
ETHICAL PERFORMACENESS OF MEDIEVAL COSMOLOGY

THE INTEGRATED VISION OF MAN AND NATURE IN HILDEGARD OF BINGEN SYMBOLIC MYSTICISM

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Abstract

Far before its results were confirmed and widely accepted, modern science sprang out from a visionary perception of the world, based on paradoxical presuppositions: separation between mind and body, opposition between human being and nature, adoption of a mechanist paradigm, annihilation of qualitative aspects of reality. By doing so, modern philosophy has introduced man in a sort of abstract landscape of pure disembodied reasons in which animals and plants were considered nothing more but sophisticated clocks. Ecological emergencies of our time ask urgently for restore an integrated vision of man and his environment which allows human beings to act morally towards nature. In order that this can occur it seems necessary to adopt a new visionary attitude able to ensure a change in the relationship between man and nature. I believe that medieval cosmology could still find a place in the contemporary debate about ethical approach to scientific development. With this regard, I would mainly refer to Hildegard of Bingen's visionary work *The Book of Divine Works*.

Keywords: environmental ethics, morality, microcosm, macrocosm, integral ecology

1. Introduction

In the encyclical letter *Laudato si'* Pope Francis remarks that „environmental deterioration and human and ethical degradation are closely linked“ [1]. In as much as environmental problems have ethical and spiritual roots, they require „solutions not only in technology but in a change of humanity; otherwise we would be dealing merely with symptoms“ [1, p. 8]. „Technology [...] in fact proves incapable of seeing the mysterious network of relations between things and so sometimes solves one problem only to create others.“ [1, p. 16-17]

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The very basic assumption of the encyclical letter is that all the creatures are connected each other. „Everything in the world is connected“. [1, p. 14] „Everything is related.“ [1, p. 89] „To seek only a technical remedy to each environmental problem which comes up is to separate what is in reality interconnected and to mask the true and deepest problems of the global system“. [1, p. 84] Pope Francis observes that „the specialization which belongs to technology makes it difficult to see the larger picture. The fragmentation of knowledge proves helpful for concrete applications, and yet it often leads to a loss of appreciation for the whole, for the relationships between things, and for the broader horizon, which then becomes irrelevant.“ [1, p. 82] From an epistemological point of view this requires to overcome the sectorial mind-set of scientific research towards an interdisciplinary synergy, in order to promote a fruitful dialogue with human sciences, such as, for example, Philosophy and Social sciences. „A science which would offer solutions to the great issues would necessarily have to take into account the data generated by other fields of knowledge, including Philosophy and Social ethics; but this is a difficult habit to acquire today.“ [1, p. 83]

However, an interdisciplinary approach towards ecological issue is not a solution; rather we need a different paradigm in order to perceive the complexity of the global system in its socio-economical, ecological and moral implications. As different problems are linked together, „Ecological culture cannot be reduced to a series of urgent and partial responses to the immediate problems of pollution, environmental decay and the depletion of natural resources.“ [1, p. 83] „There can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate anthropology.“ [1, p. 88] Technological emergencies urgently demands for a conversion to an ‘integral ecology’.

The first step to bring about deep change is to realize that our behaviour is still deeply influenced by a certain mind-set, which Pope Francis calls ‘misguided anthropocentrism’. To put it in Thomas Khun terminology, we need a paradigm’s shift that could enable us to act morally towards natural environment. The point is the subordination of technological and financial purposes, which are responsible of the present situation, to a moral principle.

In the following paragraphs I would try to argue that: 1) as remarked in the encyclical letter, ecological issue is strictly intertwined with the moral issue; 2) the ecological crisis of the present world roots in a deeper moral crisis that has occurred in modern times; 3) this crisis was provoked by the schism between science and morality; 4) medieval cosmology was based on a *cognitio simbolica* which provided the full integration between physical, moral and esthetical dimensions; 5) Hildegard of Bingen is a very significant example of how a symbolic worldview could promote an ethical approach to the natural environment.

