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“The Nature integration and disintegration is one of basic principles”

By

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The Nature integration and disintegration is among the basic principle of the Nature in general and the nature of the planet Earth, and the presentation was prepared as a part of the basic principles of the Nature operations. Within the last 20 years of research we reported several new researches on understanding of the Nature in general and the nature of the planet Earth. Large amount of literature was published, but due to over information of the everyday larger number of individual representatives of Homo sapiens global civilization and their ego-centric thinking, philosophy and living habits the progress within the understanding of the nature did not find the road to knowledge of the humanity.

The Abstract:

Among systemic, requisitely holistic, eco-bio centric and many more philosophical and scientific approaches we used new science of networks and complexity, swarm research, and newest entry of integration and disintegration as the Nature operations.

We are reporting on the needed information for understanding the operations of the Nature in general and the nature of the planet Earth as the only possibility for longevity of humans under changing conditions for living¹ nature within the biosphere of the planet Earth.

The Key Words:

Eco-bio-centric thinking and philosophy, Biosphere; Climate Change System; Complexity; Continuum; Disintegration; Environment and Environment Theory; Information and Information Theory; Integration; Nature in General; Nature of the planet Earth, Networking; Operational Research; Philosophy; Principia Nature; Requisitely Holistic unit; Swarm research, Systems thinking; System;

The Introduction:

Philosophy is treasure of the Humanity. Physics and other natural sciences are great, but Humanity needs more to survive through the incoming changes in the Nature of the planet Earth.

Our intention is to present contemporary research on the basics of the nature of the planet Earth and the Nature in general.

The nature of the planet Earth is mirroring the Nature in general but as all planets in the Nature in general – the planet Earth is a requisitely holistic unit and as such has its individual characteristics. One of them is our civilization, which within the current 200 years of activities has been and is on suicidal path, which threat the humanity to cease to exist.

The Nature in general is the Universe or Cosmos as the basic environment within which the Nature in general exist. Of course we humans think, it is in our dimension, which is only one known to us. We do not have a proof of the other dimensions existence whatsoever. As our conclusion on this question we accept the present and we are looking forward to future research and new knowledge.

As the contemporary researchers we are glad to research possibilities for understanding of new sciences such as the networking and complexity, operational research, requisitely holistic thinking, eco-bio-centric thinking and philosophy, new understanding of the integration and the disintegration, swarm research, complex problem solving, with intention to understand and present it to the humanity as systems and knowledge needed for better tomorrow of humanity.

But let us take it slowly and let us present our research as well as possible. Our work is a summary of many scientists' and researchers' thinking and work with earliest sources of Knowledge – The Vedas commencing 1500 years B.C., followed by teaching and works of Confucius (551 – 479 BC) Chinese, Greek golden era of philosophy and philosophers

¹ »Living nature« is conditionally used because only we humans are making separation of the Nature in the living nature and “non-living” or other nature. There is only the Nature in general and the nature of the requisitely holistic units like galaxies, stars, planets etc. The nature is one and everything that exist.

beginning with Socrates (470 – 339 BC), Plato (427 – 347 BC), Aristotle (384 – 322 BC) and the others; all together have been establishing humanity's knowledge for the modern world. After dark era of humanity till renaissance and industrial revolution from the 18th to 19th century with works of Copernicus, Galileo, Leonardo da Vinci, Newton, Charles Robert Darwin (1809 – 1882). He was first ever to understand the evolution. Many more scientists joined them. Thus, we are coming to the 20th century with discovery of nuclear technologies, many synthetic chemical substances, rocketry and outer space research and visits, population explosion especially after 60ies and revolutionary changes within the planet Earth human society and the nature. About the post industrialization, after two world wars, new research of post-war evolution of human society, we would like to mention as was stated in our presentation in Almaty, Kazakhstan, in November 2014 on sustainable future of the humankind and we quote:

“Among the first researchers of the modern era in 1957 the British scientist **James Lovelock** in his work and later in the book *Gaia – A New Look at Life on Earth* (1979) opened new frontiers for environmental thinking and understanding of life and nature. The result of his research on the planet Earth as some living form has influenced humanity, and has been a commencement of the environmentalism. The James Lovelock work inspired **Rachel Carson**, to write the book *Silent Spring* in 1962, and the establishment of the NGOs aiming at the environment protection such as Greenpeace and others followed.”

