

COLLECTIO DOCUMENTORUM
DE INVESTIGATIONE
TEMPORUM

CUM DEMETRII DANICI PROÆMIO ET COMMENTARIIS
expleta est et ex officina emissa anno M.M.XXII.

THE TEXTS presented in this book under the summary title DE INVESTIGATIONE TEMPORUM were received by your humble servant and remained at his disposal over a long period of time, which lasted for many years. The originals of these texts were partially typewritten and partially handwritten. Retyping these texts, your humble servant translated them into English. All further preparation of these texts for publication was based on this translation.

Several words in the originals of these texts were so faded that they could not be read. Such words have been reconstructed according to context. They are enclosed in square brackets. Short comments are marked with a postscript sign and signed.

This publication is accompanied by extensive explanations written by your humble servant. These explanations are presented in INTRODUCTION and COMMENTARIES. The writing of such notes was one of the mandatory conditions for the publication of these texts. Their task is to make these texts more accessible to the consciousness of modern man. Another mandatory condition was that the source of these texts must not be made public due to privacy.

These texts should be considered as such, as Knowledge, without focusing on the specific circumstances of their appearance. For example, when reading a mathematics textbook, you are just trying to understand its content. Here is the same case. All that your humble servant can afford to say about the originals of these texts is that they are authentic. — *Demetrius Danicus*.

CONTENTS

Introduction	4
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PART I. THE TEXTS

In recent decades on the planet	21
Filtering cosmic radiation for the natural “users” of the planet	34
Forming energy events on the planet	41
The influence of solar activity on the energy zones of the planet with the subsequent changes in their terri- tories	44
On the distribution of “rôles” on the planet	46
Dream — a journey through the energy world	50
Everything in Time is food	60
Food products	65
What does a catastrophe consist of?	72
Architecture	76
The air environments. Climate and behaviour of bio- logical bodies, including humans	79
The terms of understanding	82
Geopathogenic Radiations imaging screen	91
The three-environment vehicle	97

PART II. COMMENTARIES

Prologue	113
How we do observe the world?	114
Energy spectra	120
The electromagnetic spectrum	123

Understanding biological species based on their energy spectra.	126
A program code stored in energy spectra. Genes as executable program files	129
The imagination field.	140
Understanding information. Intuition	150
Spectral zones on the planet. Forming the human energy spectrum	154
Spectral repainting. The law of territories	163
Spectral forecasting of catastrophes.	179
The nature of life and death. Reincarnation. Living world history.	214
Real time travel	224
Real interstellar travel over long distances exceeding 100 parsecs	242
Worlds (layers) of the multilayer space of the planet Earth	258
Afterword.	269



INTRODUCTION

IN THE BEGINNING, your humble servant should prepare the reader by providing the necessary information from the history of science. This is the task of this introductory Chapter, preceding the texts published in the following Chapters.

So, let us begin. Chronology as a science targets to answer three fundamental questions. Further, we call them the *three basic questions of chronology*. These three questions are:

1. In what century and in which year do we live relative to the first year according to our current calendar?
2. What is the true sequence of historical events of the past?
3. What are the true dates of ancient historical events according to our current calendar?

According to historians, they have reconstructed the main fragments of the history of Mankind for about the last three thousand years. This is the time period of our present civilization, which dates back to Ancient Greece and Ancient Rome. To find the exact dates of ancient historical events, historians use ancient chronicles, which they compare with various scientific dating methods, among which the most precise is the method of dating according to solar and lunar eclipses. However, the fundamental laws governing the historical process remained unclear until recent decades.

SINCE THE 19TH CENTURY, many historians tried to reduce the laws of world history only to economic reasons. All this thanks to the pioneering works on political economy of Adam Smith (1723–1790), the founding father of economics as a science. The most famous of all the attempts was undertaken by Karl Marx (1818–1883) and led to his *theory of socio-economic formations*, also known as the *class theory*.

According to this theory, later expanded by his friend Friedrich Engels (1820–1895), the social and cultural development of both local human communities and humanity as a whole, from ancient times to the present day, is due to the struggle between social classes, which is based on economic oppositions and tensions between them. Thus, Marx and Engels suggested that Mankind gradually developed through the stages of prehistoric primitive communal society, slave-owning society, feudal society, industrial capitalism including its final (imperialistic) stage of the monopoly of world super-corporations, socialism and then communism (the suggested highest and final stage of socio-economic development). However, these socio-economic explanations turned out to be correct only for a very short fragment of world history, which was limited to the industrial revolution of the 18th and 19th centuries in Europe and the USA. As for the earlier history of Europe, these explanations looked infirm and unconvincing, and the history of civilizations in Asia, Africa and America remained completely beyond the framework of this theory. In addition, the history of the 20th century showed a complete discrepancy between Marxism and the real social processes, observed in modern classless capitalist society. The same lack of universality is a significant drawback of the later variations of Marxism, as well as post-Marxist socio-economic theories that use the same foundations as Marxism, but deny some basic elements of the theory, such as the stage of communism and others.

There were also other attempts to find the fundamental laws of the historical process.

For example, Herbert Spencer (1820–1903) and his followers considered history a biological science. They argued that social processes in human communities are based on the principles of natural selection, by analogy with the origin and development of biological species in Darwinism. However, this theory, known as *social Darwinism*, did not find much correspondence with the facts of world history. Oswald Spengler (1880–1936) considered each culture as a *biological superorganism* with a limited and predictable lifespan, where the unique nature of each culture is due to the peculiarities of its “soul”. He argued that world history is a cyclical history of such superorganisms (cultures) that are independent of each other and undergo like other biological organisms the stages of origin, formation, development and dying.

Arnold Toynbee (1889–1975) in his *theory of local civilizations* argued that any local human community attains a civilized state (becomes a civilization) as a result of its social response to a “challenge” in a situation of critical difficulties (such as natural disasters, enemy invasions, overpopulation and others) that put this community on the brink of survival.

According to the *theory of cultural circles* (die *Kulturkreistheorie*), created by Leo Frobenius (1873–1938), and then developed by Fritz Graebner (1877–1934) and Wilhelm Schmidt (1868–1954), culture arises in a nation only once and in one geographic “centre of origin” in the form of fundamental inventions and innovations, and then spreads in the form of a diffusion wave from this centre throughout the territory (cultural circle) inhabited by this nation. Such a nation gains a decisive advantage over neighbouring nations, thereby becoming a “chosen nation” in comparison with all of them.

William McNeill (1917–2016) in his book *THE RISE OF THE WEST* (1963) combined the idea of social challenge with the diffusion theory. He presented the history of Mankind in terms of the dominance of major world cultures over their peripheral neighbours.

Talcott Parsons (1902–1979) in his *theory of modernization* known also as the *socio-structural functionalism* considered all human communities as self-organizing systems that evolve from the state of primitive ancient society to modern capitalism through the same stages of modernization, adapting society to the new conditions generated by scientific and technological progress. Thus, according to this theory, underdeveloped countries are currently at the same stage of modernization as developed countries many centuries ago, and developed countries could help them overcome these early stages through investment, technology transfer, as well as integrating them into the world market.

In contrast, according to the *dependency theory*, proposed in the 1950s by Raúl Prebisch (1901–1986) and Hans Singer (1910–2006), the stages of modernization of society are different for different world cultures. That is, they argued that underdeveloped countries evolve through their unique stages of modernization and are not early versions of developed countries. According to this theory, poverty and political instability in underdeveloped countries are the result of their dependence on developed countries through loans leading to debts that can

never be paid, as well as political interference in their domestic affairs. While developed countries maintain a high standard of living for their people thanks to cheap natural and labour resources in underdeveloped countries.

In 1993, Samuel Huntington (1927–2008), one of the followers of the classical theory of modernization, in his research *THE CLASH OF CIVILIZATIONS* came to the conclusion that with the economic modernization of countries and social growth, economic oppositions are replaced by cultural and religious differences. Thus, future military conflicts will occur along the cultural fault lines that separate major world cultures...

In addition to the main theories of socio-cultural development listed above, there are a few other, less common theories, such as the works of historians and economists belonging to *École des Annales*, and others. Also, all these theories have modifications, of which there are many. Meanwhile, none of these theories pointed to the true fundamental causes and laws of socio-cultural and economic development, which would remain valid for any nation and any region of the world throughout the history of Mankind.

As a result, some prominent philosophers of the 20th century considered history only a descriptive empirical discipline, not an exact quantitative science. For example, Bertrand Russell (1872–1970) wrote on this subject:

“History, in short, is not yet a science, and can only be made to seem scientific by falsifications and omissions” (*FREEDOM AND ORGANIZATION*, 1934).

THREE FUNDAMENTAL MISTAKES are common to all of the above theories, as well as to other attempts to give a scientific explanation of the historical process. These mistakes are as follows:

1. SELF-CLOSED SYSTEMS. In all these theories, human communities, including humanity as a whole, are considered as self-closed systems. External influences are either not taken into account, or are considered rare incentives for socio-cultural and economic processes, and not factors that determine the historical process in all its details;
2. ONLY MATERIAL OBJECTS. It is believed that social systems consist only of material objects. Energy exchanges are not con-

sidered directly in social systems. And this is despite the fact that energy exchange is the cause and driving force of any material phenomena and occurs in accordance with the spectral composition and magnitude of the energy of interacting objects. Instead, indirect material consequences of energy exchange are considered, such as trade exchange, capital flows, information exchange and others;

3. A THREE-DIMENSIONAL VIEW OF WORLD HISTORY. Society is considered as a system of three-dimensional creatures living in a three-dimensional “box” — on the surface of our planet Earth. From this viewpoint, the history of Mankind is the only sequence of unique events that occur with people inside this three-dimensional “box”. According to this concept, only objects and events at the present point in time are considered real. All objects and events of the past are considered already non-existent, and all objects and events of the future — as yet non-existent.

THE UNDERSTANDING OF THE FIRST MISTAKE came with the awareness of the fact that our planet is not a self-closed system, and all phenomena on the planet are controlled by cosmic processes.

So, the mathematician Joseph Adhémar (1797–1862) was probably the first scientist to suggest that ice ages were controlled by periodic changes in the Earth’s orbit and, hence, periodic changes in solar exposure (insolation) of the Earth’s surface. See his book *RÉVOLUTIONS DE LA MER DÉLUGES PÉRIODIQUES* (1842). This idea was developed 20 years later by James Croll (1821–1890), who developed a theory of periodic climate change based on periodic changes in the Earth’s orbit, combined with “physical feedbacks” in the Earth’s atmosphere. See his article *ON THE PHYSICAL CAUSE OF THE CHANGE OF CLIMATE DURING GEOLOGICAL EPOCHS* (1867), as well as his other his articles summarized by him in the monograph *CLIMATE AND TIME IN THEIR GEOLOGICAL RELATIONS. A THEORY OF SECULAR CHANGES OF THE EARTH’S CLIMATE* (1875). However, his theory was imperfect and required a touch of the hand of a professional astronomer, an expert in celestial mechanics. Then the astronomer Milutin Milankovitch (1879–1958) revised, improved and completed the aforementioned theory in the 1910s. In the monograph *THÉORIE MATHÉMATIQUE DES PHÉNOMÈNES THERMIQUES PRODUITS PAR LA*

RADIATION SOLAIRE (1920), he examined the same three main cyclic changes in insolation of the Earth's surface as his predecessors. These three cycles of insolation are caused by the precession of the Earth's axis, periodic changes in the angle of inclination of the Earth's axis to the plane of its orbit, and periodic changes in the eccentricity (elongation) of the Earth's orbit, respectively. Unlike his predecessors, Milankovitch decomposed each of these three periods into a harmonic series. The superposition of these three series revealed long climatic periods in which the harmonics of the series are added together in such a way that they form resonances and, thus, have a much stronger influence on the planet's climate than each of these three factors individually. These long climatic periods of global warming, followed by large and little ice ages, now known as *Milankovitch cycles*, have been confirmed by dendrochronological, glaciological and geological data collected by many scientists throughout the 20th century.

Around the same time, economists discovered cycles of social activity, including business cycles in the economy. The latter are: an investment cycle of 7 to 11 years, identified in 1862 by Clément Juglar (1819–1905), an “inventory” business cycle lasting about 40 months, identified in 1923 by Joseph Kitchin (1861–1932), a period of 50 to 60 years of economic boom (followed by depression), identified in 1925 by Nikolai Kondratiev (1892–1938), as well as 15–25 year waves of infrastructural investment in economic activity and demographic processes, identified in 1930 by Simon Kuznets (1901–1985), who later won the Nobel Prize in Economics 1971. Joseph Schumpeter (1883–1950) in 1927 argued that the first three of these four business cycles together are harmonics of a composite wave. Taking the Kuznets waves into account, this means that each Kondratiev wave consists of three Kuznets waves, each of which consists of two Juglar waves, and each Juglar wave consists of two (or three) Kitchin waves, respectively. Edward Dewey (1895–1978) in his 1930–1940s works showed that the USA economy is driven by these four main business cycles. He also pointed to other medium- and short-term cycles known in biology and agriculture, suggesting their connexion with the aforementioned business cycles.

The reason for the cycles in biological and social activity became clear thanks to the founder of *heliobiology*, Alexander Chizhevsky

(1897–1964), who during his life was also called the “20th century Leonardo da Vinci”. His groundbreaking study on this subject, *PHYSICAL FACTORS OF THE HISTORICAL PROCESS* (1924), was later expanded in his fundamental monograph *LES ÉPIDÉMIES ET LES PERTURBATIONS ÉLECTROMAGNÉTIQUES DU MILIEU EXTÉRIEUR* (1938). Based on extensive empirical data from the last thousand years, he proved that all forms of social activity, including culture, economic activity, military conflicts, and even epidemics, are due to solar activity, such as sunspot cycles, solar flares, etc. In other words, the history of Mankind does not develop on its own, but in all its details is controlled by a complex system of solar activity cycles. This conclusion was then expanded by other researchers to long-term cycles in climatology (they used data from dendrochronology and radiocarbon analysis). Later, in his 1950s studies, Chizhevsky showed that the planets (including the Earth) are in a state of intracellular organs (organelles), and the Sun performs the function of the cell nucleus.

It is important to understand that the foregoing is not a hypothesis or speculative theory, but a proven scientific fact derived from extensive empirical data.

Therefore, humanity is not a self-closed system only on its own territory with limited resources on the Earth, but an integral part of the Solar System, which, in turn, lives like a living cell and has its own “internal organs” (the Sun, the planets and other bodies of the Solar System) that interact with each other. While all processes on the planets, including natural, technogenic and social processes on the Earth, are controlled by a complex system of solar activity rhythms (rhythms of the “cell nucleus”).

TO UNDERSTAND THE SECOND MISTAKE, you need to understand what energy is. This term was derived from the word *ἔργον* (pron. *érgon*) that Heraclitus (c.540–c.480 B.C.) used to mean “fire”, the primary source of any action, the father of everything and the founder of all life on the Earth. According to Empedocles, who lived a little later (c.490–430 B.C.), there is an “internal fire” that is different from an “external fire” such as a campfire or heat coming from the Sun. Empedocles also pointed to the fundamental difference between fire and matter (the latter combines three elements: earth, water and air). Aristotle (384–322 B.C.) was presumably the first of the ancient

Greeks to use the word ἐνέργεια (pron. *enérgeia*) in his writings. Presumably, because many authors of classical antiquity were forgotten due to the massive loss of books in late antiquity and in the dark ages. Aristotle used the word *enérgeia* in the broad sense of *action* or *activity*, including human activity, and as a manifested state of *potentiality*, which he called δύναμις (pron. *dýnamis*) — something that could happen but has not happened yet.

After classical antiquity, scientists again turned their attention to the concept of energy only during the scientific and industrial revolution of the 17th and 18th centuries, known as the scientific renaissance. But they, following Gottfried Leibniz (1646–1716), called energy *vis viva* that means *living force*.

The word *energy* was returned in 1807 by Thomas Young (1773–1829), who used it in his LECTURES ON NATURAL PHILOSOPHY in the sense of the energy of motion, which is present in all material solids and substances as they move. Later, William Rankine (1820–1872) introduced two new terms in his paper ON THE GENERAL LAW OF THE TRANSFORMATION OF ENERGY (1853): *potential energy* and *actual energy*. According to his definition, *potential energy* means latent energy associated with material solids and substances, as well as with their configuration, but not yet manifested. *Actual energy* is another name for the energy of motion. Then William Thomson (1824–1907) and Peter Tait (1831–1901) in their common paper ENERGY (1862) replaced the term *actual energy* with the more suitable term *kinetic energy*, derived from the word κίνησις (pron. *kínēsis*) that means *motion*.

Energy transfer occurs in accordance with the *law of conservation of energy* — one of the basic laws of Nature. This law was discovered in 1841 by Julius Robert von Mayer (1814–1878). He first formulated the law of conservation of energy in his paper BEMERKUNGEN ÜBER DIE KRÄFTE DER UNBELEBTEN NATUR, where he used the word *causes* rather than *energy*. There and in his subsequent works, Mayer introduced this law as a universal law that applies to ordinary physical bodies and substances, living organisms, astronomical objects, and, in general, everything in Nature. This law reads:

“Energy can neither be created nor destroyed but can only be transformed or transferred from one form to another; the total energy of an isolated system remains constant.”

This formulation is very similar to another universal law — the *law of conservation of matter*, discovered a century earlier by Michael Lomonosoff (1711–1765), but saying the same about matter and its motion; Lomonosoff first formulated this law in his letter of 5 July 1748 to Leonhard Euler (1707–1783).

All of the above together draws the following general picture. Material solids and distributed substances constitute the world of matter — the *material world*. Matter does not arise from nowhere and does not disappear to nowhere, but can only be redistributed throughout the world of matter. The causes of all material objects and phenomena, i.e., the causes of everything in the material world, come from the hidden world of energies — the *energy world*. Both material solids and distributed substances exist due to the corresponding energy clots and distributed energy in the energy world that create them. Even very small particles of matter, such as molecules, atoms and elementary particles that constitute solids and substances, are material manifestations of the corresponding fine energy structures.

This picture is an “instant snapshot” of the spatial structure of energy and matter, i.e., a static “photo” taken at a point in time. It does not show a dynamic act or action in the world of energies, as well as its consequences in the world of matter, but only the potential for action — the distributed potential energy, also called the *field of potential energy*.

However, real life is not an “instant snapshot”, but a continuous action: due to changes in the magnitude and frequency composition of energy objects, they continuously exchange energy flows with each other in the energy world in accordance with the law of conservation of energy. As soon as a local energy clot changes in the energy world, this change immediately manifests itself in the corresponding material object in the material world. Thus, any activity or phenomenon in the world of material objects is a consequence (materialization) of the corresponding energy exchange in the energy world, and the law of conservation of energy is manifested in the material world as the law of conservation of matter. The above is true for any material systems, including society.

Any social system consists of various material components, such as, for example, natural and labour resources, monetary reserves, securities, etc. Each of the components consists of small particles of matter,

grouped in accordance with the corresponding fine energy structures in the energy world. The frequency composition of their energies determines the existing variety of types of these material components. Oil reserves, copper ore deposits, crops and any other natural resources have their own unique spectral (frequency) composition of energy; people belonging to each specific nation, culture and profession have their own unique composition of the energy spectrum; various currencies and securities have their own unique energy spectra, etc.

Therefore, any social system, like any other material system, is created by its unique energy structure in the energy world, where the spectral (frequency) composition, magnitude and spatial distribution of this energy determine all the material details of this social system. Any social processes — economic, commercial, financial and cultural exchange, human migrations, military actions, etc. — these are materialized energy exchanges both within the energy structures corresponding to social systems in the energy world, and with their external energy environment. Any social phenomena — economic boom and depression, cultural rise and degradation, military victories and defeats, the emergence and disintegration of states, revolutions, the clash of civilizations, etc. — these are material manifestations of abrupt changes in the state of such energy structures, i.e., abrupt changes in the frequency composition of their energy spectra (their energy-spectral “colour”), their energy density, spatial structure, etc.

That is, when studying social systems as associations of only material objects, scientists focus only on the world of material consequences, and their causes in the world of energy remain unaccounted for. In this case, it would be naive to expect that someone, studying the world of material consequences without their causes in the energy world, will be able to predict further material events, including social activity, for a significant period of time.

The true causes and driving forces of social processes are variations in the magnitude and frequency composition of those energy objects that correspond to the material components of social systems, as well as external factors affecting these energy clots. Having studied these causes in detail, we can understand the energy flows in social systems and, as a result, the material consequences associated with them that make up the historical process. In this case, we get the opportunity to

predict future energy flows in social systems and, therefore, future social activity and social phenomena in them.

THE THIRD MISTAKE — a three-dimensional view of world history — becomes understandable if we take into account the multidimensionality of our world, consisting of spatial spread and time spread. Awareness of the multidimensionality of our world came about thanks to *Einstein's theory of relativity*, also known as the *space-time theory*.

In 1897–1899, Joseph Larmor (1857–1942) and Hendrik Lorentz (1853–1928) independently deduced a system of mathematical transformations of three spatial coordinates and time from a moving reference frame to a resting one. According to these transformations, later called the *Lorentz transformations*, the visible size, mass and other properties of moving bodies depend on the speed of their motion and reach limit values when moving at the speed of light. Larmor, Lorentz and others believed that these are real changes in the properties of bodies that occur as they move.

However, in 1905, Albert Einstein (1879–1955) published his famous paper ZUR ELEKTRODYNAMIK BEWEGTER KÖRPER, where he expanded the Lorentz transformations onto all the laws of electrodynamics and mechanics of moving bodies; he also showed that these transformations are due to the geometric structure of space and time, i.e., the predicted changes in the sizes and physical properties of moving bodies are only distortions of space and time, which are visible in the observer's resting reference frame, and the moving bodies themselves remain unchanged.

Three years later, in 1908, Hermann Minkowski (1864–1909) delivered his revolutionary presentation RAUM UND ZEIT. He explained that Einstein's theoretical conclusions in general and the Lorentz transformations in particular are manifestations of the geometry of a four-dimensional space, wherein one coordinate means time and is real, and the other three coordinates mean the ordinary three-dimensional Euclidean space and are imaginary (or vice versa, which mathematically gives the same result). Due to the mathematical difference between imaginary and real coordinates, the four-dimensional geometry of such a space is not Euclidean, but hyperbolic. This leads to hyperbolic nonlinear transformations from one reference frame to another (the Lorentz transformations) and, as a result, to the corresponding visible distortions.

tions in moving objects. Thus, Minkowski presented the world as an ordinary three-dimensional spatial spread and a one-dimensional time spread, combined into a complex four-dimensional space, which he called *space-time*.

Just after this, Marcel Grossmann (1878–1936), a friend of Einstein, pointed out that the four-dimensional space of hyperbolic geometry considered by Minkowski (called the *Minkowski space*) is only a simplified particular case of *Riemannian spaces*, i.e., spaces of Riemannian geometry. Particular cases of Riemannian geometry are planar Euclidean geometry and non-Euclidean geometries, such as elliptic geometry, hyperbolic geometry (Bolyai-Lobachevskian geometry), as well as an infinite number of all other non-Euclidean geometries that can be conceivable. Riemannian spaces can consist of real spread, of imaginary spread, or of real and imaginary spreads together. A particular case of the latter, called *pseudo-Riemannian spaces*, is space-time. In addition, Riemannian spaces can be curved (Einstein related this property to the gravitational field), as well as be inhomogeneous, deformed, etc., whereas these parameters are equal to zero in the particular case of the Minkowski space. In their common paper ENTWURF EINER VERALLGEMEINERTEN RELATIVITÄTSTHEORIE UND EINER THEORIE DER GRAVITATION (1913), Einstein deduced the basic laws of mechanics and electrodynamics in the four-dimensional pseudo-Riemannian space (space-time), and Grossmann explained the mathematical basis of the theory. The theory of relativity was finalized by Einstein in his paper ZUR ALLGEMEINEN RELATIVITÄTSTHEORIE (1915), wherein he introduced the universal form of the field equations (*Einstein's equations*) that relate distributed matter to the space curvature, as well as in his subsequent works on various aspects of this theory, including also new physical effects.

In addition, the theory of relativity includes cosmological models mathematically constructed in accordance with various specific space-time metrics: the first, spherical static model of the Universe was originally proposed by Einstein; the other cosmological models were proposed by his followers.

