ISSN 1848-0071 UDC 171+179.3=111 Recieved: 2013-02-25 Accepted: 2013-03-25 Original scientific paper

# HOLISM IN DEEP ECOLOGY AND GAIA-THEORY: A CONTRIBUTION TO ECO-GEOLOGICAL SCIENCE, A PHILOSOPHY OF LIFE OR A NEW AGE STREAM?

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In the second half of 20th century three approaches to phenomenon of life and environmental crisis relying to a holistic method arose: ecosophy that gave impetus to the deep ecology movement, Gaia-hypothesis that evolved into an acceptable scientific theory and gaianism as one of the New Age spiritual streams. All of this approaches have had different methodologies, but came to analogous conclusions on relation *man-ecosystem*. The goal of the paper is to introduce the three approaches' theoretical and practical outcomes, compare them and evaluate their potency to stranghten responsibility of man towards Earth ecosystem which is a self-regulating whole which humanity is part of. **Key words:** holism, ecosophy, deep ecology movement, gaia-theory, new age, responsibility.

Holizam u dubinskoj ekologiji i teoriji Geje: doprinos ekogeološkoj znanosti, filozofija života ili struja New agea? U drugoj polovici 20. stoljeća pojavila su se tri pristupa fenomenu života i ekološkoj krizi s osloncem u holističkoj metodi: ekozofija koja je dala poticaj razvoju pokreta dubinske ekologije, hipoteza Geje koja se razvila u prihvatljivu znanstvenu teoriju i gajanizam kao jedna od *New Age* duhovnih struja. Ova su se tri pristupa služila različitim metodama, no došla su do analognih zaključaka o odnosu *čovjek-ekosustav*. Cilj je rada predstaviti navedena tri pristupa, usporediti ih i vrednovati njihovu snagu u podupiranju čovjekove pdgovornosti prema sustavu Zemlje, samoregulativnoj cjelini koje je čovječanstvo dio.

Ključne riječi: holizam, ekozofija, pokret dubinske ekologije, teorija geje, new age, odgovornost.

#### **INTRODUCTION**

After having observed the Earth from space in 1966, J. Lovelock, English chemist and inventor, started to ponder upon a definition and metamechanism of life as a phenomenon. global As such he metaphorically described the Planet as a superorganism./and had a metaphorical vision of the Planet as a superorganism. Starting from that vision, not only did he come to significant results in Gaia-theory, but he also gave a constructive critic of a modern scientific methodology. He criticised the methodology as being reductive and

"tribalistic" as microbiology and ecology investigated geoevolution and bioevolution as two separated objects of research. Eventually, he developed a certain philosophy of life that depends on an integral epistemology – comprising intuition, experimental science and aesthetical fascination.

The ideas of A. Naess' *ecosophy T* and the deep ecology movement turned to have many parallels with Lovelock's notion of *Gaia*. Interestingly, both conceptions got their spiritual and (pseudo)religious

recognition and interpretation in some New Age discourses, as they both suggest not just a cosmic interdependency of beings, but a certain holism refering to human *self*.

A philosophical approach to an ecological crisis comes down to a fundamental question which relies on a paradoxical question: how can life, at a certain stage of its natural existence in time – the subjectivity of *homo faber* – come to the point of addressing its own life in form of threat to his survival? The solution to this is highly problematic as it deals with contradictory moments in human condition. However, it is a crucial question to

### DEEP ECOLOGY AND EVOLUTIONARY DARWINISM

Terms *ecosophy* and deep ecology were introduced in 1972 by Norwegian philosopher and environmental activist Arne Naess, meaning philosophy of ecological harmony or equilibrium:

"A philosophy as a kind of sofia (or) wisdom, is openly normative, it contains both norms, rules, postulates, value priority announcements and hypotheses concerning the state of affairs in our universe. Wisdom is policy wisdom, prescription, not only scientific description and prediction. The details of an ecosophy will show many variations due to significant differences concerning not only the 'facts' of pollution, resources, population, etc. but also value priorities." [2:8]

Naess' precursors were Aldo Leopold's land ethics (1887-1848) and Rachel Carson's environmentalism (1907-1964) that suggested that man should hold back from deserting nature for short-term purposes of civilisation.