2. The moral crisis of the modern world

According to the Belgian philosopher Marcel de Corte (1905-1994), the dissolution of morality as a consequence of the Cartesian separation between body and soul, determined, in a broader scale, the opposition between man and nature. In the Middle ages, world was not considered „as an object that has to be conquered or as an inesaustic source of discoveries leading to rule it, as in our Cartesian age; medieval man is interested in the world for man itself, as long as he participates to the universality of natures, and as the world he is connected to his principle. Morality, freedom and culture rise from the same natural radix. They rejoin themself and identify in the same common origin.“ [2]

Modern dualistic anthropology – according to which mind and body are respectively pure reason and pure matter – has marked an abrupt schism in human nature. This perception replaced the old pagan and Christian humanism, based on the radical unity of human nature. According to de Corte the ‘divorce’ between body and soul affected also the way reason and will work. In modern times, „the whole Universe depends on human intransigent reason and will, like a slave depends on the master“. „Will rushes momentum into a completely rationalized world, geometrized in its deepest fibre, deprived of its ontological mystery.“ [2, p. 36] This will only satisfies his *libido dominandi*, far from searching for its objective good, both material and spiritual.

Abstractions, such as concepts, universal ideas, figures prevail on reality, concreteness, individuality. In the past, „man embodied his soul; he felt to be part of an ordained universe which did depend neither on his reason nor on his desires. On the contrary the *cosmos* ruled his understanding and his heart. He knew that nature and his nature had a meaning; in his mind, morality and culture were results of the nature, echoes of the beatings of his own life. He never knew the abyss of the schism. He left the human plant growing up on the naked earth and under open sky. He did not believe in the technical efficiency of a reason separated from nature, which ruled on it with its logical imperatives; he ignored what ideology was; he felt horror of artificial, conventional: his humanism and his ethics were normal results of his being, a direct branch of his essence, not a bare and abstract idea, upon which you must shape your life.“ [2, p. 54]

From these considerations, de Corte infers that modern world is simply a world in which morality is not possible. Humanism was illegitimately referred to modern philosophy, as one of its most peculiar attributes, while modernity has actually lost the perception of human being as an individual, as an indivisible man. „In properly terms modern world does not have neither a morality nor humanism.“ [2, p. 55]

Among the scholars who adopt a critical position towards the modern scientific prejudice (according to which Science is the only way to truth) are Marián Ambrozy, Roman Králik and José García Martín. As they state: „usually, and wrongly, we identify truth with scientific demonstration, even though — to be rigorous — scientific reason is quite narrow e unsatisfactory“ [3]. Particularly in today’s philosophical debate, we assist to the return of reality in the form of the

so called 'new realism'. Gaetano Piccolo has remarked the anthropological issue which lies behind any realistic worldview [4]. According to Thomas Aquinas the subject cannot know himself in a direct way, as the Cartesian *cogito*, not only because it is the world around which brings us back to the question of who we are, but also because a subject which is aseptic, separated from the world, simply does not exist. The primacy of reality inevitably involves ethical consequences, since it reveals that the subject is deeply connected with the whole which it is a part of.

3. The world without qualities

In modern times a 'paradigm's shift' from a qualitative to a quantitative universe occurred. Proto-modern scientist, such as Descartes and Galilei, made a sharp distinction between primary and secondary properties. They considered primary properties as objective, as such deserving scientific interest. Secondary properties instead were ignored, in so far as they were considered subjective. „From Galileo onward, reductionistic accounts of life and the world predominate: all human passions and joys become reduced to purely scientific accounts of molecules, neurons, chemical transmitters, and so forth. Contemporary technoscience is the direct result of this Galilean exclusion of what might be called 'phenomenological life' in favour of scientific and mechanized accounts of life.“ [5]

As Eugene C. Hargrove – father of the environmental ethics – has noticed „this distinction led straight to a dichotomy between fact and value“ [6]. Although David Hume was not the first to remark that facts and values are separated, in an entry of his *Treatise on human nature*, referring to primary and secondary properties, it is said: „vice and virtue [...], may be compared to sounds, colours, heat and cold, which, according to modern philosophy, are not qualities in objects, but perceptions in the mind“. [D. Hume, *A treatise of human nature*, 1739, 3.3.1.] In Hargrove's opinion, this distinction marked also the difference between scientific and humanistic disciplines. Later on, positivistic philosophers assumed that all the statements regarding values were not scientifically (or factually) verifiable and, as such, meaningless; any statement of value is not but an expression of emotions and it has no objective meaning. From that moment on, it was assumed that scientist should deal with facts and humanists with values. In the end, Hargrove claims that „modern philosophy has compromised the foundation of ethics and the theory of the value in general“ [6, p. 56].

4. Worldview and human behaviour

As Hans Jonas has remarked, all ethics are ultimately grounded in Metaphysics [7]. Moral behaviour largely depends on the way human beings represent the world around them. Morality and manners are expression of a certain *weltanschauung*. This apply also to human behaviour towards nature.