The first experimental confirmation of the theory of relativity was obtained by Frank Dyson (1868–1939) and Arthur Eddington (1882–1944): during the total phase of the total solar eclipse on May 29,

1919, they independently photographed the deviation of light rays from the stars surrounding the eclipsed Sun. Such a deviation of light rays due to the curvature of space near the Sun, caused by its gravitational field, was predicted by Einstein. Since 1919, all new physical effects predicted according to the theory of relativity have been confirmed in many experiments conducted both in earth-bound laboratories and in the cosmos. Today, a hundred years later, the theory of relativity is considered a well-proven theory.

Hence, the concept of the world as a three-dimensional spatial spread in which a unique set of three-dimensional objects changes with time (here time is considered an internal parameter of the system) is obsolete and wrong. The real world is a combination of spatial and time spreads, where the spatial and time coordinates are distorted due to a specific geometric structure (metric) characteristic of our space-time, as well as in accordance with the distributed matter that fills it.

Three decades later, in 1941, Abraham Zelmanov developed a mathematical method for finding *physically observable quantities* in the space-time of the theory of relativity. In his fundamental work CHRONOMETRIC INVARIANTS (1944), he showed that physically observable are instant projections of multidimensional (space-time) objects onto the three-dimensional spatial cross-section and time line connected with the observer. The observable projections depend on the geometric properties of the local space surrounding the observer, as well as on the physical properties of the instruments with which he conducts his measurements (the instruments include also physical standards to which he compares the results of his measurements). In other words, the observed world is located on a three-dimensional cross-section (instant slice) of our space-time, instantly “outlined” by the observer at the time point of observation.

The next fundamental stage in understanding the space-time structure of the world began in the mid-1960s thanks to the works of Roberto Oros di Bartini (1897–1974). In 1965, he published his study, SOME RELATIONS BETWEEN PHYSICAL CONSTANTS, and then an extended version of this study, RELATIONS BETWEEN PHYSICAL CONSTANTS (1966). Using the mathematical methods of combinatorial topology, he derived and studied the probability function of the existence of a multidimensional spherical space. Such a space can be associated with the three-

dimensional internal spread of any object, such as an electron, the planet Earth, the Sun, the Universe, etc. Topologically, the existence of a space is realized by continuously inverting its internal spread into higher dimensions and back with a frequency depending on the number of dimensions. Just one example. Because the planet Earth moves around the Sun, the internal three-dimensional spherical spread of the planet continuously fills and empties the internal volume of its orbital three-dimensional torus. According to the basics of combinatorial topology, the internal volume of an n -dimensional torus is equivalent to the surface of an $(n + 1)$ -dimensional sphere, where the additional spread is created due to the motion creating the torus. That is, if the Earth did not have axial rotation, its orbital motion would create a one-dimensional time spread, which would be combined with the internal three-dimensional spatial spread of the planet into a four-dimensional complex space. But since the Earth rotates around its own axis in all three spatial directions, there is not one, but three directions of time. Therefore, the resulting hypersphere of the planet Earth consists of the three-dimensional spatial spread and three-dimensional time spread of the planet, combined into a six-dimensional complex space (space-time), wherein the spatial spread and time spread are topologically embedded into each other.

The probability function of the existence of an n -dimensional complex hypersphere (complex spherical space), derived by di Bartini, is based on the frequency of successively inverting a unique “specimen” (this “specimen” everywhere tightly fills the spatial spread of the hypersphere) from the spatial spread into the time spread and back, thereby creating this hypersphere. (See the example of the planet Earth above, which illustrates how such a complex hypersphere is formed.) The magnitude of this probability depends on the number of dimensions, which is connected with the number of such unique “specimina” (universes), each of which everywhere tightly fills these spatial and time spreads, but is separated in frequency from the others. This probability function has a maximum associated with the most stable (most probable) state of an n -dimensional complex spherical space and, therefore, with the most stable state of the specimina filling the space. This maximum falls on the number of dimensions equal to $n = 6.256946404$ and the number of the specimina (it is connected with the number of dimen-

sions) equal to $N = n + 1 = 7.256946404$.

This means that each of the basic elements of the world, which exist in a stable state, such as an electron and other elementary particles, planets, stars, etc., including the Universe as a whole, is a six-dimensional complex object consisting of a three-dimensional spatial spread and a three-dimensional time spread. Moreover, each of these objects exists in the form of seven “specimina” that are topologically embedded into each other, but frequency-separated.

The first means that each of the seven specimina of any object everywhere tightly fills the same spread. The second provides an explanation of how this is possible: these specimina are not exact copies of each other, but are different because they exist in different frequency ranges, thus representing different sets of frequencies, existing in the same spread.

If a space has a fractional number of dimensions, the spreads combined into this space are not completely isolated from each other, but have some common areas. In the above case, a fractional addition to the six dimensions of space-time and to the specimina number means that all seven specimina of any stable object in the world have some common areas through which the “inhabitants” of one specimen of the object can enter another specimen of these seven, despite that these seven specimina are frequency-separated. Such “gates” from one specimen to another are similar to glued together small areas of seven sheets of paper that are stacked on top of each other: such sheets of paper exist independently of each other, but are locally connected to each other in the glued areas.

This worldview is not a hypothesis proposed for discussion and further experimental verification, but the result of a mathematical calculation of the most probable (stable) topological configuration of any object in the world in the range from elementary particles to the Universe as a whole.

Extending the above to the planet Earth in general and humanity in particular, we see that world history is not a sequence of events, each of which happened only once somewhere on the surface of the planet. In the real world, world history events everywhere tightly fill the *event cylinder* of our planet, created due to the motion of the planet along its path from the past to the future. This cylinder is stretched within our

Galaxy into a very elongated spiral, created by our planet during its orbiting around the Sun in their common orbiting around the centre of the Galaxy. In the Universe it looks like a spiral wound on another spiral due to the own motion of our Galaxy. Past and future events of world history continuously exist (occur) in the event cylinder of our planet, because they everywhere tightly fill the space-time (multidimensional) volume of the cylinder.

That is, Napoleon, Charles the Great, Gaius Julius Caesar and all other persons of the past really exist, i.e., they live their own lives in their own fragments of the event cylinder of the planet Earth, which for us are in the past. And our descendants already live in their own fragments of the cylinder, which for us are in the future. Our textbook of world history is the result of our “scanning motion” along the event cylinder of the planet Earth in the Galaxy, where the “surf” (surface) that scans the cylinder is created by events happening simultaneously with us on the planet. In addition, in the same volume of the event cylinder of the planet Earth there are seven different “worlds” of the planet, each of which exists in its own frequency range. Each of these seven worlds has its own chain of historical events and historical characters living their lives in the past, present and future of their world.

This is the real space-time structure of our world and world history according to the theory of relativity.

THUS, WITH THE CORRECTION of the above three mistakes (self-closed systems, only material objects and a three-dimensional worldview of world history), the real picture of the world is as follows.

Each person on the Earth is a multidimensional (six-dimensional) creature existing in the form of his own event cylinder — a *destiny cylinder*, limited by the physical size of this person and his lifetime inside the event cylinder of the planet. The destiny cylinders of various inhabitants of the planet are intertwined and intersect with each other inside the event cylinder of the planet in accordance with their displacements throughout their life. Such “inhabitants” are not only humans, animals and plants, but also fragments of various natural and technogenic (man-made) environments of the planet, because the intertwined individual “filaments” (micro-cylinders) of small particles of substance that constitute planetary environments form the event cylinders of all the inhabitants of the planet Earth.

All the “inhabitants” and their associations, including human communities and various planetary environments, are not self-closed systems: they are integral parts of the Solar System, where their activity “pulsates”, controlled by a complex system of solar activity rhythms.

In addition, the event cylinder of the entire Solar System, including the Earth, intersects with the event cylinders of many other stars and stellar systems in the Galaxy. Therefore, despite the fact that these three-dimensional objects are separated in space and time, their space-time cylinders, everywhere tightly filled with their events, have common events in those fragments where they intersect with each other. Thus, through common events at the intersection of the event cylinders in the Galaxy, other stars and stellar systems affect the Sun and the Earth with all its “inhabitants”.

And all of the above is only a manifestation in the material world of various energy exchanges in the energy world, which are the source and driving force of everything in the world of matter.

The above integral view of world events gives us a real opportunity to find universal laws governing everything that occurs on the Earth: geological activity, climate, biological processes including the origin of species, economy and politics, and therefore world history.

So, now we begin our journey along the event cylinder of our planet Earth in the Galaxy. On this path, terrestrial events appear before our eyes in the form of multicoloured (multispectral) flickering energy exchanges inside the luminous multicoloured energy body of the planet. The texts published in the following Chapters will be a guidebook on this journey. — *Dem. Danicus*.

PART I. THE TEXTS

IN RECENT DECADES ON THE PLANET

IN RECENT DECADES, life on the planet has become less and less comfortable for the physical bodies of people and the products of their material creativity. The number of catastrophes related to technogenic activities, such as traffic accidents, fires and explosions at industrial enterprises, destruction of buildings, etc., is increasing. Natural disasters connected to climate change (melting glaciers in mountainous areas and melting ice sheets near the North Pole of the planet, hurricanes, floods in some geographical regions, as well as droughts in others, etc.) are becoming more frequent. Social tensions are growing up in many regions of the world, which escalates into military clashes. Contradictions between different religious denominations are escalating. This tendency is still ongoing and, moreover, is growing.

The current situation on the planet is developing in accordance with the catastrophe theory in mathematics: a gradual change in the set of various parameters of the system leads to an instant shift (catastrophe) in the state of the system, after which the system enters a new state, characterized by other parameters. According to Chizhevsky, the planet Earth is an integral part of the organism of the Sun, covering the entire Solar System. Therefore, it is the Sun that is responsible for everything that occurs on the planet: the Sun is responsible not only for magnetic storms that worsen human health and disrupt electromagnetic communication, but also for natural and technogenic disasters, for social upheavals, for changes in the consciousness of people who again begin to understand that the planet is an integral part of the Universe. Hence, a catastrophe will also happen to the Sun. This will not be the doomsday, but a *leap change in the state* of the Sun, as a result of which our

planet (a part of the Sun) will also enter a new energy state.

In addition, the Sun proper, as one of the stars, is an integral part of our Galaxy, which includes about 200 billion stars...

P.S. The Galaxy has a lenticular shape (its radius is about 15,000 parsec) and rotates around its axis with a speed that differs at different distances from the centre. The Sun is located almost in the equatorial plane of the Galaxy, about 8,000 parsecs from the centre and about 15 parsecs “higher” towards the North Pole of the Galaxy. At this distance from the centre, the linear speed of its rotation (together with the Sun) is about 220–230 km/sec. In addition, stars “slowly” move relative to each other. The speed of the Sun’s own “upward” motion north of the galactic equator, towards the point of the Sun’s apex in the constellation of Hercules, is 20 km/sec. Thus, the Sun together with all the bodies of the Solar System, including the planet Earth, moves in the Galaxy at a speed of about 250 km/sec. All the solar-terrestrial changes of recent decades happened due to the fact that the Earth, following the Sun, gradually entered (and still enters) into the neighbouring sector of the Galaxy, where the spectral (frequency) composition of energy differs from that in the previous sector. — *Dem. Dan.*

THE TERM *páthogenic radiations* means radiations transmitting information (giving life) at the original level: *páthos* means change, origin, state; *gén* means something giving birth, fundamental; *radiation* means energy transfer. Another meaning of the word *gén* is a unit of biological information. *Gaía* means the planet Earth. Hence, the term *Geopáthogenic Radiations* means the fundamental radiations of the planet Earth, giving life at the original level (for biological species — at the level of genes, i.e., mutations). When considering the Moon, Mars and other cosmic bodies, their fundamental radiations would be called *Selenopáthogenic Radiations*, *Marsopáthogenic Radiations*, etc.

P.S. The term *Geopáthogenic Radiations* has an ancient Greek etymology. In ancient Greek, *πάθος* means passion, affection, occurrence, condition, state. Accordingly, the prefix *πάθο-* means generating, giving life, causing feelings or affection. Do not confuse *πάθος* with the latter word *παθός* that is currently vernacular in modern medicine: *παθός* means someone who experienced, suffered or underwent something. The suffix *-gen* is derived from the ancient Greek word *-γενής* (pron. *-genés*) that means the producer of something, e.g. oxygen, and

comes from nouns such as γένος (génos — tribe, clan, nation, race), γενεά (geneá — generation), γένεσις (génesis — birth). In modern English, *gén* means information about a particular subject in general or a unit of biological information. Γαῖα is the planet Earth (pron. Gaía); Γαία (pron. Gaía) is a goddess of the Earth in Ancient Greece. Accordingly, the prefix γεω- (geō-), which is the combining form of γῆ (gê, i.e., earth), means belonging to the Earth. Following Classical Latin, the term *Geopáthogenic Radiations* would be *Terrapátiogenic Radiations*: *terra* means earth in the sense of the ground or a land on the surface of the Earth, and *Terra Mater* or *Tellus Mater* is a goddess of the Earth in Ancient Rome; the verb *patio* means to bear, support, or to undergo, suffer, endure; the verb *geno* means to give birth, to give life, and *gens* means tribe, clan, nation. We follow the earlier, ancient Greek etymology. — *Dem. Dan.*

The simplest devices used in biolocation (frames and pendula) are prototypes of technical devices of the future, when people will know how to use energy of Geopathogenic Radiations. However, since Geopathogenic Radiations belong to the immaterial world of energy, this will be possible only in the case of a radical restructuring of human consciousness. To start thinking about how you can use the energy world, you first need to believe in its existence. Faith is the PERMISSION OF TIME: it is an energy state that allows us to build bridges connecting fragments of different spaces and times. Accordingly, a state of unbelief is the TABOO OF TIME: it closes the ways for the development of consciousness.

If you try to explain how a modern computer works to a 19th century scientist, he will not understand anything (because in his time there are no terms necessary to understand this), and you will *never prove* anything to him.

CYCLES OF VARIOUS DURATIONS play an important rôle in the material world of the Universe. These cycles range from about 10^{-24} sec (short-lived phenomena associated with elementary particles and called *resonances*) to billions of years (the lifetime of hydrogen atoms, planets and stars). Cosmic cycles are a material manifestation of pulsations [of energy] in the energy world.

The structural basis of the material world is a hydrogen atom, a *small brick* of the Universe. Other, more complex atoms are created on

the basis of such a simplest atom; various atoms having different internal structures are combined into molecules, creating various material environments, including the material environments of the planet. All the diversity of the material world is a manifestation of the strict laws of the energy world.

Cycles are measured in units of Time, and its inverse is frequency. We can say that frequency is a material manifestation of the vibrations of the energy world in which Time itself vibrates. Time is an immaterial category, but it creates flows of various material actions:

1. Subelectronic vortex formations called elementary particles;
2. Atomic structures of the material world. They are a manifestation of energy exchange between multilayered energy flows;
3. Molecular structures...

P.S. The immateriality of time is shown in the theory of relativity, where the time axis *ict* (4th dimension) is usually chosen imaginary. Here *i* is the imaginary unit, *c* is the speed of light, and *t* is the time coordinate. — *Dem. Dan.*

Such energy vortices are immaterial. They manifest themselves in the material world in the form of material formations: galaxies, stars, planets, molecules, atoms, elementary particles, etc. In different areas of space, each of the formations is a component of another structure: the Earth is a part of the Sun, the Sun is a part of the Galaxy, etc. All material structures of the Universe (stars, comets, planets, etc.) are created by the vortex flows of the energy world, which in modern science are considered as molecules, atoms and elementary particles of matter. The Universe is filled with rarefied interstellar gas, in which clusters of galaxies, individual galaxies and stars (parts of the material body of the Universe) “float”. The gaseous substance of the Universe has the following property: when energy is concentrated (substance is compressed) in one area, instant rarefaction of energy (expansion of substance) occurs in another area. In this way the material body of the Universe “breathes”. Breathing in the material world is a *filtering process*. To explain this concept, it is necessary to introduce several definitions related to the energy world.

The energy world (the energy body of the Universe) consists of *spectral flows* that make up a *spectrum*. The energy state of each vortex state of Time has its own characteristic spectrum. These states connect

different volumes of the space of the Universe with each other in each specific area of the galactic space considered by a particular researcher. Changes in energy spectra are subject to strict laws, where each type of [energy] spectra (in the energy world) manifests itself as a certain type of structure in the material world. The material world of the Universe is a condensation of Time in the spectral flows of energy. In other words, each material body is a clot (condensation) of Time, where Time is expressed in the energy world through the exchange of energy in galactic spectral flows. Time in galactic spectral flows smoothly passes from one area of these flows to another, provided that the spectra of these neighbouring area are “similar”. This “similarity” means that these two [neighbouring] areas have the same frequency of energy exchange (pulsation), but the density and rate of energy exchange in these areas are different. In other words, one flow of Time merges smoothly with another, which manifests itself in the material world as a period of quiet life for all structures materialized in this area. If, when one spectral flow enters another, its frequency (vibration) changes, then this inevitably manifests itself in the material world as the instability of the [corresponding material] structures at various scales.

Currently, this is exactly what is occurring on the planet: the Earth, following the Sun, enters a new sector of galactic space, the energy spectrum of which differs from the energy spectrum of the previous sector (there the spectral flows have a higher density and energy exchange rate compared to the previous sector). Thus, the vibrational frequency of the Sun and the planets, in particular the Earth, changes. As a result, the Sun, with difficulty digesting unusual “energy food”, becomes covered with sunspots; the Earth, absorbing radiations of an unusual composition (unusual “food”), also responds in the form of various anomalous events that inevitably affect human health, as well as social behaviour of people.

All spectral local spaces (spectral flows of times of different structures) together form the overall flow of the Time of the Universe, where energy is transmitted strictly in accordance with the LAW OF CONSERVATION OF ENERGY. Time is an energy multilayered (*multidimensional*) space, each layer (dimension) of which is characterized by its energy state. Clots of the spectral flows of Time are the energy bodies (*auras*) of material objects of the Universe.

Each galaxy has its own aura with its own set of energy bonds, which characterizes and distinguishes its aura from others. The shape of a star, a star cluster and any other object of the Galaxy is a materialized state of its aura. Therefore, the aura of each body (material structure) is the energy of Time. The aura of a person, the aura of a planet, etc., are energy formations. The aura of the planet Earth is called *Geopathogenic Radiations*.

The planet's aura is an energy clot in which other pulsating energy clots "float", exchanging energy with each other — these are the auras of the bodies of all the inhabitants of the planet. The aura of a person is an integral part of the aura of the planet. The aura of the Sun, called *Heliopathogenic Radiations*, contains the auras (energy clots) of the bodies of the planets, comets, asteroids and all other objects that are parts of the Solar System. In the material world, the bond connecting all the inhabitants of the Solar System (which are parts of the energy body of the Sun) is the gravitational field of the Sun, which is a component of the gravitational field of the Galaxy, etc.

In the energy world, spectral flows form our Universe as a structured frequency range of Time, which in the material world manifests itself in the shape of material objects. This structured frequency range is a *multilayered filter*, the layers of which are spectral flows that materialize various material structures, each of which is a part of another, larger structure: a galaxy with its stars, the Sun with its planets, the Earth with its environments and inhabitants (users), etc. *Materialization* is the process of energy exchange between the energy world and the material world, where energy is transmitted through the transition membrane by *filtering in accordance with the ranges of Time*. In the energy world, the spectral flows that form one of the galaxies exchange their frequency ranges of Time, i.e., they *pulsate with the spectra of their times*. Each star in the Galaxy re-emits the energy that it receives within its own frequency range, both along the flight path of the star and from its surrounding volume, thereby filtering galactic space.

The Sun is forced to filter galactic substance along its flight path in the Galaxy (in the material world). In the energy world, the aura of the Sun pulsates in oncoming spectral flows, which every second of the Sun's flight (250 km) are saturated with radiations from various distant stars. The Solar System is the lungs of the Sun, and the Sun proper is a

filter of the Solar System. In the material world, the Sun emits 30,000 lines of the [electromagnetic] spectrum, which is a material manifestation of the vibrational range of the aura of the Sun. During the flight along its galactic trajectory, the Sun pumps galactic substance (interstellar gas) through its lungs, and then returns these 30,000 lines to the outgoing space (in re-emitted form). Here, users are the planets with their satellites, comets, asteroids, each of which has its own range of pulsations (filter). These pulsations are like breathing (a rough comparison). The Sun absorbs within itself all the exhalations of the filter layers, which are the auras of all the bodies of the Solar System. Obviously, if the Sun is difficult to breathe in a condensed galactic environment, this difficulty in breathing affects the entire Solar System, including the Earth.

Geopathogenic Radiations are re-emitted clots of spectral radiations of the Sun (Heliopathogenic Radiations). Every second they forcibly create pulsations at points and areas of the planet's aura. And since the Solar System flies in galactic space, this pulsation process is continuous. Materialization of this process creates the material world of the planet: sunlight, air, water, plant and mineral layers, wildlife, people.

Stable energy exchanges in the energy world materialize in the form of stable states on the planet. Otherwise, we have what is now — the current segment of the galactic route of the planet, on which the planet is waiting for numerous “road bumps”, the overcoming of which affects the life of the planet, including the life of all its inhabitants.

The instability of solar radiation at this stage is due to the “colour” of the neighbouring galactic sector, into which our planet enters together with the Solar System. This concept of “colour” is consistent with the concept of “spectrum”: in the material world, the spectrum of a solid in the visible (optical) range looks like a rainbow band containing colours from red to violet; the spectrum of a gas consists of individual [coloured] bands corresponding to specific frequency values.

P.S. Any spectrum consists of seven conditional colours in ascending order of frequencies: red, orange, yellow, green, cyan, indigo, violet. — *Dem. Dan.*

Material bodies and all their manifestations, including their electromagnetic spectra, are materialized states of the corresponding spectral energy flows, which, thus can be called *spectral colour flows*. Each clot

of energy is the energy body (aura) of a material structure. The aura of each body consists of seven spectral energy spheres. The spheres do not mix, but move relative to each other; they “permeate” each other in some areas and “rise” one above the other in other areas. A similar situation takes place for each fragment of the main body, which, in turn, is also a fragment of another larger body. This manifests the fractal structure of Time, where each fragment is the time of a certain structure.

The auras of both whole bodies and all their parts exchange energy colours — energy at certain frequencies of their energy spectra. The frequency range of the aura of a body fragment is a part of the range of the entire aura of this body. The Sun, as a material body, lives in the rhythms of its spectral clot in the energy world. At different fragments of its galactic path, the Sun absorbs cosmic substance, which has different spectra and energy density in the energy world. Processing the emitted energy of this substance affects the content of solar radiation in the material world. That is, sunspots and flashes on the Sun is a solar assessment of the quality of galactic food. In the material world, this radiation contains basic information about events in the Galaxy. At the same time this radiation carries a lot of information stored in the digested galactic food left on our galactic route by those stars, whose galactic routes crossed our route in the past.

The aura of the Earth (Geopathogenic Radiations) is a clot of energy, “floating” in the aura of the Sun (Heliopathogenic Radiations). It is called a geopathogenic sphere, because the material body of the planet, as the area of maximum energy concentration in its energy spheres, has the form of a spheroid. According to many researchers, geopathogenic zones [on the planet] have different depths and heights within a few kilometres, and these volumes “breathe”. The “breathing” of the volumetric spheres of the planet depends on solar activity. Geopathogenic areas affect the structure of all energy bonds in the nature of the planet; these connexions are invisible to the human eye, but tangible to the energy body of each person. But many researchers call *geopathogenic* only those areas that adversely affect human health.

All events on the planet Earth depend on the state of the Sun, as well as on interplanetary states. Chizhevsky in his works confidently proved that solar-terrestrial energy bonds determine intercellular states and their connexions. The human brain consists of cells and obeys ter-

restrial cycles (frequencies), which, in turn, are parts of the frequency range of the Sun. Therefore, people's thoughts (their consciousness) also depend on interplanetary bonds and the conditions of the flight of the Sun in the Galaxy. As a result, the process of forming thoughts in any region of the planet has its own cycles in time: in accordance with the cycles, a mass coincidence of thoughts occurs among people in one region, or a coincidence of thoughts occurs among people in different regions of the planet. The magnitude of the coincidence at the same frequencies determines the duration of *monochromatic* thinking as the energy of Geopathogenic Radiations in a particular fragment of the planet's flight path in the Galaxy. In particular, the increasing sense of hopelessness caused by the dependence on the technological cycles of human activity, which lead to a global environmental catastrophe, is also a condition for geopathogenic states of events. In the end, this will lead to the upcoming transformation of both the human body and the human thinking system.