However, ecosophy must be distinguished from *deep ecology movement* which, although related to it, is theoretically broader and practice-driven. In ecosophical establishing a solid theoretical ground to human responsability towards life [1:25].

The paper aims to expose and briefly compare the two variants of eco-holism; deep ecology and Gaia theory, with special regard to position of Croatian historian and ecological writer Tomislav Markus. It also aims to shortly consider the relation between all the three dimensions of relation man – Earth System – scientific, philosophical and (pseudo) religious, as well as between holism and reductionism, in order to value it critically as possible theoretical paths towards responsibility and sustainability.

framework cosmos is perceived as an organic whole, with species being equal partners in maintenance of the equilibrium, which opposes ecoanthropocentric paradigm.

Naess differs two possible types of environmetalism which need not be neccessarily compatible: a *long-range*, *deep* ecology and a shallow ecological movement based on mainstream anthropocentric and technoconsumer thinking, that rely on instrumental rationality. In Naess the attribute "deep" suggests a grade of theoretical questioning on purposes and norms.[3] The process that he advocates seeks to move from initial theoretical ("deep") assumptions towards practical actions – a cyclic method having a deductive beginning that strives towards concrete, to come again to the original point.

However, deep ecology gives primate to ontology, not ethics, arguing that settlement of a mentality preceeds social action. *Deep* means an ecology asking basic philosophical questions such as man's position in the cosmos, mehcanism and meaning of life as a complex and global phenomenon. At the other hand, Naess was aware that ecological movements often have populistic and international character, having their actors starting from different philosophies and worldviews, implying variety of cultural and social structures that aim to solve ecological conflicts, depending on local context – so more peculiar ecosophies are possible.

The core of Naess' concept of any possible ecosophy is thesis that all beings have value in themselves and that biodiversity and cultural variety are values *per se.* He calls his personal philosophy *ecosophy T* [4], as being influenced by Norwegian movement of living in the open air (*friluftsliv*), Mahayana buddhism (all world is unity) and Spinozian pantheism.

means understanding This an ecosystem in terms of interdependence, interconnectedness and life network in opposition to anthropocentrism which suggests a hierarchy of beings and instrumentalizing the other species to man's purposes. The underlying goal that Naess promotes is self-realization - the obsession of modern man - however, not only for humanity, but for all living beings. The author distinguishes a narrow egoistic self from a broadened, ecological Self. The broadend self can be reached in more ways: Naess mostly speaks of extension of identification. Man has a natural capacity to identify with the other and should cherish this. Insofar he manages to identify with human nonhuman beings, other he acomplishes an inner integration and a sane, extended ego. Thus, Self-realization for all beings! becomes a norm based on transcending the narrow self.

Given that, a shift from anthropocentrism to ecocentrism is on its way. In favouring life in small energy-saving communities outside of urban, economic growth and technical expansion-driven world, deep ecology (a practical realization of ecosophy) provides a framework to solidarity and responsibility, which H. Jonas argues be a fundamental human attitude towards life. Flourishing of mankind is possible only if the other species fulfill their full evolutionary potential, too.

Consequently, deep ecology advocates biospheric egalitarianism, diversity, social symbiosis, anticlass posture, complexity instead of complication, local authonomy and decentralisation.[5]

The other authors have developed somewhat different ecosophies oriented towards social theory of communication, transpersonal psychology or religious thought. As being aware of the differences between various deep ecological backgrounds, in 1984 Naess has developed (in cooperation with George Sessions) wellknown eight fundamental principles that integrate deep ecology movement providing a platform, distinguishing it from more general ecological movement. Four of them are highlighted as directly relevant for the topic:

1. The well-being and flourishing of human and non-human life on Earth have value in themselves. These values are independent of the usefulness of the nonhuman world for human purposes.

2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.

3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.

7. The ideological change is mainly that of appreciating quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.

Significantly, in his private letters Naess claimed that mentioning biodiversity and life did not refer to individual oganisms, but totality of organic and inorganic processes in ecosystem [7: 31]. The other principles proclaim that present human interference with the non-human world is excessive, advocate a decrease in human population, require changes in policies, but this is not as significant for a pondering upon holism. Naess also held that different ecosophies could be built on different traditions and that the eight principles platform were still open to discussion.

