opposition of dualism. Yet, even with the mathematical interpretation, the expression of Logos using fluid dynamics was never considered. This may be due to the fact that the standard model of knowledge requires the observation to be conducted when the observed object has gained its permanent fixed position in equilibrium; it is easier to be observed in this state since it is not subject to further modifications.

As already mentioned, fluidity does not have a fixed shape and, therefore, it is always in a state of morphological mutation according to its topology. Therefore, the *Principium contradictionis* (the principle of contradiction) and the *Principium rationis sufficientis* (the principle of sufficient reason), which govern TBJ and, consequently, the standard model, all require a level of equalisation and a fixed position. In the case of Moses and Aaron,

Logos can be fully expressed through fluid dynamics if one uses the meandering model of thought

. Taking the example of DeLanda, the above two can be likened to two compartments of one container which is Logos itself; one compartment has hot air and the other has cold air. The difference between the two compartments is based on the intensity which, in this case, is translated as temperature. If someone opens a hole in the container between the two compartments, the difference in temperature will cause a spontaneous flow of air from both sides. Therefore, the difference in intensity that depends on the *extensive structures* (topological) provides a morphogenetic process with regards to the air formation. As DeLanda argues:

“Unlike essentialism, where matter is viewed as an inert receptacle for forms that come from the outside here matter is seen as possessing its own immanent, intensive resources for the generation of form from within.”⁶⁵

A manifestation can occur during this morphogenetic process, that is, before the object takes the final form since it requires the extensive width of the Epiphania, which contains all the curvature of the meandering type. Once the form is closed and, thus, modelled in a fixed shape and position, the object can only be observed and it cannot any longer manifest itself. Similarly, to the intensity of the air, one can consider the appetite as the intensity of an entity to shape itself with regards to its tendency and potentiality. If the entity is influenced by the appetite, it should tend towards its form through fluidity

⁶⁵ Available from: [Manuel DeLanda Annotated Bibliography](#) [19 April 2015]

and movement because the actual appetite is a kind of movement in order to produce the Ergo, i.e. an animate nature.

The process of this flow is what the Christian Apologist, John of Damascus, called *virtual energy*, referring to a hyper awareness which is not based solely on physical senses but, unlike it, can be succeeded by noetic courses. To recall, the appetite is the stimulus of *nous* in the process of morphogenesis, long before the senses undertake their physical operation.

The Book of Exodus (3:1-21) reads that Logos came out from a burning bush. The bush was on fire, but was not consumed by flames. According to the biblical description, the bush was burning but flourishing; in Latin: '*Ardens sed virens*'.⁶⁶ Then, the manuscript describes the process of transmitting the Logos from The Lord to Moses and from Moses to Aaron (Fig.11). So The Lord said to Moses:

"Behold, he is coming out to meet you, and when he sees you, he will be glad in his heart. You shall speak to him and put the words in his mouth, and I will be with your mouth and with his mouth. He shall speak for you to the people, and he shall be your mouth, and you shall be my mouth to him. And take in your hand this rod, with which you shall do the signs."

The brotherly synergy between Moses and Aaron, Otus and Ephialtes, and, lastly, between the two compartments of the container operate in Boolean terms. During the morphogenetic process of Logos, the intensity (appetite) can perform topological events such as union, intersection and subtraction. Highly participatory, both sides have the ability to absorb and

⁶⁶ One can find similarities with the St Anna's Garden Ekphrasis in the hyperbolic schema of the text when Hytrakenos described the fertility of the garden in contrast to Anna's sterility.

bring out the signs, through these topological processes just as St. Anna's conception in her own Boolean garden.



Figure 11. Moses and the Burning Bush. Byzantine Icon of 12th century © 2003 Monastery of St. Catherine at Mount Sinai. <http://www.sinaimonastery.com/index.php?lid=39#>

It is apparent that the standard model, with the Cartesian system that uses transformations such as translation, scale and rotation, could not have succeeded in this kind of process because of the fixed and permanent shape that the included entities have.

However, this very model that governs the entire spectrum of epistémé (science) requires having actual presence, as the etymological root of the word *ἵσταμαι* commands. As previously said, this was the cause that created the giant cocoon as well as being the formal registration of the title of an

observer from afar, that is as the surrogate. Postmodernism found itself closer to the sign and the Epiphania as well as the manifestation.

. It distinguished the problem of design, both in its appearance and disappearance, and the increasing need of absorption led philosophers in this era to seek an effective means of remote presentation and actual participation. However, Epiphania was unsustainable due to insuperable rules, and it is strange how postmodernism was so influenced by previous bullying, transferred from the Church to the socio-political environment. Therefore, the *hidden causes* have been hidden deeper through a class of neologisms that ensures the existence of the giant cocoon by either deconstructing it or making it disappear. Derrida's Logocentrism position pushed the sign further away from its Epiphania by arguing that everything is interpretation:

"Logocentrism would thus support the determination of the being of the entity as presence. To the extent that such a Logocentrism is not totally absent from Heidegger's thought, perhaps it still holds that thought within the epoch of onto-theology, within the philosophy of presence, that is to say within philosophy itself." (Derrida, 1997:12)

Following Saussure's arguments on *signified-signifier* (Saussure, 1916:65), Derrida managed to *de-sign* once more what was already *de-signed* and set representation in the first line of poststructuralism. In his book 'Who's Afraid of Postmodernism?' James Smith tries to argue that Derrida's claim that everything is interpretation is not antithetical to Christian faith. He used two different stories that describe the scene at Golgotha and the Jesus' Crucifixion. The first referred to two natives of Jerusalem who did not know who Jesus was (unbelievers) and the second was from a centurion posted as a guard on Golgotha who was sure that the one who was hanging on the cross was the son of God. Smith, then, concluded that whatever the

side is, both stories are interpretations of what took place (Smith, 2008: 44-48). Like the quantum cat and the Copenhagen Interpretation, the above interpretation relies on the position of the observer, that is the natives or the centurion, but they all remain mere interpretations. Golgotha is the Epiphania where the transubstantiation took place. Indeed, the Apostles' narratives of the route to the mount are extended. Climbing to the mount, they leave the life of inertia and gravity; of the dimensions that create the fixed position. Thus, the narratives are depictions of an Epiphania and not interpretations of an event. The difficulty of seeing it as such is the lack of participation; ever since the beginning of efforts to interpret the narratives until their denaturation as ontologies in the postmodern era, it has been impossible to find a level of absorption.

5.5. The prototype of likeness as simulation

The notion of simulacrum has been used in postmodernism in order to deal with the *de-sign* problem through the provision of evidence of one's participation in the Sassurian *signified-signifier* boundary relation.⁶⁷ According to Plato in *Sophist*, there are two kinds of image making; the first is an accurate reproduction of a prototype and the second is a modified model of the original, which has been distorted for the sake of making the spectator's view correct. The postmodernistic approach came from the French social theorist Jean Baudrillard who argues that the simulacrum is a

⁶⁷ Simulacrum: Latin word for representation, likeness, similarity. Plural: simulacra.

prototype in its own right. In *Simulacra and Simulation* (1981) he identified three types of simulacra that correspond to three historical periods:

- First-order, associated with the premodern period, where the image is clearly an artificial re-presentation for the real item;
- Second-order, associated with the modernity of the Industrial Revolution, where distinctions between image and reality break down due to the explosion of mass-reproducible copies of items;
- Third-order, associated with postmodernity, where the simulacrum precedes the original and the distinction between reality and representation vanishes. There is only the simulacrum, the hyper-real, and originality becomes a totally meaningless concept.

Gilles Deleuze sees simulacra by means of the difference itself. Being opposed to the notion of re-presentation, he argues that what is essential is that we find in these systems no prior identity, no internal resemblance (Deleuze, 1968:299). On the other hand, Alain Badiou argues that "*the fidelity to a simulacrum regulates its break with the situation*" (event). Speaking on the problem of Devil, he refers to the "*National Socialist revolution simulacrum, a void that would suffice to identify the (German) substance*" (Badiou, 2001:74).

In all these definitions, there is a distinct distance between the prototype (the original) and the simulacrum, which corresponds to the fixed position of the viewer that excludes any possibility of absorption. Even if the last two interpretations claim that representation is no longer the case, this may be due to the fact that the viewer is, in all manners, the authorised

surrogate and therefore, by default, the representation line is included in TBJ's reality without the need for a prototype. Indeed, this is also the case of the surrogate himself who, essentially, does not need his *Lord* since he and his technology already have the *carte blanche* to act not only *on behalf* but also to *act* as the prototype. Consequently, semiotics interprets the apple in all possible ways, according to the protocols, but has never digested it as an edible sign.

It seems that the aftermath of postmodernism, in conjunction with the archaeology of fear, was the appropriation of the *Manchurian candidacy*,⁶⁸ which serves, instead of the absorption, the necessity of the image and likeness. The shift of the surrogate to a Manchurian Candidate can be described as the iconoclasm (de-sign) of the edible sign. In *The Simulacrum according to Deleuze and Guattari*, Massumi argues that there is a mode of simulation that turns against the entire system of resemblance and selects them all, multiplying potentials: not to be human, but to be human plus. He refers to this kind of simulation as art and typifies artists as "*replicants who have found the secret of their obsolescence*" (Massumi, 1987: 94).

The quantum cat, Jesus' sea walk, the digestion of scrolls (signs) and Logos have all been interpreted as phenomena according to both their position and the two principles that ruled scientific progress: sufficient reason and contradiction. A new theological strategy of correlation has been launched whose pedigree is distinctly modern.

⁶⁸ The "Manchurian Candidate" is a political thriller novel from the late 1950s by Richard Cordon. The novel has been adapted twice into a feature film with the same title, first in 1962 and then in 2004 directed by John Frankenheimer and Jonathan Demme, respectively. The story depicts a brain washed ex-prisoner of Korean War, poised to become the president of the United States. The term is used to describe someone who is a dummy of a hostile power.

“A correlationist theology adapts a neutral or scientific framework as a foundation and then correlates Christian theological claims with the facts disclosed by secular science.” (Smith, 2008: 123)

Needless to say, that whatever the relation the quantum cat has with religiosity, the Epiphania has the same relation with its manifestation.

Therefore, interpretations such as spiritual visions, apparitions and mirages are merely interpretations of the standard model of thought and have nothing to do with the Epiphania and its manifestations as a topology. The enchilada of these correlations brought forth, together with many other things, the New Age movement that:

“[...] is not a distinctive empirical formation but a (now rather stale) codeword for the heterogeneity of alternative spirituality, best classified as a sub-type of ‘popular religion’.” (Sutcliffe, 2003:11)

5.6. Conclusion

Returning to the meandering model and its curvature, one can claim that a curvature that tries to align and balance on a linear x sequence cannot have an impact on knowledge. However, if it is taken as a de-sign problem, which blocks the schema of an Epiphania, it is, then, considered to be a case of iconoclasm.

This claim is based on two important implications for the human appetite in *image and likeness*: the inability of transmutation and blessedness. The reception of the former is impossible due to the lack of absorption and fluidity, whereas the latter is unfeasible, given the binary belief of Manichaeism and Augustinian devils, and also the weakness of a man in the image and likeness. So, if something can help to overcome these two problems, it is the *Veneration of the Icons* by Theōria.

This *Veneration* is seen as a way of life and not as a punitive teleology; rather, it will give the latter an open end. Logos, as a facilitator of transubstantiation and blessedness, is θεωρητός (*theoreitos*), meaning that which is viewable through *Theōria*. The significant difference between seeing (optical and cognitive) and θεωρεῖν (*theorein*: *to see through Theōria*) is that the first is considered as a phenomenon, while the latter as a noumenon (the noesis-of).

The *proactionary* principle, which Fuller and Lipinska suggested as being "*the foundation of transhumanism as the full realization of human potential*" (Fuller & Lipinska, 2014:4), may be seen as an effective way for the reception of transubstantiation and blessedness. Nonetheless, it is considered here that the foremost risk that a transhuman should take according to the proactionary imperative is to try to eat the apple, digest it and then to manifest it; i.e. to *theorein*.

CHAPTER 6: THEŌRIA

6.1. Synopsis

TBJ is based on the *Principium contradictionis* (law of non-contradiction, LNC) as defined by the second of the three classic laws of thought. LNC is accepted as being the most indubitable and incontrovertible law of thought and being, and is regarded as the supreme cornerstone of knowledge and science. According to LNC, it is impossible for both A and $\neg A$ to be true. In addition, the statements " A is B " and " A is not B " are mutually exclusive. The principle of contradiction is considered to be an Aristotelian axiom, although it was also analysed by many other philosophers of the era (Plato, Socrates and Parmenides).⁶⁹ Although it seems that this axiom matches perfectly the TBJ organon, some elements were overlooked by the intellectual man of the era of Enlightenment. It seems that, before it became a law, the principle of contradiction had passed unchanged from the ancient times to the Middle Ages, something apparent in Byzantine art, science and philosophy. However, the refusal of the enlightened man of everything that was dogmatic, especially religious dogma, changed the primary meaning of contradiction from a principle to a law.

The binary belief of the Augustinian and Manichaeian devils,⁷⁰ together with the petrification of fluidity, caused the lack of curvature and, by the time

⁶⁹ According to Aristotle's principle of contradiction it is impossible to identify a thing attributed and not attributed to the same thing, at the same time and from the same view. From the original text: "Το αυτό ἅμα ὑπάρχειν τε καὶ μὴ ὑπάρχειν ἀδύνατον, τῷ αὐτῷ καὶ κατὰ το αὐτόν" Ἀριστοτέλη «Μετά τα Φυσικά», Δ 3, 1005 β 19

⁷⁰ St. Augustine professed that humans had been born sinners, cursed by Adam's Original Sin, which was passed from generation to generation through the act of intercourse.

that the above mentioned elements were absent from the agenda of the intelligent man, the built-in modulation of the curvature was lost. Modulation was replaced by modelling, which was considered to be the panacea of art, science and philosophy. The lost elements were the so-called *hidden causes* that prevented the successful implementation of the most innovative ideas of the Enlightenment era and beyond. Conversely, by embracing these elements, Byzantine scholars and artists had obtained proof of their significance by *Theōria*, a noetic mechanism that ensures the manifestation of both the curvature and the module through Logos, as the epistemē of art.

6.2. Universals and particulars in the Theories of Plato and Aristotle

In *Prior Analytics*, Aristotle defines syllogism as

“[...] a discourse in which, certain things having been supposed, something different from the things supposed results of necessity because these things are so.” (24b18–20)

In general, syllogisms are sentence structures,⁷¹ each of which can meaningfully be considered true or false. According to Aristotle, every such sentence must have the same structure; it must contain a subject and a predicate, and must either affirm or deny the predicate of the subject. Thus,

This was the core message of our programming, that we were fractured beings in a dualistic world where the body was inherently evil and the spirit good. This doctrine was passed to Manichaeism, a dualistic religious movement founded in Persia in the 3rd century AD by Mani, who was known as the ‘Apostle of Light’ and supreme ‘Illuminator’. At its core, Manichaeism was a type of Gnosticism, a dualistic religion that offered salvation through a special knowledge (gnosis) of the spiritual truth. Available from

<http://www.britannica.com/topic/Manichaeism> [20 April 2015]

⁷¹ As mentioned in the previous chapter, the peripatetic movement served as a metaphor of tracking and mapping the area of knowledge. Aristotle used the term syllogism to describe his maxims, while he was a peripatetic. Indeed, there are two words in Greek with the same root and sharing the meandering concept: ‘συλλογή’ (*syllogism*) and ‘περι-συλλογή’ (*peri-syllogism*). The terms refer to a compilation of an entity from several objects (ideas, forms etc.) whereas the prefix ‘περι’ relates to the meandering notion of ‘περι-πατος’ (*peri-patetic*).

every assertion is either the affirmation or the denial of a single predicate of a single subject. Aristotle names the predicate of the conclusion as the 'major term' and the term that is the subject of the conclusion as the 'minor term'; the premise containing the major term is the major premise and the premise containing the minor term is the minor premise. For example:

Major premise: All men are *mortal*.

Minor premise: All *Greeks* are men (*men*: *middle term*).

Conclusion: All Greeks are mortal.

Here, 'mortal' is the major term, 'Greeks' is the minor term and the term which is used in both premises, the so-called 'middle term', is 'men'. Both the major and minor premises are universal, as is the conclusion.

Plato disagreed with Aristotle, who was his student, on the issue of universal and particular. Plato, the master, argued that all things have a universal form and that form can be either a property or a relation to other things. When one looks at an apple, for example, he sees an apple, and he can also analyse the form of an apple. In this distinction, there is a particular apple and a universal form of an apple. Moreover, he can place an apple next to a book, so that he can speak of both the book and apple as being next to each other. Plato also argued that some universal forms exist that are not a part of particular things. For example, it is possible that there is no particular good in existence, but 'good' is still a proper universal form. The student Aristotle disagreed with Plato on this point, arguing that all universals are instantiated; Aristotle argued that there are no universals that are unattached to existing things. According to Aristotle, if a universal exists, either as a particular or a relation, then there must have been, must be currently, or must be in the future, something on which the universal can be predicated.

Consequently, according to Aristotle, if it is not the case that some universal can be predicated to an object that exists at some period of time, then it does not exist. In addition, Aristotle disagreed with Plato about the location of universals. As Plato spoke of the world of forms, a location where all universal forms subsist, Aristotle claimed that universals exist within each thing on which each universal is predicated. So, the form of apple exists within each apple, rather than in the world of forms.

Moreover, Aristotle posed that there are conditions that characterise a human being. For example, John is human, male, a professor; he lives in Greece, likes coffee and is a friend of George. All the above are true but none of them can give the substance of John because, beyond and apart of all these, John is John. This means that, despite what John has done in the past, what he does now and what he will do in the future is done continuously in John's way; this way is his entity, his way of being. In conclusion, a universal form (do it like John) eventually becomes an individual concept (I am John). Finally, Aristotle's categorisation was based on the discrimination of a being according to his status as a predicate, whether incidental or not. Placing the universal within the entity means that either A and B have already embedded aspects of B and A, respectively.

His position on the 'seeing being' certainly highlights the above:

"For we say that both that which sees potentially and that which sees actually is "a seeing thing." And in the same way we call "understanding" both that which can use the understanding and that which does; and we call "tranquil" both that in which tranquillity is already present, and that which is potentially tranquil. Similarly too in the case of substances".
(Aristotle Metaphysics, 1017a)

Aristotle's principle of contradiction relies on the fact that everything is a seeing thing and that there is no universal form that governs it. When he

claims that a human cannot be a non-human he means that a man is not a quadruped but not that a man does not have the ability to crawl; indeed, this is something that many humans do when they are babies. Despite their disagreements, what Plato and Aristotle essentially wanted through the principle of contradiction was to highlight the differentiation of the world of constant change (Platonic world) from the formally knowable world of momentarily fixed objects. This is evident from the words they used to describe the axiom, attributed from both Plato and Aristotle: same part, same relation, and same time.

Therefore, the element that the principle did not bring to the era of Enlightenment was its indivisible connection with constant change. In Plato's *Cratylus*, there is a conversation between Cratylus and Socrates in which this assumption is clearly stated:

Socrates:

- How, then, can that which is never in the same state be anything? For if it is ever in the same state, then obviously at that time it is not changing; and if it is always in the same state and is always the same, how can it ever change or move without relinquishing its own form?

Cratylus:

- It cannot do so at all.

Socrates:

- No, nor can it be known by anyone (Plat. *Crat.*, 439e).

In this dialogue, the lost form (*relinquishing its own form*) is not considered to be a disadvantage but rather an open argument. Later in the dialogue, Socrates wondered how knowledge can be an object of constant change and he referred to Heraclitus' well known doctrine 'all flows' (*τα πάντα*

πει). Socrates questioned that if knowledge is always changing to another essence of knowledge, how there would be knowledge at all. He then turned to Cratylus saying that:

“[...] surely no man of sense can put himself and his soul under the control of names and trust in names and their makers to the point of affirming that he knows anything.” (Plat. Crat., 440c, d).

Aristotle used two prior principles to build his argument: the active-potentially active condition and the unmoved mover.

6.3. Process of actualisation and movement

In the field of Metaphysics, Aristotle said:

“[...] and yet those who claim that things can at once be and not be are logically compelled to admit rather that all things are at rest than that they are in motion; for there is nothing for them to change into, since everything exists in everything.” (Aristotle, Metaphysics. 4.1010a).

Therefore, if the entity is an all-inclusive one, there is no contradiction because there will be no A and B, since A is included in B and vice versa; moreover, A and B are all *seeing things*, whether active or potential active.

6.3.1. Potentiality, actuality and the unmoved mover

In the active-potentially active condition, an entity can be active and potentially active as something else when it has the ability to be something that is still not. For example, a tree outside is an active tree and also a potentially active table. This leads to the concept of teleology and, according to the philosopher, natural ends are produced by ‘natures’ (principles of change internal to living things): *It is absurd to suppose that ends are not present [in nature] because we do not see an agent deliberating* (Aristotle,

Physics 2.8, 199b27-9). Indeed, Aristotle used the word *εντελέχεια* (*entelechia*, entelechy) instead of teleology to emphasise that the end is embedded in the entity.⁷² The term entelechia is associated with the process of physical creation and development of beings; a being acquires entelechy when the amorphous material changes from the area of potential to the area of actual, when the form is acquired and completed, fulfilling the end, the purpose of existence and achieving self-realisation. This is undoubtedly an *ergon* that requires movement and is linked inextricably with the concept of appetite.

In general, it is common to address the actualisation of a potential entity as the entity itself, whereas, according to Aristotelian thinking, actualisation is the process of becoming and not the outcome of the process. For example, the motion of a building is the *energeia* of the *dunamis* (movement) of the building materials *as building materials* as opposed to anything else they might become; Aristotle refers to the potential in the unbuilt materials as ‘the buildable’. Thus, the motion of the building is the actualisation of ‘the buildable’ and not the actualisation of a house as such, nor the actualisation of any other possibility that the building materials may have:

“[...] Hence the actualization must be the act of building, and the act of building is a kind of motion. The same argument applies to the other kinds of motion.” (Aristotle, *Metaphysics* Book XI, 1066a).

Addressing the unmoved mover in the same manner in terms of the movement, Aristotle claims that X, which is absolutely necessary, ‘*moves while being itself unmoved*’. However, Aristotle distinguishes between the

⁷² Entelechy: $\text{Εντελέχεια} < \text{ἐν} + \text{τέλος} + \text{ἔχω}$, which means, I have an end within

types of movement because the latter primary means the *energeia* of the *dunamis*, thus the energy of an entity. Aristotle discriminates the X, which "*causes motion [only circular motion], as being an object of love, whereas all other things cause motion because they are themselves in motion*" (Aristotle, Metaphysics 12.1072b, 4.1010a). He then concludes that X is actuality before any potentiality and "*its active contemplation is that which is most pleasant and best*" (Aristotle, Metaphysics 12.1072b).

6.3.2. Intelligibility of the area

It is assumed that there are three elements and that they can be seen differently depending on the *intelligibility of the area* that supports them. This leads to a different view of the environment itself, the things inside but also their relation:

1. [...] *For there is nothing for them to change into, since everything exists in everything.*

The notion of the parameter of *all-inclusiveness*, points to the appetite of an entity since something maybe the 'something' or the 'something else' as long as entelechy and potential activeness contain all elements within.

2. *The apple exists within the apple.*

The perception of the relation between the universal and the particular (Do it like John – I am John) reveals the element of auto-authorisation since the entity operates as a coefficient of its ergon.

3. *Seeing thing.* The assumption that both the active and the potentially active are seeing things, similar to Hytrakenos's description concerning the even view of all lines, is based on the Epiphania and its

manifestation since the one that is potentially active can see before being active by revealing one's self.

Even if these three elements passed through the TBJ organon, they did so in a rather different way, as described in the analysis of 'Anna's garden'. This is due to two missing elements, which have elevated the importance of Byzantine philosophy: the actualisation as a process and not as the resulting entity and the unmoved mover.

i. "[...] *Hence the actualization must be the act of building.*"

With this position, Aristotle had already set LNC to the specific class of actualised entities in terms of type, property and relation according to a particular time. This time is when the 'applehood' of the apple has been completed and so, the actualisation. Once the apple is eaten, it ceases to be an apple and becomes a part of the person who ate it, just as occurred with the scroll that John the Apostle ate, therefore, through digestion, it is absorbed and manifested as another thing. Similarly, as for plants and animals, at a certain time, they cease to exist in their current form. This is the discrimination between constant change and objects that are momentarily fixed. Indeed, Aristotle said that there are two categories into which all substances are placed: the one that belongs to physics and an eternal category, which belongs to '*another science*'.

ii. "[...] *X causes motion as being an object of love, whereas all other things cause motion because they are themselves in motion.*"

This argument may be taken as the absolute expression of the curvature and its acknowledgement through the meandering process. Aristotle argued that the motion of X, the prime mover, is *only circular because this is the motion which X induces* (Aristotle, Metaphysics 12.1072b).

These two elements are intertwined in order to construe a module as an interchangeable unit that allows assembly and, thus, image and likeness. It creates the *intelligibility of the area it encloses* through noetic courses which can, as the philosopher claimed, be considered as the *active intellect (nous)*: "*The active nous is compared to a craft, while the passive mind is likened to matter*" (Aristotle, *De Anima III [On the Soul]* 430a12–13). Aristotle associated the active intellect with the unmoved mover and God. It may sound obscure for a polytheist, as he was, to maintain such a monotheistic approach, however, it should be mentioned that he considered God to be the prime essence since he claimed that the divine essence is everywhere in nature.

On the other hand, the polytheistic aspect in the ancient Greek era was not in contradiction with the belief in a one-and-only divine essence.

All ancient Greek philosophers believed in one God's foresight since a global principle as it is considered essential for keeping the sign and the availability of its visibility. Nevertheless, the *intelligent man* tried to assimilate the first three components and to repel the last two, due to the need for liberation from any theological dogmatism. The negation of the last two elements is similar to an organon without its connection with the body. For example, for a leg to be able to move, it needs joints such as the knee and the bond with the pelvis. Likewise, an organon, as the coefficient of the ultimate purpose, requires participation and interaction. To describe this schematically, only the notion of a joint can ascribe a module; in any other case, it is a *de-sign* of a model.

When Paul Cezanne was asked what one should study in order to learn how to paint, he responded '*copy your stovepipe*'. Undoubtedly, the painter did not mean the figurative of a cylinder because, as is well known, his entire

work yields the opposite; he laid the foundations of the transition from 19th century representational art to a new and radically different world of art abstraction in the 20th century. Cezanne meant that, for an artist, the importance lies in the research towards the elements that enable the stovepipe to modulate its curvature and to gain its maximum visibility. In order to express the curvature in its outmost manifestation, he was committed to a life-time research on light. It is important here to point out that, for Aristotle, the active intellect is like the light in the way it makes a potentiality to actualise itself and its thing-hood via the corresponding process. Having the module as the schema in which the elements actively participate and interact, the concept of a deity acquires its visibility as the pure process in the image and likeness rather than as a dogmatic pietism.

6.4. Transportation of the module

Thomas Aquinas (1225 – 7 March 1274) was considered to be the carrier of Aristotelean thinking from the Middle Ages to the era of Enlightenment. Aquinas is heralded as the most influential Western medieval legal scholar and theologian, being himself, as he claimed, an absolute believer in the existence of God. However, it seems that he somehow changed the primary concept of Aristotelian thinking and, has, therefore, been transferred to the standard model as a de-sign model, which was easily appropriated by the intelligent man. It was Russel who had serious objections to the validity of the philosophy of Aquinas; Russel argued that Thomist philosophy was not philosophy, but *special pleading* (Russell, 1967: 463). Russel's critique was based solely on aspects of TBJ and he claimed that Aquinas argued for his conclusions in advance, meaning that they could not

be considered as rational. This was, in fact, true, although it was a common practice of TBJ at the time since the representatives were fully authorised. To recall, P is true if and only if one believes or justifies that P is true. The visibility of light, when requested and instantaneously generated (*and there was light*), is an event that has been explained in the same manner by both science and the Church; it is believed and justified from both parts. The real contribution of Aquinas is this very homogenisation of the two institutions but at the cost of modelling the module. Once modelled, the stovepipe lacks its curvature, while the apple cannot be digested because of the Manichaeian and Augustinian devils:

“[...] this is the first precept of the law that good is to be done and promoted, and evil is to be avoided. All other precepts of the natural law are based on this so that whatever the practical reason naturally apprehends as man's good (or evil) belongs to the precepts of the natural law as something to be done or avoided.” (St. Augustine, *Summa Theologica*).

In conclusion, the contribution of Aquinas was, essentially, to explain the Aristotelian LNC in accordance with the ethical principles established by the Catholic Church. Aquinas managed to infuse a fear of the disadvantages, in the age of reason, for the case of eating the apple. He also interpreted the Aristotelian concept of *virtue* according to the ethics and justice of the Church, while Aristotle clearly related virtue to eudaimonia.

“A term often rendered as “happiness” – a rendering that would be less confusing had modernity not restricted happiness to a set of sensations and moods, it is sounder to translate it as flourishing” (Robinson, 2005:1).

Virtue is a central concept of Aristotelian ethics and political philosophy, and Aquinas tried to transfer it to the Catholic Church as a religious dogma in terms of a moral dualism.

6.5. The missed case of eudaimonia

For Aristotle, eudaimonia is the human state of excellence related to logos, with the latter defined as an argument rather than as a reason, as in terms of rationalism. Etymologically, the word eudaimonia consists of the elements 'eu' (eph: good) and 'δαίμων' (*daimōn*: spirit) as an elemental and irrepressible force that drives towards self-revelation.

Hence, the latter cannot be confused with demon as the evil spirit or devil in general. The root of the word *daimōn* has a referent from 'δέομαι' (*daiomai*), which means contemplation in a general sense or supplication. Therefore, eudaimonia is a virtue that leads to human enhancement rather than referring to TBJ values and to the dogmatism of the Church.

It is believed that Aquinas stood as a mediator between religious and scientific ideas. Nevertheless, many scientists questioned his theories, considering them to be untrustworthy. One of Descartes' disagreements on Aquinas' thinking was that of the motion. Indeed, St Thomas attributed the concept of actuality-potentiality with perfect accuracy to the Aristotelian logic that contains the curvature within. For Descartes, however, it was difficult to accept that when the apple falls down, one has to consider every single point of the movement in order to translate the entire motion of falling, because this embraces the meandering movement. As a founder member of 17th century continental rationalism, Descartes argues that motion is simply a mode of matter that moves and claims that:

"[...] the simplest possible motion, namely motion in a straight line, can be seen as the upshot of two straight-line movements, just as the curve followed by any point on the carriage-wheel can be seen as the upshot of a straight-line motion and a circular one." (Bennett, 2008:31).

So, as Aristotelian syllogism drew away from its origin and became the model of the module, it was appropriated by both the Church and the Scientific Enlightenment, according to each one's needs, with the credentials of Aquinas, which were provided either deliberately or unwittingly. The rupture, introduced by the Age of Reason, prevented the *intelligent man* transferring Aristotelian thinking in its original form and, thus, his syllogism missed the module and its visibility.

Although Aristotelian syllogism passed unchanged through the Middle Ages, the authorised surrogate of the Enlightenment era refused to have any relation with it because of the effort to escape from the dogmas of the time and the domination of monarchy. Ancient Greek philosophy was, as expected, endorsed by Byzantine philosophy through the Middle Ages.⁷³ The module, together with its joints, not only embedded Byzantine philosophy and art but, during this era, it also became a strong module of knowledge which, if followed in later years, would work, maybe even together with TBJ, in such a way that mankind will be exempted from the fear of eating the apple.

6.6. The missed case of auto-existence

During the Byzantine Iconoclastic movement, John of Damascus initiated the defense of holy images in three separate publications. "*Apologetic Treatises against those Decrying the Holy Images*", the earliest of these

⁷³ The issue whether the whole Byzantine history is an organic part of the history of the Greek nation is, for many, a controversial matter. In the Byzantine Empire the Greek language was already the *lingua franca* throughout the Middle East and Asia Minor; this was not the case for Latin or the Turkish language. When the Greek language had been established as the formal language, the decision was made, in recognition of an already existing reality, that, to stay united, the empire had to embrace the language of the majority, which was the Greek language.

works, gained him a reputation. Not only did he attack the Byzantine emperor, but also the use of a more simple literary style brought controversy to the common people, inciting revolt among those of Christian faith.⁷⁴ His writings played an important role during the Second Council of Nicaea, which met to settle the icon dispute. Saint John of Damascus, also known as *John Damascene*, *Χρυσορρόας/ Chrysorrhoas*, ‘streaming with gold’ i.e., ‘the golden speaker’ (c. 676 – 4 December 749), was a Syrian Christian monk and priest. Born and raised in Damascus, he died in his monastery, Mar Saba, near Jerusalem. Through his ideas on the ‘*αυτεξούσιο*’ (*aphtexousio*) of an entity, he set not only the human right for metamorphic ability, but also the dynamic of participation, which one can encounter in the most contemporary approaches.

The etymological root of the word *αυτεξούσιο* is *εαυτός* (own self) and *εξουσία* (authority); thus, it regards the one who is his own master. Many scholars, who studied the concepts proposed by Damascus, interpreted the word as meaning free will; however, to explain ‘*αυτεξούσιο*’ as free will requiring that it is classified in the region of TBJ and, therefore, Damascus would have to follow the paths of dualism and determinism. This is impossible, not so much because of the chronological mismatch, as it is possible for these elements to exist irrespective of time, but because Damascus says that the ultimate cause of ‘*αυτεξούσιο*’ is image and likeness through a noetic process.⁷⁵ The term may be translated as ‘self-authorised’,

⁷⁴ Information from John of Damascus is available from:
http://www.newworldencyclopedia.org/entry/John_of_Damascus

⁷⁵ According to John of Damascus, the image and likeness reveal the noesis and the self-authorised. *Το «κατ' εικόνα το νοερόν δηλοί και το αυτεξούσιον».* «Ἐποίησεν οὖν ὁ Θεὸς τὸν ἄνθρωπον ἄκακον, εὐθὴν, ἐνάρετον, ἄλυπον, ἀμέριμνον, πάσῃ ἀρετῇ κατηγλαϊσμένον,

which is considered to be more appropriate, taking into account aspects of 'αυτεξούσιο' such as participation and metamorphic processes.