In fact, Nature herself uses the language of plants, minerals, animals to inform people about the upcoming new conditions for their activity. Meanwhile, these new conditions have not yet materialized enough so that people's thoughts in this direction become clear.

The fact is that the natural forces of the planet have protective energy associated with all types of substance on the planet. And those biological species that have penetrated beyond the boundaries of their own territory will either be destroyed or completely changed in order to maintain the energy balance with the changing substance in the surrounding space. This is due to the protective energy contained in the surrounding geopathogenic space of the planet.

Human consciousness (the energy world) belongs to the upper frequency range of Geopathogenic Radiations (they are planetary consciousness). The range of human consciousness is different from other ranges of planetary consciousness in that people allow random events. However, in Nature there is no place for randomness: all energy exchanges are strictly regulated by the LAW OF CONSERVATION OF ENERGY. The fact is that most people do not accept the hopelessness of the technogenic way of development for various reasons (due to the protective energy of the spheres of their auras); they will strive to survive under the familiar conditions of the current technological and intellectual state

of society. People are afraid to part with their familiar living conditions, food, vehicles and the education system based on contradictions to the laws of Nature: natural sciences, such as physics, chemistry, biology, etc., are full of descriptions outlining natural phenomena (effects), but these contours are only their shells, which do not take into account their hidden essence (causes). Despite the fact that people are afraid to part with their familiar world, Man is not the centre of events for the development of matter, but only a temporary structure of energy, materialized on the planet only within a certain segment of the galactic route of the planet Earth.

The aura of a person's body is a clot of energy "floating" in the aura of the planet. It forcibly absorbs the energy of the surrounding space, transmitted by spectral colour flows of the times of various objects. Changes in the chromaticity (general colour) of any segment of the planet's route in the Galaxy forcibly repaint the planet's aura on this segment and, therefore, the auras of all its inhabitants. A person's aura consists of spectral colour zones, where the main (brightest) colour is determined at the time of his birth — according to the corresponding zodiac sign, as astrologers say. The energy bodies of everything on the planet also consist of spectral colour zones. The process of superimposing the spectral (frequency) zones of biosystems, which occurs in a strictly predetermined fragment of time, forms a new biological species — a new spectral system, which, in turn, will become the basis for other energy systems. The continuous flickering of their spectra (their frequency exchange of colours) is the main condition for their development.

Their protective layers that ensure survival are under spectral control. As a result, even with a very slight change in flight conditions, the "danger" signal is immediately triggered as a protection against a new spectral content absorbing the old one. In the beginning, when absorbing an "alien" spectrum, the border areas are repainted. Then this repainting becomes a wave going to the central areas, forcing them to return the energy spent on protection.

Human intervention in the plant world, at first, it seemed, did not affect plants. But any plant is connected with many other life forms. Therefore, even a slight modification in this complex system results in changes in the generations of all these related life species. Meanwhile,

these connexions are not taken into account: the *balance between plants and animals* is violated in order to create new species of plants and animals. Nature has fallen from the chain “nature — brain — technology — brain — technology — ...”. Humanity has come close to creating a gradual system of global destruction of its own space. This is because the basic condition of Time was violated: the energy that the Earth received for the development of energy systems does not return back to the cosmos. That is, with the development of human intellectual activity, the Earth has become a “black hole”: it has become *only an energy-consuming system*. In a system, where only an energy-consuming environment is formed, increasing tension arises in its energy, which is the “living water” in the Universe. In this case, areas of the “dead water” (“black holes”) appear on the rarefied background of the energy of the Universe. As a result, the consumption of the “living water” (for example, an arms race) is accelerating on the planet. And therefore, areas of the “dead water” begin to form:

1. The increasing radioactive background (Chernobyl);
2. Emerging destructive bacterial and chemical systems;
3. The process of destruction of the brain systems themselves under the influence of the above.

Recovery does not occur, because the plant (regenerating) environment, excluded from this chain, falls into the frequency range of the “dead water”. In this case, the plant environment returns to the Sun and stellar associations (islands of the Universe) only radiations in the frequency range of the “dead water” of the Universe.

So far, the situation on the planet is developing in such a way that humanity cannot withstand those very difficult conditions arising from the fact that the Sun is currently entering a new galactic sector with a different energy, and the biosphere has not quite adapted to them. To prevent human consciousness (it belongs to the upper frequency range of Geopathogenic Radiations) from falling into the frequency range of the “dead water”, it is necessary to rebuild human thinking in order to create devices that work directly with energy of Geopathogenic Radiations. A transitional step along this path could be creating devices that capture Geopathogenic Radiations.

THE THEORETICAL BASIS of modern technology is the theory of electromagnetism. Electromagnetic radiation is a manifestation in the

material world (materialization) of the process of changing the energy state of atoms when their electrons are displaced from one orbit to another. This theory takes into account only the material world, thereby determining the technogenic character of modern civilization.

Technogenic thinking, aimed mainly at creating comfortable conditions for the human body, has already put the planet on the brink of a global environmental catastrophe. Here are some details. Until the 19th century, the process of natural regeneration was connected with the technical activity of people in the ratio of 1,000,000 : 1, where 1 is the technical activity of people. That is, there was practically no industrial waste. By the 1950s–1980s, industrial waste volumes began to catch up with the natural regeneration of inhomogeneous planetary environments, i.e., the ratio became 10 : 1. By the end of the 1990s, the ratio began to change exponentially:

1988–1989 — 1 : 1;

1990–1993 — from 1 : 10 to 1 : 100;

1994–1995 — from 1 : 100 to 1 : 1,000;

1996–1997 — from 1 : 1,000 to 1 : 10,000;

1997–1998 — from 1 : 10,000 to 1 : 100,000;

1998–1999 — from 1 : 100,000 to 1 : 1,000,000.

From here we can clearly see the growing dynamics of the dematerialization of cell masses on the planet instead of their continuous materialization. Thus, the technogenic nature of human activity, aimed exclusively at satisfying the needs of the human body, leads to the destruction of the planet's biosphere and, consequently, of Man himself as a biological species. One such examples is the accelerating increase in allergies to everything that people come into contact with: food, clothes, air, water, etc.

This example clearly illustrates the fact that the human worldview needs a radical restructuring based on a complete reassessment of existing values. From here, it becomes clear that no environmental protection measures will help, if humanity continues to follow the old principle of its interaction with planetary environments (air, water, plants, animals), destroying them, poisoning them with industrial waste for the needs of material bodies of people.

Obviously, for the transition from technogenic to non-technogenic activity, which does not destroy planetary space, it is necessary to find a

replacement for electromagnetic energy. At the same time, however, we must remember:

Any type of energy generated as a result of the destruction of some structures to create comfortable conditions for others will lead to even more tragic consequences for the planet as a whole and for Mankind in particular than those mentioned above.

This concerns, first of all, thermonuclear energy based on the *destruction* (again destruction!) of the world of atoms, which is the structural basis of all planetary environments and their inhabitants, since they all consist of various combinations of atoms and molecules.

This means that the way out is to master the energy of a fundamentally new type, the use of which does not lead to the destruction of the material environment. In other words, we are *again* approaching the era when, on a certain fragment of the galactic spiral orbit of the planet, people turn their attention to energy, since it gives rise to the material world.

Knowledge of this type of energy is transmitted from one human civilization to another through legends, stories, religious literature, the work of some scholars, etc. Fragments of this Knowledge can also be recreated by decrypting the information contained, for example, in the Vedas or in the Bible. Along this path we will inevitably encounter difficulties due to the fact that the meaning of many terms contained in ancient texts has changed significantly over the long time since their writing.

Do not seek wisdom only in the knowledge of ancient civilizations: at any stage of human development, information about the invisible world of energy appears in different regions of the planet in different forms — “brighter” in one region and “weaker” in another.

FILTERING COSMIC RADIATION FOR THE NATURAL “USERS”
OF THE PLANET

NATURE creates and destroys itself. So is Man, using his consciousness, since he is a part of Nature. The world we live in is just a moment of time compared to the world within us. And everyone lives only in due time. But he also lives in parallel with others in different segments of their times.

The world of matter is our perception of the play of actors. The world of energy is a troupe of sweaty actors. In every person, the soul suffers. And this “suffering” is the energy of multidimensionality. Our soul here is a mirror of Eternity.

WHAT IS THE FILTERING? Filters of the material world. Their rôle is well known. These are materials of both organic and inorganic environments, as well as various phenomena, including social phenomena:

- natural purification of air, water and other gases and liquids (seas, rivers, forests, soils, minerals);
- artificial purification of air, water, as well as other gases and liquids, etc.

Filters of the energy world. The Solar System is the lungs of the Sun, and the Sun proper is the filter of the Solar System. The Sun (as a material body) emits 30,000 lines of the [electromagnetic] spectrum. This is also the frequency range of the aura of the Sun. Flying along its spiral galactic route, the Sun pumps oncoming galactic substance (called *galactic gas*) through its “lungs”, and then returns it to the outgoing space, but in the form of these 30,000 re-emitted lines. Here, the “users” of the Solar System are the planets with their satellites, comets, asteroids, etc., each of which has its own frequency range of pulsations

(similar to breathing, in a rough comparison). And the whole set of their “exhalations” is absorbed by the Sun into itself.

LIVING TIME IS INFINITY. Space and Time are inseparable. The state of mobility of space is expressed by Time. The absence of Time is excluded by the LAW OF CONSERVATION OF ENERGY, which was discovered and will be re-discovered by researchers of different eras in the civilizations independent on each other, but belonging to the same fragment of their galactic development.

There is a rigid binding of any material body to its local physical area, limited by the volumetric figure of this body. This rigid binding is based on the corresponding energy exchange in the energy world. Some examples of the material world are here:

1. The rigidity of this binding is determined by the conditions of flight of the body together with the planet in the current sector of the Galaxy and at a given point in Time;
2. Galactic space rotates at a speed of 230 km/sec at that point in the spiral arm of the Galaxy where the Sun is;
3. Some groups of stars in the Galaxy are moving faster, some are slower depending on the acting forces of gravitation;
4. The Sun moves relative to the Galaxy at a speed of 20 km/sec. Therefore, the total speed of the Sun in the Galaxy is 250 km/sec;
5. All motions in the Galaxy are subordinated to the connexion of space with Time. Therefore, life events in the Galaxy are known both in the past and in the future.

SPACE CONSISTS OF TIME, i.e., of vortex energy forms that create a spectrum. The state of the aura of any material body is expressed in the form of its spectrality. The spectra of their auras belong to the energy world; they exchange energy due to differences in their frequencies (their colour). Such vortex formations, according to modern science, eternally exist in Infinity. Their variations are strictly designed.

The Universe possesses energy that constitutes the immaterial world — the spectral space of Infinity, consisting of the spectral flows of Time, which are tightly pressed to each other. Each of the spectral flows in the cross-section has a different spheroidal geometry and a different bending geometry in different directions (this is a simplified representation of multidimensionality).

Condensations of Time in the spectral flows of the energy world (these are multitwisted harness-spheroids of energy) manifest themselves in the form of the material world of the Universe: interstellar space, stars, galaxies, etc. The colourful loneliness of stars in the Universe (both single and galactic stars) is a combination of the corresponding energy clots, i.e., condensations of Time, where Time is expressed in the material world through the exchange of energy in galactic spectral flows. Here, for the convenience of understanding the term *spectral space*, we are talking about *spectral spaces*, not forgetting that everything is One.

Energy transfer in spectral spaces strictly obeys the LAW OF CONSERVATION OF ENERGY. Strict adherence to this law means that the “fluidity” of any spectral space is expressed in the form of segments of the corresponding spectral flows of Time.

Time is immaterial, non-physical. It is a “multilayered” (multi-dimensional) energy space, where each layer (dimension) is in its own energy state. Each of these energy states is a dimension that has its own speed and density of Time. In modern science, the coordinate method (Einstein et al.) is used to describe spatial dimensions associated with material objects.

No one formation (of any form) in the space of successive displacements along one spiral arm of Time can make an event before another. Nothing can break the course of Infinity Time. There is one Time for the entire Universe, but it has specific ranges for certain galaxies and other stellar associations.

THE AURA OF EACH MATERIAL BODY is an energy clot of Time. The aura of a person, the aura of a planet, etc. — they all are energy (non-material) formations. They are integral parts of the energy world as a single, inhomogeneous Whole. The aura of the planet Earth is an energy volume in which small, pulsating auro-like clots “float”, exchanging time with each other.

For example:

- a stone fell apart (its time in the material world is over);
- cell formation continues to grow;
- a person staying somewhere on the planet got a rich sensation of fresh morning;

and all this is the result of the exchange of time in this chain of events.

P.S. Each object in the Universe has its own material body and energy body. This fact was known to ancient cultures long before modern scientists understood this. In the tradition of the people of India, the energy body of any material object, including the human body, is called *aura*. — *Dem. Dan*.

The aura (energy body) of each planet consists of spectral energy spheres, each of which has its own range of energy colours, as well as its own surface shape in the material world. In each energy sphere, each fragment (as a relief) has its own length, shape, time duration and, of course, its own speed [relative to other fragments]. The volumes of these energy spheres have different energy densities and differ in semi-tones of the spectrum.

The energy spheres number only seven. They do not mix, but move inside each other: they “penetrate” each other in some areas and “rise” above each other in others (as the states of their multidimensionality). The multilayered, spheroidal space of the spectral energy flows of the planet Earth, continuously changing its seven spherical volumes, forms the physical body of the planet in the material world in all physical states of substance both inside and outside the planet. The physical body of the planet is a manifestation of the maximum concentration of energy in its energy spheres.

WHAT SPACE DOES THE FILTERING USE? The Universe is the space of Time, where stars, nebulae, galaxies and the “body” of the space itself (intergalactic gas) are material, but not Time itself. The multidimensionality of Time is Infinity. One universe is an integral part of another universe, and this one is a part of another one, and so on to Infinity (fractals in mathematics).

The space in which the filtering takes place includes both the energy world and the material world, where the ranges of Time are filtered in energy exchanges through the energy transfer membrane. The following is automatically understood here:

1. In the energy world, the spectral flows forming the Galaxy exchange the frequency ranges of Time, they seem to “pulsate” with their spectra (colour music — analogy);
2. In the material world, galactic substance “pumps” galactic stars through its own volume (due to the rotation of the Galaxy around its axis).

Every star, wherever it is in the Galaxy, participates in the saturation of the galactic volume with its own range of radiations (including light). Thus, each galactic star filters galactic space both in its flight path and in the volume surrounding this path. The same mechanism works on any planet.

Note that the frequencies of the range of Time in the Galaxy are higher than the frequency range of stars outside the Galaxy; therefore, extragalactic stars are visible, but they do not significantly affect the dynamics of the Galaxy.

WHO ARE THE “USERS”? This is the *material world* of the planet. Each material body is a manifestation of the multidimensionality of space. Here we consider the phenomenon of “conditionally sliced” vortex flow. Man in the material world is a physical body. In the energy world, the aura of the human body is an integral part of Geopathogenic Radiations, just as the intertwining of spectral energy flows forms the aura (energy body) of the planet Earth. In other words, [the physical body of each person] receives materialized energy from his own aura.

The aura of any body, including the human body, has seven colours. The aura of each person, as well as the aura of any other material object on the planet Earth, continuously flashes and pulsates, because it exchanges energy with the aura of the Earth, i.e., with Geopathogenic Radiations. The planet’s aura is the energy of the aura of the Sun, which is processed by the planet and then re-emitted into its spectral space. The aura of the Sun (Heliopathogenic Radiations) is the processed and then re-emitted energy of the aura of the Galaxy, etc.

The aura of any star is saturated with energy within its own spectrum, depending on the segment of its galactic route (a photograph of a night transport where it looks like coloured lines). The galactic route lies among the stars that absorb and then re-emit energy (in the energy world) and substance (in the material world). From here, stepwise membrane transitions are clearly visible, because due to the LAW OF CONSERVATION OF ENERGY it is impossible to jump over a step (i.e., any segment of flight time is a space of strictly ordered events).

Geopathogenic Radiations materialize information for a person through the aura of his body in the form of thoughts in his brain. All people’s thoughts consist of isolated complex materialized formations

of Geopathogenic Radiations.

The aura of each person (since we consider the energy connexions of thoughts) as an integral part of the planet's aura is a condensed part of Infinity, formed by converged vortex flows of different fragments of Infinity. Each person's aura vibrates each in its own frequency range within the [frequency] range of the planet's aura, which, in turn, is a part of the general continuous flow of [Infinity] Time.

The aura of the human body (the energy world) is a part of the overall continuous flow of Time, which can be compared to a river in the material world. A similar abstract example can be seen in a theatre. Eight spotlights are aimed at the round stage of the theatre at equal small angles. The stage is located in the centre of the theatre hall. The spotlights are switched on simultaneously, then we see a colour phantom above the stage. The colours do not mix. Each person has his initial time of perception in the areas of his stay, as well as his duration in various fragments of his life (in the material world).

The aura of each person consists of multifilament energy flows of Geopathogenic Radiations. It looks (in the energy world) like a hairy ball in the shape of an ellipse with many branches consisting of individual filaments. The branches, different in thickness and compactness, are extensions of the auras of other bodies (stones, tree branches, water drops, or their elements), which correspond to the spectral composition of the aura of this (conditionally considered here) person. The same is true about the aura of a continent, ocean, building, group of people, animal, forest.

GEOPATHOGENIC RADIATIONS of the planet's aura are re-emitted condensations of the spectral flows of the Solar System. They forcibly create pulsations at points and areas of this spheroid every second. And since the Solar System flies (in terms of the material world) in the Galaxy, the passage of various times through the above points and cross-sections (in the energy world) forms the *energy of events* in the material world of the Earth.

Energy is light on the planet: air, water, plants, microbes, soil, mountains (as well as their events).

P.S. All planetary environments are materialized from the energy of the Sun, which, therefore, every second creates all events on the planet.
— *Dem. Danicus.*

The human eye draws any object in the form of many instant dots. Thus, a drawn image of the perceived is created in the brain. Man is given the perception in the material world. This perception is based on a multitude of successive identification points, but only within the field of understanding “allowed” for him, because every next second changes the events of setting, wishes or the sequence of emitted signals. The human brain, when it tries to cover something with one look, is “powerless” to analyse the endless causal chain of events, one of the elements of which is the brain itself. The LAW OF CONSERVATION OF ENERGY is manifested here.

FORMING ENERGY EVENTS ON THE PLANET

WHAT IS THE PLANET IN THE ENERGY WORLD? The Sun as a material body lives in the rhythm of the formation of its energy spectrum in the energy world. This rhythm belongs to the energy world. The superimposition of the energy spheres of the Earth's aura on each other and their breathing (pulsation) create the materialized event sphere of the Earth. The energy spheres of the Earth's aura "penetrate" each other in some areas and "move apart" each other's volumes in other areas.

The TABOO OF TIME is a "guard", infinite in its spatial manifestations, which is the beginning and end of each specific period of each component of personal events of everything that can be considered or analysed.

GEOPATHOGENIC RADIATIONS, as a factor shaping the very process of life on the planet, determines the state of the living energy volume of the Earth's aura. Their influence on the biological and social development of an individual and society is still ignored. This does not mean someone's "harmful" activity, but a specific energy state of the current section of the Earth's route in the Galaxy. Any individual action of each person, whether a recluse or living in a mass of people, is only a manifestation of the energy received, which is then returned in any way in accordance with the laws of events of the mentioned people (their thinking, travel, etc.).

One second is a unit of time approximately corresponding to the rhythm of a person's heartbeat. The count of time in each fragment of galactic space is different for each individual who is there. It lags behind and then accelerates depending on the energy spectrum of his organism, which absorbs, processes and then re-emits the energy of

Geopathogenic Radiations in the energy world, thereby creating events in the material world in the space of the planet's flight. Each person every second (the rhythm of his heartbeat and 250 km travelled by our planet in the Galaxy) performs the components of various periods of unchangeable events that are precisely designed for him.

THE "NICHE" METHOD is a method of explanation in a system of understanding that is (more or less) close to the systems of understanding that are characteristic of humans. The "niche" method is created by natural laws. Its influence on the social activity of people is limited by the duration of each period of a certain volume of human communications. Varying these explanations in time, i.e., each time, as if inserting the "niche" of our understanding into the "niches" of real space, we see the tasks of the masses of people living in different eras, together with their predictors, as well as the tasks of these predictors along with their predicted fragment of space in Time. For example, the knowledge that Man is predetermined is an almost autonomous fragment of the energy spectrum. Astrologers and soothsayers are special energy states of living matter with their own tasks for the periods of future human events typical of the "average" type of people. From here you can see the predetermined essence of events, such as global environmental catastrophes and merely periods of individual human events.

Any thought, any suggestion for further understanding, any subsequent action is the energy of certain geopathogenic areas (parts of Geopathogenic Radiations) in the spheroid of the planet's aura.

For example, a person's conversion to a religion is also a state of "niches" of his time, in order to return the energy received (in the form of Geopathogenic Radiations) through the aura of his body to that fragment of space that is strictly predetermined for him. Therefore, all thoughts and deeds are the results of spatial energy bonds. One person basically agrees with the external (for him) periods of other people's events, while the other person denies the events. Nevertheless, each of them unconsciously with all their characteristic emotionality (i.e., with the release of various combinations of energy — air, water, food — processed by him) will "fight" for the components of their periods of events; this is the state of necessity to "transmit" energy in the space.

Energy has no emotions. Energy is grouped into energy spectra in the energy world, where fast explosions of vortex energy create (ma-

terialize) emotions in the living environments of the material world. The brighter the kaleidoscope of fast explosions of vortex energy and the greater their frequency, the brighter the type of energy when it materializes in the form of a certain period of events.

EVENTS ON THE PLANET. What are the events of a particle and the planet as a whole? Any event is one of the elements of an endless chain of events that are rigidly connected, despite the (“inexplicable” for people) mobility of the entire chain. There are infinitely many such chains for human consciousness. They are intertwined, each moving in its own direction, always rotating at the same time, each around its axis. The moving constituent fragments of individual events are the aforementioned elements of such chains.

All event flows in the event sphere are regular; they are determined by the LAW OF TIME. There is no room for randomness, because the regularity of events in the material world is a galactic condensation of the spectral flows of the Universe (in the energy world). Any desired attempt to imagine even a tiny change in this regularity as a manifestation of randomness is useless, because the mass of events, one after another, goes like an endless crushing flow; thus, the above attempt directly explains who the person is (on the ability scale), who attempted to deny this regularity.

The time of events requires only energy. Energy comes from everything in which it is contained. Energy of the same type comes from Man and human deeds as that emitted by minerals, soil, water and the living world of the Earth, but the time of absorption and release of energy is different for everyone.

THE INFLUENCE OF SOLAR ACTIVITY ON THE ENERGY ZONES
OF THE PLANET WITH THE SUBSEQUENT CHANGES
IN THEIR TERRITORIES

OVERVIEW of the galactic route (briefly). The Sun “flies” together with the planets in space, where all the bodies of the Solar System move along their cylinders, having the form of very elongated helices of motion. Looking at our star as if through a special screen, we see the “shaggy” Sun, which overspreads its energy fibres throughout the space between the planets, thereby forming the energy spheroid of solar space. Based on this point of view on the nature of events in our space, we can begin to explain the phenomenon of *geopathogenic zones*. This term has already appeared in [modern] society. Understanding of this term began to “grow” rapidly among people. The conditions of the route of the galactic orbit of the planet are such that people have no other previous orbital path.

On different segments of the galactic route, the aura of the Sun “absorbs” the aura of galactic substance, which varies in density [and spectral composition]. Processing the aura of this substance affects the radiation outgoing from the surface of the Sun (in the material world). That is, solar flares and sunspots show the state of the absorbed aura of galactic substance.