Naess called deep ecology new philosophy of nature, though he insisted that it was not an academic philosophical discourse, religion or ideology but composition of different positions and ideas [8:199].

Despite some general principles, a plurality of "ecosophies" emerged [7: 33-701. This, as well as idea of extended ecological self. as being close to transpersonal psychology and its idea of transpersonal self, linked some aspects of deep ecology to New Age, liberal secular religion that permits plurality of streams. Naess himself firmly claimed that deep ecology was not a religion, but had a religious dimension. It encourages resacralisation of nature as mysterious cradle of all life, an appropriate whole in which man finds its true maternal home. For its ecocentristic shift, majority of deep ecologist been reluctant to conform to have Judeochristian tradition and more prone to adopt some views of buddhism (source of discontentment is wish to possess), hinduism (omnipresence of divinity, unity of cosmos), taoism (living in harmony with the supreme principle) and jainism (Jaina dharma or nonviolence principle). In general, deep ecology movement insists in change of conscience of an individual and his lifestyle, it does not encompass far-reaching political programmes.

In Tomislav Markus' view, perceiving progress as expansion of

technical production is incompatible with Darwininan adaptation principle which he adheres to. Following Riley Dunlap and William Cuttton's critic of modern social constructivism that defines man as primarily mutable being through cultural а creation of environment. interpretation/ Markus criticizes overlooking man's natural constitution dveloped through ages lived in wild ecological surroundings, in small tribal hunter-gatherer communities. He holds that man's alleged detachment from nature - in ontological and phisical terms - is a fallacy, even an illusion. Starting from naodarwinian thinking, he defines man as "an animal marked by its evolutionary past and optimally adapted to life in small groups and wild organic environment, which very teško and with great difficulties can survive in essentially different circumstances" [7: 11].

This leads to Rousseauan perception of technical civilisation as man's alianation from his genuine position. Markus, further analyzing the biological and anthropological data, adopts a rather radical view that "in biological evolution progress cannot occur because bacteria and all of the lower biosphere had adopted optimally to all circumstances, as well as because of the optimal adaptation of more complex organisms to the realm of bacteria. In human history progress cannot occur for man's accomodation to tribal lifestyle [which has comprised 99 % human and 99% hominide history] and his inaptitude to abrupt cultural changes such as building up civilisations and, in particular, modern cities." [7:36]

Also, there is no ontological discontinuity between man and the other species, opposite to what has been held by dominant Western philosophical tradition. Markus sees in neodarwinism (Darwinism combined with Mendelian genetics) a solid scientific ground for main deep ecological holistic views – that man is a part of the whole of nature and not a being that can transcend, master and overcome it – so his

position is (neo)darwinian deep ecology. This view is permeated with critic of settled culture that started with a turning point discovery of agriculture: man's immanence man in wilderness was natural, as a result of long and slow evolution, and man's transcendence, expansion and affecting the environment (a mark of settled culture) is an artificial deviation of man's natural constitution (In Markus, pathological attitude towards aging, pain, sexuality and death is a risult of man's incapacity to adapt to the technical environment of urban civilisation). Given that, Baconian project of mastering the nature and instrumental rationality that brought to its technical realization, is an ontological fallacy.

The ecological crisis is a material consequence of a false philosophical paradigm – *exemptionism* which suggests that man, as distinguished from other species in terms of superiority and dignity, is not restricted with ecological limitations. In Markus' view, what links neodarwinian evolutionism to deep ecology is – holism.

Accordingly, while humanistic constructivsm (the idea that main is primarily a cultural being so the notion of nature is a culturale construct) nourishes individualism, liberal policies ecoanthropocentrism which urge ecological destruction, the core of crisis cannot be addressed unless one gets back to the basic truths, namely that man is fully independent on other species and that no specie has real evolutionary superiority but perhaps those that have best adopted and survived for the longest period of time, the microorganisms.

#### GAIA-THEORY AND ITS IMPLICATIONS

When J. Lovelock first in 1966 formulated Gaia-hypothesis, which would be later developed into Gaia-theory, it was first ignored in scientific circles, later it bore Markus rejects evolutionary determinism as concept of survival of the fittest and considers the cooperation factor as important for successful adaptation.