An illustrative example of the self-authorisation is considered to be the event that took place in the garden of St. Anna, as described in Chapter 3. The power that nobody had used entirely before the embodiment of Logos, manifested only through St. Anna. In the face of St. Anna, the possibility of self-authorisation has been revealed; it occurred through co-operation and active participation as a process of both the concept (Logos) and its conception (physical) long before the incarnation. According to the Orthodox tradition, neither St. Anna nor her daughter (Virgin Mary) were elected, either intentionally or unintentionally, to their ministry. Their status as self-authorised beings provided the possibility of the appearance of the Epiphania. Regarding Aristotle's syllogism, the actualisation is not the natural result of the delivery (the newborn) but, in this case, the process of embodiment.

Therefore, one can speak of an auto-authorised procedure that requires a level of automation for its manifestation. In addition, Greek nouns containing (αυτ) εξούσιον derive from the ancient Greek word *ἔξεστι*, which has the same meaning in English: 'I exist' (I am). With the prefix *αυτό* (εξούσιον), the word reveals the meaning of I am auto-exist. So, herein, 'auto-existence' will be used for 'αυτεξούσιο'.

πᾶσιν ἀγαθοῖς κομῶντα, οἷόν τινα κόσμον δεύτερον, ἐν μεγάλῳ μικρόν, ἄγγελον ἄλλον, προσκυνητὴν μικτόν, ἐπόπτην τῆς ὁρατῆς κτίσεως, μύστιν τῆς νοουμένης, βασιλέα τῶν ἐπὶ γῆς, βασιλευόμενον ἄνωθεν, ἐπίγειον καὶ οὐράνιον, πρόσκαιρον καὶ ἀθάνατον, ὁρατὸν καὶ νοούμενον, μέσον μεγέθους καὶ ταπεινότητος, τὸν αὐτὸν πνεῦμα καὶ σάρκα.» Ἰωάννης Δαμασκηνός *Ἐκδοσις Ακριβῆς τῆς Ὁρθοδόξου Πίστεως* 26, PG 94, 921A) Translated here by the author.

6.7. The circumscribed and the uncircumscribed creation

At the outset, and for the better understanding of the concept, it is essential to emphasise John of Damascus' basic philosophical principle, which is the key point of the overall Byzantine view. This is the concept of the *circumscribed* and the *uncircumscribed creation*, and their dynamic relation. This concept, while being deeply revealing and revolutionary, was frequently not interpreted or assimilated according to its rejuvenating impact. Without being absorbed and comprehended correctly, it is often confused with dualistic distinctions, such as those of the matter and the idea, of the sensible and the intelligible, of the body and the soul, and finally of the born and the unborn. Through a rationalistic view, any component that is predictable, materially visible and physical is *created* because it is governed by the TBJ rules, while whatever is transcendental, virtual and invisible is *un-created* as long as it is unchanged, incorrupt and immortal. This position is distant from that declared by Late Antiquity. According to dualism, the transcendental has an invisible character, whereas, according to the Byzantine view, it is contained in substance.

Thus, the *circumscribed* and the *uncircumscribed creation* assume that every visible entity, whether animate or inanimate, is characterised by a basic existential principle. It is subject to the characteristics of visible entities such as fluidity and alteration. The soul, for example, even if it differs from the body, is still visible; moreover, the entity of an angel is immaterial in relation to humans but physical in relation to the invisible; thus, it should be in the visible group. According to John of Damascus, a human is a mouldy body and soul, akin to both the invisible and visible creation.

Therefore, a man can be justifiably named as:

“ [...] a varied pilgrim, a supervisor of visible creation, a participant of the invisible creation, earthly and heavenly, impermanent and immortal, visible and noetic, intermediary between grandeur and exiguity, consisting of spirit and flesh.” (Ιωάννου Δαμασκηνού. Έκδοσις Ακριβής της Ορθοδόξου Πίστεως 26, PG 94, 921A)

John of Damascus welcomes human supremacy over angels and demons because of the superiority of soul and consciousness, while he claims that one of the characteristics of auto-existence is the power of man over his body. He concluded that humans are more image-wise than angels. The monk Gregory Palamas (Γρηγόριος Παλαμάς, 1296–1359), a descendant of John of Damascus, added that the superiority of humans over angels, as in the ‘image’, is based also on human creativity.

At first glance, and if the concept of ‘auto-existence’ is translated as free will, Damascus’ theory seems anthropocentric. This can be assessed as acquis to human existence long before the age of reason, even in ancient mythology by which Prometheus stole fire from Zeus and gave it to humans, thereby permanently improving the human condition.

Nevertheless, this myth can be explained either via auto-authorisation or auto-existence; that is, either the entire universe has been generated in order to build an ecosystem that ensures the sustainability of human mass and form (auto-authorisation) or the human capacity (appetite) to image or likeness can create morphogenetic abilities while in flux (auto-existence).

6.8. Noetic fluidity of the circumscribed entity

The morphogenetic notion is based not only on the theory of Damascus but also on the theories of Heraclitus, which Aristotle regarded as open arguments. Heraclitus (/ˌhɛrəˈklaɪtəs/; Greek: Ἡράκλειτος ὁ Ἐφέσιος, *Hērākleitos ho Ephésios*; c. 535 – c. 475 BCE) was a pre-

Socratic Greek philosopher, a native of the Greek city Ephesus, Ionia, on the coast of Asia Minor. He argued that fire is energy and this very energy is the prime essence of the world. The everlasting fire undergoes a circular track which mutates in the sea and on land, to follow the reverse process transformation of land into the sea and the sea into fire. The fire of Heraclitus is a cosmological constant that moves and transforms unceasingly.

The constant motion and change is the fundamental characteristic of reality, which is expressed by Heraclitus through the image of a river that remains the same, while the water flowing through the river is constantly changing: "*Into the same rivers we step and do not step, we are and are not.*" He then argued that we cannot enter the same river twice or touch a mortal substance twice because this substance, like the river, spreads and gathers again with the sharpness and the speed of change and not again, nor later, but it is simultaneously displayed and lost.⁷⁶ The river is always the same, as a river, precisely because it is never the same as water. To be a river is to be the identical actuality of the potentiality of water to be in the sea. Heraclitus' theory regarding the prime nature of fire concerns precisely this identical, eternal and universal relationship, which governs reality, expressed through Logos (Fig.12).

⁷⁶ Ποταμῷ γὰρ οὐκ ἔστιν ἐμβῆναι δις τῷ αὐτῷ καθ' Ἡράκλειτον οὐδὲ θνητῆς οὐσίας δις ἄψασθαι κατὰ ἕξιν (τῆς αὐτῆς): ἀλλ' ὀξύτητι καὶ τάχει μεταβολῆς σκίδνησι καὶ πάλιν συνάγει (μᾶλλον δὲ οὐδὲ πάλιν οὐδ' ὕστερον, ἀλλ' ἅμα συνίσταται καὶ ἀπολείπει) καὶ πρόσεισι καὶ ἄπεισι. (Ηρακλείτου, Το Γίγνεσθαι 40. 91) Available from:

<http://www.mikrosapoplous.gr/heracletus/heracletus4.html>

Translated here by the author.

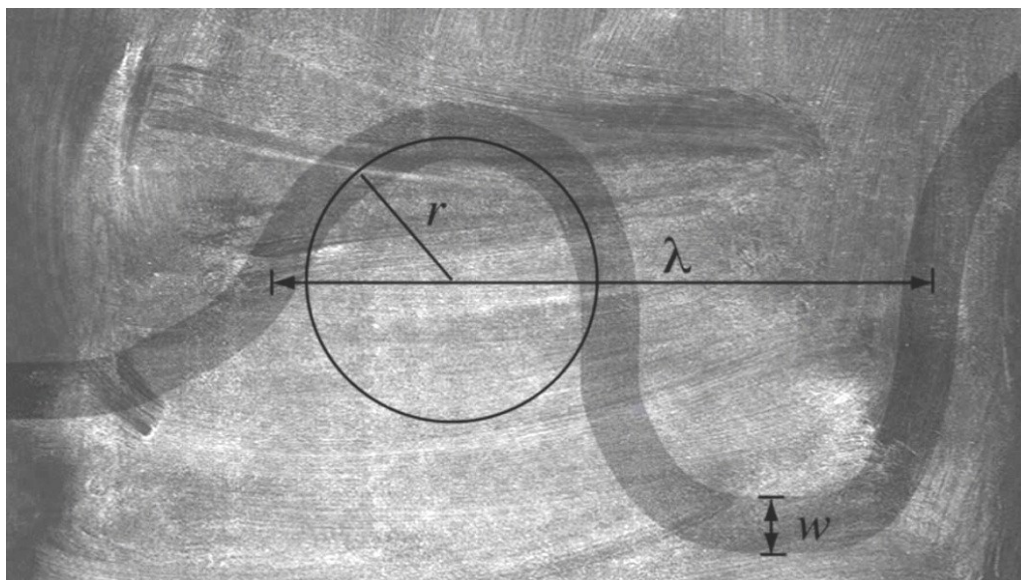


Figure 12. Plan6: The river flow © Katerina Karoussos 2015

Aristotle had never been critical of Heraclitus' notion of this kind of energy. Indeed, it is of the kind that Aristotle formulates in his definition of motion and this may be the reason, leaving aside the argument of constant flux, that he launched the unmoved mover. This is apparent through the development of the theory of Damascus by which the communication flow between the circumscribed (river) and the uncircumscribed (unmoved mover) is the process of auto-existence (actualisation). The motion of this communication is the concept of 'Logos' as the highest function of 'νόησις' (nóēsis). Therefore, constant change that includes the principle of contradiction is a noetic mechanism that cannot be visualised by vision using models and de-signs in general. Byzantine philosophers called the invisible '*kallos*', meaning '*grace*', and because it can only be met through a '*noetic*' mechanism, they used the term '*noetic grace*'. Misinterpretations of '*kallos*' as beauty place the word in the field of aesthetics and the ideal de-signs; however, grace is energy whereas beauty is a characteristic. Byzantine '*kallos*' is identical to Aristotle's eudaimonia and can be translated broadly as

meaning blessedness. The communication of the visible and invisible was a major philosophical issue for Byzantine scholars and concerns exclusively the human appetite for image and likeness. Hence, Damascus' 'auto-existence', as well as Aristotle's entelechy, can be regarded as a human supremacy but in terms of anthropocentrism; 'auto-existence' does not concern human form and mass, or any animality in general, and the importance is the process of actualisation and not what is finally actualised. This is evident if one considers that Damascus based supremacy on the power that man has over his own body.

The theologian Nicolas Cabasilas (Greek: Νικόλαος Καβάσιλας; 1319/1323 -1392) superimposed onto Damascus' concept by identifying the auto-existence of man with man himself as an innate capacity. (*Περὶ τῆς ἐν Χριστῷ ζωῆς*, -"On the Life in Christ"). According to Byzantine thought, the concept of image and likeness is twofold: 'image' refers to the auto-existence with which man was endowed, while 'likeness' refers to the ability of a man to manifest himself. Therefore, likeness is the active-potentially active process. According to Damascus, motion towards the invisible through '*noetic grace*' can be achieved through virtual vision.⁷⁷

However, it should be stressed that throughout the theory of John of Damascus, image belongs to the visible category, as long as it is characterised by a basic existential principle.

In addition, John of Damascus claims that any entity that is compared by similarity and difference to anything else that is indicated can be called an

⁷⁷ Ιωάννου Δαμασκηνοῦ Λόγος Β'20.17-9, Γ'26.6-35 (III.119,132-3).

image. There is no ontological limitation to a substance; everything under such conditions can be an image.

“Again, visible things are images of invisible and intangible things, on which they throw a faint light”. (John of Damascus, *Apologia Against Those Who Decry Holy Images* I.11)

As Mathew claimed, nous is the ‘eye of the soul’ (Matthew, 6:22–34) and to have such a view means that one has to *theorein* instead of seeing.

6.9. The hidden course of Theōria

The very idea of the image as likeness and its displacement by the representatives and their representations was challenged during the era of TBJ. Hence, even if Byzantine philosophy had advanced ancient Greek philosophy, as expected, with Logos as the property of participation needed towards its manifestation, this advancement was misapprehended. Because Logos is *theoritos*, only *Theōria* was able to reintroduce the representative as "*a supervisor of the visible creation and as an actual participant of the invisible creation*".⁷⁸ Theōria is regarded here as the prospect of revealing the full range of the falling apple and, hence, as the ultimate module of the manifestation of every curvature (parabolic or hyperbolic) that may occur throughout the process. Indeed, it can operate as the meandering model, probably being an improvement, since the actualisation in Aristotelian terms, thus the process, is regarded here as modulation.

In physics, modulation is the process of varying one or more properties of a periodic waveform, called the carrier signal, with a modulating signal; the

⁷⁸ The word supervisor is used in terms of a visualised approach.

modulating signal typically contains information to be transmitted. As defined by Burrows:

“[...] a neuromodulator is a messenger released from a neuron in the central nervous system, or in the periphery, that affects groups of neurons, or effector cells that have the appropriate receptors. The release may be local so that only nearby neurons or effectors are influenced, or may be more widespread.” ⁷⁹ (Burrows, 1996)

At this point, one might draw a parallel of this neuroscientific definition with the event in St. Anna's garden. The metaphors, that the archangel symbolised the messenger and the garden symbolised the nervous system, would define Hytrakenos' ekphrasis as a vivid description and an amazing illustration of neuroscience. Similarly, digestion of the scrolls would be an outstanding illustration also, given that the neurotransmitter serotonin is found primarily in the gastrointestinal tract. The image in the service of science is an auxiliary means of ensuring the observation, in terms of aesthetics, and has been the established practice from the time of Enlightenment until today.

One can find recent initiatives of art as an illustrative science in the CERN laboratory where the Collide@CERN residency programme explores elements even more elusive than the Higgs boson: human ingenuity, creativity and imagination. The website starts with Einstein's quote: *"Knowledge is limited... imagination embraces the entire world."*

Apparently, the image as a supplement relates to no event with an approximation of image and likeness, i.e. Theōria, but it relates to a simple representation of scientific observation. This is, in fact, an oxymoron, because the auxiliary character of the image is a type of iconoclasm since this

⁷⁹ Available at <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198523444.001.0001/acprof-9780198523444-chapter-5> [November 2015]

character degrades the importance of the image in a simple tool. This also appeared through the transfer of visibility from a noetic mechanism to an optical ability. The image, as a documentation of scientific discoveries, subscribed *natural selection* as an enduring evidence of *Histoire naturelle* and this, as a tool, in the hands of *intelligent man* was far more important than image and likeness because the ultimate purpose was to maintain human mass and form.

“But the cumulative effects of the illustrated anatomies, flora, and faunas over the course of two-and-a-half-centuries were to bring an ever-expanding range of Nature’s wonders to the page and into the public domain in an increasingly perfected and trustworthy way.” (Kemp, 2006:121)

From the scientific revolution onwards, the validity and reliability of such illustrations has been applied to authorised technology. Representations of optical observations were so micro/macro-wised that they reached a void for both scales.

The apple has been de-signed in all possible ways by de-signers who were guided by the representatives of natural and supernatural authorities. The venture of art to defend the representation services as the highest form of aesthetics stood as an important factor of scientific iconoclasm. The definition of this late iconoclasm can be found in the losing relationship of the visible with the invisible because of the representation rather than supervision and participation. Thereby, it is impossible for a motion to occur, even vectorially, because the appetite is blocked. On the other hand, Theōria as a module is deemed capable of restoring the sign by introducing the image as the catalyst of unblocking the appetite. To this end, it is important to understand the final phase of the loss of image as shaped by the early 20th

century philosophers while inscribed from the 18th century and the age of reason.

As long as fire is energy, what Prometheus stole from Zeus to give to humans is a relationship based in motion, since motion is energy, of an everlasting mutation towards image and likeness. In order to achieve this relationship, one has to view all levels of the apple's downward path until it reaches the ground because an observation of just one starting and one finishing point connected by a vector line is insufficient for the visibility of any actualisation. By observing the vectorial relationship of two points and claiming that this constitutes the Logos per se according to Newton's law of universal gravitation and the three laws of motion, there will always be an invisible hidden course.

One may assume that, because intelligent man is auto-authorised, teleological-free and all-inclusive, the hidden course can be perceived even without visibility. Indeed, this is how TBJ has been structured and, accordingly, this is how LNC has been embraced by determinism and dualism. However, it is evident that the weakness in the visibility of the hidden course brought science to a dead end. According to the Standard Model, as described in Chapter 4, which lacks the visibility of the hidden course, gravity is a natural phenomenon by which physical bodies are attracted by a force that is proportional to their masses. In general relativity, the effects of gravitation are ascribed to the space-time curvature of a force. With the entry of quantum mechanics, it became clear that general relativity is incompatible with quantum field theory. Even though it is possible to describe gravity in this framework, it also produces general relativity in the classical limit, namely

Bohm's physical theorem to approximate classical mechanics over special values of its parameters.

Scientists have, however, proven that probing particles can form black holes and destroy what is to be measured; the process cannot, then, be repeated and, therefore, does not count as measurement. The Manichaeans and Augustinian devils have turned into fearsome, gravitational and monstrous black holes, and human fear has been set to maximum, pointing to the disappearance of mass and form.

Einstein's 'happiest thought', that a freely falling person would not feel his weight, turned to be the most frightened thing for mankind. Stephen Hawking said, in 1976, *"God not only plays dice with the universe, but sometimes throws them where they can't be seen"*. Stephen Hawking and Kip Thorne, a Caltech physicist, made a bet in 1997 with John Preskill, also a Caltech physicist, about whether something that had been swallowed by a black hole could ever be retrieved from it; Preskill, alongside many other physicists, said it could. The winner was to be given an encyclopaedia of their choice. In 2004, Hawking declared at a scientific conference in Dublin that a controversial assertion he had made regarding black holes 30 years previously had been incorrect; the fearsome gravitational abysses can swallow matter and energy, even light. He offered Preskill a cricket encyclopaedia to pay off the bet but Preskill, being 'all American', refused. During the Dublin conference, Hawking said:

"If you jump into a black hole, your mass energy will be returned to our universe, but in a mangled form, which contains the information about what you were like, but in an unrecognisable state."⁸⁰

⁸⁰ Available from: <http://www.nytimes.com/2004/07/22/science/22hawk.html>
[10 May 2015]

The last, and perhaps most famous, bet lost by Hawking relates to the discovery of the Higgs boson, a possibility against which he had bet \$100 with his natural opponent at the University of Michigan, Gordon Kane. Hawking admitted that he was wrong in this case but he stated that *"Physics would be far more interesting if it had not been found"*.⁸¹ To summarise, the gambler Hawking pointed out that there is a hidden place where the dice are; there is a hidden course that enables mass to maintain its information in an unrecognisable state and, finally, that unexpected results are a key element in physics.

6.10. Conclusion

The apple of discord, whether from Eden's garden or from an orchard in Woolsthorpe Manor in Lincolnshire (where Newton can be considered to have had his Eureka moment) led to the fall of humanity, even before humanity (the case of Eden's garden). For many centuries, the controversy of the explanations of these two gardens and their fruits managed to block the appetite as the ultimate motion of mankind. Concerning Eden's garden and religious views, the man ate the apple beforehand, and he was expelled even before the rise of humanity because of moral negotiations between God, Adam, Eve and the snake. On the other hand, the bouncing apple of the

⁸¹ Available from: <http://www.theguardian.com/science/2013/nov/12/stephen-hawking-physics-higgs-boson-particle> [10 May 2015]

scientific community has led to mass vanishing into a black hole; all this happened while the cat is both dead and alive.

Therefore, here, it is apt to ask if Anna's garden, instead of the two above mentioned gardens, can be regarded as the topology of knowledge through Theōria that functions through the noetic mechanism, which uses image and likeness as a carrier of knowledge. Additionally, and beyond the carbon form, Theōria is able to accommodate any principles of anything consisting of or upon which the constitution of anything is based, because she holds the curvature and the energetic flux.

Due to her modulation, Theōria is an ideal environment for organosilicon substances of the transhumanistic period. Into this environment one can enjoy a *pro-nature* incorruptibility through Theōria, in terms of transmutation and blessedness, rather than natural selection with regard to the Anthropocene Epoch. Scientists, who coined the latter term, debate when this epoch began.

The evidence suggests that, among the various proposed dates, two appear to conform to the criteria to mark the beginning of the Anthropocene: 1610 and 1964.⁸² Each of these time points relate to the enforcement of human mass and form and to the control that humans obtained over nature; it

⁸² The definition of the Anthropocene, as published in Nature: Time is divided by geologists according to marked shifts in Earth's state. Recent global environmental changes suggest that Earth may have entered a new human-dominated geological epoch, the Anthropocene. Here we review the historical genesis of the idea and assess anthropogenic signatures in the geological record against the formal requirements for the recognition of a new epoch. The evidence suggests that of the various proposed dates two do appear to conform to the criteria to mark the beginning of the Anthropocene: 1610 and 1964. The formal establishment of an Anthropocene Epoch would mark a fundamental change in the relationship between humans and the Earth system. [Simon L. Lewis & Mark A. Maslin. Nature, International Weekly Journal of Science 519, 171–180 (12 March 2015) Defining the Anthropocene". *Nature*.

<http://www.nature.com/nature/journal/v519/n7542/full/nature14258.html>

[11 March 2015]

might, therefore, be more useful, instead, to ask in which specific garden the human (άνθρωπος – anthropos) lost his image.

CHAPTER 7: THE ECONOMY OF THEŌRIA

7.1. Synopsis

So far, it is apparent that all models of research from any field (science, art, philosophy, etc.) converge to one point; that of happiness as the ultimate goal of human life. Echoing Classical Antiquity, happiness can be defined in terms of flourishing and well-being, while it is considered an important element in the ethics of virtue. Rather than being an emotional state, happiness may be seen as the human activity of implementing a life in which a person fulfils their human nature in an excellent manner. It seems that, from ancient to modern times, Western mentality has maintained this assumption without change. Thomas Aquinas was the transporter of the concept of happiness in both the Catholic Church and the Western intelligentsia, claiming that "*we hope to obtain happiness by means of grace and merits; or as regards the act of living hope.*" ⁸³

However, if one delves into Aristotelian philosophy, one may find a different interpretation than this of Aquinas, even though the latter based on Aristotelian theories. Aristotle used the word *eudaimonia*, instead of happiness, to denote the uninhibited pursuit of the *ergon* of humans towards the completion of a virtuousness life. He stated that this particular virtue is the only thing that humans desire for its own sake. Therefore, the word does not mean the mental or emotional state of well-being since *eudaimonia* is an end in itself; rather than a state, it is the *energeia*, the actuality of an *ergon*, which

⁸³ Thomas Aquinas Summa Theologiae Second Part of Second Part L16, C1
Translated by Fathers of the EDP. Available from:
[http://www.documentacatholicaomnia.eu/03d/1225-1274._Thomas_Aquinas._Summa_Theologiae_\[1\]._EN.pdf](http://www.documentacatholicaomnia.eu/03d/1225-1274._Thomas_Aquinas._Summa_Theologiae_[1]._EN.pdf) [25 May 2015]

holds itself. Everything else is derivative, while not self-sufficient, like happiness and pleasure, which are considered to be characteristics of all animals and yet not activities. Instead, eudaimonia is a special quality attributed to humans in pursuit of their ergon. Yet, the ergon should be contemplated rather than completed; a profound action by which one can achieve this is *Theōria*.

Consequently, for Aristotle:

- Eudaimonia is the ultimate ergon of human life which is an end in itself (“Τέλειον δὴ τι φαίνεται καὶ αὐτάρκες ἡ εὐδαιμονία, τῶν πρακτῶν οὐσα τέλος” -Aristotle, *Nicomedean Ethics* [1097b], 20).

- Energeia is the actuality of the ergon that tends to entelechy (“διὸ καὶ τοῦνομα ἐνέργεια λέγεται κατὰ τὸ ἔργον καὶ συντείνει πρὸς τὴν ἐντελέχειαν.” - Aristotle, *Metaphysics* [1050a], 15).

- Theōria is the contemplation of the ergon of eudaimonia (“Υπάρχει τὸ θεωρεῖν, καὶ εὐδαιμονεῖν, οὐ κατὰ συμβεβηκὸς ἀλλὰ κατὰ τὴν θεωρίαν· αὕτη γὰρ καθ' αὐτὴν τιμία. ὥστ' εἴη ἂν ἡ εὐδαιμονία θεωρία τις.” -Aristotle, *Nicomedean Ethics* [1178] b, 30).

According to this statement, Aristotle stated that Theōria and eudaimonia are not random or unforeseeable events, but for eudaimonia to exist, one has to theorise it, thus to visualise it as a manifestation. Therefore, eudaimonia meets the sign within the schema of Theōria. Having its root in the word demon and *deisis* (supplication), eudaimonia, in later ages, seems to carry a negative connotation as something odious. On the other hand, Western mentality regarded happiness as a fashionable approach, fitting it into scientific research as resistance to medieval superstitions and also as a tribute to anthropocentrism. For this reason, any connection with religious

concepts (demon and *deisis*) must be eliminated. However, these missing elements led to the rejection of the interaction with 'image and likeness'. Once happiness replaced eudaimonia, Theōria became theory, and, while the former responded to *noumena* (noetic process), the latter dealt with phenomena. Nevertheless, the concept of Theōria was transferred from Classical to Late Antiquity and the Middle Ages in a dignified way, providing a module that included all the elements of Epiphania and its manifestation by contemplation through the noetic mechanism.

7.2. The economy of Theōria

In the Middle Ages, eudaimonia shifted to blessedness, which appears to entail all the features of the former. The claim is that the transition was carried in such a way that, during the Byzantine period, Theōria stood as an integrated module, capable of carrying the sign within, while demonstrating a remarkable capacity for interaction and fluidity between the tangible and the intangible worlds. While one would expect that this path would be developed in later years, it halted abruptly for reasons already discussed in previous chapters.

Briefly, the missing elements of Theōria refer to the human appetite for image and likeness and to the ability of transmutation and manifestation. According to the topology of Theōria, the schema and its curvature (Epiphania) have vanished. The catalytic agent of the fluidity of these elements, facilitating the interaction among them, is the sign that can be specified as the visible manifestation of this very topology.

The scientific revolution and post-revolution developments had sufficient grounds to displace Theōria. To recall, the idea that man could be his own

master, banishing any kind of imposition, seemed particularly appealing.

Undoubtedly, the socio-political conditions intensified this position and created the appropriate condition for the sovereignty of human nature. With a deep and constant transformation of financial, social and working conditions, starting in the second half of the 18th century and reinforced in the 19th century, there was a need for new practices that were able to handle the new settings.

The industrial revolution was the most important parameter in developing the new knowledge economy, which was considered as critical for the financial economy. Human capital had reached a point where the knowledge that allowed humans to maintain their mass and form, for the survival of the fittest, should be invested. Believing that this stock of knowledge was undoubtedly the paramount asset of the human mind, the knowledge economy focussed mostly on research based on TBJ. The frantic pace of this investment seems to have completely abolished whatever was left of eudaimonia as a key component of Theōria.

One might expect Theōria to have been retrieved at the dawn of the 20th century. Since her device is the noetic faculty, Theōria has the capacity to envisage and supervise contents that may not be apparent through the standard model of knowledge. Given the advancements in physics and biology, which went beyond TBJ limits, as well as the shift of the arts to a process-based organisation, Theōria seemed to be able to reach her full potential; this was not achieved and it seems that the reasons were the changes that occurred in the general field of economy. The main cause of this change is what is herein defined as the *de-sign* problem that occurred with

the extinction of Theōria, since image and likeness are the factors that give content to context and set the conditions in which such an economy functions.

Specifically, in Aristotelian thinking, economy can be considered as the total conscious behaviour of interconnected communion. Further along, the idea of a participatory economy was one of the main elements of the Byzantine Theōria, since it claimed a broader concept of communion, expressed as the divine economy. Once disavowed from the human capital of matter and form, it missed the importance of the corresponding concept of image and likeness. In later ages, one can meet the reduction of the participatory economy in both the transcendental and social aspects. The benefit of being wealthy over the others, thus the ideal state of well-being, brought about the shift from the collective to the individual level.

It is clear that the persistence of the scientific revolution in matter and form intensified the elimination of the relationship with the image and likeness, which derive from the module of Theōria. Mostly relating to unexcelled fears for the loss of matter and form, the rate of economic change has been increased radically due to later socio-political inconsistencies. The second millennium carries within it two world wars; the Cold War and the post-Cold War. On the other hand, the second millennium was the generator of the digital revolution.

The 20th century may be regarded as the era where cybernetics emerged as a new kind of collectiveness. With a multifaceted approach to mechanical, physical, biological, cognitive and social systems, cybernetics operates as a dynamic and distributed network. As already discussed, scientific discoveries such as the theories of relativity and quantum physics, have changed profoundly the foundations of physical science. In biology,

genetics was readily accepted and developed in detail. The art world experienced the development of new strata and explorations while wanting to put art back into a noetic process. The Apollo 8 spacecraft made the first manned lunar orbiting mission, followed by Apollo 11 and 17 in later years. The belief in the standard model, which proposed the return at the beginning (the prime cause) as a process towards the knowledge of nature's actual depth, had been found as opposed to the scientific results, which demonstrated multiple dimensions. However, it is bizarre that, in the course of this retrospective route in philosophical research, only few scholars have argued about Theōria as analysed in Classical and Late Antiquity. In most cases, this retrospective route concerned Classical Antiquity.

It is significant that these few examples, which articulated philosophical ideas, similar to Byzantine Theōria, came from philosophers who had not delved into Theōria per se as their field of research, but who felt the necessity to think in this way, prefixing noetic operations against a strict rationalistic behaviour. Approaching the 21st century, the voices of all the fields in science, philosophy and the arts, arguing for the need for a new noetic mechanism with synergistic and participatory attitude, became increasingly strong. Improper scientific protocols, hidden causes and visual inertia were some of the problems encountered and which could be resolved through the module of Theōria.

One realises that this need probably came from the sinking of the cultures and values that was brought about by war. It is frequently the case that a culture regenerates itself and the society that embraces it only through a revelation. Accordingly, revelation as well as regeneration, in terms of resurrection, may deposit humans in a religious angle while searching for

salvation. On the other hand, the discoveries of multi-dimensional space-time and of life itself addressed a metaphysical reflection on the path to religious philosophical enquiries. Certainly, if it was for simple enquiry in older models as references to consolidate them in the standard model, the need to embrace Theōria would not be of great importance. However, its significance is indicated by the fact that this need arises from the recognition of the weakness of practical and theoretical research results. Thus, one might explain Jesus' sea walk using the theory of anti-gravity. Nowadays, however, where one can recognise the multiplicity of one's own life, the economy of Theōria's image and likeness as well as transmutation are, once more, in the milieu of human nature.

7.3. Epiphania of the multiplication of loaves and two Fish

An illustrative example of Theōria's economy of image and likeness comes from the Apostles' texts on the miracle of the multiplication of loaves and two fish. Although the church argues that the main idea is based on Jesus' supernatural powers, by taking a more cautious approach, one can understand that this story is not limited to a super-hero show off. The most interesting description is that given by John the Apostle (John), since it contains several details that lead to evidence of the economy of Theōria. John was not interested in describing the multiplication as a miraculous event that attracted the admiration of people. Instead, he focussed on the existential aspect of communion.

John reported that five small barley loaves and two small fish that had been supplied by a boy were used by Jesus to feed a multitude.

According to the Gospels, when Jesus heard that John the Baptist had been killed, he withdrew privately by boat to a solitary place near Bethsaida. The crowds followed Jesus on foot from the towns. When Jesus landed, and saw a large crowd, he took compassion on them and healed their sick. As the evening approached, his students came to him and said:

"This is a remote place and it's already getting late. Send the crowds away, so they can go to the villages and buy themselves some food."

Jesus replied:

"They do not need to go away. You give them something to eat.

We have here only five loaves of bread and two fish", they answered.

"Bring them here to me", Jesus said.

Jesus directed the people to sit down on the grass. Taking the five loaves and the two fish and looking up to heaven, he gave thanks and split up the loaves and fish. Then, he gave them to his students and they gave them to the people. They all ate and were satisfied, and the students picked up twelve basketfuls of broken pieces that were left over. (Fig.13)

The number of those who ate this night was about five thousand men, besides women and children.

Through the objective impossibility to feed so many people, Jesus took the opportunity to manifest himself through an Epiphania. It should be mentioned that the daily wage of a labourer was, at that time, a dinar (a coin), while for the number of people who had gathered, even two hundred dinars on bread would not be sufficient. Moreover, it is noted in the narration that the edible amount the entire crowd had was five loaves of bread and two fish. The five loaves of bread were made from barley, showing the inability of the people to purchase a better quality bread such as wheat bread.



Figure 13. A Byzantine mosaic of the 12th century, depicting the Multiplication of the loaves and fish situated at the Church of the Holy Saviour in Chora (Turkish Kariye Müzesi, Kariye Camii) Constantinople (Istanbul). The image here is from Underwood.A.P. publication, *The Kariye Djami*. Vol.II 1966. Routledge & Kegan Paul, London.