In the material world, galactic substance stores basic information about the events of the Solar System in the Galaxy, but at the same time galactic substance is an energy-informational volume consisting of the volumes of many other stars that flew through it.

OUR TASK is to accept the reality of the geopathogenic sphere as a part of the energy world, as well as our activity in the geopathogenic sphere as thinking beings.

The word *geopáthogenic* is composed of three parts: *Gaía* means the planet Earth, *páthos* means change, and *gén* means a unit of biological information. Consequently, the term *Geopáthogenic Radiations* means the fundamental radiations of the planet Earth as changes in planetary information at the original level (for biological species — at the level of genes, i.e., mutations). When considering the Moon, Mars and other cosmic bodies, their fundamental radiations would be called *Sele-nopáthogenic Radiations*, *Marsopáthogenic Radiations*, etc.

P.S. The etymology of the term *Geopáthogenic Radiations* is explained in a detailed comment on the text IN RECENT DECADES ON THE PLANET. — *Dem. Dan.*

The so-called *geopathogenic areas* are planar geometric formations outlined (in the form of shadow cross-sections) by people.

The political state of public and state entities is one of the conditions of the LAW OF TERRITORIES in Nature, including for human communities. All this is built on the basis of the “galactic route — Sun — Earth” connexion system.

THE LAW OF TERRITORIES states that at a certain point in time, certain areas of space expand their territory of influence, while other areas decrease it, which is accompanied by the transmission of various types of radiation. Nature transmits the conditions for activity through its components of the plant world, mineral world, animal kingdom in accordance with the LAW OF TERRITORIES. These conditions are [manifestations] of energy exchange, which is invisible to humans.

P.S. This text breaks off here. Subsequent pages of this text are lost. — *Dem. Danicus.*

ON THE DISTRIBUTION OF “RÔLES” ON THE PLANET

EACH EVENT on the planet Earth is a combination of “Cosmos — Sun — Earth” connexions in the material world, as well as a combination of continuous spectral flows in the energy world, where condensations of Time form the spheroids of the aura of the Sun and the planets. *Animals, plants, stones*, etc., are similar material states of energy spectra in the energy world, but differ in the condensation of substance. That is, a different frequency of Time (in the energy world) means, accordingly, a new type of substance in the material world.

The destructive rôle of Geopathogenic Radiations is known to Mankind throughout world history and is shown in legends and tales. Their creative rôle is becoming clear only now: the real PERMISSION OF TIME for understanding Geopathogenic Radiations appeared only in the last decade of the 20th century, i.e., on the current segment of the galactic route of the planet.

The behaviour of both individuals and entire societies is a material manifestation of the state of their geopathogenic zone [on the planet]. All events in human communities on the planet are closely intertwined in a dense, volumetric canvas of events of the energy state of the planet.

During the flight of the planet along the microgalactic segment, which is the period of our civilization on its galactic route, a “pumping effect” occurs in different parts of the planet’s space (in the material world), which means multi-frequency changes in the multilayer spheroid of the planet’s aura. Then there is a re-emission (materialization) of the energy absorbed by the aforementioned sphere. This re-emission materializes in the form of various material bodies (gas, water, etc.) for further consumption by various structures on the Earth, including human ones.

TERRITORIAL RÔLES ON THE PLANET. All the following is the material world of the planet:

1. The *above-ground world* is the volume of the gas shell of the planet, including clouds;
2. The *terrain* is a relief created by denser formations;
3. The *underworld* is everything below the ground.

In the energy world, these terms lose their familiar meaning: there are unthinkable combinations of geometric formations of energy flows instead of material objects.

Consider an abstract example. The above-ground world and terrain are formed by a group of multispectral fractals (the theory of nonlinear mapping) in a certain fragment of the material world of the planet. The terrain and underworld are formed by another group of multispectral fractals in another fragment of the material world of the planet. As soon as spectral exchange (colouring the spectra) occurs in the fractals, other states of materialization of the above-ground world, terrain and underworld arise. Thus, in each particular flow of time there is an infinite number of other flows of times, “immersed” in each other with varying degrees of immersion.

Weather in the material world is a materialized volume of states that occur in different seasons of the year in Geopathogenic Radiations of the energy space of planetary material environments. Clouds in the material world are the volume of evaporated liquid of various environments (water reservoirs, plants, soil, mineral and animal kingdom, as well as human society). Vaporized liquid (the material world) stores energy information (the energy world) about those areas [on the planet] from which it was vaporized.

The consumption of soil, water, plant and mineral formations is the consumption of the corresponding energy information flows of Time. The knowledge about the energy circulation in Nature is highlighted here thanks to the awareness of the rôle of Geopathogenic Radiations, which differ in the frequency of re-emitted solar energy flows. This knowledge was initially hidden for the simultaneous understanding by all people, because their auras re-emit the energy of the planet’s flight space (in the energy world). Afterwards, in certain regions of the planet, the circulation of energy in Nature will cause a new informational alert of people [about Geopathogenic Radiations], which will have different

significance and mass character in accordance with the future specific fragment of the planet's flight path.

P.S. "This knowledge was initially hidden for the simultaneous understanding by all people, because their auras re-emit the energy of the planet's flight space." — This is because the energy bodies of different people re-emit the energy of the planet's flight space in different ways.

— *Dem. Danicus*.

TRADE. The frequency range of the human organism in the material world is known. Knowing the composition of the solar spectrum (more than 30,000 lines), we conclude that the body of each person has a certain physical spectrum containing a large number of lines.

The planet flying along the galactic route together with the Sun has [its own] range of events. A special place in this event range is given to trade in human societies. Trade, as a part of social activity, creates artificial means of delivery and means of production. Prior to this stage, the principle of natural exchange connexions was not violated: air, water, soil, plants were formed naturally. With the advent of trade as a social sphere of human activity, the principle of cyclic balances on the planet began, gradually progressing, to be violated. This example of the state of Geopathogenic Radiations is a multilayered energy exchange in the energy world, manifested in the material world, in particular, as a violation of the ecological balance.

It is the transformation of trade relations that is the condition that always leads to the death of those human communities (as social structures) that have developed weapons for various tasks. The death of people themselves, in particular, due to adverse conditions for human health, occurs mainly due to the presence of industrial waste that violates the natural metabolism.

The absence of trade means death for the development of the human brain, but not for the brain of an animal. Trade is one of the initial natural phenomena materialized on a certain segment of the trajectory of the planet's flight in the Galaxy. For example: when playing children exchange various goods. Emerging trade creates the conditions for any creative state of the human brain.

Compared to slower objects (such as plants, minerals, etc.), the animal kingdom acts as a more sensitive indicator of rapidly changing conditions arising as an approaching hurricane ocean wave.

This set of events in the material world shows the state of energy exchanges in the energy world. This is because in everything and everywhere the main condition is the natural state of matter, which expresses the LAW OF TERRITORIES as a consequence of energy exchanges in the energy world. The PERMISSION OF TIME and the TABOO OF TIME in the energy world create all events in the material world.

The conditions that developed the nature of the planet Earth and primitive human communities in ancient times (according to archaeology) necessitated (through awareness) the use of improvised tools. These tools were made from natural materials: flint knives and axes, spears from tree branches, etc. In this period of ancestry under consideration, new types of social exchange, tools and clothing were created as an awareness of the territorial superiority of people in everything. For Nature as a common volume of information, this was a new state of relations that arose on that segment of the flight path of the planet. These were the initial trade relations in primitive human society. Further trade gave rise and then developed new methods for the delivery, production of goods, and the processing of fossil natural materials. With the beginning of the processing of raw materials as a special segment of the galactic route of the planet, new natural zones were created, expressed by human activities (thanks to the new types of production), as well as human awareness of the unity of Man with Nature (in the material world).

In the energy world, all types of energy exchange of these events of the material world are pulsations at various frequencies, where the speed and density of Time are the state of the corresponding [pulsating] spectral energy flows of Infinity.

DREAM — A JOURNEY THROUGH THE ENERGY WORLD

DREAMS are energy exchanges of the aura of a human body lying on a point material area of the planet's surface during the material flight of the planet along its galactic route through the spectral flows of the energy world.

The body of a person lying in the process of sleep on a fixed surface (such as a moving train, etc.), in any case, is in a state of immobility. The spheres of the aura of his body flash rhythmically: the areas of darkening in his aura increase and then decrease due to Geopathogenic Radiations that saturate the aura in the place of the planet, where the body lies or moves in something. Since his body is already flying with the planet, the vibration of the planet's mass is perceived by the body, but falls within the range of the safe state of integrity, called the gravitational state of the planet (the speed of 250 km/sec is incomparably greater than even 10 km/sec). Therefore, a dream is dreamt everywhere, because this [high-speed] range is represented everywhere, even on board a space station.

A person can sleep if the energy frequency spectrum of his aura coincides with the spectrum of the current segment of the planet's route in the Galaxy (within the planet's gravitational range). This is because in the absence of the Solar System, i.e., in the absence of Geopathogenic Radiations that create human bodies, even just a human body in a spacesuit cannot exist somewhere in outer space: a person is his body plus his consciousness, and consciousness belongs to the upper range of Geopathogenic Radiations, i.e., to the upper range of the incredibly fast-pulsating condensed flows of Time.

DREAM STUDIES. The creator of the modern theory of dreams is Sigmund Freud (1856–1939), who is also the founder of psycho-

analysis. His book *DIE TRAUMDEUTUNG* was written in 1899. Freud is considered modern because he lived in the era of our time, i.e., within the current segment of the Earth's route in the Galaxy, in which the frequencies of pulsating spectral flows correspond to a materialized interest in Freud's views throughout the planet.

Information on the activity of the human brain in its various states (sleep, wakefulness) was obtained due to weak electrical impulses in the brain recorded using an electroencephalograph. The human brain emits electromagnetic waves (in the material world), the frequency of which ranges from 0 Hertz (death) to 60 or 70 Hertz. However, 0 Hertz is also a frequency. These waves belong to four frequency groups:

- alpha waves (the feeling of emptiness, 8–12 Hz);
- delta waves (deep sleep, 0–4 Hz);
- theta waves (sleep in the state of hypnosis, 4–8 Hz);
- beta waves (thinking process in the state of wakefulness, 12–24 Hz).

Sleep consists of cycles, and each cycle has four stages: first there are three stages of non-rapid eye movements (NREM sleep), and then — one stage of rapid eye movement sleep (REM sleep). The total duration of one sleep cycle is about 70–120 minutes. Sleeping people see dreams during the last (REM) stage of the cycle. It was also found that the frequency and direction of rapid eye movements are determined by the content of dreams: a sleeping person follows events in which he participates in his dream.

DREAMS. Knowing the place of sleep, the position of the sleeping body (relative to the cardinal points), the relief of the terrain, the type of the house and its height above sea level, and, most importantly — the “stellar characteristics” of the energy of your body (the energy spectrum of its aura) — you can, if you have the PERMISSION OF TIME through the TABOO OF TIME, find out what dreams you will see.

Sleep is a state of multidimensionality in a given period of Time. The perception that is familiar to people (through awareness) is based on their belief in the three-dimensionality of the visible. Christianity has passed this faith from generation to generation for two thousand years. Science has carried this faith from generation to generation over centuries. And this is despite the knowledge of the multidimensionality of the worlds, which has been preserved for thousands of years in folk

tales and parables. And all this occurs in the natural world surrounding human society, where the state of multidimensionality is the source of its development.

The multidirectionality of these events is the LAW OF CONSERVATION OF ENERGY, which manifests itself on the strictly planned route of the Sun moving together with our planet through galactic space. Any cosmic body has its own strictly planned route, which is a mathematically calculated motion in space, confirmed by certain reference stars. Such calculations in astronomy allowed people to create tables of motion of the Sun, planets, comets, nearby stars, galaxies and the directions of their motion in space. All this is a mathematically proven state of Time as an unchanging sequence of all events of spaces that people can conceive.

The basic daily rhythm of each person is manifested in the rhythms of the Earth's motion. This is a manifestation of the LAW OF CONSERVATION OF ENERGY, where the aura of the human body is the multidimensionality of spaces: "signal lines" coming from different times of different spaces (we are currently considering universes and their galaxies) intertwine into a vortex inside a densely compressed volume. Energy of various times is transmitted along such "signal lines" with different accelerations, which creates a range of the Permitted Energy Exchange within the common range of events of Everything.

Aura of the human body. What is it? After all, everyone is accustomed (thanks to newspapers, etc.) to understanding the aura as human consciousness, where Man is a thinking being, i.e., something that is "highest" in Nature. And what occurs to the "highest"? He reproduces himself, feeds himself, clothes and regulates his population. But he also repeatedly creates natural disasters for himself in the nature of both the animal kingdom and the plant world, fires, floods, wars, epidemics...

Man created tools for torture. This is truly a miracle created by human consciousness. It was fear that gave rise to blind faith, which, in turn, gave rise to blind souls. This happened because human consciousness (through the brain) develops under the strong influence of surrounding events. And these events, as is now clearly understood, are unchangeable.

Hence, the material world is the tip of the "iceberg", which is the energy world. The destination to which the filaments of human con-

sciousness lead is clearly understood if the reader is given the PERMISSION OF TIME to believe in Geopathogenic Radiations — the “shaggy” energy spheroid of the planet’s aura, which includes the surrounding (corresponding to its frequency) cosmic space. Every second, Geopathogenic Radiations saturate all points of the planet’s space in the form of material bodies and their material interactions, called events. And the aura of the human body is an integral part of the flows of Geopathogenic Radiations that form the aura of the planet.

Conclusion: taking into account that any dream is a “television connexion” with those spaces in which the sleeping person is a participant in their events, we immediately fall into the analogy with virtual space (virtual reality). Is this a random coincidence? Knowing that randomness is a highlighted fragment of a darkened space, events in dreams and “real” events in wakefulness can be called the *hourglass of Infinity*. Here, grains of sand in the upper hourglass cone, previously arranged in a certain order, after combinations and displacements unknown to us, observers, when crossing the MEMBRANE OF TIME, reach the sides of the lower hourglass cone. Each grain of sand has its own weight, shape and energy exchange. Now it is known that each “grain of sand” is a vortex formation of radiations coming from different spaces of different times. Consequently, an hourglass is a visual device [showing] the multidimensionality of Time in its harmony in the form of a clock. After all, only the state of understanding (as the depth of perception), when it decreases, slows down the rhythm of the development of the new. The LAW OF CONSERVATION OF ENERGY [is manifested] here in the rôle of various TABOOS OF TIME.

A lot of complexity in dreams? But little is known even about events in wakefulness. It is known that the entire [human] body, including body weight, skin, eyes, ears, hair, breathing, is involved in collecting signals for the brain. The informational goal of these components as *isolated systems* (this is a rough comparison, but so far for the overall picture) is as follows:

1. The *eyes* catch a rather broad range of incoming information. The eyes spasmodically capture powerfully emitting points of the observed objects, because these are points of the beholder’s geopathogenic radiations (points of his event lines). Thus more than 50% of what he sees goes into a “salad”;

2. The *ears* hear a rather broader range of various sound signals. They spasmodically capture powerfully emitting points of the observed objects (as mentioned above about the eyes). Therefore, the same percentage of the information received goes into a “salad”;
3. The *skin* (including receptors), feeling irritation of both its entire surface and its local areas, receives signals from the electromagnetic fields surrounding the body. The skin captures the signals in the same sequence and form as described above;
4. The *human body weight* is a phenomenon of the same type as the above;
5. *Breathing* is the same as the above.

As a result, about 40% of the [incoming] information is solid images, and the other 60% is a “salad” of images floating in each other. This means that what was “planned” to be registered by various organs of the physical body of a person is the exchange of energy along the energy filaments of his body’s aura as a part of Geopathogenic Radiations. Here “planned” is an analogue of the relation “mathematical calculation — observation of astronomical objects”. Therefore, dream is the energy of Geopathogenic Radiations, where the spectrum of the aura of a sleeping person is within the range of the spectrum of the planet’s aura, i.e., from 10 to 100 units within the range from 0 to 1000 units (according to some conditional system of units).

Knowing the informativeness of the location points of objects on the planet (the objects are complex formations of differently distant spaces and their Times), now we clearly understand the mechanism of sleep and the futility of creating something torn off, isolated from Infinite Time. That is, even in a state of artificial sleep, a sleeping person remains a participant in real events.

SLEEP POSITIONS. A person sleeps when the frequency spectrum of his aura matches with the frequency spectrum of local geopathogenic radiations in his area on the planet (this is as well true for any species on the planet). Sleep positions characterize the magnitude of frequency correspondence: the greater the coincidence, the freer the sleep position that a sleeping person takes. The body movements of a sleeping person, like himself in a dream, are a reaction of the aura of his body to changes in the frequency of various flows of Geopathogenic

Radiations that pass through him during sleep due to the flight of the Earth in the Galaxy (250 km per second). A “pleasant” dream means that the frequency spectrum of his aura is very close to the spectrum of Geopathogenic Radiations at the place of sleep. A “nightmare” or “sudden” awakening means that the energy spectrum of the current segment of the flight path is not very consistent with his aura.

Scientists have found that sleep is a reaction of a sleeping person’s body to external stimuli to replenish the energy expended by his body in a wakeful state. These points seem similar, but only because the “reaction” occurs in the non-material (energy) world, and the “organism” belongs to the material world. In other words, scientists, walking along the tip of the “iceberg”, still cannot even find its general parameters, because the nonphysical part “drops” the “iceberg” a little under water, and then “lifts” it into the material world. Therefore, contradictory results were obtained in each of their scientific studies. Then the scientists will again check the results of their research in the new states of the tip of the “iceberg” where they are. This process will continue until their bodies as a cognition tool are transformed into a new energy state for new energy exchanges of Eternity. Namely, — we are talking about the body of the Future Man.

The human body (now we understand this) moves in the material world as a result of the exchange of energy between its aura and the aura of the planet; these energy exchanges form the material events of this body at its location and in its fragment of Time. These are wakefulness events. The same process occurs during sleep, but in dreams: the aforementioned exchange of energy forms all events in the immaterial space of the aura of the human body; therefore, a sleeping person finds himself in different places in the energy world, spaced from each other in time:

- The world of dreams is Infinity, in which various fragments of the Universe are reflected;
- The world of dreams is a state of being, as real as the world of the day;
- A dream is not just a time gap between the past and the next day. Experimental studies have confirmed the high reliability of the discoveries made in a dream (the table of chemical elements seen by Mendeleev in a dream, etc.).

Geopathogenic Radiations saturate the aura of the human body. The saturation rate depends on the concentration of these radiations, as well as on the “bouillon” of energy in which the aura “floats”. Therefore, the energy of various spectra of Geopathogenic Radiations, when it saturates the aura of a sleeping person, materializes (through his brain) the bonds connecting his body and external stimuli.

For example, a person sees a dream:

— “He walks along the seashore, and the waves splash nearby.”

Then — an instant “gap” in time during which the sleeping person seems to see nothing, and then — the next picture of the dream:

— “He is already walking on the surface of the water...”

Knowing the mechanism of human perception, i.e., the multicomplex volume of the DESTINY TUNNEL, we understand that the aura of each person is filled with energy from different areas of different spaces during their spectral energy exchange. Various fragments of the events of these spaces appear on the walls of the DESTINY TUNNEL of a person in the form of scenes of his dreams, their background colours, the shapes of objects that he sees in dreams, as well as their details. These events simultaneously appear at the sleep site on the planet during sleep on its galactic route.

These different-sized fragments of the events of Infinity are the colourful flows of times (in the energy world), which in the material world form external visions and sensations in the human mind. The *conscious* is a certain type of structure of a certain relief of the energy world, and the *unconscious* is another type of structure of the same relief of the energy world.

The set (slice) of these multicoloured flows, i.e., in our example, the layers in their different (each time) sequence of foliation and dimension consist of:

- the segment of compression/expansion of the event cylinder of our Universe;
- the segment of flight through the event cylinder of our Galaxy;
- the segment of flight through the event cylinder of the Sun;
- the segment of flight through the event cylinder of the planet Earth;
- the segment of flight of a “point” (i.e., a sleeper’s body) on the surface of the planet.

The main thing is that a dream is such a form of a person's psychophysical state that shows the dynamics of scenes from different times in his material fragment of Time. This is a multidimensional state expressed by the exchange of energy of Time. Therefore, the dream that a sleeping person sees is a multilayered reality that permeates his TUNNEL OF LIFE. Each of his dreams is a variation of fragments of such a complex reality, forming the colours of his energy spectrum.

For example, the theory of nonlinear mappings in mathematics. Using a computer program, images of fractals were obtained. Images of fractal transitions will help clarify the explanation, in part because of the infinite number of connexion there. Consider the same fractal, but painted in different colours. These fractals are stacked on top of each other. But if we look at them at one point in time, each of the fractals is "visible" individually with its own unique set of colour transitions in its colour spectrum.

Wakefulness has a different colouring than sleep. Wakefulness + Sleep — these are fractals ("terrain" of times), information from which is perceived in its specific chromaticity due to the individual spectrum of each person's aura. Wakefulness + Sleep is a part of the flight path of the planet, as well as the human body on its surface. An attempt to separate of Sleep (with its dream scenes) from Wakefulness (with its scenes) in scientific studies and explanations is tantamount to the separation of the branching tree trunk from its roots. Therefore, Sleep is a continuation of Wakefulness, and Wakefulness is a continuation of Sleep (these are two energy states of the aura of a sleeping person in Geopathogenic Radiations).

Spectral flows in Geopathogenic Radiations manifest their energy exchanges of Time in the form of topological fractal reliefs that have different speeds and "penetrate" each other (in multidimensionality), where the aura of a conditional person's body is an integral part of these fractal energy transitions. The word *fractal* is used here for an abstract understanding of multidimensionality.

P.S. All this is shown in modern mathematics. So, the fractal geometry of Nature is expressed in the works of the mathematician Benoit Mandelbrot, and the topological transitions of various multidimensional reliefs into each other — in the works of the mathematician George Francis. — *Dem. Dan.*

Because water is a living organism, it is a part of Time. The same is true for air, soil, body movement, perception, etc. Thus, we get the same explanation for everything. The events of each person's life create his narrow light tunnel of Time, where his events are the events of other objects, the tunnels of Time of which intersect his tunnel. The event energy levels in his event tunnel are objects in his dreams, objects in his wakefulness, etc. The very process of materialization of energy is not massively feasible on a segment of the planet's flight. But individually — this process flashes in a living being, like lightning in time. And then, again — the TABOO OF TIME on this creature as a manifestation of the LAW OF CONSERVATION OF ENERGY, which does not allow all types of matter to exist simultaneously.

Therefore, hypnosis and sleep are one and the same phenomenon, because originally it is the energy of Time. A person's sleep is the result of hypnosis of his location place in Nature, and a person under hypnosis sleeps as a participant in this place. The concepts of *hypnosis* and *sleep* dissolve in each other, when a person understands what the relief of terrain is, what is the state of Geopathogenic Radiations in this area, as well as what is a hypnotist as an aura in the same or another fragment of Geopathogenic Radiations (events).

Materialization of the energy of Geopathogenic Radiations is the state of various processes on our planet as the nearest field for research. For this task, the TABOO OF TIME has saved the energy of interacting auras on the planet for thousands of years. For this task, the galactic route was gradually saturated with the necessary energy, which created the necessary mutational reliefs of material bodies.

It is the “rupture” of events in dreams and their further correspondence in wakefulness that are manifestations of the state of sleep as a continuous exchange of energy with various spatial areas in order to saturate the time of sleep, where everyone is tightly linked to everyone, and also a part of something is something else. This is from the word *tightness*.

The essence of the principle of multidimensionality is given below. The body of a multidimensional Gulliver is, as it were, scattered at different points in other bodies that have different densities but are connected by “filaments”. Suppose tomorrow he moved his foot, and different points and surfaces of different bodies immediately performed

their necessary actions at a certain point in time:

- a leaf fell down from a tree branch in one place;
- a handful of sand crumbled into the water elsewhere;
- a shadow fell to the ground from a cloud in third place;
- a bird turned its head in fourth place;
- a biological species of plants, animals, insects or other creatures changed colour [in fifth place].