And now we are in globalization era and our present as summary of the past is not in its best conditions. We think our civilization needs transformation of the body and mind to reach needed new step in evolution, which may take humanity to new frontiers.

As summary² we³ shall present short analysis which is as follows:

“The present of the global community of humankind does not meet needs for longevity of the humanity.

It is a reason for this presentation to support the needs for universal upbringing and education of the coming generations of humankind.

Many years of the research have been accumulated within two digital publications as follows:

1. “The Nature and the Requisite Holism”, Ecimovic and Mulej, ISBN 978-961-92378-3-0 (pdf), 2014 and

²Short presentation prepared for this presentation and it is from our presentation on the universal education in April, 2015.

³Co-authors of the presentation are - Prof Dr Timi Ecimovic, Slovenia, Prof Emeritus Dr Raoul Weiler, Belgium, Prof Dr Nebojsa P Ostojic, Serbia, Prof Dr Igor Kondrashin, Russia and Greece, Prof Dr Fidel Gutierrez Vivanko, Peru, Prof Dr Glen T Martin, USA, Prof Dr Dana M. Barry, USA, Sir Prof Dr Roger B Haw, Malaysia and China, Datto Dr Ang Ban Siong, Malaysia and China, Prof Dr Truly Busch, Germany, Prof Dr Dunja Jutronic, Croatia, Prof Emeritus Dr Sait Kacapor, Bosnia and Herzegovina, Prof Emeritus DDr Matjaz Mulej, Slovenia, Hon Ricardoe Di Done, Canada, Prof Dr Seminur Topal, Turkey, Prof Dr Alexander Chumakov, Russia, and Prof Dr Alexander Makarenko, Ukraine. This presentation is on the universal education and universal wisdom curricula towards the needed education of humanity for survival, sustainable future and longevity. This presentation has been put together because we care.

2. “The Anthology 2 – 2001 – 2014”, Ecimovic and Mulej, ISBN 978-961-92378-4-7 (pdf), 1370 pages, 2014.

The digital books are displayed at:

National and University Library – NUK at portal Svarog

www.institut-climatechange.si at small digital library and

www.izo.sik.si

New understanding of the Nature in general and the Nature of the planet Earth needs new approach to sustainable future of humankind. The people of the planet Earth, the global community of humankind, the globalization, the new technologies and the past 200 year before the present time have been very questionable for longevity of the humanity.

With understanding of the new sciences of the networks and complexity we have been able to connect the missing contents of the Nature’s operations.

With the best of our knowledge we are recommending a new approach to the upbringing and education of the humanity to allow for longevity.

We inhabitants of the planet Earth are a part of the whole. The whole from the viewpoint of systems thinking and requisitely holistic approach is the planet Earth system, which is considered here as a part of the whole of the star’s Sun system, which is a part of the whole of the Milky Way Galaxy system, which is a small part of the whole of the Universe as the general system, i. e. complex entity.

The operational rules and techniques of the whole nature are not known to us. A small part of the knowledge of it is a treasure of the humanity, and we have to research and learn much more to be able to understand more about our sustainable future.

The epic song of the humanity has commenced some 200.000 year ago. From commencement via prehistoric times and civilizations, including confrontations of Homo sapiens neandarthalensis and Homo sapiens, Stone ages, great civilizations of Antiquity and times of Confucius teachings, Siddhartha Gautama Buddha philosophy, classic Greek philosophy (Socrates, Plato, Aristotle and others), horrible times of medieval ages in Europe, renaissance, industrialization, information, and innovations we have arrived to the globalization of today. We hope the dark ages of humanity will end, and a new era of the sustainable future of global humankind society will commence during the 3rd millennium of our times.

The nature system - in the large meaning from the view point of the natural sciences, environmental sciences, systems thinking, operational research, complex problem solving, swarm and a case study research, new sciences of networks and complexity, and holistic or better requisitely holistic approach - is the *Universe/Cosmos*.

Universe⁴ has been described as “the totality of all the things that exist; creation; the cosmos” and “the world, or earth, as the scene of human activity” and “an area, province, or sphere, as of thought or activity, regarded as a distinct, comprehensive system”.