Along the centuries we can see that opposite views on nature corresponded to antithetical attitudes towards environment, animals and non-human life.

Middle Ages and Modernity took as basis different cosmologies and, as consequence, they developed diametrically opposed approaches to environmental ethics and to ordinary morality in general terms. According to the medieval vision of the world, the *cosmos* was an integrated biophysical system and, at the same time, the allegory of a moral order ruled by God. Nature implies as itself a moral purpose. As in physical terms the end of the natural world is the human being, in moral terms the end of creation is human salvation. Planets, winds, animals are not simple natural agents but vehicles of edifying meanings. They concretely influences human being's condition, in order to pursue his moral perfection according to God's plans.

Since its very beginning, modern science has instead tried to build up a system of knowledge which could be effective in order to achieve the *Regnum hominis* upon nature. I would therefore provide few examples of the way in which the attitude of human beings towards nature changed in accordance with the metaphysical assumption of modern philosophy.

By separating mind (*res cogitans*) and body (*res extensa*) as two different ontological entities, Descartes gives a philosophical legitimacy to the interpretative model of animal-machine, which was originally developed by the Spanish theologian and doctor Gomez Pereira in his ponderous treatise *Antoniana Margarita opus nempe physicis, medicis ac theologis non minus utile quam necessarium* (1554). According to Cartesian mechanism, apart from man the whole reality is nothing but a machine, animals included. Animals' mechanical nature was confirmed by their inability to speak, rendering them feasible subjects for any form of vivisection.

In Port-Royal, which was a Cartesian centre, „there was no single person who did not speak of *automata*. Killing a dog was nothing. They beat it with a cane with indifference, teasing those who had pity on it. It was said that dogs were clocks, that the screams they did were not but the sound of a small spring that had been removed, but that the whole was unconscious. They put poor animals on shingles and on all fours with the four paws inside tablets to close the pressed volumes, then they opened them alive to see the blood circulation, which was great entertainment stuff at that time.“ [8] The opinion that animals were *automata* is well illustrated in a famous story told about the Cartesian philosopher Nicolas Malebranche. „M. de Fontanelle told the story of a time he went to visit Father Malebranche at the Oratory of Rue Saint-Honoré. They had a large dog in the house, a pregnant bitch. This dog came into the room where they were walking up and down and started rubbing itself affectionately against Father Malebranche and rolling over at his feet. After several ineffectual attempts to chase her away the philosopher gave her a vigorous kick. The dog yelped with pain and M. de Fontanelle cried out compassionately. ‘What’, said Father Malebranche coldly, ‘surely you know that that thing doesn’t feel anything at all?’“ [9]

Francis Bacon was the promoter of an aggressive approach to nature, suggesting the idea of a mankind at war with nature, as it shows through many combative metaphors in his *Novum Organum*, culminating in the well known expression ‘empire of man’ (*Regnum hominis*). „Bacon aimed at a total reconstruction of knowledge ‘whose dignity is maintained by works of *utility* and power’. And the limitless goals of this scientific enterprise in the pursuit of power he put as ‘the enlarging of the bounds of the human empire to the affecting of all things possible’. Here indeed was a manifesto of human self-assertion, an angry shedding of the constraints imposed by theology or classicism. The implication of this call, for the enlargement of the ‘human empire’ ultimately bordered the perverse, for the impetus went beyond the domination of nature to the domination of man himself.“ [10]

Frankfurt School philosophers called Enlightenment ‘the logic of dominion’ through which western culture tried to rationalize reality in order to manipulate it according to its aims. However the attempt to dominate nature along the centuries reversed dialectically into the supremacy of man on man. „Enlightenment, seeking to liberate man from the oppressive sense of mystery in the world, simply declared that what was mysterious did not exist. It aspired to a form of knowledge that would enable man to rule over nature, and it therefore deprived knowledge of significance, jettisoning such notions as substance, quality, and causality, and preserving only what might serve the purpose of manipulating things. It aimed to give unity to the whole of knowledge and culture and to reduce all qualities to a common measure; thus it was responsible for the imposition of mathematical standards on science and for creating an economy based on exchange value, i.e. transforming goods of every kind into so many units of abstract labor time. Increased domination over nature meant alienation from nature, and likewise increased domination over human beings.“ [11]

5. The distinction between the ethical sphere and the scientific sphere

Medieval philosophy was based on the identity of *verum*, *bonum*, *pulchrum*. Knowledge, morality and beauty as well were considered springing out from the same source, which was God. Modern philosophy broke this metaphysical unity conceiving the above mentioned attributes of the divine as different categories of the Spirit.