Hence, given the above mentioned impasses, the narrative of John proceeds in an extreme excess of the poverty of the five loaves with a teleological expectation of permanent abundance. In this case, as in most of these cases, the Epiphania is the excess itself while the ultimate purpose (telos) has an open-ended prospect.

7.4. Epiphania as a scientific phenomenon

Assuming that the multiplication of the bread and fish was a scientific fact derived from observation and experimentation in a laboratory, tested and confirmed repeatedly, then it would be an outstanding scientific achievement. In fact, it could be developed in such a way so as to emancipate the world from starvation and, accordingly, to prevent economic conflicts and social inequalities or even obviate destructive acts such as wars. It was a common

practice of the scientists of the Era of Enlightenment to engage with older concepts and to reconstruct them as scientific theories. In this case, and given that it would have been performed under the TBJ protocol, it would have been the greatest scientific discovery ever made. In effect, it could have been as such since the crowd was both the main observer and the witness of this event. People also enjoyed the direct results once fed.

Therefore, there are three possible reasons that this event is not considered as the most innovative scientific discovery:

- It was classified as a miracle and had religious parameters such as supernatural powers that cannot be proven through TBJ and the standard model of knowledge.
- It was a fictional story about someone who may not even exist.
- It had a totally different schema and, therefore, even if it could obtain the credits of an outstanding scientific discovery, this was not the issue.

The first two possible reasons are weak because many scientific discoveries were first considered as supernatural occurrences while, at a later stage, they were accounted by human capital imposed by TBJ protocols (acting 'on behalf of' rather than 'instead of'). In addition, the one who undertook this operation argued the failure of that act. According to John, speaking to the crowd, Jesus said: *“Very truly I tell you, you are looking for me, not because you saw the signs I performed but because you ate the loaves and had your fill.”*⁸⁴ Hence, no-one saw the *signs*, which was the main

⁸⁴ «Αμὴν ἀμὴν λέγω ὑμῖν, ζητεῖτέ με, οὐχ ὅτι εἶδετε σημεῖα, ἀλλ’ ὅτι ἐφάγετε ἐκ τῶν ἄρτων καὶ ἐχορτάσθητε. » Κατὰ Ἰωάννου Ευαγγέλιο 6,26. The English translation is available from: <https://www.biblegateway.com>

goal of the operation; instead, they satisfied their animality once they ate and they felt that he was their saviour and, therefore, their king. Apparently, it seems that the third reason can better explain why the multiplication of loaves could not be regarded as a scientific phenomenon. However, in this case, the one who could not see it as such is the one who performed it. This assumption could disprove contemporary theories such as Dawkins' assumption:

"[...] not only is science corrosive to religion; religion is corrosive to science. It teaches people to be satisfied with trivial, supernatural non-explanations and blinds them to the wonderful real explanations that we have within our grasp. It teaches them to accept authority, revelation and faith instead of always insisting on evidence." ⁸⁵

The case of the multiplication of loaves presents an opposite view. At this time, neither science nor TBJ had been conceived, even though people had a 'scientific experience' by being *satisfied with a supernatural act* because *they insisted on evidence*. Specifically, the crowd, based on the verification (they ate) of the supernatural act, believed at once in the authority of Jesus and ran after him to proclaim him a king, while he had already gone considering his act to have been ineffective. Faith and authority are two main points of TBJ, while revelation differs from manifestation due to Epiphania. ⁸⁶ Revelation corresponds to a previously unknown fact that has been disclosed to others, while refers to an already known Epiphania that appears as an open possibility. By not seeing the *signs*, the crowd ignored the Epiphania.

⁸⁵ Richard Dawkins on militant atheism (transcript), TED talk, 2007. Available from: http://www.ted.com/talks/richard_dawkins_on_militant_atheism?language=en [5 June 2015]

⁸⁶ As it is used by Dawkins

7.5. Mutation of water to wine at the wedding at Cana

Likewise, and perhaps in order to give emphasis in the view of signs, John the Apostle gives another description of the wedding at Cana in Galilee (Fig.14). According to the narration, during the feast the host family ran out of wine, which was considered a great shame on those hosting the wedding. The mother of Jesus, who was the host, asked Jesus to take care of this issue. With his creative and participatory economy, he ordered the servants to fill six large stone jars with water. Then, he told them: Now draw some out and take it to the master of the banquet.⁸⁷



Figure 14. Byzantine mosaic of 12th century depicting the wedding at Cana situated at the Church of the Holy Saviour in Chora (Turkish: Kariye Müzesi, Kariye Camii) Constantinople (Istanbul). The image here is from Underwood.A.P. publication, *The Kariye Djami*. Vol.II 1966. Routledge & Kegan Paul, London.

The significant thing here is that John offers no explanation of how the water turned into wine other than that by the time the master of the banquet

⁸⁷ « καὶ λέγει αὐτοῖς· ἀντλήσατε νῦν καὶ φέρετε τῷ ἀρχιτρικλίνῳ. καὶ ἤνεγκαν» Κατὰ Ἰωάννου Ευαγγέλιο 2, 8. The English translation is available from: <https://www.biblegateway.com>

tasted it, it was wine. John did this on purpose since he did not wish to highlight the manifestation as a miraculous event but rather he focussed solely on the Epiphania. Another point of the narrative that should be mentioned is that when the master tasted the wine, instead of expressing the Epiphania, he complained saying to the groom *every man first puts on the table the good wine and when drunk, the inferior. You have kept the good wine until now.* ⁸⁸ The fact that neither the servants nor the master dealt with the mutation of water into wine, is based on John's desire to give credit to the Epiphania, rather to the miracle. By doing this, he decided to narrate this paradoxical behaviour of the master in order to emphasise the Epiphania. By giving the good quality wine to the guests when they were drunk, thus when they were available to exceed their limits, John illustrated the curvature of Epiphania.

The master of the banquet, who was afraid to face this Epiphania, became unfulfilled. His inability to see the signs caused a total lack of Logos, given that the latter could be manifested through the Epiphania. In this narration, once again, Logos is expressed in fluid dynamics as encountered in the meandering model of thought. Philo of Alexandria described Logos as the sommelier and the master of symposia who has the cups of truth which engender eudaimonia. The fear of the banquet's master is that the dynamics of speech make the surface excessive from the curvature of Logos. Thus,

⁸⁸ « ...πᾶς ἄνθρωπος πρῶτον τὸν καλὸν οἶνον τίθησι, καὶ ὅταν μεθυσθῶσι, τότε τὸν ἐλάσσων· σὺ τετήρηκας τὸν καλὸν οἶνον ἕως ἄρτι. » Κατὰ Ἰωάννου Εὐαγγέλιο 2, 8. The English translation is available from: <https://www.biblegateway.com>

when he executed Jesus' command, he knew that people had exceeded their limits.

Furthermore, it was obvious that the eudaimonia that was provided by the latest and best quality wine would result in a situation that would cause hyperbolic and parabolic topology. Specifically, the guests were already intoxicated and therefore the best wine that the hosts offered afterwards would likely cause an uncontrollable situation. What John sought with this narration was not to give importance to the 'paradox' of the mutation of water into wine, but to yield the abundance of the latter through participatory economy.

Both narratives (the feeding of the five thousand and the wedding at Cana) are governed by a rate of inflation and multiplication that indicate the extension from a predefined boundary set to a correlation area between connectivity and integration. This explanation brings forward, once more, the issue of the shape effect. Indeed, the failure Jesus faced concerning his operations by saying to the crowd that they had not seen the signs is the very same de-sign problem, which causes the shape to appear as a representation and not as a manifestation. However, in order to manifest itself, the shape should be mutated to a schema; this is a key element for Theōria and her Epiphania as it holds the economy within.

7.6. Epiphania as the first application of the economy of Theōria

It should be remembered that in the Greek language the word 'epiphania' has the same meaning as the English word 'surface'. Herein, 'epiphania' will be used with its topological meaning, as described in Chapter 3, to render the significance of the schema. Furthermore, by using this meaning, Epiphania is

released from any inaccurate features of *God-feared* religiosity that prevented the manifestation of any epiphania, even in the times and places that these Epiphanies occurred.

The first use of the word Epiphania in the scriptures refers to the baptism of Christ, implicating a rather expressive mutation of Jesus, who became a spirit in the form of a dove. Romanos the Melodist wrote the hymn: *You became obvious to the universe and your illuminated sign has been ascribed to people's consciousness.*⁸⁹ Romanos wrote this hymn using the second person, addressing it to Jesus himself, as is usual in Christian hymns. Hence, the word Epiphania is used as a verb as long as the Melodist used it to describe the manifestation of Jesus. This explanation refrains from giving the meaning of the word epiphany because Epiphania is an activity and an attribute, while epiphany is a feeling. It is considered that the specific meaning of the word 'Επεφάνης' is relevant to the English word 'obviousness' by which something or someone is open to the view of knowledge.⁹⁰ The origin of the word 'obvious' comes from the Latin *obvius* (*ob+vi (a) + us* = a way of fulfillment). Hence, by ascribing the sign to human consciousness, Jesus became obvious through his mutation to a white bird (a dove). The Latin word *via* in the noun *obvius* indicates a trace as the schema of fulfillment, which describes the concept of *Theōria*. Rather than a linear vector quantity of an A to B sequence and its relevant timeline, Epiphania could better be described

⁸⁹ "Επεφάνης σήμερον τη οικουμένη και το Φως Σου Κύριε εσημειώθη εφ' ημάς εν επιγνώσει" English translation by the author

⁹⁰ Definition of the word obviously available from <http://dictionary.reference.com/browse/obviously> [12 May 2015]

as a free (fluid) surface without length or depth, since the description of such surfaces does not require a vertical axis.

Apparently, fluidity is a key element in all the above narrations; the multiplication of the loaves starts once Jesus came from the sea, the wedding refers to a transmutation of a liquid and, finally, the baptism is, literally, the dipping of the baptised into a liquid (in this case, the River Jordan).

Conclusively, what is expected is to register the schema containing the signs in human consciousness through the course of a time-like curvature, in order to manifest the area of correlation between connectivity and integration, thus the Epiphania. This can be considered as the first application of the economy of Theōria. Similarly, regarding the first use of the word Epiphania in baptism, the Ecumenical Councils proclaimed that the application of economy runs with baptism. Even if this decision was probably taken from quite different perspectives from those described herein, the fact that the service of baptism contains the properties of Theōria (mutation, participation, connectivity and integration) is considered to be sufficient for grounding her economic framework. Furthermore, baptism is also engaged with the fluid character of the schema of Epiphania, which contains the attributes of the curvature. Yet, in order to obtain a more integrated approach, it is essential to analyse the curvature according to the temporal character of an Epiphania.

7.6.1. Chronos and kairòs

John the Apostle usually plays with the concept of temporal dimension in order to indicate the excess that occurs when an Epiphania is manifested. As mentioned previously, there is no description of the multiplication and mutation in either of the narrations. One may refer to a time gap since the

narration sequences point to previous and subsequent events leaving the moment of the operation outside. He does this to emphasise that the manifestation had not occurred for the so-called miracle, but the miracle had occurred for the manifestation. If it was for the miracle itself, everything would have been the same and no economic framework would have existed.

However, another reason for this time gap is used intentionally in the narrative, referring to the notion of excess per se. The application of Theōria's economic framework is linked inextricably to the temporal concept that forms her schema. People in Classical and Late Antiquity had a totally different perception of time, which seems to be closer to ancient Roman practice whereby the movement of the sun in the sky indicates the passage of time.

The ancient Greeks had two words for time: *chronos* and *kairòs*. While the former refers to chronological or sequential time, the latter signifies a time in-between, a moment of indeterminate time in which something special happens. While *chronos* is quantitative, *kairòs* has a qualitative nature and may hold many chronologically ordered sequences. In the Middle Ages people followed the ancient Greek notion of *kairòs*, meaning a set of opportune moments. The Byzantine method of keeping time was based on events and the intervals between events. Hour zero, 0:00:00 began daily at sunset and, due to seasonal variations in the length of the day (solstice), hour zero varied by several hours throughout the year. In the year AD 691, the Creation Era in the Acts of the Quinisext Council reads as: "*as of the fifteenth day of the month of January last past, in the last fourth indiktion,⁹¹ in the year*

⁹¹ The indiktion was a non-astronomical period of fifteen years. It was established in ancient Roman times as a result of a tax, which was ordered to be paid every fifteen years. The etymology of the word is Latin and is derived from «indictio», as the Romans called the "order".

six thousand one hundred and ninety." ⁹² Similarly, the circle of the day did not show a continuum that allowed implementation of a 24-hour set, because every hour of this set "*passes away in fleeting fractions.*" Augustine explained this by arguing that:

"The first of these hours has the rest of them in the future, and the last of them has the rest as past; but any of those that preceded it as past and those that succeed it as future." (Augustine of Hippo, Book Eleven, Chapter XV)

By acknowledging this kind of temporality, one can capture the excess of an opportune moment in spatiotemporal terms *kairòs*, as a notion of time, may be seen as a vehicle for quantifying a range of changes of quantities according to a sequence of events. Hence, the '*in the course of*' statement serves as an operation which guarantees the capture of an instantaneous reception. On the other hand, *chronos* refers to real-time events; real-time means different things to different people when the term is used as a proxy for recently. To an evolutionary biologist, real-time could mean thousands of years of evolution of a species. To an ambulance paramedic, real-time is a few seconds during a critical situation that may lead to the loss of a life.

7.6.2. In media res

The aforementioned instantaneous reception reflects the manifestation of the epiphanies and the moment of indeterminate time indicates both the multiplication of loaves and the mutation of water to wine. Through Jesus'

⁹² The Rudder (Pedalion): First printed and published AD 1800. Trans. D. Cummings, from the 5th edition published by John Nicolaides (Kesisoglou the Caesarian) in Athens, Greece in 1908, (Chicago: The Orthodox Christian Educational Society, 1957; Repr., New York, N.Y.: Luna Printing Co., 1983).

words, John the Apostle used the concept of an immediate moment through the noun 'now' (νῦν) in his narration of the wedding, most probably implying the point in time when the mutation occurred. The meaning of the word 'now' in the narrative reflects the notion of real-time, here indicating a present moment, which is shown in its absence. This may be relevant to the concept of '*in media res*' that was used in Classical Antiquity, as the opportune moment when something important happens. In media res, meaning into the middle of things, is a Latin phrase denoting the literary and artistic narrative technique wherein the relation of the story begins either at a pick point, mostly at the midpoint, or at the conclusion, rather than at the beginning. In Media res was a common narrative method of Greek tragedy, with the most exceptional examples being found in Homer's epics (Odyssey and Iliad). In terms of imagery, the frescoes of Pompeii testify that the use of 'In media res' was an important artistic mechanism; an exemplary example can be found in the fresco of Medea (Fig.15).

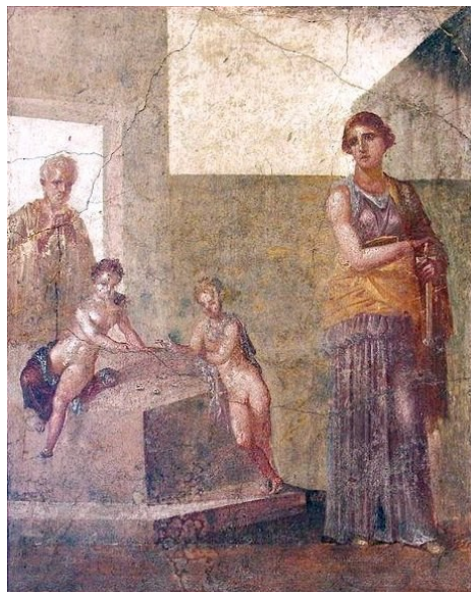


Figure 15. The Pompeian fresco, painted in Fourth Style, depicts Medea as she is about to kill her children. The fresco is located at the National Museum of Naples.

It is known from the narratives that Medea is going to kill her children after just a second in time had passed. The image captures a moment 'In media res' in which all phenomena whose nature suddenly breaks out disappear and reappear at another mental stage. The Pompeiian fresco of Medea depicts an unconditional and unchanging sequence. Likewise, in the narratives of John the Apostle, neither the person who performs the operation nor the operation itself are present. Characters, time and places are in a state in which they are neither objects nor subjects. This is a state in which a thing can come to be. Aristotle claimed that a thing can come to be incidentally of that which is not, and also all things come to be out of that which is, but is potentially and is not actually. Therefore, the economy of Theōria relies on the time at which the appetite has not yet been formed into an actualisation; in this opportune moment, the schema can exist as a plan without any shape effect since it is uniform and thereby, instead of a representation that can show the de-sign, only an Epiphania can manifest the signs.

7.6.3. Time-like curvature

It is rather peculiar for someone to think that the multiplication of loaves and the wedding, as timeline events, are similar to Schrödinger's cat in their time-like curvature (Fig.16). However, it seems that Theōria was simmering in science despite her depreciation through the years of determinism and beyond. Augustine's definition of Theōria in 401 AD refers to her as

"[...] a distension of mind by which one simultaneously grasps the past in memory, the present as awareness, and the future as expectation."
(Augustine of Hippo, 401AD: 11.26)

Likewise, one may find Theōria's distension of mind in 20th century science as well as light cone theory, as coined by Hermann Minkowski, who claimed that

“From now onwards space by itself and time by itself will recede completely to become mere shadows and only a type of union of the two will still stand independently on its own.” (Minkowski, 1909: 37)

Through this assumption, he formulated the '*light cone*' theory. The common spatiotemporal definition implied by the standard model of thought is that the future is any event at $t > 0$ and that the past is any event at $t < 0$, while $x=0$ =here and $t=0$ =now. However, the theory of general relativity argues that it is possible for someone at $(x, t) = (0,0)$ to see an event E in the past, since a -45° light beam would reach the time-axis approximately one-and-a-half years prior to $t=0$. Similarly, for any event E inside the light cone, there is someone at $(x,t) = (0,0)$ who can see the event with respect to the 45° axes of the cone. Therefore, the point at $x=0$ =here, $t=0$ =now, also includes values of $t > 0$ and $t < 0$.

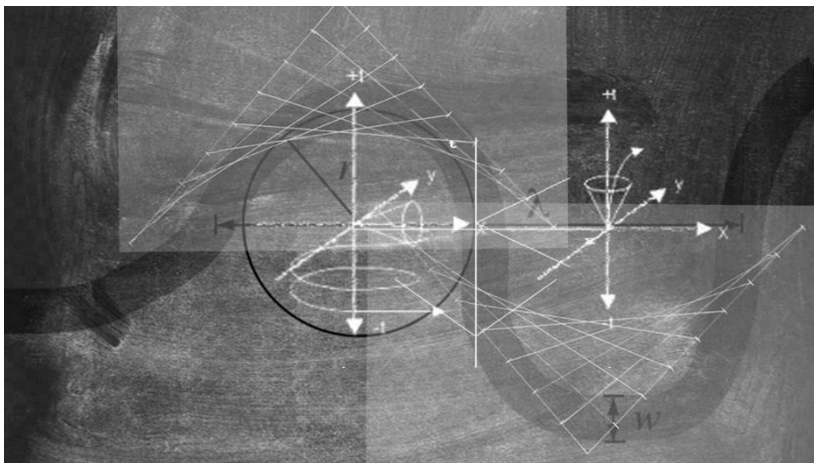


Figure 16. Plan7: The time-like curvature © Katerina Karoussos 2015

It seems that the difference between Jesus' epiphanies and quantum mechanics is based on the very same persistence of mass and form. The

epiphanies manifest themselves in their disappearance (like the time gap shown in John's narrations), whereas quantum mechanics presents events and their entities as superimpositions.

For particles that can exist across all the possible states at the same time, superimposition is lost once their state is observed.

Therefore, it is by observation of the final state that one can acknowledge their superimposition without being aware of the process. Likewise, for Jesus' epiphanies, the crowd became the witness of an observed fact since they saw that the loaves and fish had multiplied and that the water had mutated into wine. For bread and wine, to become actual, there should be a time-like curvature that is open and available for the mutations to be manifested. Hence, there is a preview in this state that is available and requires *theorein*, thus the noetic mechanism that allows the absolute integration with the event, as illustrated in the immersed case of St. Anna's garden and in the Revelation by John the Apostle, who described the digestion of the scroll.

7.7. Surplus common in Theōria's economy

7.7.1. Providence and the Notion of Pre-View

In order to elucidate the notion of preview, the Latin word *obvius*, which corresponds to epiphanies, needs further analysis. There is an important parameter in the root of the word, based on the prefix *ob*, and which indicates a time sequence, as it refers to a path or a way towards something. The Greek word for obvious, 'προφανής', can be translated into English as something pre-manifested and/or as a be-ahead-of manifestation. Hence, to paraphrase the words of Romanos: *you have been pre-manifested in the*

course for your manifestation in people's consciousness. This may be seen as an oxymoron when interpreted in a linear time sequence. If an event has already occurred (pre-manifested) at a point A, it is meaningless for one to take a *course* to get to point A. Since there is no vector for which only one point exists, this time sequence is either false or, similar to quantum mechanics, it is that for which the timeline curve holds all the possible states at the same time.

According to Theōria's definition as a distension of mind, she can manifest herself as human consciousness before and after any reference point. For a better understanding of this process, a contemporary concept is employed that, although in a different field, is considered to be an approximation of the preview value of Theōria. It is about the model of *future anterior*, which is used to describe an action that will have been completed before a reference point in the future. *Futur Antérieur* (Future Anterior) was an initiative of Jean-Marie Vincent, Denis Berger and Antonio Negri, and was founded as a journal in 1990. The objective was to promote a revival of conceptual research, creating conditions for strategic and critical debate. It has, from the beginning, been privileged on the basis of theoretical development that was comprised of politics, sociology and philosophy. Antonio Negri used the term to describe a way to live in time through the incorporation of the common practice of the time as existing nowhere outside of and in-between the past and the future. Cesare Casarino explains the future anterior as a 'bygone moment when what we desire now was first anticipated and deferred, when what we now want our future might have taken place but never did (Casarino & Negri, 2008:13). This moment constitutes the broad basis for a number of potentialities of future

actualisations, which Antonio Negri considers as having a surplus value. In their context of *biopolitical production*, Casarino and Negri argue that the capital should be understood not simply as a social relation but as an open social relation. Casarino tried to set some parameters in the conceptualisation of the common while relating it to Dante's intuitions regarding the common potential of language. He first used the Aristotelian concept of potentiality and actuality, arguing that surplus value is "*a shared potentiality in the common lives of a double life*." Then, he highlighted the common's immediate relations to thought and language and to their modalities of transmission and circulation (Casarino & Negri, 2008: 12). Finally, he posed that such conceptualisation of the common "*emerges from and is symptomatic of a certain type of medieval Christian as well as Islamic universality*." (Casarino & Negri, 2008: 13).

Indeed, the concept of surplus common is that which governs the economy of Theōria. Having as a compass the 'προφανές' (obvious) of an Epiphania, Theōria has developed the concept of surplus common throughout its usage. From Ancient times and Classical Antiquity to Christian times and the Byzantine period, the concept evolved in a par excellence economy. It is considered that in the latter period, as a result of the previous eras, the concept reached its peak by focussing on the idea of 'πρόνοια' (pronoia). With its theological meaning, pronoia is the providence that is related to the care exercised by God over the universe. Augustine of Hippo and Thomas Aquinas disseminated the concept of providence, while Aquinas developed his theory of Divine Providence as his religious doctrine in Summa Theologica; this later shifted to the idea of 'Middle Knowledge' during the 16th century

with Molinism,⁹³ when intelligent man tried to combine the hidden causes with free will.

7.7.2. From providence to Middle Knowledge

Middle Knowledge (MK) is seen as the key to understanding the compatibility of divine providence and human freedom. Several theorists objected to MK saying that it is not possible to ground such theory if the events and, generally, the entities of MK may be made prior to the existence of the entity to which they refer. The aforementioned examples of Epiphanies of loaves and wine were classified as Divine Providence and MK with respect to the era analysed, but always interpreted as God's extraordinary interventions (miracles). Yet, in both theories, time was expressed with its chronological meaning as a sequential timeline, while entities occurred beyond the "*casual powers of the natural entities existing at the relevant time and place.*" Through this explanation, the compatibility of divine providence and human free will can be achieved by placing the events of providence in the category of supernatural phenomena that "*cannot violate the laws of nature* because they are *miracles*" (Brian,1998:136-162).

This diplomatic attitude has been adopted in several philosophical models such as Thomas Huxley's Agnosticism. Writing to Charles Kingsley in

93 The name used to denote one of the systems which purpose to reconcile grace and free will. This system was first developed by Luis de Molina, and was adopted in its essential points by the Society of Jesus. It is opposed by the Thomistic doctrine of grace — the term Thomism has a somewhat wider meaning — whose chief exponent is the Dominican Bañez. Along lines totally different from those of Molina, this subtle theologian endeavours to harmonise grace and free will on principles derived from St. Thomas. Available from: <http://www.newadvent.org/cathen/10437a.htm> [23 May 2015]

1860, to highlight his neutral behaviour in relation to religion and morality,

Huxley says:

"[...] I have champed up all that chaff about the ego and the non-ego, noumena and phenomena, and all the rest of it, too often not to know that in attempting even to think of these questions, the human intellect flounders at once out of its depth." (Huxley, 2012: 41)

Rightfully, Huxley was indifferent to the above mega concepts, although he sought evidence to acquire interest. In a wry aside, Russell saw no reason to believe in a divine providence, although he attempted to exercise his own Epiphania, childish though, by launching his hypothetical Chinese teapot in space between the Earth and Mars (Russell, 1952: 547-548).

In any case, the main transporter of providence, Thomas Aquinas, caused the opposition of these scholars and their fellows by claiming that God's providence works through a hierarchy of causes where He is the universal cause followed by a series of inferior or secondary causes. Yet, the universal cause allows defects in secondary causes to exist because this contributes to the greater good of the whole. In other words, Augustinian and Manichean devils exist within, but they are present in order to maintain a balance in natural and social laws, respectively. By using this bottom-up organisation, Aquinas managed to link fatalism with determinism in order to create the necessary environment for him to gain acceptability from both sides. Eventually, the economy of such a doctrine is not far from today's economy because the aftermath is the debt of human capital in a state of guilty disobedience and in relation to the fall of man.

7.7.3. Essential value of provision

Whether such providence can be worthwhile for humanity, regardless of the era, is indeed questionable, and the reasons which led *intelligent man* to refuse such providence are quite apparent. However, it is also apparent, taking into account the analysis of the two mentioned epiphanies, that the concept of providence by its actual meaning does not concern Aquinas' doctrines. In order to clarify this, from this point onwards, the word 'provision' will be used instead of the word 'providence' in order to distinguish the former from any implication with the debt of human capital.

The word provision (as providence) comes from the Latin '*providentia*', meaning foresight, which is composed from *pro*, meaning 'ahead', and *videre*, meaning 'to see'. John the Apostle uses the word 'εἶδω' (seeing) when he describes the miracle of the multiplication of loaves and fish. He wrote that he said the following to Jesus: "*When you create a trace we should view it and believe it.*" The trace indicates the schema of Theōria to be manifested, while the word 'view' (εἶδω) regards a process towards an Epiphania. Specifically, John the Apostle explains that before the event (the multiplication and/or mutation) occurs, or even before its *way for* manifestation, there is a preview of its schema in human consciousness.

Although this preview can be related to Platonic forms, it is surely differentiated in its sign. For Plato, the ideal form is a universal design and, although transcendent in time and space, it is already actualised and rather compact since it refers to the core of each entity. It refers to the time when the 'applehood' of the apple has been completed and so the actualisation has.

Because provision occurs before the actualisation and it refers to past and present interlocutors, its schema cannot be taken as a Platonic universal form. Likewise, the trace is a time-like curvature by which one can simultaneously grasp time in its excess. Furthermore, the manifestation occurs through the traces of disappearance, as shown in the time gap in the narrations of John the Apostle. The latter explains that Theōria is a type of special knowledge as opposed to physical vision and refers to a transformational approach. On the other hand, Augustine of Hippo defines Theōria in relation to time, claiming that the word is comprised by Θεός (Theos), meaning God, and Ὡρα (Ora), meaning time in terms of *kairòs*. He then wonders: "*What is it, therefore, that I am measuring? Is it time in its passage, but not time past*" (Augustine of Hippo, 401AD, Confessions XXVI: 33).

Returning to the epiphanies of the loaves and wine, Jesus considered the inability of people to follow the trace to be a failure. Their consciousness represented a straight time-like world line, whereas he tried to manifest an Epiphania that was curved. "*Since only the worldline of an accelerated body is curved*" (Minkowski 2012:7), the provision should be captured through its excess. The abundance of loaves and wine, described by John the Apostle, does not rely on Jesus' generous donation. Rather, it corresponds to the distension of mind where the time-like curve holds all the time within. This excess is the surplus value to the economy of Theōria, which can be acknowledged as a shared potentiality of human capital.

7.8. Conclusion

The Epiphanies that were analysed in this chapter, and especially Jesus' disappointment in the result, illustrate the difference in the types of economy; one is based on prosperity and concerns happiness while the other is based on the provision and reflects eudaimonia.

According to the narratives, people became happy because of the abundance of bread and wine. However, the success of these operations was, for Jesus, the investment of human capital in eudaimonia, which meets the sign within the schema of Theōria. Similarly, in Cassarino's and Negri's assumptions on surplus value, the sign is characterised as a "*medium of exchange and circulation*" (Casarino & Negri, 2008:10).

Therefore, since a participatory economy runs by connectivity and integration, it seeks for image and likeness in a mutated and transformative manner. This connectivity concerns the formation of an interconnected communion by both human and transcendental means. In a similar way, a flock of birds takes the shape of a cluster in which each bird maintains its independence without blocking the view of the others, while its own view is not blocked by the others. The vision that each bird has, as Ouspensky described, is the vision:

"[...] by which a bird flying over Northern Russia " sees " Egypt, whither it migrates for the winter; or to the vision of a carrier pigeon which " sees ", hundreds of miles away." (Ouspensky, 1997: 102).

This kind of pro-vision creates a trace as the schema of the Epiphania, i.e. the resulted manifestation, which formulates a time-like curvature by which one can capture time in its excess. It brings about the Epiphania with an open-ended prospect that gives the surplus value of her economy.

As previously stated, Epiphania (obviousness) is the mechanism by which something or someone is open to a view of knowledge. Hence, it has a totally different perception of a knowledge economy, which requires a standard model of thought. Even though the latter claims for a reconfiguration of the rules and practices that determine success in order to be aligned with the interconnected, globalised economy model, it seeks for those knowledge recourses that bear the de-sign problem within.

The question to be asked at this point regards the entry and exit portals of Theōria. In particular, those portals that relate to the field of her display that is her restoration point and her current potential interface.

CHAPTER 8: DESTRUCTION OF THE MODULE OF THEŌRIA

8.1. Synopsis

The necessity to apply Theōria as a module of knowledge appears in many forms of thought and in several key periods of intellectual development. During the periods of the Classical and Middle Ages, Theōria was treated as a module yielding exemplary knowledge embodiments. From the Age of Reason and beyond, although one may recognise elements of the module, Theōria was unable to maintain her consistency. It was in the 20th century that scholars tried to redefine the elements of Theōria, orienting them in the new order without acknowledging Theōria as an appropriate module of knowledge. Seeking to find the portals of Theōria, it is essential to take into consideration the major endeavours of her application through the course of her existence. To this end, three major philosophical units are presented that are considered important to the understanding of the mentioned course: (i) the Aristotelian Theōria, (ii) Heidegger's Dasein and (iii) John of Damascus' defence of the image. It is apparent that the analysis is not based in a chronological order since it is important to follow the schema of Theōria and not a historical serial timeline. It can be seen by monitoring the curvature of the schema that, to date, is clearly considered to be one of the main elements of Theōria. It is important to mention that corrupted nations and cultures were present in all the above philosophical cases. While Aristotle wrote on the ruins of the 'Golden Age' of Greece, Heidegger wrote on the destruction of Western values of the French and German Enlightenments. As for John of Damascus, he wrote as the absolute defender of the destruction of images during the Siege of Constantinople and the occupation of the Byzantine Empire in

general. Thus, during their works, the intellectual values that had once created these outstanding cultural systems were in decline. Usually, and after such catastrophes, only excesses are able to catalyse cultural regeneration. According to Aristotle, the state conversion after the Peloponnesian war had a terroristic effect on democracy by imposing the rule of the Oligarchic Party.⁹⁴ Likewise, regardless of the time gap, the excess of the German post-war period was expressed through the National Socialist Party. Thus, Aristotelian Theōria and Heidegger's Dasein can be seen as philosophical endeavours to take responsibility for the descent and its effects. However, the Athenian scholars did not carry the debt of a Holocaust, as their German counterparts had. On the other hand, John of Damascus bore accountability for the restoration of icons. Therefore, while Aristotle and Damascene used Theōria and the noetic mechanism in an effort to reach image and likeness, Heidegger, despite his transcendental tendency, used theory and phenomenology in order to reach ontological security. In this respect, the economy presented a totally different application according to the nature of the debts. It is assumed that the alteration is based on the shift from an open-knowledge economy to the knowledge economy and that the main reason for this is the management of the capital by the appropriate responsible sector in each case. In particular, while in the Aristotelian and Damascene cases, *téchne* (art) was instrumental in developing the open-knowledge economy, Heidegger had a counter-intuitive account of art, claiming that it is "*a self-sovereign subject's performance of genius*" (Heidegger, 1971:75). The

⁹⁴ The Thirty Tyrants were a pro-Spartan oligarchy installed in Athens after its defeat in the Peloponnesian War in 404 BCE.

difference in the meaning of the terms *téchne* and art is the same as that of the sign and de-sign, as well as that of manifestation and representation. These concepts address the key elements of image and they are treated in a totally different manner in relation to the economy of each time. Hence, since Theōria yields the economy of image and likeness, even though there could have been a chance to operate from the time of Enlightenment and beyond, her basic grounding (*téchne*) had been replaced with art as a source of aesthetic experience.