Most of the deep ecologists consider sustainable development concept shallow and unrealistic as they do not believe that sophisticated technology can help preservation of the key ecosystems (rainforests, oceans etc.), as it maintains the logic or urban, technicized framework that defines man as ontologically dettached from nature [7: 72-73]. Markus follows this view, suggesting that only preservation of wilderness and readopting appropriate smallcommunity lifestyles could direct ecology to the right way. How this be realized he does not propose, as this is not an issue of deep ecology and evolutionary biology.

remindes Markus of reliable scientific evidence which explains man's natural constitution in terms of interdependence and holism, giving a constructive critic of modern/postmodern constructivism. Also, he emphasizes positive contributions of deep ecology to a right approacht to ecsoystems. However, he left a ground problem intact: the anthropological evidence that man as such has ever since been both natural and cultural being relatively emancipated from his instincts, capable of intepreting experience through symbolic systems and radicaly change the nature, including himself. The inner clash between those two human realities, the core of ecological crisis, lays in condicio humana itself. Also, he does not say wheather hystorical processes are reversible or not.

citic, provoking a sparkling debate and research activity. It was based on chemical science, intuition and an aesthetical experience in observing planet Earth as a whole from the space: a chance to look at the azure-green Earth from a spacecraft gave rise to author's thought of the planet as a living organism. Emotional response to the complex beauty he was touched with urged his further research and reflections. Later Lovelock find out that Y. M. Korolenko and V.I.Vernadskij aldredy had formulated idea of "Earth-being", as well as that James Hutton had in 1785 called Earth a *metaorganism* whose *phisiology* should be explored.

As a starting point, Lovelock tried to explore possible answers to question what is life and how it can be recognized. He noted the incapacity of microbiology, biology and ecology to define and understand life on Earth in its logic and totality. The living beings, he held, once they have developed, interact with their environment and affect it, making it suitable for further developement of life forms. Lovelock noted that compositional changes in planetary atmosphere were associated with the presence of life,,Furthermore, any planetary biota which interacts with its atmosphere will drive that atmosphere to a state of disequilibrium which, if recognized, would also constitute direct evidence of life. provided the extent of the disequilibrium is significantly greater than abiological processes would permit." [9]

The pivotal hypothesis he proposed was that the planet Earth – with its four components – atmosphere, hydrosphere, pedosphere and biosphere – was an integral self-regulating system. Through cybernetic feedback mechanism, evolution of living oganisms has been tightly coupled with the general geoevolution, making Earth a suitable habitat for life. Evidently, biota influence abiotic world in terms of regulation of temperature, composition of atmosphere and salinity of the oceans.

The state of dynamic homeostasis is reached as long a significant impact is not made, to be regained. Apart from selfregulation, Lovelock defined an important trait of all life through termodinamics: reversal of entropy through exchange of energy.

In first edition of his first book "Gaia: A New Look at Life on Earth" (1969) he explained that by term Gaia he did not meant biosphere but "the superorganism composed of all life tightly coupled with the air, the oceans, and the surface rocks." [10:10]

He described Gaia using a metaphorical language, talking of *her* as if *she* were known to be sentient:

"...the quest for Gaia is an attempt to find the largest living creature on Earth." [10:1]

When idea that chemical composition of the atmosphere and oceans was biologically controlled got spread, it provoked twofold critic by microbiologist Ford Doolittle and biologists R. Dawkins and S. J.Gould. Firstly, they objected that hypothesis suggested teleology in evolution which would contradict Darwinian principles of accidental mutations, adaptation and natural selection. In a consequent evolutionionism, organisms do not act purposefully and no predeterminism is possible. All lliving beings have no influence but to their phenotype, argued Dawkins. Also. climatologist Stephen Schneider and geochemist H. D. Holland argued that geological evolution schould be attributed solely to chemical and phisical forces, not biota.