And this is again the complex actions of each of the above. But he, as a multidimensional creature, can move his foot at different time intervals of his multidimensionality:

- the leaf fell down ... in 1900;
- the handful of sand crumbled ... in 1200;
- the shadow of the cloud fell to the ground ... in 1600;
- the bird turned its head ... in 1400;
- the biological species changed its colour ... in 1700;

and that is all — a [common] fragment of Time, in which energy bonds connect different times of the same space.

Conclusion. Let us return to the aura of a sleeping person, where the frequency range of its energy spectra is the key to locking the content of dreams. In a dream, a sleeping person sees pictures of different times that correspond to the spectral range of his aura. These pictures appear in a strict sequence of events that materialize either partly in the form of half-forgotten dreams, or in the form of fully remembered dreams as parts of this [complex] materialization.

EVERYTHING IN TIME IS FOOD

EVERYTHING IN TIME IS FOOD. One is food for another, the other is for a third, and so on. For example. The Sun absorbs galactic energy flows with its aura, processes them inside its material body and then re-emits them into the surrounding energy space in the form of Heliopathogenic Radiations. The aura of the Sun is a multicoloured ball woven from endless energy filaments passing through the Universe and leaving it into Infinity. An energy filament is an analogue of a point in the three-dimensional space. Such a point becomes a filament after its scanning in Time, which is layered due to the fractal structure of Time: Everything is contained in Everything and Everything consists of Everything.

The aura of the Sun shimmers in different colours during a pulsating exchange of energy with the surrounding energy space in rhythms determined in accordance with the LAW OF CONSERVATION OF ENERGY. The general colour (chromaticity) of Heliopathogenic Radiations is determined by the chromaticity of the sector of our Galaxy through which the Sun flies together with the planets. When the Sun approaches the border dividing two sectors, its aura “recolours”. Currently, this is exactly what is occurring: in terms of astrology, this is a transition from the era of Pisces to the era of Aquarius.

The Earth is a part of a living organism, which is the Sun. The aura of the Earth’s body forcedly absorbs the surrounding energy flows of the Sun, then processes them, and then re-emits them into the surrounding energy space. Chizhevsky, based on a huge amount of factual data on the interaction “Man — Earth — Sun”, showed that the Solar System is a single organism, where the Earth is one of its organs, and Man is one of the cells of this organ, i.e., an integral part of the living organ-

ism of the Solar System. All processes occurring on the Sun are manifested in other organs and cells of the organism. The life of people is strictly subordinated to solar-terrestrial rhythms.

Man is a part of the living organism of the Earth. The aura of the human body (in the energy world) absorbs the energy of the surrounding geopathogenic space, the spectral composition of which changes with accelerating speed in accordance with the changes in the spaces of galactic and solar energy that manifest (materialize) on the planet. The aura of the human body consists of the auras of all its parts, the auras of each of its cells. Respectively, the radiation of the aura of the human body, fed (impregnated) by the radiation of the auras of [other] bodies and phenomena, also changes with accelerating speed according to the changes in the surrounding energy space.

The body of a person is a materialized form of his consciousness, which is a certain frequency range of his energy body (his aura). Other materialized ranges of Geopathogenic Radiations are animals, trees, minerals, etc. Each planetary environment (air, water, minerals, etc.) is also a materialized state of its corresponding frequency range of Geopathogenic Radiations.

Human consciousness, i.e., the vibrations of the aura of the human body, belongs to the upper frequency range of vibrations of the aura of the planet's body. The body of a person is a vehicle of his consciousness (his soul), which, in turn, "dressed" in the body, travels through the material world. The pulsations of human consciousness are manifested as the functioning of the human brain, which, together with the entire human body, performs certain actions that allow people to cognize the world around them, i.e., to perceive it with the help of the senses (sight, hearing, smell, touch, taste).

What is the brain? It is a body inside another body. According to the LAW OF CONSERVATION OF ENERGY, a body bordered by its figure is always a container of other bodies. When the main body decays, the bodies contained in it become the main ones.

The brain is a cell mass that forcibly collects information to further control the body of this person on the planet. The brain receives information first through the body, through the vibration of the skin. The skin plays the rôle of a *unified sensor of information* for the body, because the human body, like other biological bodies, is an association of mi-

crobes, and any microbe is frequencies of the frequency range of the Sun's time (Heliopathogenic Radiations), materialized in the frequency range of the Earth's time in the form of a microbody (*microbe* means *microbody*).

So microbes are materialized solar beings. Therefore, the consciousness of a microbe is significantly different from human consciousness. Each microbe "knows" its task and the tasks of other microbes, because each cell (individual microorganism) of the Fractal "Microbe" is aware of its unity with other cells of the Fractal, unlike a person who perceives himself as an individual who exists separately from other people and in general from the entire World, including the planet, of which it is a cell. In fact, humanity is a fractal, and each fragment of it is a person.

The "Humanity" tree sprouts *forcibly* from planetary environments, where until recently various biological species felt so comfortable. It will continue to grow first in solar environments, and then in galactic environments. This is a *forced process*, because the Fractal "Humanity" is an integral fragment of the Fractal "Universe", which, like any material structure, is subject to certain rhythms of "inhale — exhale". Each "inhale" is a compression of Time in the Universe, and each "exhale" is its expansion. The expansion of Time means *materialization*, and the compression of Time means *dematerialization*. Each universe is a materialized form of the spectral colour flows of times in its [frequency] range. We have in mind *each*, because each fractal is a set in a set: the Fractal "Universe" is a set of cells (small universes), each of which is a merger of seven colours (times) in the energy world. The "breathing rhythms of the Universe" are repeatedly expressed in the rhythms of galaxies, stars, planets, as well as in the rhythms of biological species, including humans. Each of the rhythms is a fragment of a fractal, which, in turn, is also a fractal in the frequency range of the fragment.

For example. The human body, like every fragment of it, is the Universe in a folded state. The Universe with all its galaxies, stars, planets, comets, etc. is expressed on the surface of every human body, as well as on every fragment of it. Man creates only a tiny part of everything that he consists of. The idea that the energy world is real is hidden for the consciousness of modern Man. His own thoughts prevent him from

“seeing the invisible” and “hearing the inaudible”. A person does not hear the thoughts of other people and other inhabitants of the planet. That is, at present, people cannot communicate telepathically (with rare exceptions). Other biological species (plants, animals, microorganisms) telepathically communicate with each other and realize their unity. The condition of *self-isolation* of Mankind is one of the conditions of the current segment of the planet’s flight path in the Galaxy.

Human consciousness belongs to the upper frequency range of Geopathogenic Radiations adjacent to the lower frequency range of Heliopathogenic Radiations. Recall that microbes (any human body is a complex colony of microbes) are materialized forms of Heliopathogenic Radiations. And the microbial world sees, hears, feels through its body. The more complex the microbial formation (cell mass), the more complex the types of bulges and depressions on the body of a biological creature, and the more complex its tasks — the tasks of a worm, snake, bird, human.

The phrase “man was created from the dust of the earth” should be taken literally. After all, the body of each person consists mainly of those elements that are contained in the surface (soil) layer of the Earth. And this is the dust (remains) of plants, animals, people.

The new Sun will create new conditions on the planet. Therefore, the properties of the body of the Future Man will be different from those of the modern Man. In order not to break the thread connecting the Past with the Future, it is necessary to realize those [natural] connexions that could support the consciousness of people living at the junction of these two cosmic eras. Such connexions are most clearly visible if we consider the material body of a person as a structure consisting of various planetary environments — gas, water, solid substance. It is sunlight that illuminates the planet’s atmosphere every conditional second. And the atmosphere itself is a multicomponent volume of seconds like countless variations of sunlight synthesized in the form of gases, liquids, plants... In such a conditional second, a one-stage synthesis of sunlight into gas, liquid, plants, etc., takes place. That is, in this second the entire planet materializes, together with all its contents (inhabitants) in the “palms” of the Sun.

The human body is a multitude of individual fragments of events of other bodies, such as light, gas, liquid, flora and fauna, people, miner-

als. These events manifest themselves in the form of environmental consumption, social ties, etc. Sunlight every second fills all these environments — gases, liquids, mineral environments, flora and fauna. Materialization of sunlight forms layers of gases, which under the influence of sunlight form various chemical compounds. The air is a mixture of different gases. At different times, the proportions between gases [in the air] differ depending on the state of those galactic environments that the planet crosses together with the Sun at a speed of 250 km/sec along its spiral route in the Galaxy.

Sunlight is the result of processing (inside the Sun) galactic environments of various densities, the energy of which is absorbed and then re-emitted by the aura of the Sun. Whereas galactic environments are determined by the energy of a fragment of the flight path of the Galaxy through inhomogeneous intergalactic environments of different densities, etc. This clearly shows that the conditions for human life on the planet, as well as the properties of the human body, are determined by the energy of the flight path of our planet in the Galaxy. We cannot change the motion of the Sun, but we can learn about what is occurring and adapt to new conditions that are arising on the planet.

So, the human body is a synthesis of many planetary environments, the state of which is determined by the energy of the flight path of our planet Earth in the Galaxy. Everything on the planet, from the state of the atmosphere to the technological achievements of people, is the result of the mentioned successive synthesis in which the energy state of galactic environments plays a decisive rôle.

FOOD PRODUCTS

THE HUMAN ORGANISM consists of spectral energy zones, where the main (brighter) colour of its energy spectrum is determined by the corresponding constellation: here there is equality with astrology, because the basis of astrological calculations are astronomical measurements of a specific fragment of space in Time. Each food product also consists of multispectral zones. Water, which is a part of spectral zones on the Earth, such as a river, a lake, clouds, etc., has its own [spectral] zones, affecting the spectral types of soil, plants, animals and people who are there. The superposition of the spectral zones of each biosystem in chemical reactions for the “digestion” of food forms a new spectral system of a different type at a strictly determined point in Time. This new spectral system, in turn, will become food for other types of spectral systems.

Continuous “pulsation” of spectra in their colour frequencies is the main condition for the successive development of spectral systems.

For example, consider a city with its specific relief, underground and above-ground structures, plants, animals and people:

1. The Earth is a multispectral volume, consisting of intersecting layers of colour frequencies. As soon as a new spectral system of a new type is created, a corresponding new spectral zone appears, first visually contrasting with other spectral zones, then gradually mixing with the general background (while the initial volume of radiation remains unchanged). This process is similar to how an iridescent pink liquid is added to another liquid, such as kissel;
2. Buildings and other structures of the city, above-ground and underground, consist of various building materials, such as

metal, concrete, etc.:

2.1. Metals (melting furnaces: ore + gases + t^0);

2.2. Ore as a chemical with prolonged mixing. Ore mining is the extraction of the necessary “chemical environment” from the main layer of the general chemical interaction, and it includes:

2.2.1. Mechanical changes;

2.2.2. Chemical change (new environment);

2.3. Gases in the form of chemical compounds with rapid mixing. Gas production includes:

2.3.1. Chemical changes in the volume of their initial chemical components;

2.3.2. Chemical changes in the volume of new, created chemical components;

2.4. t^0 means a chemical reaction of combustion in the form of a certain frequency (smooth mixing);

3. Vegetation (+ bacteria, insects, reptiles, etc.).

Another example: a region on the planet consisting of large-blocks of spectral formations. It is periodically affected by the spectra of stellar sectors (due to the axial rotation of the planet). With periodic entry into a new [spectral] sector of stellar influence, the spectral composition of the blocks changes. There are “guards”, which protect the normal functioning of the spectral blocks, namely:

- the “living water” of the Universe (energy);
- “islands” of the Universe (stellar associations);
- the “dead water” of the Universe (black holes);
- “clouds” of the Universe (nebulae).

The presence of such a diversity of interactions creates favourable physical conditions for the development of certain energy systems, for example, biological life on the Earth.

The protective layers that ensure survival are under [permanent] spectral control: the “danger” signal is immediately triggered by even a slight “tension” (very insignificant, in explanations and comparisons) caused by the “alien” spectrum of another volumetric region of Time of another space (which glides like a tape), thereby “devouring” the spectral volume of the “alien”. The border regions absorb the energy of the “alien” spectrum, and then return to their original state in search of

another “alien” object. Then this “repainting” becomes a wave going from the borders of the region to its central areas, forcing them to return the energy spent on protection.

“Energy consumption — energy release” is the main condition in the space of Time for the transfer of information between energy systems of any type with the subsequent system of their survival, i.e., to continue Life.

It is there, in the plant world, Nature tells in great detail to a person who cannot see and hear (most people) how the harmonious selection matrix saves and transfers the process “energy consumption — energy release” from generation to generation. Human intervention in the plant world, due to the PERMISSION OF TIME on the activity of human brain systems, at first, it seemed, did not affect plants, since such minor transitions in the spectral regions of the vegetation did not violate the general background. But any plant is a stationary creature connected with many other life forms. This multilateral connexion, as soon as even a slight modification takes place, taking into account the chemical equilibrium in the soil (the environment of consumption and return), leads to instant changes in the generations of all its related life forms. Thus, the *balance between plants and animals* is violated in order to create new species of animals, and then new species of plants, where the structure of these new species is determined in advance in accordance with the segment of the spiral route of the planet. It is spectral “protection” that creates conditions that change species.

The difficulty of accepting information about the participation of spectral systems [in the origin of species] is due to the self-isolation of people within human brain systems. As a result, the current poor attitude to the plant world is due to the growing enormous influence of technology on the brain system in accordance with the closed cycle “nature — brain — technology — brain — technology — ...”. This is the process of breaking down natural brain systems to create a technical brain. But the process called *Nature* develops in a spiral.

Humanity has come to a gradual system of global destruction of its own space, because the following condition of the time: the energy received on the Earth for the development of energy systems does not return to the surrounding space. That is, with the development of the brain systems, the Earth has become a “black hole”.

In a system consisting of only energy-consuming environments, tensions in the “living water” (energy) increase, which ultimately forms areas of the “dead water” where there is no energy drain in the system. As a result, there is an accelerated process of consumption of the “living water”, such as a furious race of the most dangerous types of weapons, etc., which immediately forms the “dead water”:

1. The increasing radioactive background (Chernobyl);
2. Emerging destructive bacterial and chemical systems;
3. The destruction of the brain systems themselves under the influence of the above.

Algae, grass, bushes, forest — everything that belongs to the plant environment becomes the “dead water”, which turns the energy coming from the Sun and stellar associations (“islands” of the Universe) into the energy of black holes. Further, the consideration of the animal kingdom is not required — this process is even more tragic for animals.

Conclusion. The brain systems form energy consumption areas on the Earth. But they could not withstand the hardest (for them) combinations of spectral “mixing” on the Earth, to which the planet’s biosphere has quite adapted. This explains the acceleration and intensification of the aggression of the brain systems before their death.

The only question will torment everyone. As you know, in Nature there is a gradual (varying in magnitude) alternation of “development — death — development” of biosystems. Can a person after death turn into a new biological state? The answer is contained in this text, and a calm, sometimes deferred, attentive reading (like faith in truth) will help to find a short and concentrated answer to the physical meaning of the phrase “*spectral zones of energy systems*”, in which the face of the Future Humanity will become clearly visible, as well as the social behaviour of people at the Time of their future habitats.

CHANGES IN THE PHYSIOLOGY AND THOUGHTS of people from modified food products.

The human body consists of spectral energy zones, where each cell receives and returns energy. Depending on the volume and density, the cells make up the organs of the body, skeleton, blood vessels, muscles, skin, etc. The basis of human activity is the human brain. The human brain is an energy association of cells with the functions of communication between the external information environment and the internal.

Changes in social conditions lead to the alternation: “external environment — internal environment — external environment — ...”.

Food products create certain conditions in the human body for certain physiological and mental sequences. Physiologists working in the field of social statistics, who studied the development of human populations, showed a great influence of those foods that are processed and consumed by the local population. All connexions in the human body that belong to any national stratum of the population (as well as relationships such as “good and evil”, religion, technology, family, society, etc.) depend on these foods.

It is a mixture of nations (without radical changes in the physiology of nations that mix) that creates the unique beauty of Mankind as a species. But such mixing requires careful behaviour and participation in the life of new human species born in a developing society, since each new human species has its own national colour, expanding the energy spectra of its predecessors (nations). As one says, these paintings or objects energetically charge the soul of the perceiver. This is called national wealth or, in other words, the “golden ratio” of each national culture — its spectrum of energy consumption for energy release.

Man as a social mass is a self-closed space because of the self-isolation of human brain systems from the influence of those social factors that arise as a result of interactions in Nature.

The natural forces of the Earth’s biosystems are tightly connected with each other. Changes in one biosystem affect the development of others. As a result, the forces of environmental protection in various biological environments continuously control the amplitude of the development of the terrestrial biological world. Self-isolation of Mankind as a species creates a powerful destructive system of imbalance in Nature, which gradually forms a dead zone for the further development of human brain systems, more and more leading the systems to amplitude aggression, the frequency of which is increasing.

If human brain systems, taking into account the foregoing, lead to the collapse of human consciousness, then each (aggressive) person will become equal in energy to a rapidly rotating star that emits less and less light (sincerity, kindness, etc.). Figuratively speaking, such a person becomes a “black hole” (criminal, monster). Such “black holes”, their formation, lead to tension in the social space of people (stars).

Using analogies with social systems, we see that *war* is the compression of one local space in the Universe, and *peace* is the expansion of another local space. Here nebulae are traces (archives) of the state of stars (people).

Through such figurative reflections that above, we arrive at the following explanation of the phenomenon of *aggressiveness* in the social environment of brain systems:

AGGRESSIVENESS is a necessary condition for changing the spatial development of spectral energy systems, which does not allow their territories to “harden” in Time. One day, some gradually growing conditions that “soften” their territories lead to a globally large-scale form of aggressiveness between these systems, which, as it were, accumulates under the crust of the peaceful resolution of disputed issues.

The only and main factor in Nature is the inversion of the poles. This factor stabilizes the conditions of aggression by their amplitudes in the space of a planet, star, stellar association, and the global space of Time, where the compression forces create rarefaction conditions (and vice versa). In a space that compresses with acceleration, the concept of Time gradually disappears. As soon as the compression forces reach their maximum, a “shot” occurs, similar to spring straightening, which expands the space to a permitted expansion volume.

Considering the multicomplex alternating interactions in the following examples, we see the development of agricultural technology in line with changes in consumer thinking with the aim of changing the methods of harvesting and processing crops. Examples of these are *wheat* (cereals brought from America), *potatoes* (root crops brought from America), and much more. Bread (a food product cooked from wheat) and potatoes have become the main food for people. These food products are firmly entrenched in human consciousness through the corresponding fine tuning of the digestive organs (chemical system of the human organism). Even during a short period of Time without access to these food products, psychic and chemical changes occur in the human brain.

The influence of a predetermined diet characteristic of a nation from generation to generation over a long period of Time, called *national cuisine*, is the pride of the nation. That is, the psychochemical

components of [this] interaction explain the influence of these slowly floating spectral formations on people's behaviour and their thinking system.

For example. Editing a well-perceived text is an overlay system by selecting spectral fragments in the text. These fragments have different tonality in the subconscious state of the brain system [of the editor] (for the mass of other people these are mental processes).

The delicious food that a person eats opens a certain gate for directing his thought process in a certain fragment of Time, provided that the composition of this food is national (i.e., it spectrally corresponds to the condition "energy consumption — energy release"). If the food eaten only resembled a traditional one or created a new taste, then a prerequisite is created for the formation of a zone of aggression. A *prerequisite* is also an area, but only with barely visible changed tones of the former spectrum. Biosystems do not have time to respond the prerequisites with an alarm signal, because at the initial stage their spectra have not changed yet, and the Earth is a system that protects biosystems from direct exposure to space environments. Although, according to the above, the Earth's biosystems are spectrally related to the spectral regions of the stellar sectors [through which the planet flies].

As for the new types of delicious food consumed by people, we see a gradual change in interest in the original thoughts. That is, the person decided (suddenly!) to change something, add something or even refuse the text that was originally approved. It is the influence of chemical processes in the spectral space of all connected systems that creates the condition of variability (aggressiveness) in the frequency range of these systems.

A thorough analysis of these processes, completely imperceptible to isolated (for most people) brain systems, explains the sequence of all events of Time in the space of our Universe and protects against the desire to change this sequence of events for a collapsing consciousness.

WHAT DOES A CATASTROPHE CONSIST OF?

WHAT DOES A CATASTROPHE CONSIST OF? The catastrophe problem has three components:

1. Where did a catastrophe come from?
2. How is a catastrophe formed?
3. How to predict a catastrophe?

All catastrophes are formed by *consistency* as the “attraction” of different bodies into one event, which is a *condition of resonance*. Participants in a future catastrophe are fragments of a resonant state, which are separated in times. *Inconsistencies* are the “repulsive forces” in a catastrophe; these are those fragments of the catastrophe that create safety conditions for bodies at the crash site. If there is a *complete inconsistency*, there is no catastrophe. If there is a *consistency*, then a catastrophe occurs with the participation of these bodies. Every single day is a multitude of consistencies and inconsistencies separated in times. They form the day as a new multicomplex colour structure. Each body is an *assembly* of organic and inorganic bodies, consisting of particles that are consistent with each other and form *integrity*. Inconsistency in any volume of these particles is a change in this volume as the integral consistency of these particles. Just one conditional example:

- Consider a day, conditionally by itself, and cars in it. They all have their own colours. For example, a red day, while cars are blue and green, i.e., the cars are inconsistent with the day;
- The car drivers are yellow and orange, i.e., they are inconsistent with their cars and the day;
- The terrain consists of all seven colours of the spectrum;
- When the cars drive through the terrain, these colours are periodically mixed (synthesized) with each other in the form of a

- psychological change in the state of the car drivers;
- Each car is a state of dynamic processes in its mating parts and units, where all these parts and units have their own colours, and their state of consistency is a synthesis of these colours;
- The road is an environmental condition created from the terrain and vegetation that are there.

The secrets of predicting catastrophes are hidden in the head of the questioner:

- Dreams confirm that if a person's consciousness contains some information about the future, this information develops inside this person. But this information manifests for each person at different times;
- In wakefulness, a person commits events containing scattered fragments of unknown information about the future. Such dispersed moments of perception are usually unconscious. Here, the *preliminary assembly* (prediction) is what the person tells about an upcoming event. However, the assembly is different for everyone;
- Therefore, in order to predict an event, you need to know your own events, i.e., to know whether you yourself are a participant in the event that you are going to predict.

Many events are known to us, but not perceptible. Therefore, we automatically make these events, for example, sit on a chair, etc.

WHY DOES AN ACCIDENT OCCUR? Consider a traffic accident, such as a car crash. Knowing the chromaticity of events of material bodies, you can easily explain extreme situations on the roads:

1. A car rushes along the motorway towards the city. Another car is slowly driving towards this car. Each of these bodies and phenomena is a set of fragments of other bodies and phenomena that exist in different times as a multitude in the multitude of intersecting colour flows of these times;
2. Therefore, the chromaticity of the day (as a phenomenon) is determined by the background of the pulsating seven-colour volumetric reliefs. Considering these reliefs through the prism of a theory is the same as telling the “average” shopper, who is in a hurry to shop, about the technology of manufacturing the rod in a ballpoint pen, the pump in a washing machine, or the

electronic printed circuit board in a television receiver. Thus, due to the extreme complexity of the explanation, it is enough to say that these colour reliefs exist;

3. The volumetric colour reliefs affect the material bodies that are there. This influence is expressed in the fragmentary dynamics of the bodies. So, the colour of the day. The day is created by slowly and quickly bubbling colour flows. Knowing that each body is a multitude of colour flows, we say that the “body” of a car is a colour mosaic, the human body is a colour mosaic, etc. The motorway, the forest, the air fog from the Sun’s rays are multicolour energy flows that form the relief of the material world. The general colour of the day dictates the dynamics of these colour flows, which, in turn, create events in the form of material bodies (light, air, water, plants, etc.);
4. Slowly creeping reliefs of dark (seven) colours are permeated by trembling shoots of contrasting (seven) colours against the background of pastel waterfalls. This is one of the ways to conditionally depict the energy world;
5. The cars approaching each other inevitably drive to a catastrophe, because the events of the car drivers are saturated with the many flickering and confusing fragments of other events. The bodies of the drivers are formed by very similar chromaticity. The catastrophe is the apotheosis of the increasing (successive) assembly of the similar colours of the drivers, cars, road, plants along the road. The bodies of these drivers and cars become parts of the crash site at the point in time the catastrophe was assembled.