8.2. From open-knowledge economy to knowledge economy

8.2.1. The PPT movements and the TPS dispositions

For Plato, what the contemplative, thus the *theoros*, contemplates, thus *theorein*, are the Forms, the realities underlying the individual appearances; one who contemplates non-temporal and non-spatial realities is enriched with a perspective of ordinary things superior to those of any other perceptiveness. Plato's Forms were criticised by many scholars and in various periods; even Aristotle was critical of them. Similar to the Platonic idea of Forms, Aristotle posed the concept of *hylomorphism* but he separated Theōria from any practical purpose and presented it as an end in itself. According to Aristotle, Theōria is a completely disinterested activity that can be pursued for its own sake. Theōria does not lead to action in the practical world, although she is defined in opposition to activities that are useful and necessary. Someone could regard this position as a depreciation of Theōria since it renders her useless and unnecessary. However, Aristotle claimed the opposite. He considered the free and noble man as being self-sufficient;

therefore, he exploited a rhetoric mechanism to articulate the idea that Theōria is completely self-sufficient, independent and noble.

By identifying Theōria as a useless activity, he just categorised her as a pure human activity. Due to her noetic process, he argued that Theōria is the best human activity because *nous* is the best part of humans and the objects of contemplation are the best knowable objects that lead to eudaimonia. Theōria is not a process of research but of contemplation and, while she is in opposition to activities that are useful and necessary, these activities are rendered substandard. Therefore, a number of theoretical, visual, technical and practical activities have to be distinguished from Theōria.

Aristotle considered Theōria as a stage of contemplating the universal and the timeless while identifying three kinds of fundamental movements of life, *póiesis*, *práxis* and *theoría* [PPT], as corresponding to three dispositions *téchne*, art, *phrónesis* (practical intelligence) and *sophía*, wisdom through *noesis* [TPS].

Yet, Theōria had overall priority because *sophia* and *nous* were considered to be universal, necessary and eternal while the others were considered variable, finite, contingent and, thus, uncertain, which, as a result, rendered them inferior. On the other hand, in Classical Antiquity Theōria was included in the arts of mind rather than in the set of activities and skills of an artisan. Contributing to the module of Theōria, *téchne* was not distinguished as the artwork of an inspired and talented individual as seen in the Renaissance era. Therefore, *téchne* was considered to be a combination of *póiesis* and *práxis* as long as it held both technique and practical intelligence.

Likewise, it is essential to point out that, in Classical Antiquity, a man was not determined by his individual identity but from the relationship with his

fellow citizens because only a citizen had status. One realises that, similar to the concept of economy, both PPT and TPS have as a main feature the compound participation that leads to the module of Theōria and her economy, respectively.

The primacy of Theōria is based on the fact that she serves the totality, whereas knowledge, as an open module, concerns the noetic mechanism of contemplation.

8.2.2. The praxis of Dasein

The application of this Aristotelian schema in the Western European mentality brought in the dualistic aspect of the distinction of knowledge from wisdom: *scientia* and *sapientia*. Once knowledge turned into an independent model (knowledge economy), everything became a research object to be stated and interpreted by research. The philosophical proposition by René Descartes “*I am thinking, therefore I exist*” may have altered the Aristotelian schema to mere ethics without the purity of ethics per se that made up the schema itself.

However, the German school of philosophy, with Hegel and later on Heidegger, had a catalytic effect to the alteration of Aristotelian schema with the concept of Dasein. Heidegger referred to Dasein as a way of an entity, involved in the world and also ‘seeing’ the world. He used the Aristotelian schema to prioritise praxis as the activity that aims at an end, indistinct from itself. Therefore, to exist is the fundamental praxis of Dasein that guides both the poiesis and the theoretical movements. Despite its recurrence, Theōria remained in a lower position on the altar of private enterprise to ensure human capital, i.e. that of mass and form. Instead, praxis involved the

concept of existentialism regardless of its relation to the other two elements that construed PPT.

It is known that Heidegger, although not totally adjacent to the biological racism of Rosenberg's '*religion of the blood*' (Alfred Ernst Rosenberg 1893 - 1946), was a strong supporter of intellectual racism. Although in Heidegger's work one can detect a spirit of disguised aspects of Theōria, it seems subtracted due to his socio-political principles. Conceivably, wishing to embellish any haunted contract with old debts of humanity, Heidegger placed the idea of destruction (*destruktion*) as an imperative towards the pre-reflective understanding of a being. The metaphysical dimension of his excesses appears to contain disguised messianic expectations that could be a par excellence development of Theōria. He attempted to deconstruct a thinking tradition that obscured the meaning of a being by mixing it with pre-configured (traditional) interpretations. Yet, the concept of Theōria exists in a pre-theoretical experience, before cognitive processes and before any system that may lead to pre-defined interpretations.

Heidegger has profoundly yielded to the notion of tradition in relation to time. In general, and in order for the tradition to obtain a relation with time, it is obligatory to capture and repeat each time the totality of timelines. More specifically, all traditions have all the answers within. Each of these answers contains all the answers from the historical past and future. Provided that all the answers are within, tradition cannot acknowledge potentialities because it cannot have historical consciousness since the latter requires historical gaps to be encountered.

Heidegger's Dasein exists in the midst of being while being-in-the-world. Thus, it concerns an original unity of the future, the past and the present. One may find the above mentioned interpretation of the thinking tradition as being similar to the giant cocoon that the *intelligent man* has built. In fact, this cocoon is what Heidegger wished to destruct. However, if this cocoon of thinking tradition includes all of the time, the question is how it can be broken in order to release time and, therefore, gain openness. *Destruktion* and *Dasein* share a common ground with Theōria. Similar to Dasein, one can recall Augustine's notion of time as a distension of mind that includes the three times (past, present and future). The noetic mechanism of Theōria functions into a pre-stage of being, well before cognition and other human abilities are engaged since one, potentially active, can see before being active by revealing one's self. Because Aristotelian thinking had a great impact on him, Heidegger sought a state in which there is a pure potentiality of existence. Hence, this state of potentiality of becoming may find similarities with *pro-visional* operations.

Nevertheless, in order to perform as a being-to-be into this variable presence, one has to overcome the notion of single-self objectiveness and its systematic space, and act as a potential entity, combined with all the others, released from any references, which may set barriers to the flow. This is opposed to existentialism and individualism, cornerstones of Heidegger's theory. Alongside this, Heidegger's assumption was that this kind of research cannot be exercised in the instantaneous moment of the present but, rather, it requires a historical timeline. Yet, pro-vision occurs mostly in this moment of past and future interlocutors.

8.3. Distraction in Dasein

In his book, *Introduction to Metaphysics*, Heidegger argues that the fundamental question why there are beings at all instead of nothing, is inseparable from the preliminary question (*Vorfrage*) *how does it stand with Being*. In order to *win* and *secure* the necessity of the question, he claimed that it should be in connection with the fate of Europe:

“This is why we brought the question about Being into connection with the fate of Europe, where the fate of the earth is being decided, while for Europe itself our historical Dasein proves to be the center.” (Heidegger, 2000: 32)

In the same book and while he argued about the *spiritual decline of the earth*, he stated that "*people are in danger of losing their last spiritual strength, the strength that makes it possible to see the decline*" (Heidegger, 2000: 29). Although close to highlighting the de-sign problem, since he acknowledged the weakening and misunderstanding of the spirit that could be similar to the sign, it seems that Heidegger was never able to overcome the standard model of knowledge. Yet, by considering that the furthest corner of the globe has been conquered technologically and can be exploited economically, Heidegger might have wanted to cast out the genocide that resulted from the political beliefs that he himself followed with other destructive actions that were outside his jurisdiction, such as the need for nuclear weapons. Nevertheless, by doing so, he remained in this giant cocoon, excluding the dynamic that could result in an excess towards the opening time.

8.3.1. Pathos and psūchê

Heidegger conveyed Aristotle's philosophical theories as developed within the standard model of knowledge. He exploited Aristotle's statement:

"ταῦτά πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα, πράγματα ἤδη ταύτά." The translation that Heidegger used in his book *Being and Time* is:

"the 'experiences' of the soul, the noemata ('representations'), are correspondences [*Angleichungen*] to things" (Heidegger, 1996:198).

Nevertheless, a proper translation of this phrase, respecting the prime meaning of the words, could be as follows: *Pathos of psūchê and the images impressed, are identical things for all entities.* ⁹⁵ This means that the words *experiences, soul and representations*, which Heidegger used to base his theory on, do not seem to have any relevance with Aristotelian thinking. In order to delve into this, the main concepts of pathos and psūchê should be explained according to their primary meaning given by Aristotle.⁹⁶ The word *ψυχή* (psūchê) derives from the verb *ψύχω* (cooling) and is related to the words for blow and breathe. It refers to the ultimate sign of life in the body that comes with breath.

For Aristotle, a man's psūchê has five forces: (i) the nutrient (θρεπτικόν), which relates to the nourishment of the body; (ii) the appetite (ορεκτικόν), namely the tendency to become; (iii) the sensible (αἰσθητόν), the ability to recruit information through the senses; (iv) the kinetic (κινητικόν) that

⁹⁵ Author's translation

⁹⁶ Aristotle referred to psūchê and pathos in his work 'On Soul'. The English translation of his work is available from Internet Classics archive by Daniel C. Stevenson, Web Atomics at: <http://classics.mit.edu/Aristotle/soul.2.ii.html>

ensures the movements of the body and (v) the noetic (νοητόν). The *connate pneuma* of Aristotle is the warm movable air that, through the sperm, transmits the capacity for movement to the offspring. These movements derive from the psūchê of the parent and are embodied by the *pneuma* as a material substance in the semen.

By interpreting psūchê as soul, as established in Western philosophy, Heidegger lost its ultimate sign of life; something evident if one takes into account that Heidegger himself claimed for *the last spiritual strength*. Soul could be interpreted as the immaterial aspect or essence of a human being,⁹⁷ whereas what Aristotle most probably professed was that the psūchê is the cause of the image of being and this is why they are identical. Aristotle also claimed that it is the prime entelechy that encloses the motion and rest of an entity.

Moreover, translating the word pathos used by Aristotle, as meaning *experience*, Heidegger placed it in the realm of individuality, isolated from any participatory activity. The ancient philosopher considered pathos as a condition that causes changes in the psychological, physical and mental state of people and that it is accompanied by pleasure or displeasure. The difference between the two philosophers is that Aristotle's concept of pathos was used for the advancement in rhetoric where pathos was characterised by rage, gentleness, friendship and hatred. Therefore, it is apparent that Aristotle spoke about interaction and participation since rhetoric requires

⁹⁷ Soul, in religion and philosophy, the immaterial aspect or essence of a human being, that which confers individuality and humanity, often considered being synonymous with the mind or the self. In theology, the soul is further defined as that part of the individual which partakes of divinity and is often considered to survive the death of the body. *Encyclopaedia Britannica*. <http://www.britannica.com/topic/soul-religion-and-philosophy>

communication with the audience from where the above mentioned human states are generated. On the other hand, experience incorporates the concept of an individual perception defined by the observation of a fact or an event.⁹⁸

Along with the different meaning of pathos and psūchê, Aristotle explained that the senses create an impression in the part of the body that senses it, i.e. the psūchê. The word impression is defined as an impressed thing (im-press-ion) and is considered as noetic imaging. Moreover, one can relate it to the trace of a manifestation in the operation of an Epiphania. This makes humans able to see something that is not present. Therefore, Aristotle continued explaining this process with the icon of an animal and the animal itself.⁹⁹ These two things, he said, are the same. Although they have a different way of being, the icon can be seen as both the image and the animal. Additionally, the icon is an entity for-itself as well as for-the-other. Nevertheless, pathos is what brings the impressed image into psūchê, while an image is regarded as an autonomous entity that can interact with the other and, therefore, cannot be considered to be a representation, as Heidegger claimed.¹⁰⁰

⁹⁸ Oxford English Dictionary (2nd edition, 1989):

3. The actual observation of facts or events, considered as a source of knowledge.

4.a. The fact of being consciously the subject of a state or condition, or of being consciously affected by an event.

<http://www.oxforddictionaries.com/definition/english/experience>

⁹⁹ [...] πῶς οὖν τὸ μὴ παρὸν μνημονεύσει; εἴη γὰρ ἂν καὶ ὁρᾶν τὸ μὴ παρὸν καὶ ἀκούειν. ἢ ἔστιν ὡς ἐνδέχεται καὶ συμβαίνειν τοῦτο; οἷον γὰρ τὸ ἐν πίνακι γεγραμμένον ζῶον καὶ ζῶόν ἐστι καὶ εἰκὼν, καὶ τὸ αὐτὸ καὶ ἐν τοῦτ' ἐστὶν ἄμφω, τὸ μέντοι εἶναι οὐ ταύτων ἀμφοῖν, καὶ ἔστι θεωρεῖν καὶ ὡς ζῶον καὶ ὡς εἰκόνα, οὕτω καὶ τὸ ἐν ἡμῖν φάντασμα δεῖ ὑπολαβεῖν καὶ αὐτό τι καθ' αὐτὸ εἶναι καὶ ἄλλου [φάντασμα].) Αῤιτοτέλης, Περὶ Μνήμης καὶ Αναμνήσεως. An English translation from Beare. I. J. can be found at The Internet Classics Archive Aristotle, On Memory and Reminiscence. <http://classics.mit.edu/Aristotle/memory.html>

¹⁰⁰ [...] ἀπορήσειε δ' ἂν τις πῶς ποτε τοῦ μὲν πάθους παρόντος τοῦ δὲ πράγματος ἀπόντος μνημονεύεται τὸ μὴ παρόν. δῆλον γὰρ ὅτι δεῖ νοῆσαι τοιοῦτον τὸ γινόμενον διὰ τῆς αἰσθήσεως ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τοῦ σώματος τῷ ἔχοντι αὐτήνοϊον ζωγράφημα τι [τὸ πάθος] οὗ φαμεν τὴν ἑξιν μνήμην εἶναι· ἢ γὰρ γιγνομένη κίνησις ἐνσημαίνεται οἷον τύπον τινα

It seems that Heidegger has created a sense of ontological security through Dasein, which has its base in the foundations of existence. For him, the transcendence and excesses (amplification of consciousness) that characterise humans, are limited within the boundaries of the world where they are located. Therefore, although he experienced the need for Theōria, it seems that he succeeded in putting the de-sign problem more deeply into human consciousness. His declaration that his book 'Being and Time' was a failure of colossal value may lie in his persistence on the customisation of an entity. Building such a theory, he missed the notion of integration and correlation in order to lead to an open-knowledge economy. His involvement with transcendence and excess led to a latent religiousness that he himself refused, yet upheld by extreme situations that disparage human existence.

Due to his great commitment in existentialism, Heidegger focussed on a Western loan regarding the created and uncreated (*γενητόν – ἀγέννητον*), a philosophical idea underlying Greek Classical Antiquity. He passed this dialectic relation to his theory as a characteristic of matter (created) and intellect (uncreated) in human existence. In any case, this was the dominant philosophical position from the Enlightenment era onwards and, as such, he inherited it, adopting all the conflicts arising from it (body-mind dualistic problem).

τοῦ αἰσθήματος, καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις.(Αριστοτέλους Περί Μνήμης και Αναμνήσεως Α' 450^α)
An English translation from Beare.I.J can be found at The Internet Classics Archive Aristotle, On Memory and Reminiscence. <http://classics.mit.edu/Aristotle/memory.html>

8.4. The circumscribed and the uncircumscribed

After its usage in Late Antiquity, the content of the philosophical position of Classical Antiquity changed. John of Damascus, an Aristotelian Father, stated that the created is anything other than the uncreated, and he placed divine essence in the uncreated field. He, then, renamed the created as circumscribed and the uncreated as uncircumscribed. Therefore, Damascus assumed, in opposition to Plato, that all existence (body, angels, mind, animals and plants, including the soul (psūchê)), is created, that is, circumscribed. Specifically, an angel is immaterial in comparison with humans, but physical in comparison with the uncircumscribed. Everything that is compared to the uncircumscribed is comprehensible within space and time. Therefore, according to Damascene's philosophy, all forms are circumscribed and only differ in terms of functional status. The Divine essence is not subject to any of these circumstances; therefore, it is uncircumscribed (John of Damascus, PG. 94, 113B).¹⁰¹ The Damascene definition of circumscribed and uncircumscribed is denoted by the meaning of encircle (embrace) rather than that of delineation.

Rather than subscribed or inscribed, an entity is circumscribed in an enclosed shape in which all elements are incident to the configuration. This formation should not be associated with the cocoon of TBJ for a number of

¹⁰¹ Φύσεως μὲν ἐπὶ τὸ ἀγέννητον καὶ τὸ γεννητὸν δι' ἑνὸς τοῦ νῦ γραφόμενον, ὅπερ δηλοῖ τὸ ἄκτιστον καὶ κτιστὸν... ἔστι οὖν ἡ μὲν θεία φύσις ἀγέννητος ἥτοι ἄκτιστος, πάντα δὲ τὰ μετὰ τὴν θείαν φύσιν γενητὰ ἥτοι κτιστά. Ἰωάννου Δαμασκηνοῦ, "Ἐκδοσις ἀκριβῆς τῆς ὀρθοδόξου πίστεως, PG. 94, 113B An English Translation is available from Internet Archive: An Exact Exposition of the Orthodox Faith by St John of Damascus. Modern English translation from the 20th century.

<https://archive.org/details/AnExactExpositionOfTheOrthodoxFaith>

reasons. Firstly, it is not a shape but a schema or, more precisely, it is the trace of a schema. Secondly, the notion of enclosure is not a subject of delineation but refers to a curvature that can celebrate an Epiphania, exactly as described in St. Anna's garden.

Finally, TBJ's cocoon contains only the class of animality, at best, provided that there is a Darwinian hierarchical organisation. On the other hand, the encircled schema refers to anything that has been circumscribed; determined by place, time or comprehension. However, this spatiotemporal position differs from Euclidean space and Cartesian coordinates; instead, it refers to an abstract space and time that reflect topology and *kairòs*, as explained previously. The uncircumscribed is "*the one who embraces all things and is grasped by no comprehension and has a clear vision of Himself.*" (John of Damascus, Book I, Chapter 13). Being circumscribed is similar to being an impression and, therefore, one can be comprehensible. Yet, what is captured as circumscribed is the schema by which one may be comprehensible. This is irrelevant to the entity's mass and form, since, for Damascus, a circumscribed entity could also be without mass or form, as in the case of souls and angels.

8.5. Schema and the empoter

A schema may be interpreted as a set of slots that can be filled in by context or by additional information from the one who comprehended the schema. Often, what is filled in for one slot may affect what can be filled in for other slots. For example, in a circumscribed schema, if the surface being circumscribed is the sky, then the implement is likely to be a flier. When no specific information is provided for a particular slot, users tend to fill the slots

with their normal expectations or their default values. Schemata may act as processors, calculating conceptual models and filling in the slots by noetic schemas rather than actual perceptions.

In Kantian philosophy, a schema is the procedural rule by which a category or a pure concept is associated with a mental image of an object. It is supposedly produced by the imagination in relation to time. For Kant, a schema is not an image but a capacity to form images or, perhaps, to construct models.

"The schema is not an image, because the image is a product of the reproductive imagination, while the schema of sensible concepts (also of figures in space) is a product of the pure a priori capacity to imagine..." (Eco, 1999: 2.5)

Eco compared a Kantian schema to Peano axioms,¹⁰² Wittgenstein's concept of *Bild*,¹⁰³ and a computer programming flowchart. In this way, it is a procedural rule that provides instructions regarding the construction of a sensible intuition from an abstract and general concept. Eco's comparison is indeed apt if one considers the fact that a schema has been involved in both computer science and bioinformatics. Moreover, one can think of many other schemata such as the XML schema (a way to define a structure, content and, to some extent, the semantics of HTML documents), the Protocol schema (the type of protocol used to communicate in the internet like http://, ftp:// etc.) or a genetic algorithmic schema (a computer program in which a string of information evolves in a manner mimicking biological evolutionary processes).

¹⁰² Peano theory is a research into fundamental questions of consistency and completeness of number theory.

¹⁰³ Bild: a proposition that has the same 'form' as the fact that it represents.

In conclusion, a schema may be regarded as the processor of the circumscribed entity in space and time. In the midst of Aristotelian Theōria and Heidegger's Dasein, there is the Byzantine economy of image and likeness, through Theōria, which generates the schema and concerns mostly the particular relation to time described as *kairòs*. It refers to the opportune moment in which time is filled up not in terms of a finished timeline but rather as the visualisation of its curvature:

“Nor dost Thou see in time, nor art moved in time, nor retest in a time; and yet Thou makest things seen in time, yea the times themselves, and the rest which results from time.” (Augustine of Hippo, Book XIII)

Indeed, the Byzantine surplus value to the economy of Theōria, as revealed in Classical Antiquity, is the concept of a filled-up time that generates the topology of Theōria. Rather than a boundary space of a given timeline, it loses its physical dimensions because of the excess of curvature. For this reason, any manifestation that takes place within, always seen from the outside, exceeds the locality of events.

Temporality also exceeds in terms of the sequence of a manifested event, while the latter may appear present, no matter the time distance. This is because the economy of the image and likeness brings *"Time and Nature Renovations"*, as written in the *Apolytikion* of August 31.¹⁰⁴ Time and nature renovate themselves through the process of excess, in a time-like curvature. To elucidate this renovation, Virgin Mary gave birth to Jesus after the ninth

¹⁰⁴ The Apolytikion is a hymn, sung at Orthodox Christian worship services and summarises the feast being celebrated that day. The Apolytikion of August 31 refers to The disposing of Honest Zone of Virgin Mary which was related to Mary's seedless conception: τῷ ἀσπύρῳ τόκῳ σου ἄφθαρτα διαμείναντα, ἐπὶ σοὶ γὰρ καὶ φύσις καινοτομεῖται καὶ χρόνος. [...] the seedless conception that remains imperishable and by which, on her behalf, time and nature renovate themselves.

month period, in accordance with the normal biological process. Instead, both the Annunciation and the birth happened in the filled-up time, when time and nature renovate themselves.

Hence, and into this topology of excess, the last gateway is more a threshold than a portal. Actually, it is an *emporter*, to quote Virilio's intellectual use of the word.¹⁰⁵ In *Metaphysics* (Book 7), Aristotle stated that there are two types of potentialities; the transformative principle and the availability to be changed. According to the philosopher, a change must occur in something for its potentiality to become an actuality. The potentiality of something may include its ability to change, its ability to be changed or both. Potentiality may be innate or acquired, actual or non-actual. The potentiality of something may also be a capability to act or to be acted upon, to be active or passive.

In this context, all potentialities are potentially potential. These connected predicates entail two economies: the economy of the circumscribed schema and the economy of the capital of the mass and form de-sign. These two economies reflect the space in which potentialities appear. As expected, the first economy involves the *emporter* as an in-between space or a threshold, while the second involves portals as systems of access. To recall, for Aristotle, the first economy operates with *Theōria* via the best human activity, namely the noetic activity, because *nous* is the best part of humans.

¹⁰⁵ In his book 'The Futurism of the Instant', Julie Rose wrote in Translator's Preface: '[...] the verb *emporter* and its derivatives – *emport*, *emporte*, *emportable*, *emportement* – can't be precisely reproduced in English, at least, not only in one word...*Emporter* can, for example mean to take or carry, in a sense of to remove, transport, take away; to carry or sweep away, or to get carried away, in a metaphorical sense. (Virilio 2010: ix)

8.6. The difference of Logos in the two economies

In his own book on Metaphysics (Introduction to Metaphysics 1953), Heidegger followed a more clever path, adopting the theories of Parmenides (late 6th or early 5th century BC) while he was dealing with the monism of Being and the dualism of becoming. Undoubtedly, he based his work on the second version of economy since he claimed the absolute truth of Being and, particularly, of being-in-the-world. Through a confused understanding of the historical continuity that he considers as the basis of Being, Heidegger creates a consommé from Classical and Late Antiquity, using Greek words at will. He made two important mismatches with the concept of Nous and Logos; he interpreted the former as *mind* or *intellect* and the latter as *Reason* (Heidegger, 2000:145).

Even though ancient Greek philosophers had used these concepts, they had never referred to them in such a fixed manner. It is essential to point out here that the original title of Aristotle's book that contains these concepts is *After the Physics* (Μετά τα Φυσικά) rather than *Metaphysics*. By this title, he described the timeline of his books; the book *After the Physics* came after his earlier book on *Physics*. Hence, there is no notion of *Metaphysics* as defined in later years. Moreover, although Aristotle spoke about mind, he did this by engaging it with cosmological aspects in a physical manner. To recall, the ancient philosopher implicated semen with mind and logos: 'the region round the eyes was the region of the head most fruitful of seed' (Onians, 1951:203).¹⁰⁶ Therefore, even though Aristotle used Logos as a tool of

¹⁰⁶ See also the Pythagorean theory that 'semen is a drop of the brain' in Smith, J.E.H. [*The Problem of Animal Generation in Early Modern Philosophy*](#).

persuasion in his rhetoric, he also revealed another significant aspect of it in his book *After the Physics*. This aspect passed completely unnoticed in Heidegger's metaphysics, most probably because it was inconsistent with existentialism.

As for his latent religiousness, Heidegger explained Late Antiquity and the rise of Christianity in a rather blurred interpretation, while he claimed that Parmenides holds "the *spiritual history of the West and this means its authentic history*." By asking questions of the Being as a spiritual faith in the West, he concluded that:

"We must learn to experience the fact that the Being of the human first determines itself on the basis of the happening of the essential belonging together of Being and apprehension." (Heidegger, 2000:149).

For Heidegger, *the happening* is always within the historical timeline. In order to base his absolute faith in Being, Heidegger quoted Parmenides' Poem:

"Come now, I will tell thee - and do thou hearken to my saying and carry it away - the only two ways of search that can be thought of. The first, namely, that It is, and that it is impossible for anything not to be, is the way of conviction, for truth is its companion. The other, namely, that It is not, and that something must needs not be, - that, I tell thee, is a wholly untrustworthy path. For you cannot know what is not - that is impossible - nor utter it." ¹⁰⁷

At:

[http://www.cambridge.org/catalogue/catalogue.asp?isbn=9780511217630&ss=exc.\)](http://www.cambridge.org/catalogue/catalogue.asp?isbn=9780511217630&ss=exc.)

¹⁰⁷ Εἰ δ' ἄγ' ἐγὼν ἐρέω, κόμισαι δὲ σὺ μῦθον ἀκούσας, αἵπερ ὁδοὶ μοῦναι διζήσιός εἰσι νοῆσαι· ἡ μὲν ὅπως ἔστιν τε καὶ ὥς οὐκ ἔστι μὴ εἶναι, Πειθοῦς ἔστι κέλευθος - Ἀληθείη γὰρ ὀπηδεῖ -, [5] ἡ δ' ὥς οὐκ ἔστιν τε καὶ ὥς χρεῶν ἔστι μὴ εἶναι, τὴν δὴ τοι φράζω παναπευθέα ἔμμεν ἀταρπὸν· οὔτε γὰρ ἂν γνοίγς τό γε μὴ ἔδν - οὐ γὰρ ἀνυστόν οὔτε φράσαις· Translation by Néstor-Luis Cordero in English and French, with the original Ancient Greek text at : <http://www.24grammata.com/wp-content/uploads/2011/12/Parmenide-2-24grammata.com>

In addition, the meaning of apprehension was described by Heidegger as the *"inner essential community with Logos"*, by which, through *"noein (noetic), makes logic possible"* (Heidegger, 2000:179).

Conclusively, for Heidegger, the only portal is Being itself while it sees only itself (by apprehension) and also refers only to itself (by Logos). Whether it is used as a reason and/or as a standard model of thought, Logos is associated with the second economy as a system of access (portal) to the *being-in-the-word*, the solid singularity of Dasein. In this way and completely distinguishing his position from what he called *they-self*, Heidegger tried to cast out the horrific effects caused by Nazism because *"[...] one can 'be guilty' without 'owing' anything to someone else or coming to 'owe' him"* (Heidegger, 2000:282).

Therefore, the distance from the synergy of the economy of image and likeness that calls for the meaning of 'they-self' occurred not only from the perspective of intellectual man but also from that of political polarisation that seeks for waiver of debts. The fact that, in view of Logos as a portal of reason and existentialism, image played a decisive role in the authenticity of the singular, political and intellectual man created a considerable conflict. Image as an instrument of global economy seeks desperately for consumable energy sources as it exhausts natural and mental energy by serving, each time, singularity, politicisation and intellection. On the other hand, the Byzantine economy of image considers image as an organic entity. According to John of Damascus, image is a circumscribed entity, a theory relevant to Aristotle's assumptions. Logos, circumscribed within the economy of image and likeness, seems to be placed in the intermediate space of the emporter. It is a space of possibilities, and the structure of this

place is based on the tendencies and capacities of the involved entities as well as on the level of their interaction and participation.

As a result, this threshold era of the emporter shares the characteristics of the economy of Theōria. To achieve the filled-up time, where time and nature renovate themselves, the noetic faculty, in the image and likeness, needs to be in-between the circumscribed and the uncircumscribed. With the uncircumscribed, nous cohabits while with the circumscribed, it is image-like.¹⁰⁸ Into this threshold era, the two mentioned Aristotelian types of potentialities are governed by transition and mutation, as required in this threshold of communion.

Therefore, instead of being-in-the-(inscribed) world to ensure the singularity, one can act as a being-in-between that ensures communication and interaction among all circumscribers and uncircumscribed. This noetic state is relevant to the meandering model of thought where *Theoros* can flow in any spatiotemporal direction following the curvature and its excess. Hence, *Theoros*, as a transitory being, can operate the economy of Theōria to fill up the time and, thus, renovate it along with his image that reflects his transient nature.

¹⁰⁸ Τὸ κατ' εἰκόνα ἀνακαινίσαι βουλόμενος ὁ Θεὸς Λόγος γέγονεν ἄνθρωπος. Τί δὲ τὸ κατ' εἰκόνα εἰ μὴ ὁ νοῦς; Τὸ κρεῖττον οὖν παρεῖς τὸ χεῖρον ἀνέλαβε; Νοῦς γὰρ ἐν μεταίχμῳ ἐστὶ Θεοῦ καὶ σαρκός, τῆς μὲν ὡς σύνοικος, τοῦ Θεοῦ δὲ ὡς εἰκῶν. Νοῦς οὖν νοὶ μίγνυται, καὶ μεσιτεύει νοῦς Θεοῦ καθαρότητι καὶ σαρκὸς παχύτητι· εἰ γὰρ ψυχὴν ἄνουν ὁ Κύριος ἀνέλαβεν, ἀλόγου ζώου ψυχὴν ἀνέλαβεν. (Αγίου Ἰωάννου του Δαμασκηνοῦ, Ἐκδόσις Ἀκριβῆς τῆς Ὁρθοδόξου Πίστεως. Κεφάλαιο 62.

http://users.uoa.gr/~nektar/orthodoxy/paterikon/iwannhs_damaskhnos_ekdosis_akribhs.htm The Divine Logos became human in order to renovate the image and likeness. And what else is the image if it is not the nous? Because nous stands in the threshold between God and flesh; With God, nous cohabits while with the flesh is image-like. Thus, Nous is associated with nous and connects the purity of God with the materiality of the body. (Translated by the author)

8.7. The exporter of the Byzantine gaze

One should now enquire where the topology that provides the exporter is, the threshold into the future anterior time. If transitory beings perform at the threshold of "*the present of the past, the present of the present and the present of the future*", the in-between space should be one that can hold Theōria's economy and, therefore, can leave both the historical timeline and the knowledge wide open. Other than in the "*fate of Europe*", one can meet this topology in the impossibility of Europe that:

" [...] is everywhere... [and] good luck if you are able to identify the particular Santa Varvara that I am speaking about right now!" (Kristeva, 2006: 1).

This privileged place, the desirable and impossible Europe, is the place that Kristeva named Santa Varvara (Kristeva, 2006:192). Kristeva's novel *Murder in Byzantium* creates a transitional place in which medieval and contemporary environments are intertwined, creating the transit zone of Santa Varvara:

"A secret garden hideaway, whose uncertainties savoured by the characters during their out-of-time hallucinations, which migrants frequently experience at irregular intervals." (Kristeva, 2006:12) .

Santa Varvara includes Paris, Bulgaria, New York and Byzantium in a complex tissue of hybrid imagery. The properties of this aggregate environment cannot be defined by their component parts alone. Instead, the environment as a whole determines, in an important way, how the parts behave. Any division may cause never-ending conflicts that can be fatal to each culture separately. Even though Santa Varvara is a place of division, division in places, people, disciplines, images and ideas, as long as it has

Byzantium within, it remains connected. "*The Louvre will never collapse inasmuch as we are in Byzantium*" (Kristeva, 2004: 380).

Here, Byzantium is considered as the display of the emperor that can fill up time rather than a specific chronological period of the homonymous empire. While the Louvre celebrates the singularity of being through the economy of spectacle, as was the regular habit for repelling the decline of late Middle Ages, at the same time, it also prevents the manifestation of *last spiritual strength, the strength that makes it possible to see the decline*. This is because, between the fall of two empires (European and Byzantine), the former uses an economy that completes time, yielding a closed end, whereas the latter uses the economy of the filled-up time, leaving the appropriate gaps to be filled with the schemata of Theōria over time. The first creates a place of immanence "*with no external mediation where the singular is presented as a multitude*" (Negri & Hardt, 2000:73), while the second creates a threshold in which the process of *transcorporation* genders a participatory economy (Margaroni, 2009:116). In the first case, the economy yields a measurable prevention whereas in the second case, the economy yields a non-measurable provision.