In "The Ages of Gaia" (1979) Lovelock admitted the first criticism, explaining that his metaphoric discourse did not aim to suggest that Gaia was a superbeing with some kind of personal consciousness. The evolution process could not be intended or planned; the cybernetic feedbek of the self-regulating *Gaia* has been automatic. Gaia-theory, Lovelock argued, was not a denial but an altering complement to Darwinism, to adaptation and natural selection principle. The second criticism he mostly refuted as there was a clear evidence that Earth's crust and sediments were either product of living beings or changed by them. Moreover, Lovelock argues, living beings do adapt to the environment that is affected by the other living beings. Atmospheric oxygen and nitrogen have originated from plants and microorganisms. Given that, Lovelock maintained, on the planetary level, living world is so connected with the environment that ordinary meaning of "adaptation" is useful no longer.

Lovelock suggested that growth of an organism affects its physical and chemical environment; so the evolution of the species and the evolution of the rocks are tightly coupled as a single, indivisible process. Therefore, evolution should be observed as evolution of Gaia, not of biosphere or solid Earth matter alone, which makes core of his holism.

"... even pieces of wood and metal when specifically designed and assembled may achieve a composite identity with its own characteristic signature, as distinct from being the mere sum of its parts." [11:18]

Lovelock rejects "tribalism" of overspecialized natural science: in his view, biology, ecology and Earth sciences should join together in a new Gaia-appropriate science – geophisiology. His holism is descernible also in his claim that life should be explored as a global phenomenon, as it shows its essential traits as widespred on the planet:

"There can be no partial occupation of a planet by living organisms. It would be as impermanent as half an animal. The presence of sufficient living organisms on a planet is needed for the regulation of the environment. Where there is incomplete occupation, the ineluctable forces of physical and chemical evolution would soon render it uninhabitable" [12: 78].

There rose a question whether a number of species mattered for maintanance of optimal habitable conditions in an ecosystem led to two opposite views – first, that a large number od species is redundant and second, that biodiversity enables equilibrium be maintained. An eleven year study has shown that biodiversity is really functional for an ecosystem's stability. [6: 137-142]

Whereas deep ecology is generally critical towards "green consumism" and highly distrustful towards technology as means to sustainability, Lovelock has had different views. In 1966 he argued that pollution natural proccess. was a omnipresent in the self-regulating chemistry of Earth system. In addition, Gaia-theory observes life as a whole, in its totality; as a whole, life does need to reproduce. A prognosis that man's industrial activities are fouling the nest and pose a threat to the total life of the planet are unrealistic as the first and most resistent forms of life – anaerobic bacterial and other microscopic organisms have maintained their presence in Gaia through eons.

However, distruction of the vital areas of Gaia that are crucial for ensuring the living conditions (littoral areas, rainforests and oceans) would greatly harm human and some other species. The core problem he sees in reductionist and partial scope of modern natural sciences, which do not encourage holistic thinking that all the matter and chemicals in the system are connected. In addition, problem is generated in "carnivore tribe mentality" of partial interes prevailing in avrage man. Although personally incredulous towards sustainable developement concept as tied to liberal market economies, Lovelock does not believe that preservation of major living conditions for humans could succeed without a sophisticated technology.

In "The Revenge of Gaia" (2006) he warns that the Gaia system has its limitations; when dynamic equilibrium is sufficiently disturbed, Gaia would give a risponse: "We have grown in number to the point where our presence is perceptibly disabling the planet like a disease. As in human diseases there are four possible outcomes: destruction of the invading desease organisms; chronic infection; destruction of the host; or symbiosis – a lasting relationship pf mutual benefit to the host and the invader." [11: 8]

Alhough Lovelock himself in "The Ages of Gaia" refuted his preliminary thesis (that life on Earth actively keeps the surface conditions always favourable for whatever is the contemporary esemble for organisms) and revisted the concept, with course of time Gaia-theory got its recognition from scientific research and application in biogeochemistry, Earth System Science and climatology. To present the theory, Lovelock also developed *Daisy world*, a model that has proved stable in mathematical terms.

The Amsterdam Declaration of 2001 was first to publicly affirm the concept: "The Earth System behaves as a single, selfregulating system comprised of physical,

## HOLISM AND NEW AGE

New Age developes at the beginning of second half of 20<sup>th</sup> century on foundations of destructed Enlightenment's myth of progress. It grew out of disappointment with scientific-technological Western project driven by instrumental rationality that had evidently failed to solve social problems it has been generating. New Age is a phenomenon of postsecular desire for the sacred, a variant of what Mircea Eliade calls religious nostalgy and ontological obsession.[18:58] It is hard to define it as it is a heterogene compilation of numerous elements from various scientific, religious, esoteric, occult and philosophical traditions. Rejection of dogmas, syncretism, holism, experienceplurality, pseudosciences, seeking, sacralisation of psychology as well

chemical, biological and human components.