The autonomy of Science from moral evaluation was implicitly claimed by Galileo Galilei in the famous Letter to the Grand duchess of Tuscany Cristina di Lorena: „The Bible shows the way to go to heaven, not the way the heavens go“ [12]. It is noteworthy that also Francis Bacon in his *Novum Organum* complained the fact that moral philosophy has held for long time a superior position comparing to natural philosophy, slowing down the scientific progress. Modern philosophy’s claim for autonomy of Science resulted in putting morality aside as the Cartesian case shows in an exemplary manner. In *Discourse on the method* (1637) Descartes develops a provisory moral code „so as not to be indecisive in my *actions* during the time when reason obliged me to be so in my *judgments*,

and in order to live as well as I could during this time“ . „If you want to rebuild the house you live in, it isn't enough just to pull it down, to arrange for materials and architects (or else train yourself in architecture), and to have carefully drawn up the plans; you must also provide yourself with somewhere else to live comfortably while the work is going on.“ [R. Descartes, *Discourse on the method*, 1637, 3.2.]

Despite this good resolution, Descartes never rebuilt that house and morality remained homeless for a while. When someone else – namely Baruch Spinoza – attended to his task, the result was that fundamental concepts such as *liberum arbitrium* and finality were put aside, in so far they were considered anthropomorphic prejudices. To say it in Pascalian terms, *Esprit de geometrie* gains the hand of *Esprit de finesse*.

We can recognize in the clearest terms the end of the modern parable in the Italian neo-idealistic reformation of Hegel's dialectic. Benedetto Croce (1866-1952) distinguished four subsequent degrees of the Spirit, divided into two basic fields which are respectively the gnoseological field and the practical field: art (which is knowledge of the particular), Logic (or Philosophy which is knowledge of the universal), Economy (which is pursue of the particular) and Morality (which is pursue of the universal). According to Croce's theory of distincts, degrees influence one another in a sequential order. So as knowledge influences action, art influences logic and economy influences morality, but not vice-versa. In fact, while contradiction in the Hegelian system prescribes a reciprocal implication between the opposites, distinction consists in a succession in which each stage is influenced by the preceding one, but is independent from the following others. „In the theory of degrees, every concept and let the concept be *a* – is both distinct from and united to the concept *b*, which is superior to it in degree; hence (beginning the exposition of the relation) if *a* be posited without *b*, *b* cannot be posited without *a*.“ [13] As a consequence of this, Croce claims that Economy, in which also Politics and Science are included, is an a-moral activity. Particularly, it is noteworthy that in Croce's view Science does not belong to the gnoseological field but to the practical one. According to Croce, in fact, Science's aim is one with its technological applications.

Croce assumes the doctrine of the distincts as a matter of fact, which is reassured by life itself: „Even if we were to forget the distinction, a glance at life would remind us of it: for life shows the spheres of economic, of scientific, and the moral activity almost eternally distinct, and makes the same man appear a specialist, now as poet, now as a man of business, now as a statesman, now as philosopher.“ [13, p. 83] Croce's claim that life provides a confirmation to his theory clearly shows the weak point of his proposal, simply because life shows us nothing more than what we are inclined to see in it. On the other hand, I think that Croce's analysis is a very important example of the typically modern mind-set.

6. Hildegard of Bingen - Sybil of the Rhine

Hildegard of Bingen (1098-1179) was a female theologian, philosopher, musician, scientist, forerunner of an alternative medicine based on the therapeutic virtues of plants, animals and metals [14]. She was also a psychologist, moralist and prophet. With her life and works she manifested „the versatility of interests and cultural vivacity of the female monasteries of the Middle Ages, in a manner contrary to the prejudices which still weighed on that period“ [Benedict XVI, *General audience at Paul VI Hall*, Wednesday, 8 September 2010, https://w2.vatican.va/content/benedict-xvi/en/audiences/2010/documents/hf_ben-xvi_aud_20100908.html, accessed 31 August 2017]. When she was eight years old she entered as an oblate in the Benedictine Monastery of Disibodenberg, becoming abbess thirty years later. In 1150 she built up the independent monastery in Bingen. In the meanwhile she composed some lyrics and music which were collected in *Symphonia harmoniae caelestium revelationum*. They are monodic compositions, similar to Gregorian chants. Her fame of ‘Sybill of the Rhein’ ran quickly all around Europe, thanks to her epistolary correspondence with Popes, Emperors, and other influent people of the time, such as Bernard of Clairvaux.