According to Kristeva, Santa Barbarians suffer from visual inertia and their pathological symptom is that of "*having no gaze*", as Stephanie, the novel's main character, states (Kristeva, 2004: 204). Having *no gaze*, they cannot be involved in the work of Theōria and this is the point at which the syncretism of Santa Varvarians turns out to be effective because they are "*too Byzantine, these Frenchies*". Therefore, they can see through the eyes of transitory beings that belong to the "*last quarter of slouching Byzantium*." Sebastian, the other main character of the novel, is seduced to "*another way*

of seeing" that leads his eyes to the interior and the beyond (Kristeva, 2004: 270). Indeed, Sebastian's alternate way of seeing is Theōria's original way of seeing; that is the blinded gaze, but blinded in terms of the Western rationalistic vision. This Byzantine gaze is a fusion of circumscribed and uncircumscribed transcorporation, while its image cannot be experienced by physical faculties and can only be absorbed through noetic mechanisms.

8.8. The shift of economies

Bringing to mind the two aforementioned narratives of John the Apostle (the multiplication of loaves and two fish and the mutation of the water to wine), one realises that this "*Western, blinded vision*" existed long before the formation of the West. In fact, the failure of people to see the signs, similar to science's failure to see nature's actual depth due to inappropriate protocols, perhaps occurred in the garden of Eden where the fruits were inedible and their juices led to the fall of man. Here, two factors should be noted in order to point the visual inertia of the indigenous people of Europe. First, how could a fallen entity maintain his existence from his fall onwards and, secondly, how could the juices of the fruit bring about man's fall, since previous theories of ancient philosophy stated that man exists due to his juices.

The Hippocratic Humourism (Greek: χυμοφυσιολογία, humophysiology) stated that an excess or deficiency of any of the four key fluids could directly influence man's natural equilibrium. The four humours of Hippocratic medicine are: black bile (Greek: μέλαινα χολή, *melaina chole*), yellow bile (Greek: χολή, *chole*), phlegm (Greek: φλέγμα, *phlegma*), and blood (Greek: αἷμα, *haima*), corresponding, respectively, to the four elements

(or rhizomes) of nature: soil, fire, water and air. These humours are secreted by four corresponding human organs, namely liver, spleen, brain and heart.

Furthermore, one may find similarities with the Aristotelian categorisation of the five forces of man's *psūchê*. John of Damascus referred to the four juices and the four elements in order to distinguish the corporeal from the incorporeal assets of the circumscribed entities. He concluded that the difference may be found only in the thickness of their matter. The correlation of the human elements with the world constitution shows that the structure of a human is directly associated with the world structure, thus creating the participatory economy of the cosmic system. This is why many Greek and Byzantine philosophers considered man as an image of the order that prevails in the world.

As Aristotle said, *Theōria* does not lead to action in the practical world; indeed, it is defined in opposition to activities that are useful and necessary. Therefore, a number of activities have to be distinguished from *Theōria*. In fact, the reversal of this thinking, which initially put *Theōria* at the highest level of the human mind, resulted in disregarding the three Aristotelian fundamental movements of life, the triad of PPT that correspond to the three dispositions of TPS. As a result, *téchne* became a totally different thing from its primary, a combination of *póiesis* and *práxis*, and by no means had it taken the characteristics of a circumscribed entity, as attributed by Classical and Late Antiquity. *Téchne* is interwoven with image and likeness, and iconoclasm, therefore, played a major role in the deposition of *téchne* from the major sector of managing the human capital; this iconoclasm seems to have existed long before the Iconoclastic period.

One can presume that the garden of Eden was already an iconoclastic trial since it prevented man from seeing his image and likeness through the metabolic process of the edible element. This unfavourable displacement of *téchne* from its position as the main vehicle of *póiesis* and *práxis*, i.e. the contemplated *ergon*, to a simple expressive aesthetic statement brought about the inability to *see the decline*, losing the *last spiritual strength*.

8.9. A person(s) in communion

The Seventh Ecumenical Council was convened by Emperor Constantine VI and his mother, Empress Irene the Athenian, in Nicaea in Vithynia, at the Church of St. Sophia, in 787 AD at the request of the Patriarch of Constantinople Tarasios. He decided to restore the images that condemned iconoclasm while revealing the idea of forming the invisible and intangible Trinity. The doctrine declared that the images of Christ and the Saints were founded in the incarnation and that the honour to the icon refers to the person it portrays rather than the material from which it is made. Until the 3rd century AD the word essence (Greek: *οὐσία*, *ousia*) had the same meaning as the term substance (Greek: *υπόστασις*, *hypostasis*).

John of Damascus' theory of circumscribed and uncircumscribed entities was based on the relevance on the concepts of essence and substance. The Cappadocian Fathers used the Platonic - Aristotelian distinction between the universal and the particular. St. Basil the Great wrote:

“If you ask me to state shortly my own view, I shall state that *ousia* has the same relation to *hypostasis* as the common has to the particular. Every one of us both shares in existence by the common term of essence (*ousia*) and by his own properties is such an one and such an one.” (St. Basil of Caesarea, Epistle 214.4. *To Count Terentius*).

Hence, there was a change in the concept of substance, since it was separated from the essence while given the abstract meaning of a *person(s)*.

The Cappadocian Fathers ascribed a totally different meaning to the word *person(s)*; deeply involved in Theōria, they posed that when one seeks for image and likeness, one should seek analogies between God and man on the triadic relations. They based their doctrine on the fact that human nature, as Damascus circumscribed, cannot become divine nature, thus uncircumscribed; he can, however, be a *person(s)* in communion. Being a *person(s)* in communion, one can reach the uncircumscribed through the process of the image and likeness. To this end, the communion should have several persons in completion. Openly influenced by Aristotelian philosophy, the Cappadocian Fathers considered the substance as the union of form and matter; matter is the possibility of realisation of being while the form is its active presence. It is not just the schema but also the energy that the schema provides to the realisation of one of the possibilities that leads to entelechy. Within this setting, Theōria and, accordingly, *téchne* arise from this very energy and, therefore, they are both irrelevant to the matter as long as it precedes it.

What the Cappadocian Fathers did not take into account is the effect that this distinction had on the Western intelligentsia, which, along with Aquinas' diplomacy and Augustine's doctrine, was meant to support all of the upcoming Dasein(s) that yielded a never-ending iconoclastic conflict. This is because *person(s)* has been translated to individual and *téchne* to art as the aesthetics of individualism.

8.10. The *téchne* of a person(s) in communion

Many 20th century artists and scholars highlighted the risk taken by art by trusting matter and form, according to the rules of aesthetics. Once the eyesight became the main instrument of art, *téchne* became a representation technique. Far from the Ancient Greek *óρῶ* and *θεωρῶ* (theoro), aimed at the emergence of being through image and likeness, art turned out to be at the service of the sectors that managed human capital, i.e. the sciences. Here, one should recall the illustrations in Darwin's book '*The variation of animals and plants under domestication*',¹⁰⁹ or Robert Hooke's *Micrographia*,¹¹⁰ and other works of the Royal Society's naturalists.

There has been a wealth of artistic expressions that supplied a supportive role to the evolution of science during the midst of the Delian problem and dualism.¹¹¹ Vitruvian Man and Durer's human proportions created a prevailing art formula that declared the operation of natural laws by human reason through the optical faculty and observation. Even art works that had a more metaphysical character were characterised according to the dominant sectors of human capital. The aftermath was an art in pursuit of self-interest, which was considered to be of benefit to society (Fig.17).

¹⁰⁹ A sample of the illustration can be found at: http://darwin-online.org.uk/graphics/Origin_Illustrations.html

¹¹⁰ An interesting digitisation of Hooke's *Micrographia* can be found at: <https://ceb.nlm.nih.gov/proj/tp/flash/hooke/hooke.html>

¹¹¹ Delian problem refers to the problem of finding geometrically the side of a cube which has twice the volume of a given cube (from the Delian oracle's pronouncement that a plague in Athens would cease if the cubical altar to Apollo were doubled in size. <http://www.encyclopedia.com/doc/1O214-Delian.html>

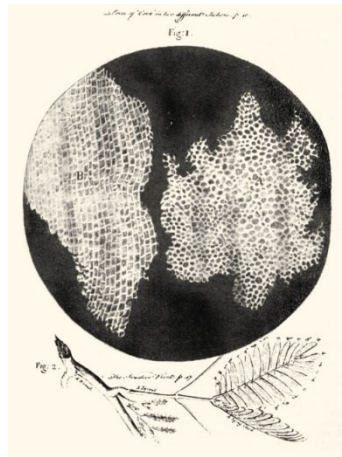


Figure 17. Cell Structure of Cork by Robert Hooke. This image is in public domain. Hooke's *Micrographia* is available at: <https://ceb.nlm.nih.gov/proj/flash/hooke/hooke.html>

Not far from Heidegger's being-in-the-world, art also began to serve humanities in general by grouping self-referential artists in the taxonomy of aesthetic characterisation, historical timeline and technique. Finally, Heidegger claimed that art is the style elaborated from each particular culture and he described it as *the shinning of truth* (Heidegger, 1971: 64).

However, even as art, *téchne* resisted vigorously through the centuries in order to hold the *last spiritual strength*, including both the curvature and the economy of *Theōria* as an open possibility, embedding the communion of *person(s)*.

Derrida, interpreting Hegel's *Natural Religion* in a rather disruptive way, expressed a neutral state of unification:

"The state, in which spirit sees itself outside, apprehends itself as its own proper object in a natural and immediate figure. The spirit loses itself and finds itself again in these external natural objects." (Derrida, 1986: 236).

Perhaps due to the reference in Hegelian philosophy, Derrida uses the Westernised cliché of the binary relation and the variation, inheriting from the aforementioned actions of his ancestors. Nevertheless, and perhaps again

without full realisation, like Heidegger, he yields the process of Theōria in a very interesting way, engaging *téchne* in a rather appropriate manner. The second moment of natural religion, when "*the spirit contemplates itself in the object that it has itself produced*", depicts an opportune moment in which the manifestation can occur. It is considered as the *least natural* of the artisan's work, *which secures the mediation toward the following moment*" that entails the manifestation per se. This is the moment "*when one has passed from nature to art*" (Derrida, 1986: 236). This transit zone becomes even more intense in Derrida's text because he sets it in correspondence with Genet's novel, *Our Lady of the Flowers*, which describes the transvestite prostitute Divine, who is suspended between heaven and earth, overlooking Montmartre Cemetery.

This passage from nature to art refers to the transcorporation of Byzantium in order for Europe not to collapse. Indeed, it is evident that the sectors that are considered special for the ensuring of human capital, due to their knowledge economy and their de-sign effect, appeared to be devastating in many cases. Major conflicts and wars are the result of this economy since its knowledge has provided the appropriate know-how as well as the infrastructure to perform such atrocities. Hence, it is perhaps time to reconsider Aristotle's words that Theōria should be distinguished from a number of activities.

To this end, *téchne*, the inseparable sector of Theōria, can be regarded as the field that may prevent the ruthless consumption of human capital, performing a day-by-day veneration of images, with the latter being considered as circumscribed entities:

"The image of the king is also called the king, and there are not two kings. Neither power is broken, nor is glory divided... Thus the honour given to the image is referred to the original." (John of Damascus, *Apologia Against Those Who Decry Holy Images*).¹¹²

Through this explanation, John of Damascus has embedded in the image the organic aspect that is required for the circumscribed entities in order to reach the uncircumscribed. He ended his syllogism by saying that the circumscribed entities can be in communion with the divine and non-physical nature (uncircumscribed) through image and likeness.

8.11. Conclusion

The timelessness of iconolatry and the déjà vu of the Enlightenment's values demonstrate that, in most of the cases and regardless of the historical period, human capital has been invested in ensuring human mass and form. On the other hand, it seems that Theōria's elements have always been emphasised because of her schema, which contains the necessary slots to be filled; the filling is made up from inappropriate protocols and, therefore, it does not allow Theōria to operate. According to the two types of potentialities

¹¹² «Ὅτι βασιλεύς λέγεται και η του βασιλέως εικών, και ου δύο βασιλείς... ούτω και η παρ' ημών δοξολογία μία και ου πολλάί, διότι η της εικόνας τιμή επί το πρωτότυπον διαβαίνει. Ὁ ουν εστιν ενταύθα μιμητικώς η εικών, τούτο εκεί φυσικώς ο Υιός. Και ώσπερ επί των τεχνικών κατά την μορφήν η ομοίωσις, ούτως επί της θείας και ασυνθέτου φύσεως, εν τη κοινωνία της θεότητος εστίν η ένωσις».

English translation: St. John of Damascus: *Apologia Against Those Who Decry Holy Images*. Testimony of Ancient and Learned Fathers Concerning Images [118] The same, on the Trinity Chapters on the Holy Ghost to Amphilochios, 18th Answer. Archived by Fordham University in Internet Medieval Sourcebook from The Golden Legend (*Ausrea Legenda*), compiled by Jacobus de Voragine, 1275 and translated in English by William Caxton, 1483. Here: *Translated by Mary H. Allies. London: Thomas Baker, 1898. Scanned by Gabriel Caswell and Dr. Stephen J. Shoemaker. Prepared for HTML by Dr. Stephen J. Shoemaker.*

<http://legacy.fordham.edu/halsall/basis/johndamascus-images.asp>

and their relevant economies, the investment has been made as a singularity, as the only human authenticity.

The corresponding sectors that ensured the success of investment managed to shift from an open-knowledge economy to a knowledge economy, exhausting the energy of the schema. This already pre-Darwinian investment shows that an ape-like potentiality in human capital is not granted to Darwinian era, in chronological terms, but to a broad, Enlightenment-wise behaviour of humanity. Consequently, man has the capacity to choose the ape-like character as one of his potentialities if he thinks it is appropriate, even if this cannot be a universal predicate, as Darwin assumed. In fact, this was an achievement of intelligent man, who considered himself as an evolutionary ape with respect to the nature he himself reflects and investigates according to her depth. The corresponding sectors, which are the vehicle of this investigation, often find a dead-end to nature's actual depth since they fill the slots of the schema with a kind of nature that they had already consumed through a knowledge economy.

Nevertheless, because, as already stated, Theōria was always suspended in a transit zone of a Byzantine-based behaviour, interposing the curvature of image and likeness, she entails *téchne*, her integral part, as a catalyst in the iconoclastic nature of humanity. Therefore, even if Santa Varvarians have a blinded gaze, because nobody likes to see his own reflection, an ape, no matter how updated it may be, can see through the *téchne* of Theōria. To this end, paraphrasing Heidegger's quote: *This is why we brought the question of being into connection with the transcorporation of Byzantium, where the fate of Europe is being decided, while for Byzantium itself téchne proves to be the exporter.*

CHAPTER 9: THE TECHNE OF THEORIA

9.1. Synopsis

It is notable that Leon Battista Alberti considers the frame of the painting in *De pictura* (1435) as an open window. Throughout most of the 20th century, Alberti's perspective has been the dominant image form, interpreting the space with depth in a Cartesian manner. This systematic interpretation of space reflects the endeavours of the artists to align their work with contemporary scientific developments as a means of being credited as being timeless intelligent men and, therefore, participating in the economy of spectacle by attracting their patrons. Alberti delved into Classical Antiquity (Roman and Greek), stating that artists use different skills to strive towards the same goal of visual similarity between the images they create and the actual objects they depict.¹¹³ Likewise, Alberti's colleague, Filippo Brunelleschi was well-known for his technique for linear perspective in art. Describing Brunelleschi's imitated reality, Feyerabend explained that "*it was manufactured, not given*" and named it, an "*enormous stage*":

"The reality he tried to represent was produced by the stage set, the process of representation itself was part of the stage action, it did not reach beyond it." (Feyerabend, 2001:100).

The revival of the Archaic period was an attempt to form the foundations of humanism, as developed in the years following the Middle

¹¹³ Alberti stressed that "all steps of learning should be sought from nature". The ultimate aim of an artist is to imitate nature. Painters and sculptors strive "through by different skills, at the same goal, namely that as nearly as possible the work they have undertaken shall appear to the observer to be similar to the real objects of nature". <https://web.archive.org/web/20150227063558/http://www.kirjasto.sci.fi/alberti.htm> [10 February 2015]

Ages. "*The glory that was Greece and the grandeur that was Rome*" (Poe 1831) was an ideal compact portal that enabled the 'timeless' intelligent man to undertake tasks 'on behalf', as an auto-authorised entity.¹¹⁴ Being precisely selective, the intelligent man borrow *téchne* from ancient Greece to construct what, in 1753, Baumgarten (Alexander Gottlieb Baumgarten 1714- 1762, German philosopher) named as *aesthetics* and defined as "*the logic of the lower cognitive faculty, the philosophy of the graces and the muses, lower gnoseology, the art of thinking beautifully, the art of the analogue of reason.*"¹¹⁵ The art of beauty and logic replaced the *téchne* of *póiesis* and *práxis* "*making a branch of philosophy that deals with questions of beauty and artistic taste*".¹¹⁶

Ultimately, together with Heidegger's definition of art, as the style of each particular culture, the 'timeless' *intelligent man* gives rise to a sister entity, the 'already' *aesthetic man*,¹¹⁷ who has become the dominant figure in artistic fields, persisting even in contemporary times. Similar to scientific loans, art loans from *téchne* were extracts from the integrated module of *Theōria* in order to serve the investment of human capital. Therefore, it is

¹¹⁴ Edgar Allan Poe 1831, 'To Helen' Available from: [https://en.wikisource.org/wiki/To_Helen_\(Poe,_1831\)](https://en.wikisource.org/wiki/To_Helen_(Poe,_1831)) [10 February 2015]

¹¹⁵ Guyer, Paul. *Values of Beauty: Historical Essays in Aesthetics*. Cambridge University Press
http://assets.cambridge.org/97805218/44901/excerpt/9780521844901_excerpt.pdf
 [10 February 2015]

¹¹⁶ Guyer, Paul. *Values of Beauty: Historical Essays in Aesthetics*. Cambridge University Press
http://assets.cambridge.org/97805218/44901/excerpt/9780521844901_excerpt.pdf
 [8 March 2015]

¹¹⁷ Definition of the word 'aesthetics' is available from Oxford Dictionaries: <http://www.oxforddictionaries.com/definition/english/aesthetics>
 [20 February 2015]

expected that one will find features of Theōria as a hidden prospect of an alternative investment. However, on the art side, research to find nature's actual depth depends exclusively on the excess provided by the economy of image and likeness. Hence, lacking this economy, the record of modern times for the aesthetic man was deficient. More relentless than that of the intelligent man, the debt of the aesthetic man is attributable to a profound iconoclasm due to the essence of art. Although the aesthetic man tried hard to be aligned with the intelligent man, the impulse of Theōria was deeply rooted and, thus, aesthetics was irrelevant, more or less, to his nature, "*as ornithology is for the birds.*"¹¹⁸ The aftermath, as Newmann states "*was the failure of European art to achieve the sublime due to this blind desire to exist inside the reality of sensation*"; a practice that has shifted *téchne* to art. The deliberate omission of the elements of excess held by Theōria rendered modern art, as quoting from Newmann:

"[...] incapable of creating a new sublime image, and unable to move away from the Renaissance imagery of figures and objects except by distortion or by denying it completely for an empty world of geometric formalisms—a pure rhetoric of abstract mathematical relationships, became enmeshed in a struggle over the nature of beauty; whether beauty was in nature or could be found without nature." (Newmann, 1948:52-53).

Art is not like science because it always contains the schema as the prime cause of its emergence and, therefore, it cannot exist without it. Thus, even if, for the aesthetic man, this connection stands as a major internal and external conflict, for Theōria herself, the connection is beneficial since one can trace her path through this long period of late iconoclasm. Man, himself,

¹¹⁸ Available from The Barnett Newmann Foundation
<http://www.barnettnewman.org/chronology.php> (paragraph of 1952) [8 March 2015]

has maintained Theōria latently due to the imperative need for image and likeness; therefore, Theōria has arrived in the current era providing her economy, which may stand as a revaluation of human capital. Because the very nature of *téchne* is disruptive, there have, during these years, been many declarations of Theōria that have played a key role in the development of human thought. One might say that it is not only the Louvre that will never collapse inasmuch as we are in Byzantium, but CERN as well. To this end, this chapter explores the slots of the schema and how they fill up in different cases. The assumption is that some slots during this late Iconoclastic period are profound examples of Theōria despite their interpretations as artworks.

Furthermore, it is important to point out that these works are considered as masterpieces and characterised as blue chips in the contemporary art market. This indicates that the slots that are filled with Theōria are the cornerstones of modern art, albeit hidden, and are regarded as emporers that may restore the economy of image and likeness in the recent transhumanistic era. To explore the slots, one has to have *Byzantium* within, in order to reveal the hidden and omitted elements that prevented the manifestation of Theōria; these elements can be found in Classical and Late Antiquity, passed through the so-called Middle Ages era.

9.2. *Téchne* of Theōria in art

The period from the 5th to the 15th centuries is generally termed as the Middle Ages or Medieval period; however, the Byzantine Empire survived in the East and remained a major power during this warlike period. The period of the Middle Ages was, in fact, a transit zone since it refers to the threshold of three major divisions of cultures: Antiquity as well as the Medieval and the

Modern periods. This period has also been characterised as the Dark Ages, marking the responsibility held by this period for extinguishing the light of Rome. The Dark Ages designation originated from Petrarch in 1330 (Francesco Petrarca, 1304-1374 Italian scholar, poet); writing of those who had come before him, he said: "*Amidst the errors there shone forth men of genius; no less keen were their eyes, although they were surrounded by darkness and dense gloom*" (Marsh, 2003:457). Being himself in this transit state, having one foot in the new humanistic era by re-appropriating the *old-Roman* (Greco-Roman) culture, and the other foot in the Medieval Augustinian doctrine, he might be considered as the Heidegger of the Renaissance. Unlike Dante's dynamism in socio-political engagement, Petrarch's moral dilemmas concerned humanism and sensuality in contradiction to Christian spirituality. He struggled with himself without caring about anything outside of himself that might form any kind of communion. Already in this being-in-the-world state, he said that "*when the darkness has been dispersed, the former pure radiance came again.*" ¹¹⁹ His love of Augustine is bizarre, if one takes into consideration that the Christian philosophy was all that mattered to Augustine. Still, it is interesting to examine the particular artists and philosophers who performed as transitory beings, not because they applied Theōria but, rather, because they acknowledged her traces. From Aristotle, as the prime source, through to the carriers Augustine

¹¹⁹ Petrarch 1343 Africa, IX, 451-7 English translation of Theodore Mommsen, "Petrarch's Conception of the 'Dark Ages' Spectrum 17, No2 Cambridge MA: Medieval Academy of America, 1942): 226-42

and Aquinas, this latent form of Theōria sowed her attributes without ever showing herself, from the time of her disposal to now.

The conviction here is that, even as art, *téchne* is the sharpest carrier of Theōria, due to her nature of containing the schema; it is, therefore, essential to explore the elements that managed to be transferred from her origins to the 20th century. These elements, which are considered fundamental for her economy, will be explored via two artworks that signify a radical change of view in the modern age. Along with their references in *téchne*, these artworks can be regarded as works of Theōria that had the potential to lead to an alternative assessment of human capital during the years prior to the permanent closure of the chapter of humanism and its subsequent archiving as the Anthropocene.

The elements submitted for this analysis have already been explored as philosophical concepts in the previous chapters; the topology and *kairòs*, of Theōria. The artworks that are considered as *téchne* depict garden-like enclosures and refer to *La Primavera* (Botticelli 1477–1482) and *Sainte-Victoire* (Paul Cézanne 1870–1905) since *they are too Byzantine these* [Latin] *Frenchies*. Both artworks are comprised of a fusion of St. Anna's garden and Newton's orchard in Woolsthorpe, Lincolnshire. An aggregation of Boolean and binary space, regardless of their chronological status, both artworks reference the garden of Eden; in order for these gardens to function, the viewer should absorb their enclosure by the excess of their curvature.

9.3. La Primavera's Garden

9.3.1. The art of Primavera

In the early Renaissance era, Sandro Botticelli, a theoros, created an artwork that is considered to be one of "*the most written about and most controversial paintings in the world*", as Edgar Wind wrote, an "*irresolvable enigma*" (Fossi, 2009:5). This characterisation seems similar to scientific *hidden causes* and, indeed, the painting embraces many features of Theōria. Its original title being unknown, the artwork was first called Primavera by the artist and art historian Giorgio Vasari, some seventy years after it was painted. The painting was inspired, overall, by a poem written by the Roman poet Ovid in 8 AD (Fasti, Book 5, May). Many interpretations of the so-called Primavera analyse the artwork mostly according to its style, aesthetics and historical framework. The in-depth analysis of the figures according to their mythological biographies (Venus, Zephyr, Chloris, Flora etc.) and the assortment of flowers in this very garden result in a generalised assumption that the artwork pays tribute to fertility, sensuality and regeneration, as characterised by the name attributed to it (Fig.18).

In the midst of an intelligent and aesthetic man, the godfather of Primavera, Giorgio Vasari, owes his fame as the father of art history to his work '*Le vite de più eccellenti architetti, pittori, et scultori*' or simply *Vite* (Lives of the most eminent painters, sculptors and architects). Commenting on Botticelli's 'The Assumption of Our Lady'.

Vasari compliments Botticelli, taking into consideration the quality of style and the commitment of Botticelli to aesthetics:

"[...] it is enough that the figures painted therein by Sandro are truly worthy of praise, by reason of the pains that he took in drawing the zones of Heaven and in the distribution of figures, angels, foreshortenings, and

views, all varied in diverse ways, the whole being executed with good design.” (Vasari, 1912: 249)

If the godfather of this particular artwork had been a writer other than Giorgio Vasari, it might have been named *The Fall of Man* since it is not so different from other masterpieces that depict Eden’s garden (such as the works of Dürer, Cranach, Rubens and Titian). Indeed, the descriptions of these latter artworks indicate the same structure focussing merely on the typological character and the level of aesthetics of each artwork.



Figure 18. Primavera by Sandro Botticelli. This image is in Public Domain
<http://www.googleartproject.com/collection/uffizi-gallery/artwork/la-primavera-spring-botticelli-filipepi/331460/>

Commenting on Durer’s *Fall of Man* (1504), Panofski (Erwin Panofski, Art Historian, 1892-1968) wrote that:

“[...] (he) has always been deservedly famous for the splendor of a technique which does equal justice to the warm glow of human skin, to the chilly slipperiness of a snake, to the metallic undulations of locks and

tresses, to the smooth, shaggy, downy or bristly quality of animals' coats, and to the twilight of a primeval forest. The studies for the plants and animals range from careful portrayals in brush and water color to what may be called snapshots done with the quickest of pens." (Panofsky, 1955:84)

Maintaining his indisputable doubts regarding the status of Renaissance artworks, Panofsky added that Durer's contemporaries "*would have appreciated the symbolism of what most of us would be apt to dismiss as picturesque accessories*" (Panofsky, 1955:85).¹²⁰ The devotion in *old-Roman* culture together with the impulse of medieval art, as an inherited force, and the new Renaissance anthropocentric aspect created a series of artworks that, by themselves, generate a curvature in time. Reading Ovid's poem, one can detect a pro-vision of this curvature:

"I, called Flora now, was Chloris; the first letter in Greek Of my name, became corrupted in the Latin language. ...It would be difficult to speak of my form, with modesty..." (Ovid, *Fasti*, Book V: May)¹²¹

9.3.2. The *téchne* of Primavera

Suspended between the ancient Greek and Byzantine art, 'Primavera' introduces the topology and the *kairòs* of Theōria in an era when the interpretation of nature claims for the strictly chronological ordering of a systematic ideal space. Primavera topology indicates a place that was very common in both ancient reliefs and Byzantine frescoes, and one can meet this kind of space in the Parthenon frieze (Fig.19).

On the West side of the Parthenon there is a scene of horses and riders that, while moving at some speed, seem to be slowing down so as not

¹²⁰ By 'most of us' Panofski meant his contemporaries, that is, the time in around the second half of the 20th century.

¹²¹ Digitised book from the original Harvard University Press publication is available from Internet Archive <https://archive.org/details/ovidfasti00oviduoft>

to appear to ride off the edge of the frieze. There are sixty riders arranged in ten ranks of six and each rank is marked by a figure placed nearest to the observer and not overlapped by another, unfolding several moments in a single time.

One cannot extract an element as the central signifier because such aggregate space requires an overall visual syntax as a compact composition on several levels. This is similar to the emergence as a spontaneous organisation in which every element within maintains its orientation while it is a part of a unit.



Figure 19. Cavalcade. Block II from the west frieze of the Parthenon, ca. 447–433 BC. This image is in public domain at: https://commons.wikimedia.org/wiki/File:Cavalcade_west_frieze_Parthenon_BM.jpg#/media/File:Cavalcade_west_frieze_Parthenon_BM.jpg

The Parthenon frieze is, in artistic terms, the Aristotelian Holism. In his *Politics*, the philosopher claimed that *the whole is of necessity prior to the part*. (Aristotle, *Politics* [1253a20-24]).¹²² In *Politics*, the concept of Holism

¹²² Αριστοτέλους Πολιτικά [1253a20-24] τὸ γὰρ ὅλον πρότερον ἀναγκαῖον εἶναι τοῦ μέρους· ἀναιρουμένου γὰρ τοῦ ὅλου οὐκ ἔσται πούς οὐδὲ χεῖρ, εἰ μὴ ὁμωνύμως, ὥσπερ εἴ τις

(Greek ὅλος (*holos*: *all, whole, entire, total*) aims to identify the essence of the city-state and defend the 'natural' character against the views of some sophists, who argued that any form of social organisation is a contract between the members of society. However, it is evident that the parts, posterior to the whole, maintain their original properties since they are connected through their discrete *energeia* and *ergon* that each one obtains and operates, respectively. This idea of space is similar to the concept of a 'stage' or, better, to both its concepts, thus the scaffolding of noetic layers in phases and the stage as an area of performance. Unlike Brunelleschi's *enormous stage* as stated by Feyerabend, this stage is what Panofsky called *the lateral staggering*; (Panofsky, 1997:105).¹²³ It involves the disposal of all elements and their energy in a single unity regardless of their position in time and space. The chorus of ancient Greek dramas has the same setting. The Greek chorus (or chorea) is a group of performers acting in unison. The groups, comprising twelve or fifteen members in tragedies and twenty-four members in comedies, operate as intermediates in unison, in specific key frames of the play that are considered to be of high importance.

The very same composition can be seen in the *Polygnotan vases*,¹²⁴ here, we see the horses staggering in real-time (Fig.20):

λέγοι τὴν λιθίνην (διαφθαρεῖσα γὰρ ἔσται τοιαύτη), πάντα δὲ τῷ ἔργῳ ὥρισται καὶ τῇ δυνάμει, ὥστε μηκέτι τοιαῦτα ὄντα οὐ .

[...] the whole is of necessity prior to the part; for example, if the whole body be destroyed, there will be no foot or hand, except in an equivocal sense, as we might speak of a stone hand; for when destroyed the hand will be no better than that. Aristotle, Politics 350 B.C.E .Transl. Benjamin Jowett Book1, PartII.

<http://classics.mit.edu/Aristotle/politics.1.one.html>

¹²³ Panofsky Erwin 1997 "Perspective as a Symbolic Form". In the Notes, Panofsky pointed out that this staggering is not actually to be interpreted as an oblique view, in fact not as a view at all, but rather only as a row of outlines.

¹²⁴ Polygnotus, born circa 500 BC, Thasos, Thrace died circa 440 BC, Athens, painter famed for his large monumental wall paintings in a severely classical style. It constitutes a

" [...] all the body of the horse is presented in a single image, the rear elevation is placed alongside the front elevation, just as when entire figures are staggered." (Panofsky, 1997:106).

In all these topological qualities of *téchne*, one can indicate a kind of time sequence and a notion of motion embodied in them, since they are animated by an inner principle.



Figure 20. Black-figure vase by Polygnotus 440 BCE, depicting Lapitha grabbed by two centaurs.
(p.182) Greek Publication: Τιβέριος.Α.Μ. 1996. Ελληνική Τέχνη Αρχαία Αγγεία. Εκδοτική Αθηνών. Αθήνα.
(Tiverios.A.M. 1996 Greek Art: Ancient Vases. Athens Publications, Athens)

break with the ancient Greek principle of arranging figures on a single base line; Polygnotus replaced the horizontal base lines by irregular mounting or descending terrain lines. There was no unifying perspective in the modern sense; the individual figure remained the focus of interest even when several figures were grouped together. Polygnotus employed sharp foreshortening and four basic colours: black, white, red and ochre.

9.3.3. Theōria of Primavera

Rather than being a linear time sequence, the Theōria of Primavera is more about the time-like curvature that emerges as a trace or a path towards a manifestation. At this point, Byzantium converts the topology to chronology, with the meaning of *kairòs*. This is the concept of *compressed time* found in the entire iconographic deposit of Byzantine frescoes. This compression of time emerged from the Holy Communion (Greek: Ευχαριστία, Eucharist), especially in the service of St. Basil the Great. It considers a functional memory that refers not only to the past but also to the future. It is not presented as a memory of those made to the lost past, but as a foretaste (pro-vision) of what is expected to occur; a memory that a memory that not only is refunded to the before time but also extended to the future by exceeding the time-like curvature.