The interactions and feedbacks between the component parts are complex and exhibit multi-scale temporal and spatial variability. The understanding of the natural dynamics of the Earth System has advanced greatly in recent years and provides a sound basis for evaluating the effects and consequences of human-driven change." [13]

Gaia Conference in 2006 in Arlington, Virginia, USA was a second great academic event dedicated to promotion of the concept.

One of Lovelock's notes tend to affirm deep ecological point about holistic approach as a wisdom shared by pleople when atteched to nature:

"Scientists are usually condemned to lead urban lives, but I find that country people still living close to the Earth often seem puzzled that anyone should need to make a formal proposition of anything as obvious as the Gaia hypothesis. For them it is true and always has been." [10:26]

as oriental and esoteric teachings conformed with Western subjectivism are major traits of New Age paradigm; it is best defined as a patchwork postsecular spirituality whose central goal is to lead an individual towards self-fulfillment through the extension of counsciousness. New Age greatly favours naturalistic pantheism. From its beginning, it has contributed to growth of ecological sensibility.

As foretold, deep ecology has some ovelapping elements with transpersonal psychology which is characteristic for New Age: one should pursuit for the extended ecological Self through identification with other beings in the universal life network. Some New Age streams promote living in simple and sustainable manner. Both deep ecological and Gaian holism are potent to affect postsecular subject. The example of tihs is James Cameron' successful use of it in his famous science fiction movie, *Avatar* (2009). Harmony with nature and its lows as an automatic harmony with oneself is strongly encouraged in New Age, with *holistic approach* being one of its identification cards.

As Gaia-theory was named after Greek mythological godess-Earth, some authors incorporated it in New Age teachings thus constructing gaianism, a spirituality that considers cherishing connectedness with Gaia - "life network" necessary for man's fullfilment, global homeostasis and world peace realization. Accordingly, anthropogene influence to Gaia should be minimized. Some more radical variants of gaianism hold that Gaia has counsciousness - so consciousness of living beings, not exclusively humans, is preserved after their bodies get disintegrated. A Gaian manifesto ("General Statements of Belief") of sorts proclaims:

"Sacred Evolution!

This Universal power imbued in all things

Toward preservation

In ever-changing manifestation

Beloved Gaian expression

I sing Your song Great Mother

For we know ourselves

And all of our siblings

Through You!" [16]

The understanding of divinity in gaianism is left to individual definition. Gaia-theory has had some echoes in feministic theology, too. [17]

However, whereas deep ecology and Gaia-theory are rationally worried for the human future in life network, New Age/ Next Age paradigms are permeated by a futurist optimism, looking foward to close future where *a turning point* will take place – a new enlightened mentality will lead the West towards true blossom of freedom and harmony. Also, New Age holism differs from deep ecological or Gaia-tehorety one. Whereas the letter are theoretical views that tend to be routed in science (in case of Gaiatheory) and disciplined philosophy (in case of deep ecology), New Age holism is expressed in mixed terminologies, often in very general or hermetic terms that coquet both with theoretical phisics, Eastern religions and hermetic philosophical streams.

Generally, it suggests that the energy which makes the whole universe consists of consciousness, which is an universal mind that in a mysterious way supports the material world as its basic matter. Intending to take quantum physics into consideration, Amit Goswami suggests:

"As the real experiencer [of the nonlocal consciousness] I operate from outside the system – transcending my brain-mind that is localized in space-time – from behind the veil of the tangled hierarchy of my brain-mind's systems. My separateness – my ego – emerges only as the apparent agency for the free will of this cosmic "I," obscuring the discontinuity in space-time that the collapse of the quantum brain-mind state represents" [17:192].

An another example of New Age holism-approach is found in bestselling selfhelp manual The Secret (2006) by Rhonda Bryne:

"Everything is energy. You are an energy magnet, so you electrically energize everything to you and electrically energize yourself to everything you want."