To us the Universe has many definitions and descriptions and more, which will come with future experiences and research. We would like to mention some:

- The Universe system is the most complex system humankind could research,
- The Universe system is the environment for the nature,
- The Universe system includes totality of all things that exist,
- The Universe system is so immense that it is hard for humans to understand its immensity. We need new standards for research work on the universe.

The Universe system, as environment for the nature or the *basic environment*⁵, if discussed concerning the nature from the quality-internal viewpoint, could have the following characteristics:

- The Universe system has no commencement and no end.
- The Universe system contains all matter, energy, information, dimensions, light, rays, powers and forces, particles, transformations and other contents not yet known to humankind.
- The Universe system functions are systemic: interdependences, interactions and co-operation, synergies and networking.
- The Universe system as the basic environment is the environment for the *continuum* of the nature with all happenings (processes and events), transformations, dimensions, networking and systemic relations.

The Universe system, from the formal viewpoint, could be seen as composition of the environments, larger and smaller *requisitely holistic units*⁶, presently to us known as galaxies, stars, and planets systems. There is a large content of smaller energy and matter forms. Of course this insight is within the present dimensions, which we see and does not exclude other dimensions not known to us at present.

The universe system is the *basic environment*⁷ - meaning that within it, the present nature is at home, and as such, it is a precondition for the nature's existence

The star Sun system is a part of the Milky Way Galaxy, which has 100.000.000.000 + other star/planets systems and countless meteorites and other forms-systems of matter, information, and energy. All of them are moving like a top and circular movement around each other. According to **interdependences, interactions, co-operation**, resulting synergies, networking and complexity the star Sun system is moving like a top and with speed of app 800.000 km per

⁴ Universe in Webster 1986

⁵ The basic environment has been first discussed in »The Environment Theory of the Nature«, Ecimovic, 2009.

⁶ “The requisitely holistic unit” term comes from the Mulej and Kajzer (1998) »Law of Requisite Holism« as practical application within the natural sciences. As helping description, we may say; the requisite holistic unit is the smallest but yet still understandable whole. Synergy of all crucial viewpoints is considered. In case of future reduction, the understanding is decreased.

⁷ Basic environment has been term introduced by Ecimovic in his book/work »Three Applications of the System Thinking«, Ecimovic, 2009.

hour circling around the center of the Milky Way Galaxy. The circular movement is the main physical characteristic of all larger and smaller forms of matter and energy within the Nature.

Continuum

Putting the “continuum” in the center of the Nature makes a huge difference in possibilities for research. The continuum is a result of the environment and its content - the nature systemic relations and operations.

Therefore, we have now the basic environment and the continuum; we have the basic requisitely holistic units, and our home the planet Earth, which is one of them. System operations networking and complexity are result of many different happenings - processes and events - in different requisitely holistic environments, which are the environment under research. In our research the operations are results of **interdependence, interaction, co-operation, synergies, networking and complexity** of all matter, energy, information, light, rays, powers, forces, particles, dimensions and yet unknown contents of the Nature.

Evolvements within the nature are the result of all matter, energy, and information and their permanent interdependence, interaction, co-operation, networking, complexity and resulting synergies. The nature is in only one form - “*present*”.

The Nature of the planet Earth mirrors the nature of the rest of the Universe. Second to that, the planet Earth is a requisitely holistic unit or planet, a member of the planets of the star Sun system. It is orbiting the Sun within the distance, which allows for the environmental conditions needed for life. It is within the so called living belt of the Solar system. Actually, the Earth’s biosphere environment has conditions suitable for life. The first life appeared on the Earth around 3.8 billion year ago. The anaerobic one-cell protozoans were the first creatures, which evolved because of suitable environmental conditions and happenings – movements, processes, networking and resulting synergies. All the rest of creatures in history and at present are summary of the later evolution.

The Earth planetary system is very robust. The planetary body, at present, has an inner core of 1.500 miles in diameter composed of iron and heavy metals, an outer core of 1.400 miles, a lower mantle of 1.400 miles, upper mantle of 400 miles and the crust of 2 – 45 miles in diameter.