It concerns the operation of transubstantiation (μετουσίωσις, metousiosis), trans-elementation (μεταστοιχείωσις, metastoiceiosis) re-ordination (μεταρρύθμισις, *metarrhythmisis*) or simply changes, by which the bread and wine become not merely a sign but the organic elements of Jesus' entity (body and blood) in mutation. It is throughout this process that a *person(s)* in communion seizes for the *Another-our-nature* (τὴν ἡμετέραν φύσιν), as Cabasilas (Nikolaus Cabasilas 1322-1391) interpreted in his *A Commentary on the Divine Liturgy*.¹²⁵ This nature innovates itself with the

¹²⁵ Nicholas Cabasilas (1322-1391 C.E) was a mystical theologian and a distinguished theorist of Divine Liturgy. He is one of the most important representatives of the Orthodox humanism of the 14th century. The citation here is from his work on the Commentary of the Divine Liturgy: Ὁ δὲ Κύριος καὶ ὁράται καὶ ἀφῆς ἀνέχεται διὰ τῶν φρικτῶν καὶ ἱερῶν μυστηρίων, ὥς ἂν τὴν ἡμετέραν φύσιν καὶ δεξιόμενος καὶ φέρων εἰς τὸν αἰῶνα Νικόλαος Καβάσιλας «Ερμηνεία τῆς Θείας Λειτουργίας»

The Lord, as an envisioned and tangible entity, is present, through the marvelous and sacred mysteries, as our other nature, both as a receiver and a carrier, in perpetuity. (Translated by the author).

compressed time that manifests this particular topology, enabling transmutation and communion. The celebration of the Eucharist is related to the greater compression of time within the context of Theōria.

As noted by John Chrysostom (349 – 407):

“For we, who are many, are one bread, one body. For why speak I of communion? says he, we are that self-same body For we all partake of the one bread. Now if we are all nourished of the same and all become the same, why do we not also show forth the same love, and become also in this respect one?” (John Chrysostom, To Corinthians 10:17)

Byzantine frescoes depict this compressed time as a superimposed layer of archaic topology. In most of the compositions regarding major events, as given in the manuscripts, such as the Annunciation, Transfiguration, Assumption etc., the extension of time embraces all time within. Yet, it leaves the required slots of the schema open in order to be filled with Theōria. In the Byzantine composition of the Presentation of Mary, depicted in many frescoes and icons, one meets Mary depicted as a baby, a child and an adult in a topology of a compound time where all of her manifestations are unfolded and, therefore, there is no need of temporal movement in a physical sense. In this dynamic space, the venture is that of the mutation of the elements of the scene, hence the effort to demonstrate their exclusion of physical appearance through the image and likeness to the *Another-our-nature*.

9.3.4. The course of Primavera in two economies

Sandro Botticelli was one of the most famous and successful artists of his time, and his reputation began to decline in the early 16th century, when

the philosophical ideas that governed his paintings began to be displaced.

The interest in his work was revived in the 19th century, gaining the position and recognition held to date. However, by the time of Botticelli's revival, the competent sectors had already been selected for research on investment in human capital. Since then, the trend in investment concerned the knowledge economy and the economy of spectacle, and therefore, Botticelli was proclaimed as the master of the beauty of aesthetics with his two artworks: *Primavera* and the *Birth of Venus* both featured as the masterpieces of the Renaissance Era.

Botticelli's work was not limited to these pieces, however. He had also worked in religious painting and one may find several of his frescoes in churches; for example, the *Life of Moses* (1458-1482) in the Sistine Chapel (Cappella Sistina). These works have the same notion of *Primavera's* setting since Botticelli was initially a Byzantine fresco painter. The fresco of the *Trials of Moses* depicts the prophet Moses seven times in an unfolded compressed time. Hence, even if his work embeds an anthropocentric character, as the Renaissance demanded, he was using all the values of Byzantine *téchne*. Into this in-between space, one can say that Flora, who was once Chloris, had traversed, rather than changed, herself throughout her modification. What the stage may present is her path, her trace towards her *Another-our-nature*, shown in six, identical, figures rather than the celebration of a naturalist with excellence in aesthetics.

As an honour to beauty, the figure of Venus, the main figure of *Primavera*, regards the economy of spectacle. As a result, in his

announcement for '*Botticelli Re-imagined*' Exhibition,¹²⁶ Mark Evans, senior curator of paintings at the Victoria & Albert Museum, comments: "*She [Venus] becomes the definitive, ideal woman walking down the catwalk, with this kind of dancing attitude.*" This motion, remarked upon by Evans in *Primavera*, originates from the ancient Greek Chorus and the Byzantine spiritual pulse that emerge from the entire unity and not from any feminine nature. The notion of this kind of movement exists in all circumscribed entities, including flora and fauna.¹²⁷ Eleven centuries before the *dancing Venus*, the Byzantine poet, John Geometres (2nd half of the 10th century) wrote a letter to a friend, using the literature type of Ekphrasis, describing the garden of his house in Constantinople (Istanbul). He described a garden with a perfect morphology and climate, whereas nowhere in the text is there a reference to some special design producing the garden's mild climate. Rather, the author tried to stay beyond this kind of description in order, for the benefit of the reader, to fill the slots of the garden's description with Theōria. He ended his Ekphrasis saying that the seasons do not cause sudden bouts, as usually happen in gardens, but on the contrary, "*upon reaching each other they embrace tenderly and, one supplanting the other, part in harmonious order, like guiding the chorus*" (Αγαπητός & Hinterberger 2006:136-137).

¹²⁶ A Victoria and Albert Museum Exhibition of Sandro Botticelli (5 March 2016 - 3 July 2016). Evans' comment available from: <http://in-cyprus.com/botticelli-painted-modern-beauties/> [20 June 2015]

¹²⁷ An echo of this process might be found in mid-19th century with the French scientist Étienne-Jules Marey, an influential pioneer of motion pictures. Marey started by studying blood circulation in the human body and he explored movement by taking still images as frames recorded on the same picture. He, then, reconstructed movement by making its physical wrapping abstract, based on a combination of visual formulas that do not prepose figurability, but, on the contrary, condition it. (Michaud, P.A. 2004, "Aby Warburg and the image in motion", Zone Books 2004 p. 87).

Flora, who was Chloris and also the *Another-our-nature* of Venus, was embraced by the aggregated gardens which, together (St. Anna's, Newton's and Geometres'), merged into a *tectonic cluster* where all elements are in juxtaposition as consecutive signs. This topology could not *embrace and dissolve the opposition between the bodies and non-bodies* since, according to John of Damascus, these elements are all circumscribed, "*but only as that which remains, so to speak between the bodies*" (Panofsky, 1997:41).

9.3.5. The cumulative garden of Primavera

Each image captures a moment in *media res* in which all phenomena, whose nature is to suddenly break out, disappear and appear again in another mental stage, are presented unified in an unconditional and unchanging duration. Zarathustra, Media, Chloris and all other elements stand as emporters, before becoming subjects, in-between orient and occident, *since "subjectivity always produces itself in a moment of occidentalisation"* (Derrida, 1986:239). In this *media res* state, which includes orient and occident, birth and death, east and west, male and female and all other opposite doubles, there is Byzantium, capable of supporting conflicting constitutions. To this end, Chloris' words: "*I was Chloris who I am now called Flora*" can be translated by replacing the concept of her image with the concept of *imago*. The process concerns the last stage of development of an insect, after the last ecdysis of an incomplete metamorphosis, or after emergence from the pupa, where the metamorphosis is complete; this is the only stage during which the insect is sexually mature and, if it is a winged species, has functional wings.

Conclusively, in this cumulative garden, which includes all hitherto existing gardens, all elements in an image reach their peak, performing a stationary motion in communion. Their manifestation is of their absence, rather than that of their re-presentation. What are to be shown are the traces of their appearance and disappearance throughout an organic imago process of their unified mutation. Their condition reflects the theory of Natural Religion, followed by that of Sun Religion. Sun Religion concerns the stage in which *the sun does not set, or it sets immediately* (Derrida, 1986: 239). It is the opportune moment in which the sun is not yet a subject, as in the case of the water before it is transmuted into wine. It is considered that such a process emerges only from the *téchne* of Theōria that is capable of providing the trace of trans-elementation, within a *person* in communion, towards the transmutation into *Another-our-nature*. Hence, Botticelli's cumulative garden (Primavera) may be regarded as the required Byzantium into the intricacy of the *intelligent* and *aesthetic* man.

9.4. Sainte Victoire's garden

Crossing time and expressing her characteristics in various artistic efforts, after Botticelli, Theōria enters the 20th century displaying a groundbreaking framework that attempts to boldly open new vistas towards her manifestation.

Paul Cézanne (1839 – 1906) painted Sainte Victoire throughout his life and it was the last theme he painted just before he died. Cézanne worked with the aim of leaving impressionism aside and also of defeating the classicism and academicism of the past. Although this era was governed by European alliances and the spirit of the Belle Époque proclaimed that Europe

would continue as a prosperous and united power forever, he felt that the spirit of the Belle Époque was fading. Unlike Aristotle, Heidegger and Damascene, who worked in the ruins of the cultural values of their Empires, Cézanne's work can be characterised as a pro-vision of the upcoming European destruction (First World War, 1914).

The later iconoclasm, which could always stand as a major reason of wars, declared Cézanne as a radical iconoclast. While art evolved in accordance with the relation of intellectual and aesthetic man, image was defined as a representation of nature, with nature being what the natural sciences declared. Therefore, Cézanne's geometrical abstract schemata were characterised as iconoclastic since they did not represent the ideal beauty of nature, which, as previously believed, could only be captured by the reliable Renaissance optical faculty and processed by reason.¹²⁸ The Paris Salon, the official art exhibition of 19th century Paris, rejected Cézanne in the 1860s. Before he died, he offered his work to Aix and was again turned down because the authorities wanted 'proper' art. His later revival found his work to be influenced by artists such as Titian and Poussin and to be a great inspiration for the Cubist movement with Picasso and Matisse, who became strongly interested, at the time, by 'The Bathers', exhibited in 1907.¹²⁹

¹²⁸ To watch his art evolve from a murky picture like "The Murder," of around 1868, done when he was a fledgling and violent iconoclast laying down paint as if he were piling dirt over a grave, to the airy, palpitating and Olympian views he did of Mont Sainte-Victoire at the end of his life is to see one of the amazing personal transformations in the history of art. Kimmelman Michael, June 9, 1996. Art View; Cézanne, in All His Magnificent Mystery. The New York Times. <http://www.nytimes.com/1996/06/09/arts/art-view-Cézanne-in-all-his-magnificent-mystery.html>

¹²⁹ More information about Cézanne's Bathers (Les Grandes Baigneuses) available at: <http://www.nationalgallery.org.uk/paintings/paul-Cézanne-bathers-les-grandes-baigneuses>.

9.4.1. The art of Sainte Victoire

" [...] The sun is so terrifying that it seems as though the objects are silhouetted, not only in black and white, but in blue, red, brown, and violet. I may be mistaken, but it seems to me to be the very opposite of modelling."

This text is an extract from a letter sent by Cézanne to Pissarro in 1876, explaining the view of L'Estaque bay, one of his favourite places (Nochlin, 1966:87).

The Bay of Marseille, as seen from L'Estaque (Fig.21), was described by the painter as the transformation of the mass, rendering nature as cubes, cylinders and cones; a description that has been characterised as one of Cézanne's famous assertions: "*Render nature with a cylinder, the sphere, and the cone arrange in perspective*" (Cézanne & Doran, 2001:27).



Figure 21. Mont Sainte-Victoire seen from Bellevue, 1885-87 by Paul Cezanne © Paul Cézanne Org: <http://www.paulcezanne.org/index.jsp>

Many scholars interpreted the above declaration as the artistic echo of the scientific Esperanto, which was derived from the Royalists' *new science* and the systematisation of natural phenomena, and had been extended to the Scientific Revolution. However, Cézanne based his argument on a kind of nature other than that of the natural sciences. Galileo's and Kepler's telescopic achievements, as well as Hooke's microscopic discoveries, presented nature as it had never been revealed before. Yet, Cézanne's *renderings* talk about a completely subversive endeavour that was not included in any of the scientific theories, even though it was proven in the very same way, just like all the others, with respect to natural philosophy. That which Kepler disregarded in his observations of the Sun, is what Cézanne had seen in L'Estaque bay, namely, "*the very opposite of modelling*." The moment that Kepler interpreted Sun as a physical energy source, namely as an object, science may have lost an important phase that has been kept by *Téchne*, all this time, in a most dynamic way; this stage "*where the light envelops itself in darkness even before becoming a subject*" [or object] (Derrida, 1986:239). Cézannean schemata are provisions that allow the potentiality of their visibility through the light rather than geometrical forms governed by axiomatic properties of the objects into a Euclidian space.

9.4.2. The *téchne* of Sainte Victoire

Geometry is discovered by actualisation, because it is by manifestation that one can discover it. If the manifestation has already been performed, geometry would be obvious as an object; however, because there is only potentially for Epiphania, one should reveal her schema before the

geometrical actualisation. In the last stage of Derrida's interpretation on the three stages of Natural Religion, "*the artisan becomes a 'spiritual laborer' conscious of his activity, artist, and, the instructive, almost animal, elaboration is now an art*" (Derrida, 1986:256 -257). Even if Derrida implicated an existential aspect into his thought, it seems that, following the prevailing Western thinking (Hegel & Heidegger), he also acknowledged the involvement of Byzantium within, while he was delving into the notion of the spirit. The philosopher claimed that Greek history launched after the death of the Sphinx but it had been developed with the same rhythm of syllogism: the abstract work of art, the living work of art and the spiritual work of art.¹³⁰ He considered this syllogism both representative (of itself) and abyssal. He then questioned:

"But if the abyss saturated or hollowed out by a 'mise en abyme'. Then to hollow out, is that to run a risk? And in view of what?" (Derrida, 1986:257)

Too close to run the *risk* of shifting art back to *téchne*, Derrida preferred to appropriate the process of deconstruction rather than to change the economy of spectacle to the economy of *Theōria*. Even if the time-like curvature were in front of his eyes, he questioned the risk by asking in view of what. Hence, the Droste effect occupied the open slot of *Theōria*'s schema by highlighting the importance of altering the major meanings of Classical and Late Antiquity in order to fit them to the Being-in-the-world.¹³¹ Nevertheless, if

¹³⁰ In Derrida's double column text, when he referred to the last phase, he juxtaposed Genet's *Lady of the Flowers*, where Ernestine is going to kill her son and 'curl up' on a curved stone like an egg or a work: Such is the unique and double origin of the murder. (Glas p.256 -257).

¹³¹ The Droste effect, known as *mise en abyme* in art, is the effect of a picture appearing within itself in a place where a similar picture would realistically be expected to appear. Nänny Max & Fischer, Olga, 2001. *The Motivated Sign: Iconicity in Language and Literature* p. 37, (John Benjamins Publishing Company, Amsterdam, Philadelphia).

the slots were filled with the *téchne* of Theōria, they would apply to the operation of a person in communion.

The difference between these two approaches is based on the fact that the former seeks a mirrored image within the natural visualised object while the latter seeks the image with Another-our-nature in terms of *pro-visionilised object*. Consequently, the geometry of a visualised object refers to a real mental image "*because the consciousness of a sphere is beyond their [people] reach makes them suffer from a feeling of spiritual confinement and insufficiency*" (Panofsky, 1997:168). On the other hand, the *pro-visionilised* object reveals the geometry of the schema per se and, therefore, contains the curvature of Theōria within.

The cylinder, the sphere, and the cone manifest themselves in this latter geometry without the object since there is no need for construction or deconstruction at this stage. Similar to Flower Religion, Cézanne pointed out that there are three things that make up the basis of the crafts: "*scruples (before ideas), sincerity (before myself) and submission (before the motif)*" (Cézanne & Doran, 2001:151). Within this process, the sphere, the cone and the cylinder come before forming themselves, "*as before nature, he [the painter] learns to see*" (Cézanne & Doran, 2001:136). Cézanne's persistence for the study of nature comes in contrast to the accusation ascribed to him, namely his characterisation as an abstract artist who did not perform the beauty of nature. It also contradicts his assertion to render nature through geometric shapes.

Therefore, according to the Committee (and patrons) of the Paris Salon, Cézanne's work was inappropriate art, whereas for others, such as Maurice Denis (French painter and writer 1870 – 1943), it presented a failure of the artist to capture the true geometry of the circle (Cézanne, Doran 2001:177). One should question here how Cézanne, a twofold iconoclast, as seen by the prevailing sectors of his time, was researching nature in an absolute and thoughtful manner, while not being a naturalist. Heelan argued that Vincent Van Gogh's Room, was a local Riemannian world space (Heelan, 2012:453). Therefore, the interpellation could be as such: where an enhanced human can situate themselves? At the Room-as-Total-World, a gift only for prepared -being-in-the world- viewers, or at Cezanne's curved Sainte Victoire, a gift for prepared -another-our-nature- viewers?

9.4.3. Theōria of Sainte Victoire

Assuming that Cézanne was a theoros and, thus, he elaborated the Epiphania of *Another-our-nature*, then, instead of the golden ratio, the notion of the curvature would most probably be manifested through the noetic process of his *renderings*. This can be confirmed by his long-lasting endeavour to render the Mont Sainte Victoire. Although it is a landscape in the French Aix-en-Provence rather than a garden, Sainte Victoire is considered, here, as Cézanne's own enclosed garden because of this curvature:

“[...] But look – it is convex; its edges recede from its center. Instead of becoming stronger, it evaporates, becomes fluid.” (Cézanne & Doran, 2001:112)

Sainte Victoire can, for this reason, be regarded as a garden-like topos, where the curvature generates convexes and, thus, like St. Anna's

fountain, can *reserve and gush forth*. Indeed, during his visit to the Louvre with Joachim Gasquet, Cézanne recalled that "*the night that the Savior was born, the vines flowered all over Palestine*." Then, he turned to Gasquet saying: "*We painters, we should paint the flowering veins rather than the whirlwinds of angels who announce Messiah*." Comparing the liturgical abstract symbolism of the Middle Ages with *his art, that of the Renaissance*, he concluded that the flowered gardens of Palestine are the Renaissance:

"Ah, that's the Renaissance, that is." (Cézanne & Doran 2001:135).

The question to be raised here is whether Cézanne was speaking about Botticelli's cumulative garden or Botticelli's Primavera. If he was speaking about Primavera, he would have given importance to the modelling of geometrical forms in an aesthetic manner that sought for a superlative representation of nature, style and divine proportions. However, he was opposed to modelling and representation, saying that "*one must not reproduce it [Nature], one must interpret it*." (Rewald, 1950:108) Alongside this, he captured L' Estaque bay *as the very opposite of modelling*.

Most probably, these *flowering veins* of *his Renaissance*, reflected in Botticelli's work, are considered as cumulative gardens rather than *Primaveras*, since they seem to have the very same topological meaning, echoing St. Anna's garden. To recall, the fountain in St. Anna's garden had the ability *to show evenly all the lines flowing from the center*. In December 1904, Cézanne wrote to Emile Bernhard explaining the importance of interpreting nature by means of the cylinder, the sphere and the cone:

"Lines parallel to the horizon give breadth, a section of nature, or if you prefer, of the spectacle spread before our eyes by the 'Pater Omnipotens Aeternus Deus'. (Father almighty, eternal God) Lines perpendicular to that horizon give depth. But for us men, nature has more depth than surface, hence the need to introduce in our vibrations

of light, represented by reds and yellows, enough blue tints to give a feeling of air.” (Cézanne & Doran, 2001:27)

By these words, the artist explained a surface, *spread before our eyes*, which cannot present a perspective as defined by Alberti. Rather, the painter acknowledged the persistence of men to search for nature’s actual depth, declaring that the true meaning is in lines that run parallel to the horizon. For Cézanne, the perspective is this very surface; the convexity of nature makes it a fluid surface. Indeed, adding together the convexity in nature that *evaporates and becomes fluid*, and the surface of parallel lines that *spread before our eyes* by God, a free surface arises that experiences zero perpendicular force. Similar to the fountain in St. Anna’s garden, the parallel forces occur through neighbouring particles. In this interrelated environment, the surface itself functions as an Epiphania and, therefore, the process of its manifestation is based on Theōria. For Cézanne, everything is curved.

“The line never having existed for him except as a meeting place for two planes of different colour.” (Rewald, 1950:160)

He also considered that light is the carrier of any module of nature and, therefore, he outlined its significance by introducing the appropriate colours in *"our vibrations of light to give a feeling of air."* At this particular moment, which may be taken as the third and final phase of Natural Religion when *one has passed from nature to art*, Cézanne passed from art to *téchne*. In his treatise, *On Sense and Sensible of Parva Naturalia* (Μικρά Φυσικά: Περί Αισθήσεως και Αισθητών) Aristotle analysed the nature of light and colour, arguing that:

“[...] light is the colour of the Translucent which is not something particular to the air, or water, or any other of the bodies usually called translucent, but us a common ‘nature’ and power.” (Aristotle, *Organon*, p. 1264)

He explained that for light to subsist in a determinate body, the latter reveals its boundary, by which it determines its form, through colour. Greek ancient philosophy stated that colour generates itself from transparency, when bodies are in juxtaposition and, therefore, they create a mass that is visible as colour. Aristotle argues that, according to particle theory,

“[...] we must assume not only invisible magnitude but also imperceptible time in order that the succession in the arrival of the stimulatory movements may be unperceived and that the compound colour seen may appear to be one, owing to its successive parts seeming to present themselves at once.” (Aristotle, *Organon*, p. 1267)

While not opposed to his fellows concerning the generation of the colour through juxtaposition, Aristotle considers that there is no *invisible magnitude* because the visibility of a colour is the same at any distance. Similarly, Cézanne’s curvature and breadth entails an infinite expanse of space, almost identical to the *lateral staggering* of the Parthenon frieze and Polygnotan vases. Disregarding any notion of perspective, Cezanne unfolds all the space in a single, flatter stage. It is, therefore, a matter of opportune moment for one to render this space at once, via noetic fermentations. Sainte Victoire manifests *evenly all the flowing lines*. Hence, when no invisible magnitude and imperceptible time exists, one is immersed in the topology and *kairòs* of Theōria, where, intertwined, they produce the time-like curvature. In the description of St. Anna’s garden, Hytrakenos, depicting the revolving sleeve, writes:

“The other, [wall], was enwreathed with a chorus of cypresses. The trees were sufficiently stripped of stems in their trunks, and from there grew straight, so that they shot in an upright foliage shaped like a cone, and were so well pushed up and were held in check in such a way, that one would think he was looking at well-girded maidens stretching their hands to one another reciprocally and setting up a noble and harmonious dance”. (Dolezal & Mavroudi, 2002:144)

9.4.4. The course of Sainte Victoire in two economies

The Byzantine garden of Anna, where all circumscribed entities are unified in an unconditional and unchanging duration, is the French Sainte Victoire garden-like topos. Into these gardens, both *the cypresses* and the *stovepipes* are shaped like a cone,¹³² but not

“[...] as the result of a constructivist abstraction, but of a point of maximum visibility whose surfacing raises the thing into its own light and spreads it [deployer] out through an intrinsic modulation.” (Marion, 2011:49)

Certainly, Cézanne maximised the intelligibility of the Sainte Victoire topos by his absolute integration with the *Another-our-nature*. Observing this intelligibility, Kazimir Malevich (1878 – 1935) argued that Cézanne was a reductionist who,

" [...] despite his immense feeling for the painterly in an object, Cézanne gave only small displacements of form; but he could not give purely painterly construction, despite his striving towards the cone, the cube and the sphere which he indicated as figures organising painterly constructions."¹³³ (Malevich, 1919:98)

It is apparent that the above interpretation came from an aesthetic man, deeply involved in intelligentsia, who considered that Cézanne had, as his ultimate purpose, to yield the purely painted construction of an already actualised object through its geometry. The creator of the '*black square*' did not recognise that Cézanne was not interested in reducing nature to geometrical objects. In his phrase about the cylinder, the sphere and the

¹³² Cézanne had advised a student to copy his stovepipe in order to learn how to paint.

¹³³ Kazimir Malevich (1878 – 1935) a Russian painter and art theoretician launched the philosophical school of Supremacism while he explored pure geometric forms and their relationships. He was a key-artist of the Russian avant-garde of post-World War.

cone, he used the word *with* rather than the word *to* or *by*. Thus, he was not referring to a geometrical representation of the principal forms that could lead to a Platonic idealism or to its modern translation of Malevich supremacism or structuralism.

By using the word *with*, Cézanne immersed himself in the process of *submission (before the motif)* where geometry regards a noetic process of open-knowledge economy, similar to the meandering module of thought, rather than a construction in Euclidean terms. As a theoros, he filled up time by implicating a pro-nature module to submit nature *as it is seen, as it is felt* and *as it is there* (both in physical and mental environment). Speaking to Gasquet, he pointed towards the plain and his forehead, adding:

" [...] both of which have to fuse in order to endure, to live that life, half human and half divine, which is the life of art or, if you will ... the life of god. The landscape is reflected, humanized, rationalized within me."
(Gasquet, 1991:148)

Malevich saw, in his *black square*, the supreme, the ultimate icon or, better, the godlike quality in himself, recycling, once more, the auto-authorisation of acting as such.

9.5. The acheiropoietos garden of Sainte Victoire

In this incoherent iconoclasm, where the iconoclast is the best iconolater, Cézanne stood as a '*spiritual labourer*' who renovated space and time along with his image, reflecting his transient nature. Rather than an auto-authorised man who provides supremacy, he acted as an exporter of auto-generated images that do not concern mass and form, since the significance is in the process of actualisation (schema) and not in what is finally actualised (de-signed object).

This kind of image automation, by which the *spiritual labourer* is not the author in any manner, but a medium in-between potentiality and actuality, can find its origins in Byzantine icons, namely the *acheiropoietai* (Greek: α-χειρ-ποίησις). Although the word can be translated literally into English as non-hand-made images, and most interpretations refer to them as miraculously made images, their very meaning is located in the economy of Theōria. An acheiropoietai icon refers to the manifestation of a pro-vision of the transubstantiation; the embodied Logos revealed by the '*temple of his body*' (St. John.,2.21). It is not an image with respect to the human invention and, therefore, it is not a matter of whether it is handmade or not. Into this process, the work of the artisan (Greek: τεχνίτης; technician) is to venerate the images and not to construct them. As an ultimate technician, Cézanne explained to Gasquet that "*in the mornings when I'm tired these notions of mine [the schemata] get me going, they stimulate me. I soon forget them once I start using my eyes*" (Gasquet, 1991:164).

9.6. Conclusion

Considering that *téchne* is the main exporter of the economy of Theōria, the two artworks analysed in this chapter are considered to be exemplary with regards to the development of Theōria in her passage to modern times. Undoubtedly, other artworks have employed her features in a similarly effective way; however, there is a particularly evident admission made on the surplus value of her economy in Primavera and Sainte Victoire. Botticelli managed to consolidate transmutation in Another-our-nature at a time when individuality was the prevailing value. His art, although considered

as an excellent work in aesthetics, has kept the essence of *téchne* since he was too close to the Byzantine view.

The impulse provided to Cézanne's Renaissance was, however, vital because Cézanne's Renaissance was able to acknowledge the Another-our-nature and succeeded in unfolding it to the time-like curvature by *acheiropoiesis*. Through Botticelli's achievement, Theōria not only endured but also developed in such a way that she could find her way into the 21st century. His veneration of images still retains the possibility of fighting the post-iconoclasm. The question here is grounded in the area that can assure the effective veneration of images in the transhumanist era.

CHAPTER 10: THE TECHNOETICS OF THEŌRIA

10.1. Synopsis

In 1991, at the first International Conference for Humanistic Discourses hosted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris, Derrida declared the right to philosophy. He began with the question "where?" not in terms of where are we or where have we come to but where does the question of the right to philosophy take place. He specified his question by pointing out that he referred to this privileged space, *"where the question, and also the answer, would be rightful and meaningful, and thus rendered possible"* (Derrida, 2002: 2).

Employing Kant's idea of a cosmopolitan dimension through a universal history, Derrida focussed on the necessity of the establishment of institutions governed by international, and therefore philosophical, law (Derrida, 2002: 6). However, instead of Kant's questions about what we ought to do (Kant 1992: 414) and to know what ought to be done (Kant, 1992: 642),

Derrida asked where ought it take place (Derrida, 2002:2). The difference between the questions of these two philosophers is vague but, however, important. The German philosopher (Kant) asked his questions in the course of the Enlightenment, the forerunner of the French Revolution, which initiated the major values of human rights and freedom within a brand new European idea. On the other hand, the French philosopher (Derrida) raised his questions in an already aged European idea, thereby asking questions of where rather than of what: "Must they [these young old-Europeans] re-begin? Or must they depart from Europe; separate themselves from an old Europe? Or else depart again, set out toward a Europe that does not yet exist?" (Derrida,1992: 7-8). His vision of a Continental philosophy has been mixed with the voracious imperialism of the Continent and the inherited individualism and existentialism from previous époques. As a result, Derrida explored the answer to his question in various institutions that were able to proclaim the notion of being-in-the European world as being rightful and meaningful.

As already stated, Kant, Hegel and Derrida were too close to Theōria but they could not ask for her due to the de-sign problem. Yet, even if the future will come from their asking of *Byzantine questions* (Kristeva, 2004: 65), the aged, new European idea considered these questions to be out of the question. Assuming that Derrida raised a Byzantine rather than a European question, he would have begun with the question "where?" in terms of where does the question of the right of the veneration of images can take place. Again, the question would have implied the exploration of this privileged space, where it would be rightful and meaningful, thus rendering it possible. Moreover, if this specific question were to be explored today, in an era where the curvature of Theōria has been accredited through contemporary scientific

discoveries (quantum mechanics, multiverse hypothesis, wavefunction collapse etc.), the question would remain a hidden variable due to the de-sign problem.¹³⁴

Meanwhile, in the contemporary era, Cezannean submissions in the arts flirt with the current Another-our-nature, approaching the *téchne* of Theōria through radical research in the process of mutation and becoming. In the midst of advances in science and art, technology has built a network of trans-Continental clusters for which the curvature has been widened to such an extent that it can generate a person(s) in communion through remote networking. The assumption is that, in this environment, the slots of the schemata have actually been filled with Theōria and what is needed, therefore, is to answer the question of the veneration of images in order to manifest the Epiphania of Theōria.

In order to elucidate this hypothesis, Roy Ascott's, *La Plissure du Texte*, (LPDT), considered to be this very privileged space for questions and answers of Theōria, will now be analysed.

10.2. The technology of LPDT

Roy Ascott was invited, in early 1983, to propose a work for the exhibition "ELECTRA 1983", a survey of the use of electricity in art, organised by Frank Popper for the Musée d'Art Moderne de la Ville Paris.¹³⁵ Using the

¹³⁴ Dr Willem M. de Muynck "Hidden variables or subquantum theories": Hidden variables or subquantum theories deal with reality behind the phenomena, the phenomena being described by quantum mechanics. <http://www.phys.tue.nl/ktn/Wim/gm4.htm>

¹³⁵ Roy Ascott, a British artist, is the recipient of the 2014 Ars Electronica Golden Nica Award *Visionary Pioneers of Media Art*. He is Founding President of the Planetary Collegium (World Universities Forum Award Best Practice in Higher Education 2011) based in Plymouth University, UK since 2003. As DeTao Master of Technoetic Arts at De Tao Masters Academy,

ARTEX network,¹³⁶ Ascott created a distributed group of artists who participated in a collective project by contributing texts and ASCII patterns to a main computer terminal in order to build up a *planetary fairy tale*. In the project description, Ascott gave the objective as being: To create a text of a fairy tale generated by artists located in Austria, Australia, Canada, Holland, France, Hawaii, England, Wales and the USA.¹³⁷ LPDT alludes to Roland Barthes' book (1915 –1980) *Le Plaisir du Text* (1973). In this nonlinear narrative, Barthes distinguishes between 'writely' and 'readerly' texts, in order to elucidate the two ways of reading. While reading for plaisir (pleasure) is a kind of social act, since readers expose themselves to the ideas of the writer, reading for *jouissance* (bliss) is the ultimate state of reading, since the reader is immersed and lost in the text.¹³⁸ This loss of self is irrelevant to social implication and, thus, stands neutral in relation to social progress.

Shanghai, he established the *Technoetic Arts Institute* in 2014. He is founding editor of *Technoetic Arts: a journal of speculative research* (Intellect), and Honorary Editor of *Leonardo* (MIT). More information is available from: <https://ec.europa.eu/digital-agenda/en/users/nascotro> and <https://www.plymouth.ac.uk/staff/roy-ascott>

¹³⁶ ARTEX: Artist's Electronic Exchange. An organisation that developed a cheap electronic mail program which artists could use to create a network for the organisation of communication projects. First results were reported in October and tests began in mid-1980 of ARTBOX, the prototype for ARTEX. It was operational by the end of 1980. After many mutations and modifications ARTBOX was re-launched as ARTEX in 1982. In about 1985 IPSA introduced a simpler and much cheaper version of the MAILBOX facility and ARTEX was incorporated as a "special interest group" -- where it remained until the I.P.Sharp APL network was taken over by Reuters in 1989 and terminated in 1991. More information is available from: <http://alien.mur.at/rax/ARTEX/>

¹³⁷ For a project description and call for participation posted by Roy Ascott to ARTEX, 18 July 1983, see <http://alien.mur.at/rax/ARTEX/PLISSURE/plissartx2.html>

¹³⁸ In the English edition published by Hill and Wang in New York there is a note on the text from Richard Howard which reads: Roland Barthes's translator, Richard Miller, has been resourceful, of course, and he has come up with the readiest plausibility by translating *jouissance* (for the most part: Barthes himself declares the choice between pleasure and the more ravaging term to be precarious, revocable, the discourse incomplete) as "bliss"; but of course he cannot come up with "coming," which precisely translates what the original text can afford. The Bible they translated calls it "knowing" while the Stuarts called it "dying," the Victorians called it "spending," and we call it "coming"; a hard look at the horizon of our literary culture suggests that it will not be long before we come to a new word for orgasm proper--we shall call it "being." Available at:

From Barthes' narrative, it is important to draw attention to two main elements that follow the course of Theōria. The first element concerns the diversification Barthes had towards the concept of representation. That is what representation is: when nothing emerges, when nothing leaps out of the frame: "*of the picture, the book, the screen*" (Barthes, 1975:57). The second element regards the notion of becoming. Mentioning the metalinguistic nature of all institutional research and the incapability of conceiving a true science of becoming, he argued for the lack of pleasure of the text. Appropriating Nietzsche's ideas, Barthes quoted:

"We are not subtle enough to perceive that probably absolute flow of becoming... A tree is a new thing at every instant; we affirm the form because we do not seize the subtlety of an absolute moment... We are scientific because we lack subtlety." (Barthes, 1975:61)

Barthes admission on the impotence of representation and the lack of flow of becoming have revealed Theōria's slots that Ascott filled in with plissure and technoesis. Ascott's *Téchne* and *Logos* could be regarded as a revival of the concept of technology as used in its primary meaning (*Téchne-Logos*= technology), which refers generally to an interactive communicative process conducted through Theōria.