Despite of her poor health, she went also into missionary journeys, in order to moralize churchmen and preached against the dualistic Catharist heresy, whom she asked for being put in exile but not killed. At the top of her fame, the abbess composed *Liber vitae meritorum* (1158-1163) and started her masterpiece *Liber divinorum operum*, which she concluded in 1174. „Although she did not attend at any *trivium* and *quadrivium*“ she was well educated. Her background included „Latin classical authors, such as Boethius, and many Church fathers as Ambrogius, Augustin, Jerolamus, Gregorius Magnus and Leone Magno.“ [15] Hildegard’s works were especially influenced by XII century Platonism, which was developed by Chartres school. Cathedral scholars focused on Plato’s *Timeo* and speculated a correspondence between the Holy Spirit and the Platonic concept of *Anima Mundi*. This theory was rejected by Bernard of Clairvaux for it brings to a pantheistic result.

Hildegard’s scientific production is based on an integrated vision of man and universe. Giordano Frosini drew a parallel between Hildegard of Bingen’s works and Pope Francis encyclical *Laudato si’* [15, p. 145]. Hildegardian works sprang out from the divine revelations, whom she made experience since she was a child. Each vision ended with a peremptory call: „write, therefore, the things you see and hear“ [16]. Hildegard’s main theological works are three. *Scivias*, signifying *Scito vias domini* (know the ways of the Lord), which was composed between 1141 and 1150, can be considered as a sort of catechesis for the common man. It collects thirty-six visions, divided into three books, in which Hildegard narrates the history of salvation from creation till the end of time. *Book of Life’s Merits* is an original treatise of moral theology articulated in thirty five antitheses of virtues and vices. The imagines used by Hildegard recall the grotesque pictures by the painter Hyeronimus Bosch. *Book of the divine Works* is reputed as Hildegard’s theological masterpiece.

7. The Universe and its symbolism

First of all, it should be noted that „in the Middle Ages, the *cosmos* was never conceived in purely physical terms“ [17]. As John Thomas Swann suggested, this could be part of the biblical heritage so deeply rooted in the medieval mentality: „The biblical understanding of Creation links the physical world to moral truths and practice“ [18]. Medieval men thought in terms of symbols. Symbolism [*Symbolica*] first and foremost attached to the Bible, interpreting it through a four-fold method which implies four different levels of meaning: historical, allegorical, anagogical (spiritual) and tropological (moral). But it also applied to the physical and natural world, in terms of creation, which was considered as the *Imago Dei*. „There is nothing, in the Middle Ages, to which the clergy did not arrive to find a symbolic meaning, and particular to the real and imaginary fauna.“ [19]

Each Symbol includes a plurality of meanings. The very etymological sense of the word symbol, coming from the ancient Greek verb *synballein*, is ‘to unite’, ‘to harmonize’, ‘to put together’. Symbol is both an imagine which implicates different meanings and, at the same time, a bridge that connects us to a superior reality in a mystical sense. For the medieval man the world is a hierophany. Everything comes from the one and proceeds to the one. To „see clearly through things means see God in all things“ [19, p. 36].

As such, symbolism is a privileged way to understand the world as a whole and human being as an integrated part of this whole. „*Cognitio symbolica* was the privileged tool by virtue, thanks to which medieval man unified the contradictions and differences in the experience. In the essence, this method consists in recognizing the simultaneous validity of different levels of interpretation.“ [19, p. 39]

Modern mind-set, establishing distinctions between soul and body, man and nature, science and morality, has desymbolized the world far before having desacralized it. In this sense we could say, etymologically speaking, that modern eve operated in a diabolic manner (from *diaballein*, which means ‘to separate’, ‘to put a barrier’, ‘to establish a fracture’).

8. Hildegard of Bingen’s symbolism

In Hildegard’s view Universe is a symbol in itself. As she wrote in *Scivias* „the visible and temporal is a manifestation of the invisible and eternal“ [16, p. 94]. „Humanity should regard almighty God as a seal and recognize all the divine wonders and symbols.“ [20] In *Books of the Divine Works*, Hildegard’s visions clearly show that the physical and moral worlds are strictly intertwined.