Another example is an airplane crash. The paradox is the convergence of fragments from different times of the *future*, forming the cause of a catastrophe, and from different times of the *past* as a consequence (end) of this catastrophe. The complete catastrophe event is formed from selective combinations, where parts of the cause and consequence simultaneously exist both in the past and in the future, but are assembled to the catastrophe at a certain point in time:

1. At the airport office, a supervisor insulted a cleaning lady, who then, in upset feelings, walking along the path leading to the airport runway, threw rubbish out of her bucket;

2. A mechanic, hastily, adjusted a mechanical unit of an airplane to the working mode;
3. The deputy supervisor's son got very drunk and had a fight with the son of a flight dispatcher's sister;
4. The supervisor, who insulted the cleaning lady, kicked the exit door from the stairwell in the building;
5. A gazette reporter, going to talk with the deputy supervisor, slipped on a potato peel that fell out of the cleaning lady's bucket;
6. The mechanical unit, being in a tense state, "transmitted" its tension to the airplane electronic unit, and that unit — to the engine injection system.

The system is ready for the final assembly of the catastrophe. Further events are as follows:

7. The engine failure in flight, the airplane fall and death of all passengers and crew;
8. Punishment of the innocents.

We have considered the development tree of a particular catastrophe as a whole. The main thing is that the "seed" fell into the fertile "soil". When it grows into a small bush, the growth rate from 0 on the surface to 1 meter in height will be thousands of times faster than the growth of the "seed" in the "soil", and the growth rate into the tree will be hundreds of millions of times faster than the growth rate of the bush. This is the growth of a catastrophe tree. Its branching is also chromaticity (pastel — contrast — darkness). The main thing to remember is that catastrophes are contained in all fragments of all bodies of the Past and Future, because the Present is an instant cross-section of these states. It is the manifestation of pastel shades that does not form a transition to contrast, and contrast does not turn into darkness, where darkness is just the decay and disappearance of one body in many other bodies. Only the speed of this process is different for everyone because of the difference in their chromaticity.

Nothing arises out of nowhere and disappears into nowhere.

ARCHITECTURE

GEOPATHOGENIC RADIATIONS OF THE PLANET. The planet Earth together with the Solar System flies through galactic spectral space, crossing the majestic Sectors of Time. The spectral space of the Galaxy, saturating the energy sphere of the Sun's space within its internal structure, change its radiation, which, in turn, saturates Geopathogenic Radiations of the planet Earth, thereby forming a multisphere environment — the aura of the planet. The flight duration in the Galaxy is the duration of events on the Earth, where one second means 250 km of galactic spectral flows having different tensions and densities. Thus, there are various densities of spectral galactic flows in each segment of the flight path.

So, the states of the energy ocean, which is the multisphere volume of the planet's aura, depend on the energy of the planet's flight path. The formation of events in various inhomogeneously dense terrestrial bodies (mountains, forests, etc.) is constant. Their energy is transmitted to one spectral object as an integral part of Geopathogenic Radiations, and then to another, due to the intersection of galactic spectral spaces. Spectral flows move from aura to aura in the spectrospheroid of the translucent energy of the planet (for aura there is no density of both stones and water evaporation). An example of such energy transitions is a change in body shape: a mountain is destroyed by winds and rains; a tree is destroyed, saturating the soil; etc.

An aura's energy maintains the shape of the corresponding material body in the framework of its colour fragment of Time. Each aura has seven colours of Time, where each colour has its own frequency of "flickering" and its own tonality in semitones. Material bodies of various densities are grouped in space in the form of a fixed sequence of

their time and shape. Each area of the surface [of the planet] is a volumetric environment consisting of the layers of gas (at different heights), the relief of terrain (mountain, hill, plain, ravines, beams, faults), as well as the underground contents of the planet. This multilayer “pie” is a materialized union of dissimilar structures:

1. The gaseous environment is a chaotic movement of gas molecules, where there is an exchange of chaos energy;
2. The water environment is a combination of chemical elements at a certain temperature and having a certain density;
3. The soil environment is more complex due to the layering of combined chemical associations, whose lifespan is longer than that of water and gas;
4. The granite-basalt environment is even more complex in terms of the layering of combined chemical associations, whose lifespan is longer than that of soil, water and gas;
5. The plant environment is a very complex chemical formation [of organic and inorganic molecules];
6. The animal environment is even more complex, but also a more high-rapid state of layered chemical associations than the plant environment.

Geopathogenic Radiations pass through the gaseous environments into the water, plant, soil, animal, granite-basalt and other environments. Here is a conditional example. A “blue” radiation “flows” down from a height of 800 km first directly, then in a spiral (like a waterfall) into a mountain ridge, and then branches into vegetation in the form of fountains. Then the branches converge in a conical shape (where the top “nods” in different directions) containing a lake, an underground deep planetary layer at a depth of 800 km and a terrain on the opposite side of the planet. In addition, a “red” radiation and other flows of the planet Earth’s aura (they are embedded into each other, but not mixed) “flow” through another relief.

These flows of radiation are energy-filament formations of the structure of Infinity, forming the density of material bodies. Infinity consists of them, and they permeate the Time of all. They form energy concentrations in the flows of Time — inhomogeneous material bodies (stars, galaxies, universes, galaxies, stars, planets with their contents) — and the shape of all these bodies.

So what is *architecture*? In different eras, people built the new and reworked the old in search for beauty in their building work. People erected dwellings, cities in certain areas. They selected special places for their shrines, temples, churches. They found such places in various ways, including dowsing. This is all for religion. And how for physical comfort? Residential buildings of various wretchedness and pomp were erected in large areas of settlements, where the radiation of most people is not consistent with the radiation of these areas...

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— *Dem. Danicus*.

THE AIR ENVIRONMENTS. CLIMATE AND BEHAVIOUR OF
BIOLOGICAL BODIES, INCLUDING HUMANS

EVERY school student knows from his textbooks that the climate on the planet is a state of gas spaces called the *atmosphere*. They also know that evaporation in water, soil, plants and biological bodies creates a single circulation in Nature. And they also know that clouds are created due to the different temperature states of various gases in the area of the planet, where they are concentrated in the form of large-scale formations in accordance with the rhythms of the circulation process in this area. These views on climate were formed by scientists, who studied dynamic processes in the atmosphere. But their system of views does not explain the reasons why weather forecasts are often wrong. Their explanations of cloud formation are complicated, and their explanations of the circulation process in Nature are blurry.

But all this is always before our eyes: the processes themselves in Nature, as well as a continuous sequence of the same arrays of mismatching errors. Therefore, the point is in the modern research system and, most importantly, in the modern approach to understanding the knowable.

NEEED TO CLARIFY: what is the atmosphere? It is not a collection of gases. It is not a clock mechanism. You ask: “What is it?!” First of all, not “what”, but “who”! And secondly, it is a living organism, which at each point in time also forms our thought process as self-awareness!

Here, the human body is an invisible (for people) inseparable part of the gaseous environment, forming the Common Body, changing by insignificant fractions per cent. This Common Body is also water, soil, plants and other biological bodies (including humans).

IT IS VERY IMPORTANT to understand that the human body at high magnification is a mass of cell formations that form (at the same magnification) a boiling “chorus”, where different voices rattle like gas valves on gas pipelines. We do not hear this cacophony due to the natural ratios in the sound system. Nevertheless, it is this invisible and inaudible (due to the natural ratio) state of the Common Body, which, like our body and the external environment, creates the illusion of an empty and transparent space of the air.

It is there that the lands and living creatures are hidden, which some persons for millennia have imagined as fairy-tale countries and characters, and some other persons are still looking for them somewhere.

So, the external environment is our invisible body. This is not a whole at one point in time, but is scattered in parts along all seconds and along all the various places corresponding to these seconds in the space of the planet, beyond, outside the Solar System, and also outside of our Galaxy... Here we should keep in mind (without an ironic grimace) that we exist, like all other bodies on the planet, due to the fractal structure of [planetary] environments, and these environments [exist] due to the fractal structure of solar radiation, and the Sun exists due to the fractal structure of galactic environments, etc. Thus, each body is assembled every second under the conditions of the development of the sets that form new sets in their (different) new times, which means the fractal structure of events of all bodies.

NOW IT BECOMES CLEAR why at first some species of plants and other biological creatures begin to change their usual course of events, and after them others do it sequentially:

- some for a year,
- others for half a year,
- others for a month...
- and the fastest — an hour

before changing environmental conditions, such as weather, the relief of terrain, etc.

Clouds play an amazing rôle here. A few years (sometimes tens of years) before the events, they begin to play “theatrical performances” in a certain territory with their “actors” of different “ages” and different “volume”. Since each terrain is a fractal, these “theatrical performances” are permeated (in their acts) by other “theatrical performances”!

For us, clouds are vapour clusters floating across the sky. For insects and birds these are “newspapers”, “radio”, “television”. For animals living on the surface of the planet, such messages are fragmented, but they also get enough information from clouds. Plants (including trees) and the wind repeat these “theatrical performances”, but for their own bioworld and in their own language.

And this is the Greatness of Nature, when some multicolour bodies, following the signs, communicate with others without a state of erroneous forms. And this is the Beauty of Harmony, which is given to us to study Nature and ensure its safety.

There are many examples on this topic, but what will scientists do then?! No, let the reader now ask them to open the curtains of this theatrical stage called the *Nature of the Planet* wider. Another thing is if scientists are difficult to continue the explanation that we started in this simple and convincing interpretation. Then we will continue this conversation with pleasure.

And most importantly, the reader will discover this knowledge within himself after reading the above explanation. And what could be better than such inner bliss!

THE TERMS OF UNDERSTANDING

THE MAIN TERMS OF UNDERSTANDING. People (since animals, etc., do not need such studies), who are intended to read this text, who are intended to understand these studies and/or to participate in them, will see in the read (studied) only elements of their own events contained in the total volume of their perception of the day.

Therefore, it is pointless to search for something “somewhere there, beyond the horizon”: everything is inside every person, because the body of each person is a concentration of differently distant (from him) other various bodies that live as long as his body (bird feather, twig of a tree branch, tree leaf, tree bark, bird, fish scales, fish, soil, cloud, mass of clouds...). For example: a tree is a certain number of animals, people, birds...

We live in the space of the Sun, and since the Sun is a star, our thoughts — are transformed stellar radiations. And since the forced motion in galactic environments along the galactic cylinder of the Sun is a journey through stellar “waste” that in each conditional “second” emits its own waste of different densities, these “waste” become living environments that exist in different volumes (salads) of consistency and inconsistency.

It is these chosen people who are destined to carry the “radiation” of knowledge, because all human thoughts are solar radiations, transformed on the planet Earth or an artificial earth, such as man-made orbital stations, etc.

Radiations of the aura of a person’s body have frequencies of his body. The incoming radiations entering his body changed their frequencies. As a result, the aura of his body also instantly changed its frequencies at the corresponding “points” of the corresponding different bodies

(in their frequency ranges). This is because in the energy world these radiations have different chromaticity.

This means that some people whose energy, i.e., the spectral composition of whose auras allows this, begin to enter the future as an exchange of energy with the planetary Cosmos: they begin to return to the surrounding space of the planet the energy that they absorbed in the form corresponding to the spectral composition of their auras. Such people, who are only a part of the total mass of people, begin to participate in the formation of the planet's energy of future material bodies and phenomena. Other people will only be components of these bodies and phenomena: components of minerals, thunderstorms, etc.

WHAT IS A WORD? Each letter and many letters in any combination of them in a word (i.e., words, sentences, paragraphs, literary works) are the colour pulsations of tones and semitones of spectral colour flows in the energy world. These colour pulsations create a "pattern".

Consider such a "pattern", the dynamics of its volumetric relief nodes. This image has a conditional size, completely depending on the angle of view, where many filaments of other "carpet patterns" are connected to each other, and the corresponding colour reliefs of the energy world are drawing closer together and/or moving away from each other. Musical symbols are transformations of those types of energy exchange that give their own signalling system to others.

The invisible compulsion of the colour flows of times to multiple penetration into each other creates a disconnected visible individuality of species in the material world. Everything "germinates" from the energy world into the material "film" layers, layer by layer. Any materialization is a volumetric figure. But the apparent volume of a material form (e.g., the shape of a planet) is false, because when viewed with magnification, each body appears before our eyes in the form of flows of microparticles... Further micro-magnification leads to *absurdity*: the interaction of microobjects is stronger than the interaction of macroobjects, but the rate of material energy exchange slows down to zero. Microstructural systems are re-emitted due to an invisible "influence" that forms a forced increase in the materialization of their relief. This invisible "influence" is the forced formation of growing relief materialization, i.e., the maintenance of three-dimensional figures.

Materialization is the forced germination of a relief body figure. *Dematerialization* is the territorial transformation of the forced germination of the body relief. Postulates of the theory of Geopathogenic Radiations are:

1. Materialization means the PERMISSION OF TIME;
2. Dematerialization means the TABOO OF TIME.

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— *Dem. Danicus.*

LITERATURE. What is material information? *Literature* is an oral and written expression of the energy of the human brain arising from the influence of radiations from the terrain. These radiations are called *terrestrial information changes* or *Geopathogenic Radiations*. Any body in reality has a frequency (vibration) within the common frequency range of all material bodies that constitute the planet. Historically, the fact that each person consists of a body and a soul (religion, medicine) is indisputable. Physicians use the term “aura” in the press, in radio and television programs, as well as at lectures and seminars.

So, the aura of the human body is a multi-spherical energy body, similar to a nesting doll. Each mini-point of its surface is a cross-section (slice) of energy flows in the immaterial space of energy. The immaterial space feeds with its energy the material world of Infinity. The material world is the tip of the “iceberg” of the immaterial world. All events in the material world tightly follow one after another in the overall flow of Time; they do not mix, but play the connecting rôle of the entire Universe. Conclusion: the aura of the human body is a multi-filament energy formation, like all other entities, including those who participate in its energy exchange events.

Energy exchange means spectral radiations in the space of Infinity, which consist of energy filaments. These spectral radiations form material bodies of various densities (galaxies, universes) in places of maximum condensation of Time.

The image (spectral radiation) of terrain enters the brain through the eyes: this is the fixation of point fragments of space with a look. The resulting dotted image is a video of the events of the person.

The fixation of point fragments of space with a look. Due to the influence of Geopathogenic Radiations, the human body makes various movements. The same applies to any other material bodies: swaying

tree branches, moving clouds, changing terrain, moving hurricane, growing plants, developing biological creatures, destroying mountains, volcanic eruption, flying planet, etc. Any look is also a contraction of the muscles of the eye at the desired point in space as an exchange of energy in Geopathogenic Radiations of the planet, i.e., in an integral inseparable volume filled with energy filaments of the spectral flows of the [Earth's] space.

According to the commonly accepted (in the society of people) concepts, the destiny of a person is the path of his body along the surface of the planet in Time, where the height and depth of the path is the relief of terrain, i.e., the condition of the Earth's surface. Within 24 hours, the human body is in the following states:

- a state of immobility (no movement) during sleep (night — morning);
- a state of movement around the house, on the road, at work, on the streets and again around the house;
- a state of immobility during sleep (evening — night).

Conclusion. A person's life path is a standard phrase, but... speaking about it, a person is destined to realize only the basic meaning of short "video clips" of his life. While the whole sequence of his events, consisting of seconds (these are standard mini-units of time for people) and passing into minutes and from minutes to hours, is a banality, like fatigue...! Here, the LAW OF CONSERVATION OF ENERGY clearly shows how, through fatigue, the "brain — body" system (muscles) saves stored energy.

It is the seconds when the points of a body are on a fragment of the terrain surface that contain the condition of the navigation connexion of this body with other bodies in the space of the Earth. Here, the LAW OF CONSERVATION OF ENERGY protects the human brain from double fixation of the surrounding space as the very condition of navigation. Geopathogenic Radiations do this in human consciousness, and human consciousness itself is the result of the influence of Geopathogenic Radiations on the aura of the human body, where the radiations themselves are an integral driving energy environment of the planet in the spectral flows of Infinity. In other words, human consciousness is a dense, unchangeable in direction and sequence, infinitely complex relief of the flows of Time.

So what is *literature*? It is like any other human activity — the exchange of energy between environments. But this energy exchange has a very refined colour in the tonality of the interacting spectra, with a varied range of geometric shapes of colour expansion in the aura spheres of the human body.

For consistency in explaining this, a comparison with music is possible. The auras of human bodies “flicker and shimmer” with their colour backgrounds in various areas of their spheres, when their consciousness comes into contact with literature. The aura of a literary work is the concentration of energy in a multi-letter image (text of the work). When these spectralities are consistent with each other (in terms of the rate of energy exchange), a feeling of delight appears in the consciousness. The same thing (but with other sets of frequencies) occurs in the case of painting, sculpture and other forms of art. Therefore, creativity, like any human activity, is the *Requirement of Time*! Now the depth of this standard phrase is clearly visible among people! And the fact that this phrase is the standard among people is a projection of these depths onto the surface of human society.

Therefore, now we understand the uncontrollable desire of Man to create something! The life “cylinder” of a person is highlighted by the spectra of his events. The events cannot be stopped to make fragments of his aura motionless to watch them in detail; this is due to the motion of the volume of his aura along the galactic path of the planet. Where there are dark spots or darkening of spectra, aggression occurs. And where the spectra are illuminated (partial or complete), there is sincerity and purity of thoughts.

EVENTS OF THE PLACE of “attraction” of material bodies express the state of energy exchange in Geopathogenic Radiations in this place. That is, each “conditional” second of any body is a forced interaction between the elements of the invisible (energy) body of the planet inside the energy body of the Solar System. The whole tragedy of the life path of any body originates in galactic environments that have different densities along the route.

The human body, like other biological bodies, is an association of microbes, in which the multiplicity of development has become more complex due to the conditions of energy exchange, which are the states of the current fragment of galactic environments. The continuous

“struggle” of radiations of different frequencies is a multi-speed transformation of microbial spaces of different sizes and combinations, unconscious for humans.

A microbe (microbody) is the materialization of the time frequencies of the Sun into a micro-object within the frequency range of the Earth, where the forced motion of the Sun through inhomogeneous galactic environments creates temporary conditions for the alternation of microbial associations of different sizes (as an environment inside another environment).

OPENING HIDDEN SURFACES of elements of fragments of colour volumes (or parts thereof, invisible from the observation point).

Consider arrays of the multidirectional flows of times in the form of colour transitions in different folds, i.e., arrays of volumetric fractal colour assemblies. It is impossible to “draw” the arrays for people, who do not understand the main thing: they themselves in the flows of times in the energy world are those volumes that permeate each other. Elements of the cell arrays of their bodies (eyes, ears, liver, deeds...), spaced in an infinite number of elements of fragments of pulsating volumetric energy exchanges, are types of illnesses, body states, technological problems, solutions and environmental states. And all this is “recorded” on the body of every person, on his skin, about all who live and exist before and after him.

This can be read by those people who are aware of Geopathogenic Radiations on any fragment of the Earth’s path.

THE TASK OF UNDERSTANDING. We open up the curtains for a little: they are not flat, but look like a fabric extruded by volumetric patterns, smoky-spectral in colour, soundless, piercing many other curtains similarly to a thinnest cobweb. Raising (opening) the elements of fragments of these volumetric (infinite) drawings, we see (from a different angle) volumetric enchanting patterns, hidden by other finest and extruded colour patterns; these volumetric colour patterns are “screwed” into each other, thereby forming an even more finest orgy of patterns coming “from somewhere” and going “to somewhere”.

And this is only a small opening of the volumetric curtains that hide a multiple Something. The main thing is that there is no opening itself, because it is impossible to open the curtains. Moving them aside or towards ourselves, we see at different angles only a multiple change of

the patterns in the hidden colour cells. Analogues can be clouds, cotton, printed fabric, mirror reflections. We choose clouds, because of the dynamics of their alternating forms in their pulsating volume. So, we just look at our own colour fractal volumes, we “stir” them; here the pulsations remain unchanged, but with a change in the pattern.

Consequently, colour perception is not just a vision of colours, but a forced [event] due to multiple invisible intersections of various events of different bodies in the place where the researcher is forced to be. Therefore, blind persons see colour images! After all, the eyes only sharpen the outline and image of an object that is an invisible countless multitude of others.

But people see each body as a single whole, because the associations of various microbes form an inhomogeneous germination of cells in the form of the head, arms, legs, internal organs, etc. It is microbial “divisions” that are located on the forced path of the intersection “point” of others’ events, going from somewhere to somewhere. It is microbes that, continuously breeding and dying, pulsate with their mass due to the differently concentrated conditions at each “point” in their forced motion on the planet (birds, fish, people).

And *consciousness* is a fractal transformation due to invariable and *strictly successive*, invisible, various-speed and permeating each other various events in the bodies of the planet, the Solar System, the Galaxy... Therefore, the ant has consciousness, and the clouds are unusual, and the colonies of microbes, and the relationships in vegetation, and the healing properties of water...

No matter how a person tries to consider something hidden in the volumetric folds of Time, he will see in them only his personal events, scattered among the mass of obscure events of others!

BUT HOW TO UNDERSTAND THE FOLLOWING PARADOX? Light allows us to see colour surfaces. But with different reliefs of reflecting surfaces, their colour gamma changes the initial vision, and changing (since the planet rotates around its axis) lighting completely changes the psychological perception of the observer. As a result, the same colours in different viewing conditions give a different understanding of subsequent impresses (in seconds).

In other words, changes in lighting (i.e., the angle of illumination), tone of lighting (lighten — darken), physiological state of the observer

(sharpness of vision) — all this is the *clarity of the visible*, but in a tightly coordinated pulsating dynamics:

- Option 1: *Solar lighting* due to the rotation of the planet around its own axis;
- Option 2: *Artificial lighting* — an invisible biological perception of the axial rotation of the planet by the organism of a biological creature.

Thus, the visual perception of colour tones is due to lighting in the visual range, and the main factor is the invisible energy exchange in Geopathogenic Radiations, which they materialize into any event consisting of intersecting elements of other multidirectional events of bodies at each “point” of our space.

THE STATE OF HUMAN EMOTION. Events of emotional perception can be presented in the form of patterned volumetric colour images, which alternately appear from any part of the conditional “first” image, then appear due to a change in the overall chromaticity of the colour patterns, then they appear due to a change in the viewing angle to the volumetric field of these images. Human emotions are multiple states of other environments in the human body:

1. Moving solar lighting (in the form of shadows of vertical objects);
2. Moving shadows from multi-relief clouds (having different densities);
3. Moving shadows from swaying and turning bodies (tree leaves, tree branches, trees, grass) due to winds and their directions;
4. Sensitivity to wind load, even in durable constructions;
5. Temperature changes in the external environment as an effect inside and outside the human body, i.e., an effect on the cells of the human body;

where all of the above is a series of inseparable states of bodies and phenomena in Nature, which we have selected.

All bodies in Nature come from other bodies, where their common source is solar radiation. Alternating in synthesis variations, solar radiation forms the planet Earth and all its users:

1. Solar radiation forms gas compounds;
2. Solar radiation + gas compounds = liquids;

3. Solar radiation + gas compounds + liquids = types of bacteria, microbes...;
4. Solar radiation + gas compounds + liquids + bacteria + microbes + ...) = soil types;
5. Solar radiation + gas compounds + liquids + (bacteria + microbes + ...) + soil types = types of plants;
6. Solar radiation + gas compounds + liquids + (bacteria + microbes + ...) + soil + plants = crawling, running, floating, flying species;
7. Solar radiation + gas compounds + liquids + (bacteria + microbes + ...) + soil + plants + crawling, running, floating, flying species = Man.

Electromagnetic and plasma states are properties of energy exchange, i.e., mutual relationships in colour exchanges of Geopathogenic Radiations. In search of hidden “secrets”, we do not need alternations of elements of volumetric colour reliefs of the above *fragments themselves*. Selection through consciousness, the feeling of personal “I” — these are personal colour reliefs in fragments of fractal connexions of each real person.