On the top of the crust, there are permanent dynamic changes caused by the natural powers by which the Earth’s surface has been and is shaped. The atmosphere covers, protects and completes the biosphere of the planet up to 650 miles or 1.000 kilometers, where the Exosphere is ending into the outer space. The main subsystems of the Earth are: its planetary body, its Moon, and its atmosphere. Its planetary body has 8.000 miles or 13.000 kilometers in diameter. The Earth is the fifth planet by diameter in the star Sun planetary system. The largest one is Jupiter with eleven time longer diameter, and the smallest one is Pluto⁸ with around one fifth of the Earth’s diameter.

⁸ Data about the new 2 outer celestial bodies are not yet known to us; one missing planet might also have a questionable content within the present status of the Solar system. Pluto has been re-classified and is no longer recognized as a planet.

The surface of the Earth together with its atmosphere makes its biosphere, where we live and where the life has been a part of its system for more than 3.8 billion years. At that time in history the first appearance of the microbial life could be placed.

The climate change system is **provider, maker, holder and guardian** of the environment conditions within the Biosphere, and internal system of the nature of the planet Earth. It is responsible for biosphere's environmental qualities and conditions for the life to continue.

The living nature is the moderator of the living conditions and is interdependent, interacting, and co-operating with the climate change system. The rise of the life on the Earth reacted to conditions of the primordial surface water environment, and its physical and other contents. It took the nature of the planet Earth some 0.7 billion years to generate and evolve the life.

The difference between today and 200 years ago is due to the extreme input of our civilization's output into biosphere such as: all sorts of waste, and side-effects of nuclear etc. technologies, synthetic chemicals, human population explosion and its consequences; destruction of biosphere resulted from one-sided thinking and acting rather than requisitely holistic covering of the current needs of humans.

It is hard to accept the truth. Philosophy of humankind as the main treasure of the humanity, is asking for consideration of the truth. The present of the global community of humankind as a whole, i. e. of the Homo sapiens species with its 7.000.000.000+ individual representatives rowing within last 200.000 year of coexistence has recently opened questions about the truth and option for long-lasting of humans within the biosphere of the planet Earth.

Humans of the Earth are of one kind – Homo sapiens species. There are no **races** among humans, but only different looks as per evolution within the local environment-cum-culture-nature and nurture.

Humans as species are social creatures, and are among omnivorous ones – meaning eating any sort of food – both animal and vegetable food. It is also a part of human heritage from the nature.

Everything that was born may look like many different or similar things, but it is its individual characteristics (existing along with the shared general and group – specific ones) that make the difference. At present, humankind's global community has 7 billion+ individual members and all of them are Homo sapiens, but each and every one has his/her own characteristic.

Therefore our civilization has 7 billion+ individuals. This is important, because we have to accept reality that within the basic environment⁹ - the universe system - there are countless planets, but the planet Earth with global humankind community is only one, which we know and live on.

The history of humankind has covered approximately 200.000 year. Discussing social creatures in the Nature – the biosphere of the planet Earth makes it clear that humankind's

⁹ More information are in two two books: The Three Applications of the System Thinking, Ecimovic, bilingual English and Slovene book, 105 pages, 2009, ISBN 978-961-92786-0-4, and The Principia Nature – The Nature and Homo sapiens Global Community, Ecimovic, 49 pages in English, 2011, ISBN 978-961-92786-7-3, both of them are displayed at www.institut-climatechange.si at small digital library.

history is short. Longer history belongs to social creatures like: ants, termites, many insects and bees, and other animals and plants.

Since the end of the last glacial era (in Europe) 60.000 – 16.000 year ago the environmental conditions have been within the limits allowing for the living the given nature to prosper. With commencement after the world wars of the 20th century and third millennium changes took place in the environment and the social life of humanity.

Humanity is lacking **eco-bio-centric philosophy and the knowledge on the Nature of the planet Earth operations, networking, complexity and synergies. The individual social responsibility is among the missing qualities of the present humankind.**

“The Individual Social Responsibility” is the individual’s responsibility for impacts on humans and the nature; it is a part of the Nature and could be defined as:

“The individual social responsibility from the natural sciences’ viewpoint is the ability of living creatures to respond to the living environmental qualities and needs for continuum of the humans and other living creatures”.

The natural individual social responsibility as part of the natural sciences needs to be established. Rebirth of the forgotten quality of humans is badly needed for long-term survival under the changed environmental-living conditions within the biosphere of the planet Earth.

Individual representative of Homo sapiens, with individual social responsibility learned from his or her mother, father, school and life, will try to be in harmony with the Nature of the planet Earth.