The first vision is entitled *On the Origin of Life*. It represents a winged figure in human form carrying a lamb with a monster under its feet which symbolizers Satan. The voice speaking to Hildegard tells her that the Universe was put in order by God who is the life’s spring of everything which has life. Divine essence is hidden „in every kind of reality as a fiery power“ [20, p. 10].

The whole life has its roots in God, for God is the invisible life that contains everything. A whole and entire life (*vita integra*) that remains always the same, „without beginning and without end“ [20, p. 11]. Through the resounding Word of God the whole of creation was made. The everlasting Godhead gleams and shines in the beauty of creatures, planets and elements. The moral texture of the Universe, as well as its beauty, are thus a consequence of the fact that creation emerges from the divine Word.

God created man and woman in the divine image and likeness. God's threefold power reflects itself through human being and through the universe as well. As in human beings there are body, soul and reason, the very earth (body) which human being are made is permeated by water (soul), while Sun and Moon stand for reason which shine upon all.

The human being is the divine work (*opus dei sensu eminentiori*) since „God [...] has marked in human beings both the higher and the lower creatures“ [20, p. 11] „God has fitted into this form of ours the power of the elements, as well as the capacities of all the other creatures“ [20, p. 121]

In the second vision, *On the Construction of the World*, the cosmic wheel appears („right in the centre of the breast of the above-mentioned figure“ [20, p. 22]) similar to that which Hildegard had described twenty-eight years ago in the third vision of her book *Scivias*. At that time the wheel took the form of an egg [16, p. 94].

The cosmic wheel symbolizes the everlasting working of God. „And just as a wheel encloses within itself what lies hidden within it, so also does the Holy Godhead enclose everything within itself without limitation, and it exceeds everything.“ [20, p. 26] God is both immanent and transcendent. Godhead encompasses the whole world, being in its respect both immanent and transcendent. With this regard, the Italian theologian Giordano Frosini adopted the term ‘panhenteism’ in order to describe Hildegard holistic vision of the world [15, p. 151]. The term was actually introduced in the theological debate by Christian Krause (1781-1812), a disciple of Schelling.

If it is said that the creationist model has deprived nature of its sacredness, Hildegard's panhenteistic vision, influenced by the platonic theory of *anima mundi*, entails the sacralisation of nature. „As human beings see with their physical eyes creatures on all sides, so do they always look in faith at the Lord. It is God whom human beings know in every creature. For they know that he is the Creator of the whole world.“ [20, p. 36]

The wheel is composed by six concentric circles, bound to each other without any interval. They are organized from the outer to the inner: a) the circle of luminous fire which „is a symbol of God's power“ [20, p. 27]; b) the circle of black fire, which is „a sign that everyone who opposes God will fall down into black darkness and all kinds of disaster“ [20, p. 27]; c) the circle of pure ether, which is an allegory of „the pure atonement of the sinners“ [20, p. 28]; d) the circle of watery air which „indicates the holy works of exemplary and just individuals“ [20, p. 29]; e) the circle of sheer white clear air which is, with respect to our spiritual life, „an indication that discretion strengthens holy works by every

kind of moderation“ [20, p. 29] and f) a thin stratum of air from which „everything in creation obtains vital power and stability“ [20, p. 31]. „In the middle of the giant wheel appeared a human figure“ [20, p. 24] forming a cross with its arms extending to the circumference of the circle. „At the four sides appeared four heads: those of a leopard, a wolf, a lion, and a bear“ [20, p. 24], breathing concentrically towards the wheel and the human figure. They generate four winds that keep the Universe in balance and at the same time „create a corresponding system of moral relationship“ [20, p. 36]. The concept of balance, as well as the concept of measure, is very important in Hildegard’s view both in a physical and moral perspective. Physical agents actually are, at the same time, natural agents and moral agents.

A voice comments on the vision as follows: „On this world God has surrendered and strengthened human beings with all these things and steeped them in very great power so that all creation supports the human race in all that they can work with nature“ [20, p. 26]. From these lines we realize that Hildegard was fully aware of the bi-univocal relationship between natural world and human race. Human beings depend on *physis* to such an extent that can neither live nor survive without it. At the same time, Hildegard remarks that „although small in stature, humanity is powerful in the power of its soul“. „Humanity stands in the midst of the structure of the world.“ „For it is more important than all other creatures which remain dependant on that world.“ [20, p. 35]