GEOPATHOGENIC RADIATIONS IMAGING SCREEN

ANY MATERIAL BODY is the energy of multiple transformations of stellar radiations, which, in turn, are clots of galactic radiations. Any body belonging to the Solar System is the energy of solar radiations, where the Sun itself is the materialized frequency of the flows of times of inhomogeneous galactic environments (which are fragments of the flows of times of our Universe).

Sunlight. It pulsates in a compressing and then expanding environment, i.e., it does not “fly” anywhere. But what about the light of exploded or ageing stars? Their light still continues to flash or slowly fade for earthlings, although these stars exploded or died many millions of years ago.

The question is: if a star spherically emits light, and its light travels to us for millions of years, why do we not see a spheroid of the propagation of its light, but only a luminous dot? Any physicist, mathematician, astronomer will answer this question in an elementary way, creating various grimaces on his face. But this is elementary only within the framework of commonly accepted conditions of understanding! This is because they first consider the star as a stationary object with nuclear fusion processes inside. Then, alternating coincidences of random situations occur, when the types of interactions are similar to dressing when fitting a heap of suits of different sizes to too thick a low gentleman or too high a thin one. Although it is clear what and how to do this. But there is a condition of behaviour, therefore everyone painstakingly goes through the heap of “suits”.

Let us figure it out. A star flares and does not fade. In the spectral colour flows of times, the familiar forms of bodies do not exist. There is only the dynamics of compacted [energy] environments formed by the

multidirectional fronts of the colour flows of times. It is the pulsation of [energy] environments that forms the pictures of events as an alternation of scenes (at those frequencies of perception, in which there exists a subject conducting observations).

“How so?” — asks the listener (reader) who is learning the technological aspects of new concepts of materialization. — “After all, any object that we call solid, warm or cool, and then call its shape (round, square, etc.), is an object that has been examined by our senses, using our hands, eyes and realizing the received data. For example, a ball or a cube.” But this is provided that we, as bodies, are a stationary state of the Universe (for simplicity of perception). If we lived one million years, and the human year would be equal to a second, then this ball or cube would melt before our eyes just as a small ice cube would melt in our palms.

In other words, the temperature factor of time as chemical reactions is one of the ways to understand the flows of times, not forgetting that the flows of times are an infinite mass of bodies inside other bodies in the dimensions, in which they exist and transform into each other.

But at the same time there is an understanding of the life of “atoms”. Who are they? Where did they appear from? Where are they moving? How do they find each other in the Universe and who controls them from “overeating” or “malnutrition”? And in general, why do they live? Who creates them?

Let us see what the spectral colour flows of times show:

1. All material bodies (from sub-micro to mega-scale) are materialized energy exchanges “energy world — material world — energy world — material world — ...”;
2. Any body is a multitude of different-sized elements of other bodies, which are separated by distance and time and permeate each other with their fronts at the “points” of material space;
3. The conscious behaviour of “atoms” is an elementary state of bodies inside other bodies, because interatomic associations, molecular bonds, etc. are all just “one frame of a movie”. After all, any point in the space of any event observed by a person is a “cross-section” of a fragment of the *multiple intersections of the fronts of many flows of times*. And since the human body itself is also the same “cross-section” of the above fragment, the

spherical perception created in the consciousness of this person (his look is dotted) does not allow him to cover all the flows of times with one look. However the LAW OF CONSERVATION OF ENERGY forms the condition for the conicity of any point associations, and the spectral composition of any materializing body is both a linear dimension of the cone and the result of its scanning.

Conclusion. The simplicity of the above explanation is incredibly difficult for familiar thinking. But the conditions of the inability to patiently wait for the end of deteriorating changes in the *ecology of cell formation* now clearly indicate the dead end of the existence of the body of any person on the planet both today and a month, a year and two years later...

“Detonating gas” [is formed] in the air layers due to changes in human consciousness that have happened in previous generations as a part of international chemical-physical programs called scientific and technological progress. This acceleration of technological thoughts in the form of technical equipment is caused only by the states of those galactic environments through which the Sun is forced to fly together with the entire Solar System, including the planet Earth. The only problem is that the quick response among industrialists of different circles is zero with a 100% mass media campaign.

Only two types of systems can form a chain reaction — these are microbes and nuclear fusion, which emphasizes their common origin in the nature of energy exchanges. And since we now know about their common origin, the awareness of the immobility of similar environments, such as stellar radiation, etc., is the *proof*.

SEEING THE DYNAMICS of Geopathogenic Radiations provides a comprehensive opportunity to see the process of materialization. Having dealt with the above simplest canons, let us focus on the structural elements of the device, which we call the *Geopathogenic Radiations Imaging Screen*.

Repeated reminder! In the slightest state of personal “successfully” hidden cunning, distrust, etc., there will be no conditions for individual visualization (in a team of independent researchers), because no one serious deed is done “carelessly”. In material events, this leads to different (at times) types of catastrophes (natural and man-made). When

developing new vehicle systems designed to time travel through various material worlds of different universes, this behaviour is equivalent to circling behind your own shadow, but not solving urgent environmental tasks in outer space (including such tasks on the planet). The task of creating new types of devices is needed by children and grandchildren of parents and older persons who live now, and not by “cunning persons”. The very development of Mankind is extremely dangerous for “cunning persons”!

The body of each person is a local compaction of the flows of times, which is outlined by the frequency of his time in the form of Geopathogenic Radiations (his aura; here the planet Earth is considered in the energy world). This is a clot of colour flows of Geopathogenic Radiations in the conditional cylinder of the space of the material flight of the Solar System, including the Earth. The spread of the corresponding colour flows of Geopathogenic Radiations is the volumetric fragment of energy exchanges of a given body. That is, visualization occurs through conditionally transparent material bodies, conditional “points” of the shape of the bodies, where these conditional “points” are lines from the moment of materialization to the moment of dematerialization in colour transitions due to the multiplicity of intersection fronts.

P.S. The energy filaments of Geopathogenic Radiations of a body extend within the limits of the entire multidimensional volume of its energy exchanges in the space-time. Therefore, visualization of Geopathogenic Radiations by a person is possible only within the space-time volume of energy exchanges of his body. — *Dem. Dan.*

But we should not forget that the colour lines forming the conditional “points” of a body shape are only parts of the images of the reliefs of many spectral colour flows of times. The researcher “sees” only *something like a superficial colour relief*, while a little “deeper” there are other spaces that just permeate his conditional cylinder. Therefore, the researcher must keep in mind the fractal structure of perception. A *shift from the coincidence point of colour transitions* — then other elements of material bodies, sometimes elements of other times, as well as the alternation of blurry images will be visible on the Imaging Screen, i.e., *something but those targets that were planned.*

Operating with the Imaging Screens is very interesting, but extremely difficult because of the simplicity forming the imperceptible

instant monotony of perception. Therefore, it is necessary to adjust the Imaging Screen so that it corresponds to the researcher, so that the spatial mass of alternating events of others is visible (only to this researcher) in his personal conditional cylinder, from materialization to dematerialization. The observation lasts in the range from thousandths of a second to several seconds...

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—*Dem. Danicus.*

THE ORDER OF WORK with the Geopathogenic Radiations Imaging Screen:

1. The researcher must keep in mind that what he sees about himself will be materialized in the order in which he exists;
2. The researcher will not be able to tell others about what he saw (personally) due to the superimposition of combinations of other people's event elements passing through the "conditional" cylinder of the galactic route of his body (inside the galactic cylinder of the planet Earth);
3. The researcher cannot change the layers of the colour reliefs due to the forced "location" of his personal colour flows of times in the overall dynamics of these colour transitions;
4. Information about what he saw is a condition for understanding the upcoming task, both in elementary developments, and in all destined work cycles;
5. A researcher trained in "spectral tests", including understanding the INSTRUCTIONS FOR OPERATING THE IMAGING SCREEN, is ready to work in the framework of his fragments of the conical sectors through which the Earth flies in galactic environments;
6. Entering into the personal frequency of the flows of times:
 - 6.1. When the researcher "sees" the galactic environment (while the Earth's space is invisible), where the axis of the "conditional" cylinder of our Galaxy is the main emitter, he finds himself in a protected space inside the membrane of the times of the planet's aura. As a result, he sees not his body (arms, feet, etc.), but many colour flows that "go" from everywhere into him and leaving right there in the same directions, where only his own direction (along his own "conditional" cylinder) "flashes" with iridescent colours and contrasts;

- 6.2. Correspondence of his “sensations” to the volumetric relief of the observed elements of colour-exchange fragments of the flows of times in the energy world;
- 6.3. Understanding the complete absence of images of material bodies, as well as psychological states, such as emotions, where feelings of joy, disappointment (etc., etc., etc.) are visible as contrasting “bursts” in pulsating fragments of colour exchange between the flows of times in the energy world;
- 6.4. “Feeling about yourself” as a multitude of elements of colour-exchange fragments of the flows of times in the energy world is a state of those energy exchanges that imperceptibly occur between the human body and its environments;
- 6.5. This “feeling” (§6.4) forcibly creates a state of superinstant teleportation that cannot be detected using devices developed on the basis of electromagnetic theory;
- 6.6. Thanks to the now accessed understanding of what material bodies are, diagnostic operators can help (within their time periods) the researcher to visualize Geopathogenic Radiations that materialize into bodies in accordance with the state of those galactic environments through which the Sun flies;
- 6.7. The alternating images visible by the researcher on the Imaging Screens (that is volumetric visualization of Geopathogenic Radiations) are displayed for him for a very short time — from 60 seconds to 8 minutes.
-

THE THREE-ENVIRONMENT VEHICLE

A BRIEF EXPLANATION of the need to use technical devices of a fundamentally new type.

Man is a part of all three planetary environments — gas, liquid and solid ones. Planetary environments are a materialization of the energy of the Sun, which, in turn, is a materialization of the energy of the Galaxy. Now, knowing that the body of each person is created from planetary environments, the task of designing and manufacturing a *Three-Environment Vehicle* that can move in the total volume of all three planetary environments (air, water, rocks and sediments) does not look fantastic. Such a vehicle, together with the pilot and passengers travelling in the total volume of the planet, transforms its body, as well as the bodies of the pilot and passengers in accordance with the properties of the specific environment in which it is currently moving.

Currently, our planet, moving with the Sun in the Galaxy at a speed of 250 km/sec, is approaching the borders of the neighbouring galactic sector, the energy of which is significantly different from the energy of the current galactic sector in which we are. As a result, the composition of solar radiation begins to change significantly, which leads to changes on the planet. Being in areas bordering the new sector, we already feel the approach of the future, manifested in an increase in the number of planetary cataclysms, catastrophes and accidents of various sizes.

The human body is a part of the planet, so everything said is related to the human body. We must learn to live in rapidly changing planetary environments, and we must do it now, because the living conditions on the planet still provide people with this opportunity.

Therefore, people should begin work on the design and manufacture of a Three-Environment Vehicle, capable of moving in the gas, li-

quid and solid environments of the planet. Such Vehicles target solely at restoring gas combinations of the planet's volume (resuscitation of the microbial environment), since the body of each biological creature, including humans, is a complex formation of *only a microbial environment* created from subordinate classes of microbes according to the fractal principle. Liquids are gas condensates, and solid-sedimentary environments, in turn, are condensates of liquids. Countless inhomogeneously dense variations of galactic space and, as a result, corresponding variations of solar radiation transform the gaseous environments of the planet. As a result, biological bodies are *forcibly created* in the gaseous environments based on microbial associations. The system of strict fulfilment of various tasks by various classes of microbes has formed the basic (until now) semantic form of behaviour: *transformational survival*.

The state of inhomogeneous galactic environments through which the sun flies changes through the body of the Sun the composition of microbes that form the bodies of biological creatures, thereby transforming their bodies. Creating a Three-Environment Vehicle is a condition for the survival of human bodies, which, after all, are complexly organized colonies of microorganisms. Such a Vehicle itself should consist of the same environments as the human body, i.e., be multi-component.

Metals used in modern technical devices and familiar to modern people will become unsuitable in the conditions of the new Sun. Familiar and convenient for modern people, electromagnetic energy will also become unsuitable in the future.

Meanwhile, at present, there are prerequisites for the use of a fundamentally new type of energy, which is instantly transmitted and has a regenerating effect on metallic and biological structures. There are no spatial distances or time intervals for this energy. This energy is transmitted equally quickly (*instantly!*) both from the Sun, which is 8 light minutes away from us, and from the Andromeda galaxy, from where light (i.e., electromagnetic signals) has travelled to us for millions of years. The mentioned Vehicles of the new type use the same new type of energy as above.

THREE-ENVIRONMENT VEHICLE is a device for travelling through Geopathogenic Radiations:

1. The Vehicle moves simultaneously in three environments (air, water, earth) with a minimum speed of 100 km/hour. None of the environments change the relief of their temperature volumes when they are crossed by the Vehicle;
2. The Vehicle changes its speed in different environments only under the influence of various galactic environments through which the Sun flies:
 - The speed of motion in the soil and basalt environments can be (thanks to the Sun) 10, 100, 1,000 times higher than in the water or gaseous environment. It should be borne in mind that the Vehicle “permeates” these environments, no matter how strange it sounds;
 - The Vehicle can stop in the environments. In this case, its speed is equal to the speed of rotation of the planet along its orbital spiral around the Sun. Thus, the Vehicle becomes visible;
 - The Vehicle can transform into simultaneous and multi-directional motion. In this case its speed is equal to the speed of rotation of the planet around its own axis (less than 0.5 km/sec), but the Vehicle will only move in two of the three mentioned environments;
3. In any conditions of motion, the Vehicle “permeates” the environments according to the LAW OF TERRITORIES in the flows of times.

Over the past 10 years, difficulties in adapting the perception of “continuous in the familiar” have hindered the development of rescue devices and vehicles on an initially natural basis. All types of previous environmental solutions were created by scientists on an electromagnetic basis (wires, devices) using metal elements in the vehicles themselves, where the working body was mineral fuel, i.e., everything that contradicted the cells of the human body. In other words, these environmental solutions, as well as industrial waste, destroy the air environment used by human breathing, as well as water, etc. Paraphrasing the comics: “They were in such a hurry, when they were driving an ambulance to help the patient, that on the way they crushed all the pedestrians.” That is, now we see the absurdity of all environmental programs developed in different countries based on yesterday’s technology.

THE PRELIMINARY STAGES of creating a Vehicle for moving in spectral areas of the space of Time:

1. Creating a theory of spectral areas of the space of Time;
2. Laboratory calculations predicting the sequence of working communications between participants who will design and manufacture a Vehicle for moving in spectral areas of the space of Time;
3. Developing (in accordance with §2) a plan of working communications between the participants creating the Vehicle, in accordance with the above calculations, in stages:
 - 3.1. Phased “assembly” together of all participants, who will create 8 types of the Vehicle:
 - 3.1.1. A Vehicle for special medical and personal purposes, moving along the surface of the Earth at an altitude of 0.8–100 m above the ground at a speed of 400 km/hour;
 - 3.1.2. A Vehicle for racing and sports purposes (“wing-in-ground-effect” vehicle), moving along the surface of the Earth at an altitude of 17–50 m at a speed of 500 km/hour;
 - 3.1.3. A “globular-type” Vehicle moving along the surface of the Earth at an altitude of 26–60 m at a speed of 700 km/hour;
 - 3.1.4. A tanker Vehicle for refuelling other Vehicles of the types indicated above and below. It moves, repeating the relief of terrain at an altitude of 8 m at the speed up to 1,700 km/hour;
 - 3.1.5. A Vehicle for moving in the water-air environment at an altitude of +100 m to –100 m relative to the water surface with an inlet speed of 100 km/hour;
 - 3.1.6. A Vehicle for moving in the air-water environment at an altitude of +100 m to –100 m with a leaving speed of 100 km/hour;
 - 3.1.7. A Vehicle for moving in a single volume in all three environments (air, water, earth) at an altitude of +100 m to –100 m with a cruising speed up to 70 km/hour;
 - 3.1.8. A Vehicle for moving in the spatial range of Time without specifying the density of the environment, but with a limited information factor;

- 3.2. Energy “clothes”:
 - 3.2.1. For medical purposes, such as diagnostics, rehabilitation, etc.;
 - 3.2.2. For pilots of the Vehicles;
 - 3.2.3. For patients under intensive care or resuscitation;
 - 3.2.4. For those who wish;
- 3.3. “Energy food”:
 - 3.3.1. “Energy food” must be consistent with TUNNEL OF TIME and the energy consumption space;
 - 3.3.2. The amount of “energy food” must correspond to the space of the planet’s flight in the Galaxy;
 - 3.3.3. Information as a nutrient environment of different densities (“liquid”, “gelatinous”, “solid”);
- 3.4. Energy valves — the membranes of Time:
 - 3.4.1. Adjusting the spatial area to Time:
 - 3.4.1.1. Trees are natural sensors (signalling devices) of events, because the spectral states of the galactic route saturate, through the Sun, the geopathogenic spheres of the Earth, and they, in turn, saturate all structures in their volume, including people, trees, etc.:
 - 3.4.1.1.1. Radiation of trees as spectral formations on the planet in accordance with human spectrogenesis;
 - 3.4.1.1.2. Creating a photo-chronicle of energy transformations in the most selected parts of the terrain;
 - 3.4.1.1.3. Photographing the aura of trees that correspond to different types of people on different days as in the spectral formations of the volumetric fragment of the planet;
 - 3.4.1.1.4. Creating a database of “signals” exchanged between trees and people;
 - 3.4.1.2. Converting the photo-chronicle into a holographic database of the “signals”:
 - 3.4.1.2.1. Creating holographic volumetric image devices on a limited area of the planet’s surface;
 - 3.4.1.2.2. Creating holographic volumetric image devices capable of moving within the limited area;
 - 3.4.1.2.3. Creating energy devices transmitting such a

- moving holographic structure in the form of a spectral state of information;
- 3.4.1.2.4. Connecting together the devices that register geopathogenic energy environments and their flows in the limited area;
- 3.4.1.3. Creating a database of mutual connexions between multilingual dialects:
 - 3.4.1.3.1. Alphabet as the energy concentration of the spectral state of information in Time;
 - 3.4.1.3.2. Combining spectral fragments of an alphabet into the rhythm of “signals” using harmonic rows;
- 3.4.1.4. Forming translations of any sound volume of foreign-language information “signals”;
- 3.4.1.5. Creating an energy device for instant translation;
- 3.4.1.6. Creating an energy device for “talking” with any materialized environment as a source of information;
- 3.4.1.7. Creating an energy device for getting information from holographic sources;
- 3.4.1.8. Combining §3.4.1.4–§3.4.1.7 to create a device for displaying geopathogenic energy environments at “high” communication speeds;
- 3.4.2. Correspondence of the development of spatial “cells”;
- 3.4.3. Correspondence of transitions in the appeared “folds” of Time;
- 3.4.4. Correspondence of the convolution of the flow of Time, called the “snail of Time”;
- 3.4.5. The energy levels of Time.

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—*Dem. Danicus.*

THE TASKS OF THREE-ENVIRONMENT VEHICLES. Knowing the state of the time frequency of the body of the Galaxy (galactic radiation that forms the Sun with planets and their satellites, etc.), we can understand the task of Three-Environment Vehicles: this is a colour diagnostics of times as material phenomena and objects, which appear in every conditional second.

Using Three-Environment Vehicles by short-lived humans on the planet Earth for their social ambitions is similar to using a nuclear ex-

plosion by a one-day butterfly to intimidate other one-day butterflies. From here we see the nonsense of the desired possibility to use Three-Environment Vehicles for combat or reconnaissance social tasks.

Conclusion: an attempt to destroy an “enemy” will create the condition for the complete destruction of “yourself”, because the same flows of times form the total volume of the planet, from which both “enemies” and “we” materialize.

Timely technical warnings for the entire mass of people as a single body, as well as its self-preservation reaction in flight through the galactic space, is the normal behaviour of any biosystem. The mind is not to recognize yourself in the mirror, but to ensure the long-term preservation of your offspring in accordance with the “niche” of development. Among people, the “niche” of development is the ladder of social development, where today Man is only at the first stage because of animal fear of each other among the mass of people, as well as other (still) primitive habits.

The delay in deciding on the implementation of the CIVIL NON-TRADITIONAL AEROSPACE TECHNOLOGY DEVELOPMENT PROGRAMME leads to the elementary impossibility (in a short time) to prevent the mass destruction of the human population on the entire planet due to earlier (in 1989–1993) entering into the new layer of the galactic volume and passage through an increasingly condensed state of aggression. This new layer acts through the Sun and the planet Earth on the brain of any living creature, including humans. An urgent decision to implement the aforementioned Programme will create partial safety zones on the planet (“partial” due to the loss of time since 1989).

It is impossible to understand the theory of Geopathogenic Radiations with a jump or pretence. Otherwise, it remains only to find out later the missed opportunity and the futility of your own complaints, while standing before the edge of a growing abyss of hopelessness.

Due to the current concentration of advanced technologies in the defence industry, a solution to this problem can only be found in this industry and at its enterprises.

THE CIVIL NON-TRADITIONAL AEROSPACE TECHNOLOGY DEVELOPMENT PROGRAMME. The Programme includes Vehicles for moving in the common volume of all three planetary environments (i.e., air-water-ground space).

THEORETICAL GROUNDS. Creation of a theoretical knowledge base about the energy world, including clear, concrete and comprehensive information about Geopathogenic Radiations of the planet Earth, for a smooth transition from commonly accepted anti-ecological technologies and aeronautical technologies to a new trouble-free operation technology of the environmental balance at all stages of development and manufacturing. Manufacturers of the above technology will completely switch to a new fundamental technological base, allowing them to organize and conduct production in all their structures in accordance with the catastrophe theory.

SCIENTIFIC AND PRACTICAL RESEARCH STUDIES of Geopathogenic Radiations in laboratories. The process of organizing such laboratories is carried out only by voluntary independent researchers in different regions. These are laboratories for studying the rapidly growing volume of catastrophes due to apparent inconsistencies of galactic radiation with solar-terrestrial connexions, including on the planet Earth.

PRESS AND LECTURE OPPORTUNITIES. The *First Stage* in the development of aerospace technologies was the development of rocket science, which began in the 1920s, as well as the development of rocket science after World War II until the 1980s. At this stage, the idea of the importance of ecology was simply “rocket fuel”.

New information opportunities to explain the significance of the *Second Stage* in the development of aerospace technologies among people of different ages and levels of perception create an invisible protective space in rational thoughts and deeds. In the absence of a protective space, phenomena such as fires, epidemics, technical and economic instability, socially aggressive outbursts of people increasingly intensify activity in local areas, and then these local actions, accelerated exponentially, “merge” into a single unimaginable whirlwind. For example, these are successive links inextricably linked with each other during the creation of the Chernobyl catastrophe, where the performers (developers, liquidators) did not know each other and were separated for years.

Understanding of this meaning (in a multilevel form) of lectures and individual reading of these texts will help strengthen the spirit and create new technologies among continuously changing age groups of people in worsening environmental conditions and worsening feedbacks in the technical society of people due to the forced entry of the

Sun (together with the Earth) in the upcoming more and more “aggressive” galactic environment.

CREATING AN UNDERSTANDING AMONG OFFICIALS of various ranks, who currently perform the tasks of the First Stage, about the very inevitability of the transformation of modern military aerospace technologies (due to the environmental crisis) into a civil movement for developing and manufacturing non-traditional aerospace technologies, including a Vehicle moving in three planetary environments.

PERFORMING THE SECOND STAGE BY OFFICIALS. Understanding the importance of the above by the officials creates good competition between them, as well as the basis for the preparation of the necessary guidance documents (based on the catastrophe theory). Diverse dissemination of information about the Second Stage by officials of different levels among other officials in order to raise their image in the process of moving up the career ladder in their scientific and industrial organizations.

THE MECHANISM OF CYCLICAL AMONG OFFICIALS. Creating many recommendations and instructions among officials for the Second Stage (similar to the First Stage).

MONITORING BY THE SPACE SAFETY TEAM for a consistent and operational learning of the catastrophe theory by officials of the bureaucratic organizations serving multi-level aerospace work on new environmental technologies in engineering. This team is the prototype of the *Solar System Assembly* (to be convened in the future) — a gathering of representatives of space settlements from different planets, including artificial large manned stations orbiting the Sun (“mini-planets”), on which several generations of earthlings live.