The path to be followed is a path of the whole life learning and life-long education.

Our present has been influenced also by three social issues of recent origin, which are as follows:

The Sustainable Development – has been the outcome of the “Our Common Future” report in 1987 where the definition of sustainable development was stated as follows:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The Sustainable Future of Humankind – has been announced at Xiamen, China, on 25th September 2011. The short definition is:

»The Sustainable Future of Humankind is Harmonious and Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth«.

And,

The Globalization is defined in the “Global Studies Encyclopaedia”, Mazour, Chumakov, and Gay, 2003:

»Globalization is amalgamation of national economies into united world system based on rapid capital movement, new informational openness of the world, technological revolution, and adherence of the developed industrialized countries to liberalization of the movement of goods and capital, communicational integration, planetary scientific revolution, international social movements, new means of transportation, telecommunication technologies and internationalized education«.

Unfortunately, the monopolization of the entire humankind to the benefit of one single percent must be added to the above definition; so must the level of debts that is globally close to three times of the world's global GDP (400% in Japan, about 220% in USA and China, etc.); only 15% of humans have more than six US\$ per day, while 85% have less; 85 persons own as much as three and half billion persons combined; the nature of the planet Earth is badly damaged, natural resources are over-used and living conditions within the biosphere are changing.

That is a frame within which global community of humankind is wandering at present.”

The Discussion:

Integration – in Webster (1986) - integration is an integrating or being integrated.

In our research integration is process of integrating different smaller or larger system to equal and united system, which could be integrated to higher level system or systems.

For instance, Big-Bang is a local integration of energy or matter into its opposite. It is a slow process being beginning, or slow being end of opposite integration and disintegration

For instance, integration of the human body is a long process or whole life process, from birth to end of life.

For instance, – the planet is integration of large different systems into a requisitely holistic unit – the planet and it is whole life process.

And finally one more – the Nature in General integration is a permanent continuity. Integration is always a slow process of putting together new systems.

Disintegration – in Webster (1986) - disintegration is to separate into the parts or fragments; break up; disunite; or to undergo or cause to undergo a nuclear transformation as a result of radioactive decay or a nuclear reaction.

A classic case of disintegration is Big-Bang (Hawking), the energy disintegrates and the matter integrates. Disintegration is Big-Bang and integration is building new systems. Whole disintegrations and integrations are spontaneous happenings and are smaller or larger ends and commencements of old and new systems. It is energy and a matter exchange as part of the continuum.

In our research **integration and disintegration** are permanent processes within the nature in general and nature of the planet Earth.

With this presentation we are providing information for records and initiating further research needed for survival of humanity on the planet Earth.

Our research on the basic principles of the Nature in General and nature of the planets suitable for living creatures including our planet Earth is showing new principles of the nature operations. System background to all levels of our understanding of the nature is needed. It is extremely important to increase research on the Nature in General and the nature of our planet Earth to allow Homo sapiens current civilization to understand under which conditions life on the planet Earth could exist.

Secondly it is important that we – the living part of the current civilization - are as we are. This is meaning: we are raping fruits of the past and we are not able to understand new information needed for our civilization life on the planet Earth. All what we could do is to establish new curricula and system of the universal upbringing and whole life education as tools for the coming generations to meet challenge and living conditions in the biosphere of the planet Earth.

What we humans have damaged could not be repaired with a short term action; it will need a much longer period for the nature to evolve permanent and adequate conditions, because evolution is the natural action and the only road for continuum of life of humans and other living creatures on the planet Earth.

We think the Nature in General or Universe – Cosmos as our basic environment and the nature as the only user of it provide story which we have to research. The nature operations are systemic networking with continuum as its reason, and principles of interdependence, interaction, cooperation, networking, integrations, disintegrations, synergies, anti-synergies and requisitely holism of all energy, matter, information, basic and local environments, dimensions, lights, rays, powers and forces, particles and to humanity not yet known parts.

We think our civilization needs new curricula and system of universal upbringing and education of humans to understand and follow needed principles of life on the planet Earth.

Ending we wish to all humanity a better tomorrow and peace, reason, justice, respect (including respect for the life), morality, wisdom and sustainable future.

The Literature:

As stated in the presentation all is there at www.institut.climatechange.si at small digital library and:

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