This image, which seems to forerun the *Homo Vitruvianus* drawn by Leonardo da Vinci [15, p. 65-66], matches, in a visual manner, the destiny of humanity to the destiny of the whole world. Nature is not simply the scenery in which the redemption of mankind takes place, rather in a biblical sense, it participates in the groaning of childbirth (Romans 8.19-22). In the fifth vision Hildegard claims that after the fall, „human species began to interact creatively with the other creatures. Just as fire enkindles an object and causes it to burst into flame, we humans have a similar relationship to the rest of creation.“ [20, p. 171] That means that we are ‘co-creators’ with God, we all cooperate in the task of creation [20, p. xiii]. „By fire and water, indeed, we achieve every artistic work that we make on this Earth.“ [20, p. 171] As Michal Valčo and Armand J. Boehme correctly observe: „human beings were created in the image of God. [...] This means they are caretakers of God’s creation, not its despotic rulers (cf. Genesis 1.28). They are God’s partners, not because they are so good, or closer to God ontologically, but because God calls them by His Word and invites them to be His partners. The stewardship of this earth is a Christian responsibility.“ [21]

From the centre of the *cosmos* man „can place into motion both the higher and the lower things“ and whatever he does „with its deeds in the right or the left hand permeates the Universe“ [20, p. 35] since his soul’s „powers extend over the entire globe“ [20, p. 36]. „Our power exceeds the firmament and extends to the bottom of the abyss because humanity in the midst of creation is exceedingly strong. And the whole world is at our service.“ [20, p. 66] The symbolism of right hand and left hand let us clearly foresee that human deeds, either good or evil, have serious repercussions on the world we live in.

Long far before Hans Jonas realized „the vulnerability of nature to man’s technological intervention“ [7, p. 8]. Hildegard of Bingen stressed in a very impressive way that man’s alienation from nature would be humanity’s ruin. „Those who trust in God in this ways will also honour the stability of the world: the orbits of the Sun and the Moon, winds and air, Earth and water, everything God has created for the honour and protection of humanity. We have no other foothold. If we give up this world, we shall be destroyed by demons and deprived of the angels’ protection.“ [20, p. 41]

In the 32nd paragraph of the second vision Saint Hildegard concerts the harmony of the external elements with the health of the body. „If there is harmony of external elements, the humors of the organism are at rest, but they are destroyed during a disturbance and disorder of the cosmic powers. For human being could not exist without the balance and support of these powers in the world.“ [20, p. 48] The world is a balanced construction, „an orderly cosmic network“ [20, p. 36] in which „every creature is linked to another“ [20, p. 45]. Earth, which stands in the middle of the world-matter, „is maintained on all sides by these circles, is tied to them, and receives constantly from them the greening freshness (*viriditas*) of life and the fertility needed for the Earth’s support“. Earth symbolizes the active life which „submits at times to spiritual exercises and at other times to bodily needs – but always to a correct degree“ [20, p. 33]. In the same way believers „keep all their actions within the proper measure so as not to exceed moderation“ [20, p. 34].

Geocentrism is an astronomic symbol of the ‘golden mean’, which human beings are recommended to pursuit, and the planetary system stands for a moral allegory. For instance, sun and appear as „images of the knowledge of good and evil in human beings“ [20, p. 35]. „The firmament follows a circular orbit as a metaphor of God’s might, which has neither beginning nor end, and no one can tell where the circular wheel begins or ends.“ [20, p. 86]

In the third Vision (*On human nature*) Hildegard describes human body in his physical properties as world in miniature, showing the correspondence between microcosmic and macrocosmic dimensions. Hildegard anatomy goes through many similarities and metaphors such as, for instance: „The Divinity has provided us with flesh and blood, filled us out and strengthened us with bones, just as the Earth is strengthened with rock. For just as Earth could not exist without rock, we humans could not exist without our bone structure.“ [20, p. 89] „And just as our blood system holds the body together by means of sinews so that the body cannot fall apart [...] the rivers give rise to smaller streams that sustain the Earth by their greening power.“ [20, p. 112]

Hildegard’s medicine, based on the galenic theory of humors, considers bodily illness as the result of a ‘lack of moderation’ both in external elements and in humans actions. „For when we inflict upon our bodies injuries beyond measure (*sine discretione*), we bring them to a standstill.“ [20, p. 49] Here we find again the concept of ‘proper measure’, ‘proper dimension’, ‘balance’, ‘definite standard’, ‘moderation’, ‘discretion’, ‘proportion’, which ensures the proper operation of the cosmic wheel and the human body as well.