"We are all connected and we are all One." [19: 191]

"Quantum mechanics confirms it [the Secret]. Quantum cosmology confirms it.

That the Universe essentially emerges from thought and all of this matter around us is just precipitated thought. Ultimately we are the source of the Universe, and when we understand that power directly by experience, we can start to exercise our authority and begin to achieve more and more. ...[...]...Know anything from within the field of our own consciousness, which ultimately is Universal consciousness that runs the Universe. . . . So we are the creators, not only of our own destiny, but ultimately we are the creators of Universal destiny. [...] If everything is One Universal Consciousness that as a whole exists everywhere, then this whole Conciousness is in You! [19:191-912]

As evident, New Age discourse expresses the idea of unity of the cosmos using a "holistic approach", which would comprehend both science and mysticism.

However, it is usually a terminological and methodological syncre-

tism which carefully avoids scientific discipline and theoretical consistency. It is ecocentricly oriented, however, not very interested in bringig proposals of social action.

There are two reasons for that. First, similarly to deep ecology, New Age is not directed towards coordinated social action, but towards extension of an individual consciousness, in order to increase an individual life's quality.

Secondly, it rejects dogmas and norms so is meek in morality. Given these traits, it turns to be a peculiar postsecular pseudoreligion.

## CONCLUSION

Life is a complex phenomenon, not apprehensible by methodological apparatus of one single science, not even of natural sciences exclusively. It is characterized by attributes that stay wondrous and fascinating, both for urban scientist and people that live close to nature: from formation of the first living matter on, all the organic systems have been transactive, entropy-reductive, self-regulating, self-differentiating and developing towards greater complexity. As a natural being, man is dependent on other forms of life and part of the great selfregulating natural system.

Techical civilization, driven by instrumental rationality and economical growth as supreme value, penetrates the areas of key importance for mantaining the habitable conditions for humans in the Earth system. There is anthropological evidence that man has ever since been both natural and cultural specie, the latter being his *differentia specifica* among higher primates.

Culture is related to restraint of instincts and self-transcendence which in a peculiar way dettaches man from his material ground – nature. The critic of this

self-distructive dettachment can go so far to call civilization a form of sickness, a complete self-alienation of man – a Nietzschean idea which Markus adopts through neodarwinism joined to deep ecology.

Comparatively, as a rational subject, man is the only being whose appropriate attitude towards the ecosystem is responsibility. It is man's self-transcendent and mutable nature that enables his eventual identification with other species and the lifeguarding network which Naess proposes. Ony man can articulate the idea of other species' *right* to fulfill their evovutionary potential and excercise it, which Naess advocates.

Lovelock's methodological holism which brought him to Gaia-theory and pleading for Earth System Science as an appropriate discipline to life-research, is a science-accepted fruit of independent holistic thinking. [13] Rejecting every kind of scientific reductionism, he correctly argued that a *better* look at life is achieved if it is observed as a phenomenon of a whole which is of a different quality than a mere summation of its parts: "Gaia is a new telescope for observing life on Earth, a new theoretical model." [12:46]

New Age mentality brings environment and transpersonal self into focus. However, its pseudoscientific and pseudoreligious holism (*all is one and one is all*) is shallow as it does not meet criteria of consistency and does not nourish austere responsibility for there lacks ground of morality.

The problem of anthropogene intervention in the self-regulating Earth system that supports (also) human habitation and the quality of life is the most urgent. The

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- [4] "T" comes from "Tvergastein", a Norwegian mountain where Naess used to stay. "Tolkining" is Norwegian for "interpretation".
- [5] In context of deep ecology movement some peculiar concepts appear: *bioregionalism, natural capitalism, transpersonal ecology, psychoecology* etc. Besides, value of genuine

solution is abong the most challenging and most difficult to find, as the problem springs from *condicio humana* as such. Considering man's culturality as a fallacy, as well as proposing the return to premordial tribal lifesyle in wilderness, does not seem realistic.

However, deep ecology and Gaiatheory may be a source of motivation to developing risponsibility in terms of simple and fulfilling lifestyles, as well as sustainable policies. A form of liberating ascetism is to be suggested and discovered. As a risponsible, both natural and cultural being, man is capable of this.

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