Although Ascott had pro-visionsed the vistas that the World Wide Web would deploy, what is, here, considered essential is not so much to proclaim him as the herald of the new media in arts, but to regard him as a Theoros who manifested the ultimate curvature of *Téchne*. Therefore, the novelty of his work should be explored better in the restoration of the concept of

technology as *Téchne* and *Logos*, inextricably linked to consciousness and the noetic practice, rather than in a mere convergence of art and technology as the novel practice of new media art, subject to innovative tools and protocols.

10.3. Technology of enchantment and enhancement of technology

Since the Paleolithic period, human technical capacity has included technological elements that serve consciousness rather than production. Such a technological process has been analysed by the anthropologist Alfred Gell in his theory of the technology of enchantment: The power of art objects stems from the technical processes they objectively embody: "*the technology of enchantment is founded on the enchantment of technology*" (Gell, 2006:163). Likewise, the notion of the technology of enchantment can be found in ancient Greek rhetoric and, profoundly, in Byzantine Ekphrasis, where *Logos* and *Téchne* were manifested in both textual and visual appearance.

The meaning of technology has changed through the centuries and only in the 20th century was it used as a description of the arts, especially those that are mechanical in nature.¹³⁹ In this etymology, the arts concern the skills and methods of practical subjects, and are commonly known as useful arts. George Washington used the term in a letter of January 29, 1789 to LaFayette, where he distinguished commerce from useful arts: While our commerce has been considerably curtailed, for want of that extensive credit

¹³⁹ George Crabb, *Universal Technological Dictionary, or Familiar Explanation of the Terms Used in All Arts and Sciences, Containing Definitions Drawn From the Original Writers*, (London: Baldwin, Cradock and Joy, 1823), s.v. "technology".

formerly given in Europe, and for default of remittance; the useful arts have been almost imperceptibly pushed to a considerable degree of perfection.¹⁴⁰

In later interpretations, useful arts refer to the arts as a process in terms of a method that includes a new use of a known process, machine, manufacture, composition of matter, or material. The United States Court of Appeals (Federal Circuit) defines the term process in terms of manufacturing processes,¹⁴¹ being irrelevant to any kind of noetic or mental course; indeed, a long paragraph in this definition analysed the term, concluding:

" [...] holding that "mental processes," "processes of human thinking," and "systems that depend for their operation on human intelligence alone" are not patent-eligible subject matter under Benson." (In re Bliski, 35 U.S.C. § 101. FN3)

By the time the European Industrial Revolution had crossed the Atlantic, technology became a scientific discipline that gradually transformed views on nature and the role of higher education. The aftermath was a definition that can be found in the book 'The Birth of MIT': "*Technology is the product of man's striving the ages to master the problems of his physical environment and to alter and control the resources of nature*" (Stratton, Mannix 2005:3). Even with this short overview, it is apparent that the essence of technology has altered, along with *Téchne*, which has shifted to art, and with *epistēmē*, which has been replaced by science.

¹⁴⁰ The Writings of George Washington, Letter to Marquis de LaFayette Mount Vernon, January 29, 1789 <http://teachingamericanhistory.org/library/document/letter-to-marquis-de-lafayette-10/>

¹⁴¹ In re Bliski, 2009 Thomson Reuters/West. 35 U.S.C. § 101. FN3 Available from: https://www.law.berkeley.edu/files/In_re_Bliski.pdf [5 September 2015]

Entering the 21st century, interdisciplinary research on art, science and technology seeks to delve into what John of Damascus once stated; the circumscribed worldview where one is potentially an angel, a human or a reptile since they are subject to one and only enhanced cluster. During this era, the widely available technologies yielded the notion of enhancement of the human species that generated transhumanism. On this point, one could paraphrase Gell's statement that the technology of enchantment is founded on the enhancement of technology. Yet, by confining the history of technology to the development of techniques and relevant items the discipline is denied a rich dimension of social history. For example, in the article on "*The Medieval Artisan*", in the book "*A History of Technology*", the author, R. H. G. Thomson, notes:

"[...] skilled workers were organised into guilds and trained by apprenticeships, comments that such matters are the business of the historians not of technology but of economics, and therefore cannot be described here." (Layton, 1974:31-41)

Indeed, such matters concern economics, but the question lies on whether they reflect a society of a fragmented knowledge economy or a communion of a participatory economy. Still asking Western questions, the liberals argue that the right to human enhancement should be found in the free market as it is the most effective economy. On the other hand, socialists claim for "*overturning entrenched habits of thought and action*" (Fuller & Lipińska 2014:19).

Even within the European approach of the non-negotiable refusal of Byzantine questions, science has reached a most Byzantine question that can be considered not only relevant to the doctrine of John of Damascus but also an evolution of Byzantine philosophy; the question comes from

neuroscience and refers to Consciousness Singularity. The theory concerns an excess of human consciousness that is excessive to the extent that it embraces one of the main elements of Theōria, the *a person(s) in communion*. According to neuroscientist Shawn Mikula, this new existence will be both a form of collective consciousness and a form of expanded individual consciousness. Yet, Mikula refers to consciousness singularity as "*a par excellence transcendent state of consciousness such that we cannot even begin to comprehend it, much less imagine it.*" ¹⁴²

Like all previous scientific discoveries, pending their validation due to inappropriate protocols, this recent finding will probably fail if the curvature of Theōria cannot be revealed. The historical and social timeline from which these questions are raised cannot obtain such a curvature since the prevailing process requires a linear sequence, tending to the starting point; always seeking for the prime cause and nature's actual depth. Beyond any conflict between the "*justice of the means* and the *justice of the ends*" (Fuller & Lipińska 2014:20), one should be able to overcome those factors that seek to capitalise any changes in favour of the fragmented knowledge economy.

The assumption here is that, no matter the poles and terminologies, one should be able to see the Another-our-nature and, therefore, one should be able to venerate his images in order to find himself in a pro-nature stage, where the stock of potentialities is located. To achieve this, the environment should be the *a person(s) in communion*, whereas the economy should be participatory. This is evident because, as previously analysed, nature's actual

¹⁴² Shawn Mikula, Neurobiologist, Max Planck Institute of Neurobiology "The Consciousness Singularity". Available from: <http://brainmeta.com/index.php?p=consciousness-singularity>
[12 September 2015]

depth has not been shown to be adequate to manifest the curvature.

Furthermore, the persistence in one-and-only mass and form as a being-in-the-world has been proven insufficient either as an updated ape or as an intelligent/aesthetic man. To venerate the images means to capture the moment when one has passed from nature to art and to render it as a potent psychic technology for thinking the world in terms of its technological potential, that is, as means to ends (Ferrell, 2009: 103). In this process, technology incorporates the concept of both *Téchne* and *Logos*.

With LPDT, Ascott asked a Byzantine question: *Is There Love in the Telematic Embrace?*, raising the question in his article published in *Art Journal* (Ascott, 1990: 241-7), only few years after *La Plissure du Text* (Fig.22).

The question had already appeared in his art work as it delved into the concept of interconnectedness and emergence (Ascott, 2006: 65-69).

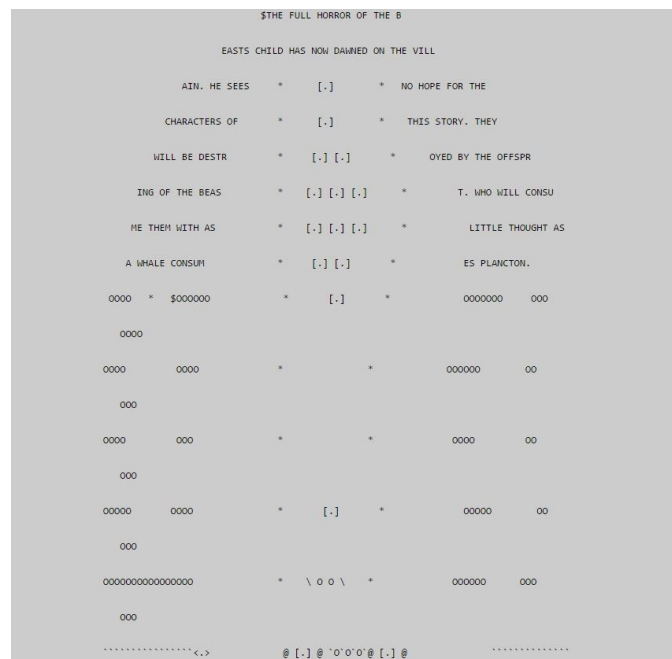


Figure 22. Roy Ascott, «La Plissure Du Texte», 1983 © Roy Ascott. Extract from the texts available at: http://telematic.walkerart.org/timeline/timeline_ascott.html

10.4. Telematics and Technoetics

10.4.1. Telematics

The term telematics, first coined in 1978 by Nora and Minc, involves the technology of interconnection between computers and telecommunications which opens radically new horizons. Telematics was initially an endeavour to reinforce knowledge economy, so as to gain maximum control in order to secure the interests of the authorities. By monitoring, processing and storing a huge amount of data, telematics could alter the entire nervous system of social organization (Nora & Minc. 1980:4-5). This fostered the knowledge economy to the extent that the observer's omnipresence is, more than ever, the absolute image and likeness in an era plagued by a deep iconoclasm. Like a panopticon,¹⁴³ the observer of everything not only has God's gaze, but he can also manipulate the system. This kind of system became the new technical sophistication. Hence, beyond seeing nature at a microscopic and macroscopic scale, the post-modern surrogate can now see without being seen and also without being able to see in a God-like way,¹⁴⁴ since he himself has accepted this fact numerous times.

There is, at this point, an oxymoron: although the curvature of transcendence, which is presumably considered necessary, concerns an

¹⁴³ Definition of the word 'Panopticon' as defined by Encyclopaedia Britannica: Panopticon is an architectural form for a prison, the drawings for which were published by Jeremy Bentham in 1791. It consisted of a circular, glass-roofed, tanklike structure with cells along the external wall facing toward a central rotunda; guards stationed in the rotunda could keep all the inmates in the surrounding cells under constant surveillance. Available from: <http://www.britannica.com/technology/panopticon> [20 September 2015]

¹⁴⁴ Betham Jeremy 1791. Panopticon, or the Inspection-House. T.Paine, London. Book digitized by Google from the library of University of Lausanne and uploaded to the Internet Archive. <https://archive.org/details/panopticonorins00bentgoog>

issue that is purely a subject of Theōria, the prevailing economy resists strongly in investing '*To each his own Byzantium*' (Krtisteva, 2006:82) into the European space. The sustainable system of the established economy is merely financial and political, shifting the primary concept of *téchne* to useful art and the primary concept of technology to the control system of nature in general terms; this is based on image as useful art and technology as the control and surveillance of nature at large.

Nevertheless, Theōria can disclose the curvature by taking the image as an entity and reveals her schema through *Téchne* and *Logos*. As analysed in the previous chapter, one can capture the schema of Theōria in both Botticelli's cumulative garden and Cézanne's Sainte-Victoire garden-like topos because these two topologies reveal her curvature. In particular, Cézanne attempted, throughout the course of his work, to bring forth the convexity while he was rendering nature. It is assumed that LPDT conveys the wholeness of the curvature since it manifests both its convex and concave nature. This assumption is based on the fact that Ascott saw the Epiphania of Theōria by integrating telematics with Technoetics, and that is, therefore, where one may find love in telematic embrace.

10.4.2. Technoetics of LPDT

The term Technoetics, coined by Roy Ascott, derives from *téchne* and *noetic* (*noein*) to refer to the emergent field of technology and consciousness research. It concerns:

“[...] a practice that seeks to explore consciousness and connectivity through digital, telematic, chemical or spiritual means, embracing both interactive and psychoactive technologies.”¹⁴⁵ (Roy Ascott, 2008)

By implementing Technoetics to LPDT, Ascott succeeded an acrobatic feat of shifting art to *téchne* and, consequently, he enabled technology and science to convey their primary meaning of *epistemé*.¹⁴⁶ In this view, one can recall the values of Classical Antiquity that the combination of *téchne* and *epistemé* constitutes the indispensable basis for man's virtue. Furthermore, since this basis construes the module of *Theōria*, it should, once more, be pointed out that, for Aristotle, *Theōria* is an independent and noble activity, in opposition to activities that are useful and necessary. Hence, assuming that the Technoetics of LPDT used *Theōria* as its artistic process, one can encounter a number of changes regarding what has been defined as art:

- By using *Theōria*, Washington's description of useful arts has no place in the *téchne* of LPDT since the latter is an activity distant to those activities that are useful.
- LPDT cannot be considered as a manufacturing process since, for Ascott, *"the process is before the system and the mind is before the matter."*¹⁴⁷
- The term technology, as defined in the book "The Birth of MIT", is irrelevant since Technoetics does not refer to mastering, altering or controlling

¹⁴⁵ Roy Ascott, 2008 - *Technoetic Art Intellect Books in Editorial*.
<http://www.intellectbooks.co.uk/journals/view-Journal.id=142/>

¹⁴⁶ For the etymology of the word *epistemé*, see Chapter 2.[2.3] The acquisition of knowledge.

¹⁴⁷ Ascott. R. 2013 Conference presentation at COST Arts & Technologies (CAT). November 2013, Zagreb, Croatia. Available at <http://www.cost.eu/events/cat> [20 September 2015]

nature. At the outset, the term Technoetics embeds technologia (Τεχνολογία: *téchne* and *Logos*) that is the primary etymology of the term technology. As such, it does not concern research in finding nature's actual depth in order to conduct the above mentioned tasks; more likely, it seeks for the pro-nature state where it can manifest the potentialities of a being-to-be.

- The distributed authorship of LPDT submits to the importance of participation in a collective work. Ascott's decision to engage a group of artists around the globe rather than to insist on a unique mastery of the arts does not seem to derive from the being-in-the-world (Heidegger) but from a person(s) in communion (John of Damascus, Basil the Great). This assumption derives from the fact that, rather than social progress in terms of historicism and existentialism, Ascott employs the meaning of syncretism.

The word syncretism (*συνγκεράννυμι* = put together, integrating), mentioned by Plutarch (45-120 BC Greek historian and biographer),¹⁴⁸ is attributable to the Cretans, who, despite their differences, stand united in front of a danger. From the mid-4th century BC to the late 3rd century BC, some city federations adopted the 'Common of Cretans' as a successful social practice. Ascott uses the term as an attempt to reconcile and analogise disparate religious and cultural practices-that- may contribute today to our understanding of the multi-layered worldviews - material and metaphysical -

¹⁴⁸ Plutarch described: "Οι Κρήτες πολλάκις στασιάζοντες ἀλλήλοις καὶ πολεμοῦντες, ἐξῶθεν ἐπιόντων πολεμίων διελύοντο καὶ συνίσταντο καὶ τοῦτο ἦν ὁ καλούμενος ὑπ'αυτῶν συγκρητισμός". (Πλουτάρχου τοῦ Χαιρωννεοῦ τὰ Ἠθικά, Τόμος 1. Αρχαία Ελληνική Γραμματεία «Οἱ Ἕλληνες»)

Cretans who, although often quarrelled among themselves, when they were attacking by exterior enemies reconciled and joined forces. And this is called by the name of syncretism. -Translated here by the author. Plutarch's *Morals* can be accessed at

<http://www.gutenberg.org/ebooks/23639>

that are emerging with our engagement in, amongst other things, ubiquitous computing and post-biological technology.

In this thesis, the submission of LPDT's Technoetics, that is considered important, does not lie on the conjunction of art and technology. Such practice can be met even in the pre-historical Lascaux caves and,¹⁴⁹ therefore, it is embedded in the body of knowledge of an artist. The controversy in postmodern art relating to the issue of sovereignty of technology on human creativity is subject to the economy of the fragmented knowledge; an echo of the Darwinian agony of the survival of the fittest. LPDT does not seem to be a project to feed the constant effort of an investment in the preservation of the human capital of mass and form. Instead, employing a person(s) in communion, it seeks for dynamic participation and interaction through a mutated process. Without relying on any kind of existentialism by implementing personal histories, of dreams, desires and anxieties that inform the content of art's rich repertoire, the question, in essence, is asking: *"Is there love in the telematic embrace?"* (Ascott, 1990: 241-7).

10.5. LPDT garden

La Plissure du Texte was active on-line 24-hours a day for 12 days - from December 11 to 23, 1983 and, although every location should have an

¹⁴⁹ A complex of caves in southwestern France that belongs to the Magdalenian Culture. Lascaux's cave paintings were made c.15–18,000 B.C
<http://www.lascaux.culture.fr/?lng=en#/fr/00.xml>

identical copy of the complete text, for some unknown reason, all versions are somehow different - there is no final or definitive version of the text.¹⁵⁰

The notion of the difference between the sum and its parts can be seen with respect to the Aristotelean axiom that the whole is something other than the sum of its parts. However, the question LPDT raised is what might happen if the sum of the parts behaves as something other than both the sum and the whole. Specifically, if LPDT were the sum of X1, X2, X3.... series (participants), then it would satisfy a Euclidean geometry where the points, the vectors and the axes construe a geometrical space in a given timeline.

As a result, the sum of x1, x2, x3.... series (texts) would produce a sum that would be the same for all the parts and, consequently, it would generate a united whole (Fig.23).

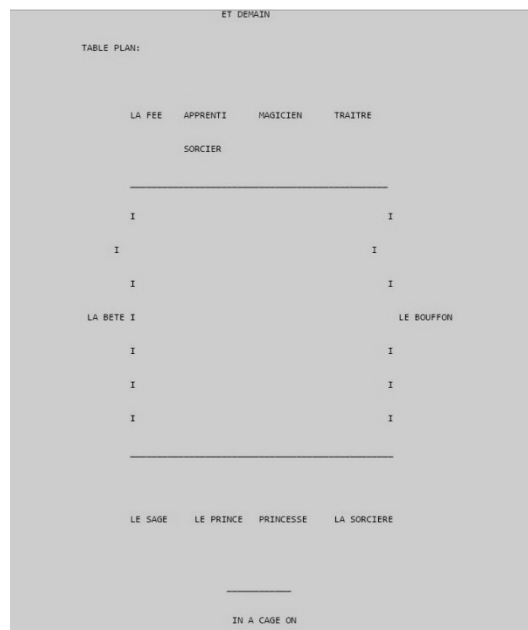


Figure 23. Roy Ascott, «La Plissure Du Texte», 1983 © Roy Ascott. Extract from the texts available at: http://telematic.walkerart.org/timeline/timeline_ascott.html

¹⁵⁰ <http://alien.mur.at/rax/ARTEX/PLISSURE/plissure.html> There is a version on line (rather fragmented and incomplete) that was captured on disc in Toronto by Norman White: <http://www.normill.ca/Text/plissure.txt> (371 k)

However, in LPDT, one can meet a united whole that derives from disparate X_n 's and x_n 's, and also from different summations of them, since all versions are somehow different. Even if this incident can be explained by the implication of syncretism that leads to a united force from diverse sources, and the use of Internet protocols, the unknown reason might lie in the heart of the curvature that gives the love to the telematic embrace.

10.6. Topos of LPDT

Ascott alludes to Heisenberg to explain the need for participation and interaction, pointing that the experimental apparatus (which includes the observer's consciousness) determines a particle's 'natural' behaviour (Ascott, 1993: 341-355 & 2013: 438-448). Paralleling the observer and the participant of an art event with the data and the quanta of the quantum principle, he highlights the shift of the topology of the standard model of observation and representation (Ascott, 1990:241-7). With this shift, the representational angle XOA and the position A of the observer seem to have been transformed from their vectorial boundary space to another topology with a transcendental curvature, since *"immaterial connectedness confers a spiritual dimension on both telematic art and quantum mechanics"* (Ascott, 2006:65-69).

In the midst of Heisenberg's uncertainty relations and Bohr's complementarity relationship, LPDT topology engages a transcendental element within. Therefore, the complementary properties of momentum, position and energy, which are considered as the primary variables in quantum mechanics, can hold the sign of the Epiphania within, if the topology entails the curvature.

Specifically, in LPDT:

If X is both the observer and the participant,
the environment is variable,

and the curvature (as transcendental) holds the sign of the Epiphania,
then the curvature can hold both the cavity and the convexity as
complementary properties of LPDT topology.

10.7. The LPDT garden

Ascott's telematic embrace takes place in the space where love draws together art and technology, where their union becomes consciousness, and where consciousness, in turn, becomes love, allowing the system to cycle and recycle in perpetuity (Ascott ,2003:79). Shanken's illustrative description of the circular movement of love is encountered in St. Anna's garden and, especially, in the fountain that can reserve and gush forth. As a revolving ring, LPDT topology contains all the properties of curvature, its metaphors such as hyperbola and parabola, and can also be manifested and envisioned in its wholeness due to the transcendental aspect it contains. As such, in terms of its capacity of embracement, LPDT can be considered as an enclosed garden. Thus, for someone to absorb such an enclosure, the curvature should manifest its entire excess (hidden causes and variables and their ambiguity). Therefore, it pertains to aggregate gardens, such as those of St. Anna and John Geometres, and also to garden-like topoi, such as the schemata of Primavera and Sainte Victoire.

Nevertheless, the LPDT garden seems to be more relevant to the first two Byzantine gardens because of the specific curvature that contains both the cavity and the convexity (Fig.24).

Even if Ascott acknowledges Cezanne's submission on the artist's variable viewpoint, focusing restlessly in scanning a world in flux (Ascott, 1993: 341-355 & 2013: 438-448), neither Botticelli nor Cezanne succeeded in finding the restore point where the sign allocates and, consequently, despite their apparent tendency to reach Theōria, they still entailed the de-sign problem.

Cezanne had reached the point of maximum visibility, capturing the convexity in nature, while he even conceded to live that life, half human and half divine. Ascott unfolds the Another-our-nature, thus, to live that life, both carbon and silicon, not half-half, but fully human and fully divine, so to venerate the images.

The LPDT garden unfolded the entire figures and their energy in a single unity, similar to Panofsky's lateral staggering, regardless of their position in time and space.



Figure 24. Roy Ascott, «La Plissure Du Texte», 1983 © Roy Ascott

This staggering occurred due to both the variability of the LPDT environment and the attributes of cyberspace,¹⁵¹ since this space is neither Euclidean nor measurable by Cartesian coordinates. Furthermore, operating syncretically, LPDT's features are drawn from biology, quantum physics, field theory, language, combined with cultural, social and spiritual practices, in a hybrid space of potentiality (Ascott, 2005).¹⁵² Thus, the transcendental, time-like curvature caused the figures to show their traces or path towards a manifestation of an enhanced cluster.

Like natural religion, where the artisan becomes a spiritual labourer, Ascott's technologia is profoundly *acheiropoietos* since it concerns a provision of both the *Another-our-nature* and the *a-person(s)* in communion. The distributed authorship, comprised of transitory partakers, which operated as a medium in-between potentiality and actuality, is the vehicle of love in a telematic embrace. The LPDT garden seems to be the ideal place to question the right of the veneration of images, given that the two mentioned aspects of pro-vision reveal the economy of *Theōria*. In order for her to function in the current organosilicon environment, thus to disclose the sign which in this case is the love itself, Ascott urges to give the fields to visionaries as he has provisioned that it might be worthwhile to hand them over to artists (Ascott, 1997).¹⁵³

¹⁵¹ Definition of the term 'Cyberspace' as described in Oxford Dictionaries: The term "cyberspace" first coined by William Gibson is 1982 in his fictional story *Burning Chrome* and later in 1984 in his novel *Neuromancer*. Oxford Dictionaries define the term as *the notional environment in which communication over computer networks occurs*.
http://www.oxforddictionaries.com/us/definition/american_english/cyberspace

¹⁵² Available at: http://drainmag.com/index_nov.htm [24 September 2015]

¹⁵³ Available at: <http://www.heise.de/tp/artikel/6/6140/1.html> [24 September 2015]

Yet, it is important to highlight the necessity of art to remain within *téchne* and for the artist to operate as a spiritual labourer, that is, a transitory entity who can unfold compressed time in the open field of potentialities. Furthermore, rather than a portal or a place of access, the LPDT garden should be taken as an exporter in order to manifest the sign, thus to cast love in a telematic embrace. To recall Aristotle's dictum, the unmoved mover causes motion as being an object of love, whereas all other things cause motion because they are themselves in motion.

10.8. Economy of Theōria in the LPDT garden

Ascott's decision to fill the slots of LPDT schema with plissure was initially an attempt to yield in Barthe's bliss (*plaisir*) the meaning of blessedness, as analysed in Chapter 6, regarding the Epiphania of the multiplication of the loaves and fish. Through the Technoetic process of interconnectedness, Ascott engenders communion as the correlation area between connectivity and integration by the usage of his fivefold path that refers to connectivity, immersion, interaction, transformation and emergence (Ascott, 2006: 65-69) This path seems to lead to the two main elements of Theōria's economy: the a person(s) in communion and the Another-our-nature.

- The a person(s) in communion

Since the noetic course is the key element in the Technoetic process, it may be regarded as the best human activity because, with respect to Aristotle, nous is the best part of humans and the best knowable object that leads to eudaimonia and blessedness. Entailing the notion of communion, Ascott manifests the sign as the medium of exchange and circulation. Yet, in the

Technoetic process, communion differs from the notion of society as a sum of patterns and protocols (cultural and political) that often demonstrates stratification or supremacy with respect to a hierarchical structure. A Technoetic communion, however, refers to the multiplicity of one's life and environment, and to the syncretism that holds, while operating under the fivefold path. The Technoetic communion can "*show forth the same love, and become also in this respect one*" (John Chrysostom, Epistles, Corinthians 10:17).

Therefore, this communion refers to a person's appetite as the stimulus of nous in the process of mutation, before any system or matter. In order to manifest the sign into this community:

"[...] the path leads to the immersion in the spiritual domain, where interaction with psychic entities is the means, transformation of consciousness is the goal and the emergence of new knowledge the outcome." (Ascott 2006: 65-69)

- Another-our-nature

The transformation of consciousness, echoing the words of Romanos the Melodist when chanting for Jesus' manifestation, occurred when Jesus became obvious; once his illuminated sign was ascribed to people's consciousness. Taking into consideration that to manifest the sign of people's consciousness should be in the threshold between potentiality and actuality, the emergence of new knowledge might be generated in a pro-nature state where the distension of mind holds all time within, since it contains the entire excess of the curvature.

This excess can be found in the economy of Theōria where it can reveal the shared potentiality of human capital. Regarding nature as our cultural projection, in order to acquire a notion of the nature-as-it-might-be,

one should venerate the images that can be pro-visionsed in this very field of pro-nature state.

10.9. Conclusion

Ascott had already replied to Derrida's question concerning the privileged place for the question of the right to philosophy before the philosopher posed the question. Technoetics can hold the schema of philosophy, but Ascott's ultimate feat with the Technoetics of LPDT was to ask a Byzantine question in this privileged place. By asking a juxtaposition of Byzantine questions, regardless of timeline, Ascott's question finds its query in the words of John Chrysostom, who motivated people to become one and the same, through love. However, for the avoidance of confusion, the meaning of the word 'same' does not refer to the homogeneous economy towards the predominance of the fittest, like the historical Dasein and the fate of Europe. Instead, it refers to the process of image and likeness, and to the economy of Theōria, where the circumscribed entity holds the a person(s) in communion through transmutation and integration.

Eventually, the love that Technoetics brings to telematics is the very same love that Theōria carries within, if seen throughout the entire curvature. Otherwise, cyberspace remains another same space that intelligent man should conquer in order to preserve his title as the fittest of the fitting. Therefore, the surplus value of Technoetics in cyberspace should be found in the participatory economy in terms of its transmutation and interaction. There, where one can capture and submit his image and likeness, and, *"moving beyond the information society, beyond the frontier of electronic space, can find himself back to Nature"* (Ascott, 2003: 327).

In the current trans-humanistic era, Ascott accepts the risk of attempting the economy of Theōria, being open and available to invest in a pro-nature state of the field (garden) of potentialities of human capital.

CHAPTER 11: CONCLUSION

11.1. Introduction

The thesis presents a new insight into human capital based on Theōria, which is considered to be the contemplate activity of knowing; a kind of seeing through noetic mechanisms that leads to the acquisition of viewing (acknowledgment) the entire range of human capacities. The thesis sought to resolve a gap in contemporary thinking regarding acquired knowledge and how human perception administers this knowledge. Specifically, this gap regards inconsistencies between scientific advances, technology growth and interdisciplinary artistic works, with the human habit of persisting in the knowledge economy, which asserts that the meaning of life should be sought in nature's actual depth. However, even if such scientific and technological progress claim for multiversity and quantum states of being, the depth of nature has been interpreted by means of the sustainability of human mass and form.

The argument is that, if Theōria will be launched into the recent transhumanistic time then, as a module of knowledge, she will enable the effective application of advanced scientific and technological findings. Otherwise, with the existing knowledge economy, these findings remain partially inactive.

The research set out to explore the concept of Theōria and identified her module with respect to previous applications found in ancient times, Late Antiquity and the Middle Ages. In this thesis, the particular period of Byzantium in the Middle Ages is considered as the most integrated display of Theōria and is thus examined beyond its historical spatiotemporal position

since it appears to cross the times, until today. The research also sought to find the most appropriate place for Theōria to launch in the present transhumanitarian epoch, in order to elucidate an alternative means of investment in human capital: the human asset of image and likeness.

Researching Theōria as a module of knowledge in conjunction with the prevailing model of thought, the thesis has set a number of enquiries concerning the necessity of the establishment of Theōria, as well as her relation with the transhumanistic field of the recent era. These enquiries address issues of the spatiotemporal characteristics of Theōria, both as to her general topology as much as to the most appropriate field of knowledge that can launch Theōria with respect to her merits in contemporary human capital. The conclusions drawn from this research show that the topology and the time that Theōria employs, hold the curvature of a transcendental spatiotemporal geometry.

This geometry generates an economy which, by means of the curvature, exceeds the locality and the temporality of events. Accordingly, the economy of Theōria concerns the modality of geometry, since it exists as a being-to-be rather than as the locality of existentialism, where matter and form prevail. Such geometry manifests itself in the field of *téchne*, i.e. the art field without its aesthetic dimension, as developed from the Renaissance onwards. The research investigated the major principles of Theōria and their manifestations in several works of *téchne*, concluding that a privileged place for Theōria to launch, in the contemporary era, is the field of Technoetics. The research demonstrated the great relevance of Theōria and Technoetics and it is, therefore, considered that transhumans can invest their image and

likeness in the field of Technoetics, ending the long-lasting iconoclasm by venerating and restoring the icons of their pro-natural incorruptibility.

This chapter (i) articulates the contribution of this thesis to the Anthropocene, (ii) draws conclusions about the establishment of Theōria into the transhumanist era, and (iii) outlines future possibilities for research in the Technoetics of Theōria. To this end, a suggested Theōria schema is given, as the Ekphrasis of a garden plot, with respect to four questions derived from the Technoetic field.

The limitations of the findings are not discussed in this chapter, since they have already been mentioned in the Introduction (Chapter1, pp.21-25). This was considered necessary in order for the reader to be informed prior to reading the main thesis.

11.2. Recapitulation of the problem and reference to the proposed solution

The endeavour to associate Theōria in the recent era derives from the use of inappropriate protocols in research regarding nature's actual depth, a problem faced by people from all fields of knowledge. The inability to find the correct protocols by which to interpret nature has generated a repository of hidden variables. These hidden variables have caused the acquired knowledge to display the de-sign problem that regards the implementation of design. This issue, prevalent throughout the centuries from the Enlightenment and onwards, seems to have its basis in the never-ending iconoclasm that repeals the sign from the icon, leaving out any transcendental aspects that may reveal the nature of hidden variables. This is because the sign considers existing in this very topology (transcendental), operating as a visible

manifestation without dimensionality in physical means. Hence, any knowledge-plan that is based on a design without sign pertains to a de-sign process in which Euclidean mass and form is the only factor that can yield the necessary sustainability for the implementation of the plan.

The design of a knowledge plan implicates economic and socio-political aspects both in its process and implementation. Diffusing the sign from design means that every human act, process and purpose lacks the schema, i.e. the pattern of thought, so that the plan cannot fill up all the knowledge slots with context. The prevailing Western mindset requires all the slots to be filled and, therefore, whenever a slot is open, it is filled up with 'default values'. This practice has generated a system of knowledge economy whose main aim is to not leave any slot open. However, the slots that are filled with default values, due to inappropriate protocols that could enable them to be filled otherwise, contain both the sign and the schema. Instead of knowledge economy, the economy of Theōria can manifest the sign of these slots, leaving the schema open to a field of potentialities, allowing human capital to reveal all of its capacities. This process requires the ability of human consciousness to capture and absorb the curvature of the schema, since this curvature can bring up the potentialities of the human entity. Rather than the linear structure of knowledge economy, which has a vectorial view in a timeline, the economy of the image necessitates the curvature because the schemata are transcendental and, therefore, yield parabolic and hyperbolic geometries. The chronic controversy of the issue, regarding nature's origin and its actual depth, which can be summarised by an established research piece on whether life was generated by chance or by design, can no longer stand as a major ontological question.