Moreover, since body and soul are strictly connected, vice affects both of them, causing physical symptoms. We could talk, in some respect, of a 'somatization of sin'. As in Latin words *salus* (health) and *salvatio* (salvation) are very closely related. „Indeed, the soul sustains the flesh, just as the flesh sustains the soul. For, after all, every deed is accomplished by the soul and the flesh.“ [20, p. 101] This provides a very significant example of how strong was the perception of the unity between body and soul according to medieval mind-set. As Jacques Le Goff has noticed: „sin reveals in physical defect or in illness. In the Middle Ages the ultimate symbolic and ideological illness was leprosy and leprosy [...] is, first of all, soul's leprosy.“ [22] In the same way, the redemption of man goes through „the salvation both of the body and the soul“ [20, p. 55].

The claim that „God has created for humanity's benefit all of creation“ [20, p. 62] is counterbalanced by the claim according to which „if we abuse our position to commit evil deeds, God's judgment will permit other creatures to punish us. And just as creatures have to serve our bodily needs, it is also easily understood that they are intended for the welfare of our souls.“ [20, p. 62-63] That means that creation has a moral purpose in itself and human beings' attitude towards nature should not aim at man's empire rather at man's moral edification.

According to Matthew Fox, „Hildegard offers western civilization a deep of healing medicine for what may well be its number-one disease of the past few centuries: *anthropocentrism*. The West's preoccupation with the human, its terrible and expensive ignoring of other creatures and nature's cycles, its reduction of the mystery of the universe to a machine, has brought us to the point of Earth-murder. And this even without a nuclear holocaust taking place. Hildegard is a prophet to our day because she lays out the possibility of, and therefore hope for, a living cosmology.“ [20, p. xi] In this respect, Hildegard of Bingen can be considered the forerunner of the so called 'deep ecology'. In contrast to the modern 'subject-object' dichotomy, 'deep ecology' it perceives humans as integral part of nature. As Kondrla and Repar point out: “The 'deep ecology' approach responds to the ensuing abuses that are engendered by this system. In addition, our current ecological situation is stark reminder of the inadequacy of the old, dichotomist thinking. Instead of its nurturing function, our living environment confronts us with acute threats. According to deep ecology, nature has its own intrinsic value, which cannot be derived from its usefulness to humans. The critique of anthropocentrism from the side of postmodernity is in line with the critique propounded by deep ecology. The artificial dualisms between subject and object, culture and nature, reason and non-consciousness (etc.) has proved itself to be untenable. The rational, self-aware subject loses its ability to transcend reality. Deep ecology, contrary to that, draws the isolated subject into holistic beings. The process of returning the human individual as a subject into the complexity of being happens by means of forsaking the rationalistic, dictatorial positions, assuming instead irrational positions, in the context of which, due to empathy, we are finally able to identify with nature and the plant (perceived as a holistic being) as its integral part.” [23]

9. Conclusions

In the last encyclical letter, Pope Francis urgently calls for an ecological conversion which also requires a moral and epistemological turn. Environmental deterioration is, in fact, strictly connected with a moral degradation derived from a misguided anthropocentrism which has his roots in modern age. A paradigm's shift occurred between Middle Ages and modernity, which impacted on the medieval unity of *verum, bonum, pulchrum*, causing a schism between body and soul, objective and subjective, science and morality. After that, nature was reduced to a mechanistic paradigm and deprived both of its beauty and its moral value, so that the possibility of an ethical approach to nature itself was compromised. Put it in other terms, if the physical world is not perceived as a moral environment in itself, then we cannot expect that it becomes such afterwards, demanding ethical solution to the problems that technological development entails. If we look back to the Middle Ages, we see that symbolism applied to Cosmology provides a way to deal with the misconception of nature and dysfunctional behaviours deriving from it.

As a way of conclusion, I would like to recall those aspects in Hildegard of Bingen's cosmological view which, in my opinion, can provide an orientation in our present time: 1) The vision of nature as a whole in which everything is interconnected and the mutual dependence relation between man and nature (symbolized by the human figure which stands in the midst of the cosmic wheel). The microcosm-macrocosm image suggests to identify the destiny of mankind with the destiny of the natural environment we live in; 2) The vision of the Earth as the centre of Universe. No matter how paradoxically it sounds, this claim is still valid for today since earth is actually the centre of our moral experience. In a moral perspective, we still live in a Ptolemaic world; 3) The vision of man as an integrated unity of body and soul which entails the idea that physical and spiritual dimensions are one, as faculties. The vision of nature as both physical and moral order ruled by a moderation rule to which human beings are demanded to conform their deeds.

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