This assumption is based on the fact that this very question of nature's origin has cancelled its ontological status since scientific evolution has reached the multiverse, through quantum physics and genetic engineering, through biotechnology. These new terrains, features of transhumanistic entities, seem to entail the transcendental aspect that can manifest the curvature of the schema, which extends beyond nature-as-is. In this instance, it is of little importance whether or not there was an initial design.

Transcendence is not subject to a design model but rather to a process towards human completion. On the other hand, chance often fills the slots of the schema with default values or else the slot is categorised as a hidden value. The impression, that delving into nature's actual depth will lead either to the disclosure of the design of the world or to the teleology of chance, is absolutely consistent with the knowledge economy.

Nevertheless, as indicated in the research presented in this thesis, Theōria, as a module of knowledge, engenders the process of unfolding the deposit of human possibilities, entailing other embodiments of both economy and nature. The most important aspect of this process that makes Theōria a preferable module for the development of knowledge is her capacity to manifest the schema, which contains both its sign and curvature, in a compressed time. This time is not subject to the actual time of occurrence of an event because Theōria's compressed time engages instants in its compression that are from both the future and past. According to this notion of time, and as described in the Byzantine manuscripts, the economy of Theōria innovates, in every instant, both time and nature. Taking into consideration changes that have occurred due to advances in human knowledge, both in the human perception of nature and to nature per se, the

noetic practice of a constant innovation of time and nature may contribute to the disclosure of the entire schema, with all slots exposed and open to human capital.

11.3. Summary of findings

In order to synthesise all of the thesis and antithesis, analysed in this dissertation, the summary re-appropriates, the Aristotelian syllogism, as it was developed in the second chapter, regarding the praxes of highest excellence and their teleological nature (Chapter 2, 2.1.). Here, economy and ecology are used as predicates. It is essential though, to recall the concept of the highest excellence, as used in this thesis. Specifically, it concerns the orientation of one's mind, to liberally decide on the acts that lead to the ultimate purpose, that is, eudaimonia. Hence, the meaning of excellence here, differs from the one that is common in knowledge economy and concerns the continuously learning and improving, in all spheres, to pursue the highest performance, in terms of products and services. Instead, as a quality of Theōria, excellence is extraneous to any of the mentioned performances, since it has an end in itself.

Combining economy and ecology with the ultimate purpose and the highest excellence, as they ought to be, due to their close association with human life, the resulting syllogism is twofold: In accordance to nature-that-is, the outcome is catastrophic. On the other hand, when interpreted with the another-our-nature, the result can be prosperous.

The syllogism:

It is commonly accepted that every act and process of choice has a value of purpose. Hence, it can be said that the value is that of which all

purposes arise. Taking into consideration that art, technology and science take on many manifestations, there are, likewise, many manifestations of purposes. The purpose of ecology is the administration of the natural environment as a factor of political and social life of man. The purpose of economy is the art of resource (natural or other) management. If every act has a purpose that is, for its own sake, needed by both the act and its peripheral acts, then life depends exclusively on that, and the purpose can be characterised as being the ultimate purpose. Bearing in mind that, for the purposes of research, the ultimate purpose (*telos*) is the production of knowledge and practice, it is reasonable that it be in accordance with the highest excellence given that it is self-sustaining, which, in itself, makes the purpose worthy of choice.

To summarise:

- If the ultimate purpose of economy is the art of the management of resources,
- and the ultimate purpose is an act of excellence because it refers to the teleological nature of humans,
- then economy is an act of the highest excellence.

In that order,

- if the ultimate purpose of ecology is the administration of the natural environment,
- and the ultimate purpose, as already stated, is an act of excellence,
- then, ecology is an act of the highest excellence.

Nevertheless, the ultimate purpose should be self-sufficient so as to be qualified as a worthy choice and the ergon of achieving that purpose should be qualified as an ergon of the highest excellence. The registration of the two eminently ultimate purposes, those of economy and ecology, took more than five centuries of research to be accomplished. In the name of their registration

as purposes and acts of highest excellence, major sacrifices occurred at all levels of human life: natural, national, social and cultural. One can recall the nuclear disasters, especially the Fukushima disaster in 2011, where scientific excellence has managed to demolish the one and only main element of the Anthropocene, i.e. the anthropos. The entire endeavour of this registration resulted in the International Commission of Stratigraphy (ICS), which, in turn, validated the registration as the Anthropocene, the formal geological term based exclusively on these two ultimate purposes and their acts of highest excellence. The ICS undertakes to define the registration as a new geological period or to integrate it to an existing geological period. Even if the Anthropocene has not yet been approved officially as a new validated geological period, the question raised at the October 2014 meeting of the Anthropocene working group, whether "*human-induced planetary change rank with fundamental step changes seen in the Earth's deep history?*", shows a pre-defined belief in the supremacy of human kind.¹⁵⁴ In particular, the questions from the meetings of ICS aim at the formalisation of the term Anthropocene in accordance with human deeds that can be characterised as acts of highest excellence.

Hence, with respect to the notion of the intelligent man who can act as, and often be an agent on behalf of, an over potential power (God or else), the Anthropocene has yielded a new human identity, that of a global forcing agent. In any case, both the validation of the record of human deeds as an overall ergon of highest excellence and the human, per se, as the intelligent

¹⁵⁴ Anthropocene Newsletter. Vol.5. Report of activities 2013-14. Available at: <http://quaternary.stratigraphy.org/workinggroups/anthropo/anthropoceneworkinggroupnewslettervol5.pdf> [16 November 2015]

and global forcing agent, acquires its justification and importance, regardless of any collateral damage during the process of the ergon. In any case, and no matter the taxonomy in the geological time, the significant outcome from the process of registration and validation of human deeds is that the purposes of economy and ecology have already been established as the ultimate purposes and, thus, the human ergon in accordance to these purposes is an ergon of highest excellence.

To summarise in a dialectic manner:

- The human is an intelligent and global forcing agent.
- Intelligent and global forcing agents always have ultimate and self-sufficient purposes, and their ergon is the highest of the highest excellence.
- The human ergon tends to destruction, as is evident from extreme natural phenomena (drought, floods, hurricanes etc) and repeating periods of economic crisis.
- Thus, destruction is an ergon of highest excellence.

Such a syllogism can be beneficial to the human species. Specifically, since nature produces its own ergon, regardless of human administration, the idea of eliminating the intelligent and global forcing agent could be an ergon of the highest excellence that nature is able to implement. In these terms, humans may recognise nature's actual depth, even if the Anthropocene means the end of their time as intelligent and global forcing agents.

In the event of the destruction of human agency, the scenarios speak for a no-man's land where the environment is subject to collapse as long as there is no administration of human agency. Such dystopian and nihilist conclusions illustrate that, for centuries, human capital has been invested in certain protocols for managing the economy and the ecology of diverse resources. These protocols generated a defined set of rules and regulations

that determined how to acknowledge nature at large. It should be noted here that the evolution of species was an important protocol of the human ergon. Moreover, one of the main purposes of this ergon was the prevalence of the human species as the fittest to survive. Therefore, previous geological epochs, such as the Pleistocene and Holocene, are perhaps more relevant for the intelligent and global forcing agent if one considers that this agent has also the notion of an updated ape.¹⁵⁵

There are two ways to explain this: (i) the protocol of evolution is inapplicable or (ii) the view of nature is not only what has been defined by the human agency. To this manner, there should be another view of nature that contains some potentialities beyond the protocols for the human capital that is to be invested.

Indeed, even if such teleology is not a subject for the human agency, the assumption that the elimination of the latter will cause the end of the world is the most dogmatic teleology that is possible. One would expect that the advancement of human intellect would bring a totally different syllogism to that of total collapse in the case of a destruction. Specifically, in the transhumanistic era, where biotechnology has emerged in different aspects of human capacities, the picture of no-man's land should not be an issue.

The thesis elucidated an alternative path whereby the case of total collapse does not lead to demolition of human agency, but, on the contrary, it has the meaning of a point of departure that leaves the slots of the schema open, for an entity that does not face issues of validation and evaluation of its own nature. This is because Theōria entails features of participation,

¹⁵⁵ If one takes in consideration the hierarchical ranking of evolutionary tree.

connectivity and integration with the Another-our-nature that derives from the process of correlation to the image and likeness. Image declares the human capacity of ‘auto-existence’ through the manifestation of the communion with the Another-our-nature, whereas likeness concerns the complete integration with this nature. In his first letter to Corinthians (55-56 AD), Paul the Apostle stated: *We partially know and partially project; but when the complete integration (consummate) comes, the partially repealed.*¹⁵⁶

Moreover, Theōria construes her economy by practice of the person(s) in communion, which refers to human transmutation as the process of complete integration with Another-our-nature.

In conclusion, the thesis argues that the two main characteristics of Theōria (the person(s) in communion and the Another-our-nature) can shift the knowledge economy, which appears to have a dead-end, to an economy in which image and likeness provide an open field of potentialities of human capital.

Since Theōria functions through noetic mechanisms, using ‘image and likeness’ as the prime carrier of knowledge, her application requires the veneration of images and the creation of a restore point in which the images can manifest the natures in where human capital can be invested by trusting the transcendental curvature.

The echoes of Byzantine art and philosophy, which are considered to be the pinnacle of Theōria, have remained as a hidden value through the course

¹⁵⁶ Apostle Paul, Letter A to Corinthians. [9] Κ μέρους δὲ γινώσκομεν καὶ ἐκ μέρους προφητεύομεν· [10] ὅταν δὲ ἔλθῃ τὸ τέλειον, τότε τὸ ἐκ μέρους καταργηθήσεται. (Α' Προς Κορινθίους ΙΓ' 9, 10)

of time until now, unable, however, to unfold her capacities due to her transcendental character, which was expelled due to its theosophical linkage. However, the intelligent and global forcing agent has reached a point where the transcendental curvature has reappeared, albeit latently, through scientific and technological advancements. Yet, the oxymoron is that the more the transcendental curvature manifests itself, the more that the human agency attempts to delve more deeply in a nature that has already shifted to something other than a fixed vectorial environment. This thesis showed that the transcendental curvature is clearest in the arts, since it is inseparably linked with image.

Trying to find the restore point of Theōria in the arts, the research was confronted with another aspect of human agency, that of the epistemology of aesthetics. The research derived that, in the attempt to embed and control the transcendental curvature, separate to their justification as intellectual and global forcing agents, humans also behaved as de-sign-ers. More specifically, lacking the sign, humans strove to convey the curvature, by physical means, into an aesthetically-correct art language. The consequence of this effort is the annexation of art to human agency with the main purpose being to illustrate the acquired knowledge of nature's fixed, vectorial environment both macroscopically and microscopically. However, *téchne*, the non-aesthetic aspect of art, has showed significant features of Theōria throughout the time of intellectual de-sign and global forcing agency formation.

Due to the difficulty of dispatching the *téchne* of Theōria from aesthetically performed art, this thesis has utilised a Byzantine process, namely the Ekphrasis, to elucidate the elements of *téchne*. Frequently, samples of Ekphrasis refer to descriptions of gardens that are intended to ignite the noetic

mechanism for the disclosure of the schema and curvature (Epiphania). Furthermore, the technology of the Ekphrasis denotes its primary meaning as that of *téchne* and Logos, creating the appropriate conditions for the auto-existence of image, as well as for interaction between, and communion of, the participant and the image, revealing the Another-our-nature.

Thus, in order to elucidate the meaning of the *téchne* of Theōria, this thesis analysed two Byzantine Ekphrases of garden descriptions by Hytrakenos and John the Geometer, as well as two parables from the manuscript of John the Apostle. Following these analyses, two artworks were described from two famous artists, Botticelli and Cezanne. Despite their appearance as exemplary models of aesthetics with respect to their eras, their work implies the *téchne* of Theōria, which, despite being hidden, is clearly distinct. These garden-like works manifest an Epiphania (surface) onto which the investment of human capital to its image and likeness is negotiable. Yet, the prerequisite for this negotiation is for humans to be person(s) in communion in the field of Theōria, where space and time innovate themselves.

At this point, the research clarified the necessity of the reintegration of Theōria, as a module of knowledge, analysed her aspects and, finally, defined *téchne* as the most appropriate field in which Theōria could be activated. In order to fulfill the goal, the thesis proceeded to research this contemporary and emergent field, which can be considered as the privileged place from which to launch Theōria. With respect to her attributes such as transmutation, interaction and communion, as well as to the most effective field of activation (*téchne*), the research concluded by considering that the field of Technoetics contains enhanced elements of Theōria. To this end, the thesis analysed an art work by Roy Ascott, who coined the term Technoetics, which is defined in this thesis,

as a garden of Technoetics. This analysis showed that Technoetics can be regarded as an ideal topology for the veneration of icons (images), provided that these images do not fall in the *aestheticised* western visualisation, but rather that they maintain their transcendental curvature.

11.4. Implications of the findings

The research found that there is a notable relevance to the technologies of both Technoetics and Theōria as well as a linkage to their economies. The main reason is considered to be the repositioning of technology in its primary meaning of *téchne* and Logos. In this fashion, technology is inextricably bound to the noetic practice. The *téchne* of these two modules (Theōria and Technoetics) share a common topology both in their schemata and the elements of those schemata. This topology, analysed in this thesis as garden-like, appears to manifest the curvature of the sign they held by the gardens.

The findings, which refer to the common topology, for the schema and its elements, are summarised as follows:

Technoetic art emerges from the following schema:

- Cultural coherence of intensive interconnectivity.
- Quantum coherence at the base of our world-building.
- Spiritual coherence of our multi-layered consciousness.¹⁵⁷

The corresponding schema of Theōria, as described in the thesis, is the following:

¹⁵⁷ Roy Ascott (2014) 'When the medium is moist: cybernetic, technoetic, syncretic'. Announcement at the 4th Computer Art Congress / Hiperorganicos 5. Rio De Janeiro, Brazil, June 2014

- The exporter that can fill up time by a process of transcorporation that genders a participatory economy.
- The time-like curvature by which one can simultaneously grasp time in its excess.
- Transmutation, before any system and matter, through image and likeness.

The apparent elements of the Technoetic schema are described by the five-fold path of Technoetics:

- Connectivity (of minds, machines and communities).
- Immersion (in hybrid space).
- Interaction (with transmodalities).
- Transformation (image, form and consciousness).
- Emergence (of new personal, cultural, spiritual and social structures, values and meanings).¹⁵⁸

One can consider a corresponding five-fold path of Theōria as follows:

- Communion (person(s) in communion).
- Absorption (of the edible sign on the Epiphania).
- Interaction (with material and immaterial entities).
- Transmutation (image and likeness).
- Manifestation (of the Another-our nature).

11.5. Original contribution to Knowledge

Theōria's original contribution to knowledge is summarised as follows:

¹⁵⁸ Roy Ascott (2013) 'Interstitial Creativity: Art, Mind, Technology' Announcement at the COST Arts & Technologies workshop (CAT) Zagreb, Croatia, November 2013

- Facilitates the acceptance of the incompatibility of nature-that-is with the enhanced human capacity in another-our-nature.
- Replaces knowledge economy, which drains the very same human capital, with the economy of provision that enables new profits as it reveals human capacities and potentialities, which otherwise would remain invisible as the hidden causes of intellectuality.
- Administer 'image and likeness' to gain capital liquidity by employing the process of person(s) in communion.
- Commences the overall schema of curvature to spatiotemporal awareness, in terms of both its convex and concave, which is considered critical for the applications of scientific developments.
- Releases art from the Church of Science by shifting it back to *téchne*, which is considered as a significant knowledge channel.
- Considers image as an organic entity and thus decreases the phenomenon of later Iconoclasm.
- Restores the value of the medieval mindset as it renders it a valuable descendant of the Classical period and a promising offspring of modern times.

11.5.1. The four questions/ responses of Technoetics

The answers to the four questions of Technoetics expose the field where Theōria can be activated.

-What is it to be human in the post-biological culture?

In the process of revealing the entire range of human capacities, humans in the post-biological culture, have the right to absorb and manifest the another-our-nature. In other words, they are able to venerate the icons, so to invest in

the greatest possible capital. In any other case, this culture (post-biological), and humans themselves, will remain incompatible.

- *What is the ontology of mind and body distributed in cyberspace?*

In the Technoetics of Theōria provision is both a political and spiritual practice of the transfiguration of the body and the translocation of the mind; elements that are required for the distributed cluster of a *person(s)* in communion. Throughout this process, the time-like curve holds all the time within. This distribution is the surplus value to the economy of Theōria, which can be acknowledged as a shared potentiality of human capital.

- *How to deal with the responsibility of redefining nature and even life itself?*

Theōria manifests herself as human consciousness before and after any reference point. Due to her provision, she can renovate time and nature along her time-like curve.

- *What aspects of immaterial can contribute the re-materialisation of art?*

Téchne is the sharpest carrier of Theōria, due to her nature of containing the schema. Theōria's téchne aims to re-materialise art from the immaterial elements, thus, to restore and manifest the images. This particular re-materialisation of art can be regarded as the definite solution for the late Iconoclastic period. The restoration of images, through the téchne of Theōria is expected to provide the liquidity of human capital through image and likeness.

11.6. The Technoetic garden plot of Theōria

Based on the above findings, the thesis proposes a garden plot of Theōria, which can be found in the Appendix, in which one can find the technology of

the veneration of the icons. The garden plot indicates the technology of the Technoetics of Theōria whereas the gardening practice signifies her economy.

Similar to St. Anna's garden, Theōria's garden is a future garden of fertility; thus, the topology in which human capital is able to cultivate the entire range of human potentialities. Theōria's garden is an art work, with art being synonymous with *téchne*, as analysed in the thesis, since it is considered as being the most appropriate field of knowledge for the restoration of images. The Technoetics of Theōria's garden is considered as an *ergon* of excellence of transhumans and, therefore, it differentiates gardening from other human activities and aspects, as it is considered completely self-sufficient, independent and noble.

The garden plot can be regarded as the trial application of Theōria. It has been developed by combining two texts that enabled the plot to appear as a *Technoetic Ekphrasis* since they reveal, with exceptional clarity, the economy and technology of Theōria. It is considered that St. Anna's garden, the Byzantine Ekphrasis by Hytakenos, is the most exemplary work to illustrate the economy of Theōria and, thus, it is used in Theōria's garden plot as a pattern of the garden's schema. On the other hand, in order to reveal the technology of the Technoetics of Theōria, the plot is also based on the gardening practice of the Coral Gardens and their Magic by Bronislaw Malinowski, which is used as the manual on the art and craft of gardening.¹⁵⁹

¹⁵⁹ The full text can be found at:

<https://archive.org/details/coralgardensandt031834mbp>

The references in the referenced text should not be taken as bibliographical because, in this conclusion chapter, *Coral Gardens and their Magic*, is considered as a manual of the *téchne* and the technic of gardening. The most important parameter that led to the usage of this manual is Malinowski's focus on linguistic problems derived from the uniqueness of Trobriand Islands' culture at New Guinea. As stated in the Introduction chapter, an important

The garden plot indicates the economic dependence of Theōria, as the provision of the trace of her schema, leading to the manifestation of the images. Likewise of what Trobriand islanders said: *One might garden his plot*, Theōria argues that since one might garden his art, *téchne* can reveal the entire schema of knowledge.

11.7. Conclusion

The plethora of Committees and Councils, responsible for managing natural recourses and also for designing the protocols to organise and operate human capital, aimed at human prosperity. Since this endeavour based on the idea of a mono-natural dimension that is being exhausted by knowledge economy, any attempt to reach the highest excellence leads to the emergence of new products and services, ensuring the preservation of the elapsed nature-that-is. In order to eliminate this vicious circle, the thesis proposed another Council, the Council of Garden Affairs (CGA) as illustrated in Malinowski's book, to decide whether humans should register and validate their existence. The distinction between CGA and the other committees lies in their different views on the real meaning of existence. According to the Anthropocene working group, existence is synonymous to life, whereas CGA regards existence as *bios* (βίος). Life and *bios* differ in the following way: the word *bios* is an exclusively human aspect, whereas life is an element that applies to all living entities. Even if *bios* has been modified with regard to its

attempt of the thesis was to restore the primary roots of Greek ancient terms that reveal the subject matter of the research itself. Acknowledging cases of linguistic problems that caused miscomprehension and misinterpretation of the original concept of the terms, in the course of their migration, the author found similarities in Malinowski's interpretations with Theōria's references, with respect to each one's culture.

primary meaning, with its later etymology to be synonymous to living organisms and related to natural science, the original meaning refers solely to human noesis. It is obscure, therefore, for the Anthropocene working group to distinguish humans from other animals and establish a new époque, as long as bios is not a subject of disjunction of anthropos from other animals.

As a result, the work of the Anthropocene group and, accordingly, the outcome will, still, be based in the evolution of species, as humanity is a restructured version of animality. In addition, the persistence in human mass and form, as the eternal battle for the fittest to survive, prevents the very emergence of the human species through evolution, because as animals, humans cannot reflect their acquired knowledge of biotechnology and multiverse. In the case that human agency would generate appropriate protocols, within this life form, that would be able to reflect the knowledge, biotechnology would most probably produce transgenic apes and the multiverse will be the boundary space of the existentialism of the fittest animal.

To nominate the CGA as the working group for managing human capital in the transhumanistic era is estimated that it could shift life to bios, and accordingly, art to *téchne* and science to *epistémē*. This entire shift will give to the concept of *eudaimonia* its primary place that is, rather than prosperity and happiness, the human, contemplative state whereby *Theōria* humans can venerate their images.

11.8. Future directions and further research

Future research should advocate the principles of participation, communion, interaction and transmutation to ensure an active involvement of

the Another-our-nature as a mean of preserving the unity in diversity of a person(s) in communion, conferred on human capital, long before the establishment of research as the indisputable practice of delving into nature's actual depth. As discussed in this thesis, the art field is the most relevant for further research in the module of Theōria. To this end, and before any future progress in research, there should be a turn in the direction of knowledge by trusting the arts as the main epistēmē of Theōria.

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APPENDIX I

Theōria garden plot 1.1.

The schema of the Theōria garden plot confirms the successful and fruitful production of cultivation. According to the plot, the garden produces fleshy and edible fruits when one has an anticipatory vision (provision). Then, as in the Coral gardens, so in Theōria garden, one might flower and consequently one can fruit. Furthermore, for Trobriand islanders, for a garden to be fruitful, the chief ritual act for the ‘first-fruit-offerings’ is required. In the transhumanistic garden of Theōria, humans should be able to eat the fleshy fruit, to digest it and then to defecate it, in a cyclical process towards the next cultivation. Alongside this, the ‘first-fruit-offerings’ in the garden plot is a ritual act in the interest of the human species and not a tricky plan for their internal punishment. Conclusively, in the post-biological culture, humans should have the right to eat the ancestral apple, to flower and to fruit

The Council for Garden Affairs (CGA) in Theōria’s garden plot consists of a person(s) in communion, namely those who are at the pro-natural state of becoming. This council, together with the co-operating artisans, ensures the integrity of the garden, providing the garden’s organisational force by noesis and love.

The description of the garden’s shape in the garden plot explains that the curvature is time-like and appears in the garden’s concave and convex profiles as compressed time, namely the time that holds the lost past and the current

fleeting time into the provision of the future garden. The united force of space and time in the garden enables nature to innovate itself, while compressed time flows on the curvature.

Moreover, the transformation of fruits to edible signs transmutes the entire garden to a garden of Another-our-nature. However, in order for the garden to flourish, the edible signs should be eaten by people.

In the garden plot the material substance of the fruit is such a kind that can be appropriate for the spirits to eat. Since the icon (image) is the most nutrient-rich part of the fruit, it is the work of artisans to achieve the proper cultivation of the garden, so that the fruits are edible both by humans and spirits. In order to accomplish this, the artisans should have an anticipatory vision of the belly of the garden.

The Theōria of Technoetics (téchne and noesis) is the process by which the Epiphania of the curvature is visualised even before its manifestation, when humans tend to their images. The following stage where humans can venerate the images is the stage at which one can bring forth the technology (as téchne and Logos) of the image, thus restoring it and manifesting it. In this very garden of Theōria, the plot concerns not human expulsion but, rather, a human explosion in a distributed field of human potentialities.

The Plot

What a glorious garden this is, blooming with how many and what kind of goods, my words will proceed to describe.

The garden geometry is hyperbolic; since its Epiphania does manifest itself in width as it lacks the notion of depth, both its elliptic concave and

convex profiles are apparent. The curvature, which holds the shape, is time-like and one can, therefore, find the traces of time in the garden's concave and convex profiles. There is a landmark at one point of this future garden, and this landmark has the appearance of a belly that is able to both reserve and gush forth the flowing lines onto the epiphania (surface) of the curvature. From the location of the belly it is possible to view evenly all the lines that flow from both the concave and convex profiles, as well as from the periphery. One who bursts into an anticipatory vision of all that the belly of the garden will bring forth, he might garden. An enclosure has been constructed around the belly, converting the enclosed area into a single communal garden.

Even if those who have the entire vision of both the belly and the entire future garden schema are able to form, by their art, the organising force in gardening, the cultivation occurs between the co-operating artisans who comprise the Council for Garden Affairs. The council consists of person(s) in communion, namely those who are at the pro-natural state of becoming, in order to ensure the integrity of the garden. The garden enclosure is sown with economically appropriated soil, because the garden as a whole is defined by its economic as well as technological characteristics, which generate the garden's Technoetic process of crop. The fruits of the garden are edible. Fleshy and juicy, they contain all the necessary ingredients that a transhuman needs to survive. The most nutrient-rich factor is the icon (image) and which is extremely beneficial to the transhuman body due to the digestive organosilicon enzyme that it contains. The high quality of the fruits yields the garden's economic excellence.

Both knowledge and technology have come together, each vying emulously to bring forward its own good office, since technology needs

caution; knowledge is gained by measuring the distances between bodies and non-bodies while they grow in parallel, the intermediate space being neither too much nor too little, avoiding both too long and too short a distance. This gives people the freedom to converse with the curvature that they desire, expanding their mind without distraction.

The technology of the garden is essential in order to modify the material substance of fruit into something that is fit and appropriate to be eaten by the spirits, who are able to manifest it as an edible sign to people. Once people eat and digest the edible signs, the garden manifests its Another-our-nature environment. Therefore you, people, prepare yourself for the absorption and, after absorbing, give the sign back, and after giving back the sign, rejoice, exult and dance in the manifestation of your own images. However we, oh you who are present, should now end the description.

1. Extracts from original texts

1. Extracts from Hytrakenos' *Description of the Garden of St. Anna* and the *Ekphrasis of Gardens*, on which the Theōria garden plot has been based:

- What kind of garden this was, blooming with how many and what kind of goods, my words will proceed to describe.
- <The garden> had a surrounding wall in the shape of a ring; the shape of a ring is circular.
- Rid of all disturbances, it gave its mistress freedom to converse with God, whom she desired, raising her mind <to him> without distraction.

- Both knowledge and craft had gathered together, and each vied emulously to bring forward its own good offices to <these maidens>: <craft> by competently burying <their> roots in a certain way according to the rules of gardening, and by requiring as much diligence as craft needs caution; knowledge by measuring <the intervals> between each other so that they could not meet, since they were parallel, and so that the intermediate space be neither too much nor too little, avoiding both too long and too short a distance.
 - At one point, there was as a landmark a fountain that could both reserve water and gush it forth, occupying the place of the center, as if setting up to view evenly all the lines flowing from the center toward the periphery and again rebounding toward the center.
 - Therefore you, <Anna>, prepare yourself for the conception, and, after conceiving, give birth, and after giving birth rejoice and exult and dance.
- However we, oh you who are present, should now end the description.

Theodore Hyrtakenos' Description of the Garden of St. Anna and the Ekphrasis of Gardens, Byzantine Garden Culture. Edited by Antony Littlewood, Henry Maguire, and Joachim Wolschke-Bulmahn. Translated by Mary-Lyon Dolezal and Maria Mavroudi. Published by Dumbarton Oaks Research Library and Collection Washington, D.C. 2002 Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

2. Extracts from Malinowski's book *The Coral Gardens and their Magic*, that Theōria garden plot has been based:

T. 28. *Tuta -la taytu o mata - dasi*

time his taytu in eye ours

'the time of the next taytu crops', next year' (reference to the future garden)

F27 (Ch. V, Sec.3) III. I- gebile lopou-la ulo buyagu; i-tokaye I.u.b.;

he lift belly his my garden-site he rise (256)

F2 (Ch.II, Sec.4)

II. 6. Ba-yabay-m, gala, etc. (inventory words repeated).

I might drive thee begone

7. Ba-talay-m, gala etc. (inventory words repeated).

I might despatch thee begone

8. Tumlili-m, gala, etc. (inventory words repeated).

I might lose thee begone

III. 9. Ba-vasasay-m kam kwadada Kadilaboma;

I might burst open thee thy shallow passage (a channel)

Malinowski's commentary: 'In other spells the magician invokes fertility in general, as, for instance, in the second spell when he bursts into an anticipatory vision of all that the belly of the garden will bring forth ;' (p.245)

T. 57. Ta-kda'i-si kalabogwo ta-pakay-se kalabogwo.

we throw old food we refuse old food (reference to communal labour)

Kayaku: 'council', in this context 'council for garden affairs'

Pwaypwaya: economically appropriated land, soil

T.41. (iii) Kidama bi-sisu, bi-waywosi boge i-woya-si
 supposing he might sit he might rest already they hit
 baloma, bi-katoulo.
 spirit he might be sick

Malinowski's commentary: 'Again, a word [magical spell] summons the help of spirits to the gardens and words are necessary to transform the material substance of food into something which is fit and appropriate for spirits to eat'. (p54)

Malinowski B. 1935 *Coral Gardens and their Magic: A Study of the Methods of Tilling the Soil and of Agricultural Rites in the Trobriand Islands*. Vol II: The Language of Magic and Gardening. George Allen and Unwin LTD. London)

APPENDIX II

Author's Information

Research activity, Conference presentations, Workshops, Exhibitions

- 10 -15, 09, 2014 The Masterclass Series
BecomeBecome 2014
Ionion Center for the Arts and Culture
The Island of Cephalonia – Greece
- 13, 02, 2013 College Art Association
101 International Conference International Collaborative Arts:
Conversations on Practice, Research, and Education
Virginia Commonwealth University in Qatar
Presentation: Planetary Collegium and the I-Node:
The Right to Knowledge
- 07 - 21, 07, 2013 From Virtual to Real
Extended Arts Summer School and Conferences
Conference Co-organizer
Presentation: "Lumen Hilare"
- 12 - 17, 04, 2013 Multimedia Database as Narrative Mechanism
Co-organiser in conjunction with the University of Thessaly
Dep. Of Architecture (LECAD)
- 30,03, 2012 – 02,04,2012 Technoetic Telos – Art, Myth and Media
Conference Director
The island of Kefalonia – Greece
- 30, 11, 2011 – 2, 12, 2011 CR12 Presence in the Mindfield
Presentation: 'Byzantinotechnologia – Visulation Strata'
Lisbon, Portugal
- 14, 9, 2011 -, 21, 9, 2012 ISEA 2011 ISTANBUL
Presentation: 'From Image to Imago "
Sabanci University Istanbul, Turkey
- 26 ,8, 2011 - 17,11,2012 Trancultural Tendencies | Transmedial Transactions

Presentation: 'A PilgIMAGE to Second Life
SIVA University - Shanghai – China

04 – 06, 11, 2010 The 11th International Research Conference,
Consciousness Reframed
Art & Consciousness in the post Biological Era: Making Reality Really Real
Presentation: "St. Anna's Boolean Garden"
Trondheim Electronic Art Center, Trondheim, Norway

06 – 08, 11, 2009 Skilled Art – Engenho & Arte International
Conference for Art and Science
Presentation: «Déjà vu»
Guimaraes, Πορτογαλία

04.2014 Poster Exhibition: Nest Nature
Ionion Art Center – Planetary Collegium
Island of Kefalonia
Greece

04.2011 Poster Exhibition – Art, Technology, Consciousness
Ionion Art Center – Planetary Collegium
Island of Kefalonia
Greece

Publications – Editorials

2014 Aquaponics: Moist Media
Lulu on Line Publishing
ISBN-10: 1291819029 ISBN-13: 978-1291819021
Available at Amazon. com

2014 Technoetic Arts
A Journal of Speculative Research, Intellect LTD
Co-Editor
Special Edition for Technoetic Telos Conference.

2012 Technoetic Arts
A Journal of Speculative Research, Intellect LTD
Co- Editor
VOL.9. Number 1
Intellect Journals

Metaverse Creativity. Intellect LTD
Peer Reviewer

2014 Vol.4. Number 1
2010 Vol.1 Number

Other activity

- 2015 - The A-Club
Founding President – Direction & Management
Advanced Research in Art and Digital Humanities
- 2012 – 2015 The I-Node of the Planetary Collegium
Executive Director
- 2011 HumLab, Umea University, Sweden
3-months virtual residency - Noetic Grace – From Image to Imago
Yoshikaze artist's studio in Second Life Virtual Platform

Research activity Planetary Sessions Attended

(9 Sessions × 10 days/each)

April 2010 - Guimaraes, Portugal
July 2010– Plymouth, UK
November 2010 - Trondheim, Norway

April 2011 – Kefalonia- Greece
August 2011 - Shanghai - China
November 2011 - Lisbon, Portugal

July 2012 – Plymouth, UK
May 2012 - Kefalonia- Greece
November - 2012 – Prague