CONTROL BY COMMISSIONS. The Commissions (including Space Services Commissions) are composed of the following persons:

1. Ecologist-microbiologist (specialist of the Research Laboratory of Geopathogenic Radiations);
2. Resuscitation doctor (specialist of the Research Laboratory of Geopathogenic Radiations);
3. Priest;
4. Official (elected);
5. Commander of the pilots of Three-Environment Vehicles from the Operations Unit.

Space Services Commissions control a consistent and in-depth understanding of the catastrophe theory among the technical and engineering personnel and production workers who design and manufacture Vehicles for moving in the single volume of all three planetary environments.

The Research Laboratory of Geopathogenic Radiations is an international association of the independent researchers of times, who plan to unite after the forced understanding by religious movements of the need for a *Single Global Religion* due to the planetary migration of Mankind to the near-Earth and distant space of the Solar System.

PSYCHOLOGICAL SUBSTANTIATION of the forced leadership of independent researchers before scientists of various job positions and degrees.

Many extraordinary events in different eras, such as the development of innovative trends, have continuously highlighted the same behaviour of both one person and many people united by *rejection*, transformed into various forms of aggression. This behaviour can last for tens or hundreds of years. Thus, independent researchers liberate modern scientists, who find morally difficult to understand the theory of Geopathogenic Radiations (which today are becoming visible thanks to the theory of catastrophes), from all kinds of squabbles and insinuations, in order to reduce the number of disputes on the subject “who will make the second boat first” (the “first boat” is rocket astronautics, but excluding ecology).

If it were not for the currently increasing environmental crisis, similar to a mudslide, independent researchers would not be in a hurry. They would have waited a few hundred years. But the unborn grandchildren and great-grandchildren of today’s youth demand it. It is independent researchers who, knowing the laws of Nature operating in human society and expressed in the tale GOLDEN ANTELOPE, will call upon youth. It is young people who will bring up children of the interplanetary generation in their future families.

The global nature of these tasks in the near future of interplanetary flights requires today a new approach to the creation and operation of future space devices. It is precisely the globality of the “silent” and endless space that requires an understanding of the theory of Geopathogenic Radiations.

Understanding the ageless social model “I have nothing to do with this” (regarding every innovation movement) and the poor label “from dirt into wealth” imposed on the participants of such movements (when some stabilization begins, the people who are afraid of getting their cuffs dirty begin their activity), independent researchers decisively begin to clean the “Augean stables”. Here the “Augean stables” are the growing causes of elementary catastrophes that pass from era to era, and then invisibly merge into global catastrophes.

At the birth of every technical theory (in the sequence “theory — development of documentation — production of a prototype”, i.e., “instruments and a working sample — testing — operation”), Nature deliberately established the conditions for the occurrence of technical catastrophes at various scale in different areas of human activities (due to solar-terrestrial connexions).

DESIGNING AND MANUFACTURING the “chassis” of an Air-Water Vehicle. The task of this part of work is to prepare a package of design and technological documentation for the above and make its working model:

1. Technical requirements to the “chassis”:
 - 1.1. The “chassis” of the Air-Water Vehicle provides:
 - the pilot cockpit placement;
 - the Vehicle body placement and the body shell placement;
 - the power engine placement;
 - the fan unit placement;
 - the side manoeuvring engines and the rear propulsion engines placement;
 - the cargo compartment placement;
 - high-speed modes of driving through a “compressed air flow” (comparative analogue of magnetic fluid);
 - resistance to the “compressed air flow” load and to the vibration effect of wind load;
 - smoothness and maneuverability in a variety of multi-mode commercial flights;
 - 1.2. The “chassis” of the Air-Water Vehicle includes:
 - the section on which the cockpit is installed;
 - the engine section (for the fan unit, the side manoeuvring and rear propulsion engines);

- 1.3. Requirements for reliability and resistance to environmental influences. The “chassis” must ensure motion in the following atmospheric (energy) conditions:
- electric discharges in sunny weather;
 - electric discharges (lightning) in rainy weather;
 - radioactive background;
 - inconsistencies in Geopathogenic Radiations in the temperature range from -70°C to $+100^{\circ}\text{C}$ under proper maintenance for 1 year;
2. Standardization and unification requirements. The “chassis” design should not include mass-produced details, components and units of other technical devices;
3. Manufacturability requirements. The “chassis” design should provide easy quick access to its components for control, inspection, cleaning of working units during operation without dismantling other parts and assemblies.

A HIGH-SPEED AIR VEHICLE for purification of the air from harmful impurities:

1. Purpose. The growing number of allergic and respiratory diseases (caused by harmful emissions), creating further a labyrinth of diseases, has created an invisible but exponentially growing condition for mass destruction of various age groups living in large cities and industrial centres. Therefore, among the population groups living there, due to the destructive process in the environments (soil, plants, etc.), there is an urgent need to restore the air environment of the travelled areas. The Air Vehicle targets solving this problem;
2. Operating principle. The Air Vehicle moves through the air at an altitude of up to 100 m due to the processing of polluted air in its power engines and the jet discharge of clean air (at a speed of up to 500 km/hour). The clean air discharged corresponds to the type of terrain (mountain, forest, etc.). The Air Vehicle automatically detects air pollution zones;
3. Operational maintenance of the device. The Air Vehicle is controlled from the ground; this requires two pilots who work in shifts. For storage and transportation of the Vehicle, there is a special mobile hangar, “hovering” in the air;

4. The cleaning areas that the Air Vehicle focuses on are large industrial centres;
5. It is called “Air Vehicle”, because there are also a Water Vehicle (for high-speed moving in the water environment) and an Underground Vehicle (for high-speed moving in the soil-rock environment).

FOR A PROTOTYPE. Since the late 1990s, one of the most important fields has been the development and production of equipment and cloths that protect people from the most powerful changes in the geopathogenic environments of the planet. It is geopathogenic environments that determine the emergency state of both natural formations (soil, forests, mountains, reservoirs) and artificial buildings.

The main question in human society is about the vital activity of the human body. This question becomes the main and defining one for independent researchers in their technical search.

The first step here is research in the field of resuscitation, based on the theory of Geopathogenic Radiations and their changes from the impact of electronic medical equipment and medical personnel on the patient, as well as design and technological documentation for the production of personal protective equipment against the above impact on a seemingly healthy person at different times and in different places: at home — on the wall, under the bed, etc.; at work — near a lathe or drawing table, in the cab of a vehicle, etc.

The second step is research in the field of non-traditional clothing design for people who live in geopathogenic environments that are very different in influence and strength. This research provides a description of clothing patterns for people of different zodiac archetypes.

The third stage is research in the field of transport engineering. Here, the basis is the ability of Three-Environment Vehicles to combine three main issues: reliability; high speed; equipment, the operation of which is impossible for the driver and passengers without comfort:

1. The reliability is based on the theory of Geopathogenic Radiations. The materials that make up the body, components and parts of the Vehicle, as well as materials for the controls, orientation and communication (no electronic devices, electrical equipment and metal elements) play a key rôle here. The “rubber ball effect” while driving does not allow the Vehicle to

approach (even if desired) to the places of occurrence and occurrence of accidents. Ecology is also a part of the reliability of the Vehicle;

2. High speed ($V = 0 \dots 400$ km/hour) is achieved by combining the shape of the Vehicle and the shape of the material of its outer layer in contact with the environment. This speed does not affect the ecology;
3. The equipment of the Vehicle satisfies environmental exchange relations, i.e., it is environmentally friendly due to:
 - the absence of metal elements and electronic control devices, orientation and communication (they increase the technical bulkiness of familiar vehicles);
 - the aforementioned clothing (second stage), which plays the rôle of control devices in the Vehicle;
 - energy equipment, which plays the rôle of equipment for navigation, orientation and communication;
 - the design and placement of the above in the pilot cockpit and in other compartments of the Vehicle.

In total, five types of Three-Environment Vehicles have been developed for the following tasks:

1. “Rescuer” (speed $V_1 = 0 \dots 1,700$ km/hour):
 - rapid response (resuscitation) at accident sites;
 - decontamination of contaminated areas;
2. “Ecologist” (speed $V_2 = 0 \dots 400$ km/hour):
 - restoration of the soil cover;
 - protection from forest epidemics;
 - restoration of water reservoirs;
3. “Barrier” (speed $V_3 = 0 \dots 700$ km/hour):
 - protection against hurricanes;
 - protection against fires;
 - protection against floods;
4. “Gaia” (speed $V_4 = 0 \dots 1,674$ km/hour):
 - protection against X-ray background;
 - stabilization of the ionizing background;
5. A personal (single) passenger Vehicle.

THE CONTROL SYSTEM of a Three-Environment Vehicle. The pilot cockpit of the Vehicle:

1. In the pilot cockpit there are no control devices, seats, and other familiar devices;
2. Nevertheless, in the cockpit there is an environment that, when the pilot is immersed in it, forms a clot in accordance with his body shape. This compacted clot changes its shape depending on the state of all organs of the pilot's body to prevent dissonance between the state of his body and the control system of the Vehicle:
 - 2.1. This "environment" is the pilot's seat;
 - 2.2. The control system is "bodies inside bodies":
 - visual oscillatory perception (swinging, etc.);
 - hearing oscillatory perception (motion of the entire body and its parts in the bands of sounds);
 - tactile oscillatory perception (thermal waves, etc.);
3. Therefore, the pilot and passengers can see the flight space at ultra-low speeds from 0 (i.e., 500 m/sec + 250 km/sec) to 500 km/hour. But it is tedious for routine driving tasks;
4. In the cockpit, the "volumetric flight space" will be visible as on the screen. This is not a picture of three-dimensional landscapes, but colour-changing relief formations of pulsating fractal images. The speed at which any body appears along the route, including a beam of light, is known at any time interval in the "flight space". So, there is no need to worry about collisions or attacks;
5. When the pilot's body "floats" in the cockpit, he "straightens" the continually appearing folds of the colour reliefs with his palms, changing the differently accelerated colour saturation in certain patterns of his "flight space".

The colour gamma of the colour reliefs of the pilot's aura. In the event cylinder of the pilot's body, as a microparticle, consisting of many bodies in the Universe, there are:

1. The current fragment of the flight path of our Galaxy in the form of the varying density of the intergalactic environment inside the pilot's body;
2. The current fragment of the Sun's flight path in the form of the varying density of the galactic environment inside the pilot's body;

3. The current fragment of the Earth's flight path in the form of the varying density of the solar environment inside the pilot's body. Here, each fragment of the Earth's flight path, i.e., the chromaticity of the pilot's entire life and the chromaticity of each fragment of his life, should be considered as a century, year, month and up to seconds.

Therefore, the pilot's chromaticity is a set within a set of colour relief formations. This set, like a projector in the night, forms the pilot's "destiny cylinder", because the pilot is an integral part of the planet's body, the planet is an integral part of the Sun's body in the flight path, the Sun is an integral part of the Galaxy's body in the flight path, and the Galaxy is a part of the body of intergalactic associations.

Hence, the pilot can drive the Vehicle to any place in the Universe, but... it is necessary to clarify the meaning of such a travel. Running around an empty room to see cracks in the walls is an occupation for those scientists who studied without understanding the very necessity of life. Therefore, such a travel is the same work as the work of a teacher in his class, a turner on his lathe, a gardener with his shovel... All this is not some kind of entertainment, just as the processes of breathing or quenching your thirst are not entertainment.

PART II. COMMENTARIES

PROLOGUE

THE INFORMATION in the above texts is very deep. Fortunately, your humble servant had received the necessary explanations. This allowed him to assemble a “puzzle” consisting of the amazing results of biophysical research in which he participated in the 1980–1990s, working on biophysical applications of the space-time theory. Therefore, your humble servant testifies that everything that he described in the COMMENTARIES below is real and has solid grounds.

Generally speaking, all this is quite understandable and even obvious on the basis of the achievements of modern science considered in INTRODUCTION. The problem may be that some readers do not have a wide enough range of perception, which can cause misunderstanding, rejection and aggression on their part (see the Chapter UNDERSTANDING INFORMATION below).

This knowledge is a science of the future, targeting the survival of Mankind. Therefore, understanding and acceptance of this science is very important. Read carefully the COMMENTARIES below. Think of your own future and the future of your children! — *Demetrius Danicus*.

HOW WE DO OBSERVE THE WORLD?

ACCORDING to the basics of modern physics (see INTRODUCTION), every person, like any other object on the planet Earth, is a multi-dimensional space-time body in the shape of a very long, almost filamentous cylinder (*event cylinder*), which is elongated along the flight path of the planet in the Galaxy. The thickness of the event cylinder is limited by the physical size of the person, and its length is limited by the duration of the person's life, expressed through the length of the path travelled by him (along with the planet) during this time in the Galaxy. At the point of birth (*assembly point*), his event cylinder is woven from many filamentous event cylinders of microparticles of the planet's natural environments (solids, liquids and gases) and interstellar environments, which then, intertwined with each other, everywhere tightly fill its entire length to its end (*decay point*, death), where the cylinder disintegrates into many filamentous event cylinders of its microparticles.

This is a space-time picture of the birth, life and death of every person as a multidimensional space-time object. Absolutely all objects in Nature are built in accordance with this scheme.

There is no empty place in the space-time, because it is everywhere tightly filled with intertwined event cylinders of various objects. Even almost endless interstellar and intergalactic spaces only seem empty. Taking into account the "length" of cosmic objects in time, it is easy to see that the interstellar space inside the Galaxy is everywhere tightly filled with the event cylinders (cylindrical tracks) of galactic stars. The event cylinders of planets, asteroids and other cosmic bodies belonging to a star, everywhere tightly fill the event cylinder of their mother star system. In turn, the event cylinder of a planet in the Galaxy is every-

where tightly filled with the event cylinders of “inhabitants” of this planet, and each of these “inhabitants” is woven from the event cylinders of microparticles that make up natural environments of this planet and also interstellar environments in the Galaxy. And so everywhere in the Universe.

THE WORLD OF MATERIAL OBJECTS, visible to an ordinary observer, is just a three-dimensional spatial cross-section (instant “slice”) of the space-time, which is psychologically “imprinted” in his imagination like an individual frame of a “living movie”. So, the “visible world” of the planet Earth with its continents, oceans, mountains, vegetation, animals and humans is an instant three-dimensional “slice” of the space-time event cylinder of the planet, created in the imagination of the persons, who observe it.

All this is due to the “cinematographic property” of human perception to fix the visible world in the form of a sequence of instant frames, which are then analytically combined by the brain in human imagination into the illusion of a “living movie”. This is the three-dimensional “movie” that most people consider the “only real world”.

The aforementioned “cinematographic property” of human perception to fix the three-dimensional world at each successive moment of time, thereby creating a sequence of instant snapshots of the space-time in human imagination, is manifested in human society in the form of a cultural tradition and knowledge of the basics of the phonological series, which we perceive as *language*. Herein, “language” is not meant as a method of speaking or writing, but as a component of the specific figurative symbolism of “immersion” in the world of objects.

An instant picture of the world of material objects, i.e., a frame of the “living movie” that we observe, arises in a person’s imagination at the moment of time, when the semantic starting points of his figurative symbolism are psychologically identified with elements of the external environment, which is a three-dimensional spatial “slice” (instant snapshot) of the space-time. Thus semantic figures of his “language” find their “manifestation” in the “observed three-dimensional world”. As a result, people see stars in the sky, the Sun, the Moon, landscapes of the continents, oceans, mountains, as well as vegetation, animals, humans and all others in the familiar form of “solid”, “liquid” or “gaseous” objects only because these three-dimensional symbols are included in

the figurative symbolism of people, i.e., in the “figurative language” of human perception.

The state of *microphasia* occurs in a person at those moments of time, when the semantic starting points of his figurative symbolism interact with their “manifestation” in the external environment (elements of his instant three-dimensional spatial “slice” of the space-time) onto which they are psychologically projected. At such moments of time, his perception draws distorted symbols that are not included in his “figurative language” and, therefore, cannot be recognized by him. As a result, the familiar picture of the material world does not appear in his imagination: his ordinary state of “immersion” in the world of familiar material objects ceases.

A person in the state of microphasia does not “see” anything, including his material “body”, only a white fog around him. The state of microphasia can be achieved both by psycho-physical training and by medication methods using drugs.

The state of microphasia is similar to the state of *aphasia* (speech loss). The only difference is that in the case of microphasia, a person loses the familiar picture of the world, consisting of “solid bodies”.

A state similar to microphasia is common in newborns and small children up to one year old (approximately, depending on the individual baby). This is because their minds are not yet used to that figurative symbolism describing the world of objects, which is commonly accepted among most people. Newborns therefore initially perceive the world as a wall of white fog surrounding them.

After birth, a newborn hears the voices of his parents who talk to him, thereby transmitting to him, through the semantic symbols of the spoken phonological series (regardless of which phonetic language they speak), the semantic starting points of a figurative symbolism, consisting of commonly accepted descriptions of material objects. Thus, month after month, the brain of the newborn gets used to this description of the world in the form of certain solid, liquid and gaseous objects. As a result, firstly, a small child begins to see the faces of his parents, which appear against the general background of white fog. A few months later, the zone of his vision expands to the details of his nursery and nearby objects, while everything farther away does not yet exist: he lives in a certain small world of material objects, a few meters in size

only, which is limited by a wall of white fog. Month after month, this wall of white fog surrounding his small world is moving farther and farther away from him: his visible world of material objects is becoming larger and larger. Finally, at the age of about a year and a half or two, this wall of white fog disappears beyond the horizon of his vision. At this age, the child begins to pronounce coherently elements of the phonological series (words) recognized by his parents and other people. So he begins to physically speak in their “figurative language”. The process of his “immersion” in the figurative symbolism, consisting of commonly accepted descriptions of “material” objects, is completed: he sees a world consisting of such “material” objects as other people imagine them.

Anyone with a vivid memory of early childhood (baby age) under the age of two years can attest to this (including your humble servant), while others can read the notes of paediatricians specializing in psychoanalysis.

For example, “Mowgli children”. They grew up alone in the wild, far from human civilization and without communication with other people. Nevertheless, “Mowgli children” have in their minds the same semantic figurative descriptions of objects and, as a result, see a world consisting of the same material objects that other people see. This is because they, like all other children, firstly acquired this commonly accepted figurative symbolism in early childhood from their parents (newborn babies do not survive alone in the wild), and only then, due to some unhappy circumstances, they were moved from human civilization to wildlife.

As for animals, we have much less data on this subject due to the obvious difficulties with testing them (compared to testing humans). Nevertheless, we were able to collect some reliable data on the figurative symbolism of higher animals, bumblebees, bees and beetles. The latter was done thanks to one of the closest colleagues of your humble servant, who, in addition to his experimental research and engineering developments in biophysics, was also a professional entomologist. Among higher animals and the aforementioned insects, the figurative description of solid, liquid, and gaseous objects is similar to what is commonly accepted among people. This means that higher animals, bumblebees, bees and beetles feel “immersed” in a world consisting of

approximately the same “material” objects as the “material” objects, psychologically drawn in the imagination of most people (by their collective agreement).

LET US RECAP the above briefly. People, when talking to each other, use a phonological series that describes objects. Extensive tests show that the phonological series of different languages people speak create the same semantic starting points (figurative descriptions) of the same figurative symbolism of “immersion” in the world of objects. An instant picture of the world of three-dimensional (material) objects arises in the imagination of a person at the moment of time, when semantic figurative descriptions of his figurative “language” are psychologically identified with elements of the external environment, which is a three-dimensional instant “slice” (snapshot) of the space-time: as a result, the person finds himself “immersed” in the world of the described material objects.

That is, a person sees and feels certain objects as solid, liquid and gaseous only because the vast majority of people agreed that these objects exist and possess such properties by adding their descriptions to the list of commonly accepted figurative descriptions of objects. This figurative symbolism of “immersion” in the world of familiar material objects is stored in the human brain. It is acquired by people in early childhood in the form of the basics of cultural tradition, and then fixed in their brain through upbringing and education.

Changing the current set of figurative descriptions of objects (semantic starting points of the commonly accepted figurative symbolism) leads to “immersion” in another world consisting of other “material” objects. At this point, the human brain automatically rejects Kantian thing-in-itself. The familiar material world, visible and felt by the person, disappears. It is replaced with another material world, which for him is as real as the previous one.

Replacing one figurative symbolism of a person with another one, which leads to partial or complete “immersion” to the world of other “material” objects, can be achieved by medication methods. But practice shows that medication methods give unstable results and carry a serious risk to the operator’s health. Much more reliable and safer results are achieved through a combination of psychophysical training, taking specific medications and exposure to certain physical fields.

The aforementioned process of creating a picture of the world of “material” objects, which is realized every second in the imagination of each observer, depends on the frequency composition of his energy spectrum, as well as on the energy spectra of the elements of the external environment that he observes. These and other most interesting results of these studies will be summarized in the next Chapters.

ENERGY SPECTRA

ENERGY SPECTRA and their frequency composition are new terms in biophysics that we are going to briefly explain here.

From the basics of modern physics (see INTRODUCTION), we know that distributed energy is an invisible source and driving force of everything in the observable three-dimensional world of material objects. In terms of space and time this means that space-time objects such as event cylinders consist of distributed energy, and their instant “slices” (three-dimensional clots of energy) are observed by people in the form of solid bodies, liquid or gaseous environments (depending on the figurative symbolism that describes material objects in their minds — see the previous Chapter).

So, the event cylinder (space-time body) of each person, stretched inside the event cylinder of the planet Earth along its flight path in the Galaxy, is filled inside with the flow of his energy. His energy flow is assembled together from many filamentous flows of energy at the beginning of its space-time “length” (the point of his birth), and then breaks up into many energy filaments at the end (the point of his death). These filamentous energy flows are parts of energy environments of the planet (observed as terrestrial solids, liquids and gases) and interstellar energy environments (observed as interstellar dust and gas).

This is as if a river, formed in one geographical location from many small brooks and tributaries, disintegrates into many small channels in another place, in its delta. The only difference is that the space-time event cylinder of each person is not filled with water, but with energy.

Energy is transmitted along each of these “rivers of energy”, as elsewhere in Nature, in the form of waves. That is, the event cylinder (space-time body) of each object is physically a flow of energy having

certain wavelengths characteristic of this object. As a result, each instant “slice” of the cylinder, which is a three-dimensional clot of energy, identified by the human brain as a “material” object, pulsates with frequencies corresponding to these wavelengths.

The above is an abstract example, because in Nature there are no oscillations at only one frequency. This is due to the complex internal structure of any real object. That is, the event cylinder of each real object is an intertwining of many filamentous energy flows of small particles, each of which is composed of many thinner energy flows of smaller particles, etc. As a result, even a very thin flow of energy is a combination of energy flows of all its finer components (due to the fractal geometry of Nature), which has its own set of energy wavelengths, which we call the *wavelength spectrum*. Thus, we arrive at the following definition:

THE ENERGY SPECTRUM. Given any “material” object, its *energy body* (clot of energy), i.e., an instant three-dimensional “slice” of its event cylinder, experiences complex oscillations at many frequencies, which are a superposition of oscillations of energy clots of all its constituent particles. The distribution of oscillation energy over these frequencies constitutes the *frequency composition of energy*, which is characteristic of this object, or, in other words, the *energy spectrum* of this object.

SYMPHONIC MUSIC performed by an orchestra is a very close analogy. This is due to the fact that music is a set of wave oscillations in the air (called acoustic oscillations) caused by musicians playing musical instruments. Each musical instrument can reproduce only a specific type of music — acoustic oscillations of a specific set of tones and semitones (sound spectrum), which is characteristic only of this type of musical instrument. Thus, each musician, following a score (musical notation of a polyphonic musical work) written by a composer, produces a “modification” of the basic sound spectrum of his musical instrument. Yes, in every symphony orchestra there is a “first violin” and other leading musicians who perform the leading parts of symphonies. At the same time, the performance of any symphony would be impossible without the participation of all the other musicians of the orchestra, who perform minor parts. In other words, the leading instruments are used to produce the main “colours” of the sound spectrum curve of

the performed music, and the other instruments are used to add the necessary “semitones” that complete this spectral curve.

The same is true about the energy spectrum of any object in Nature. The difference is that the sound spectral curve of a music performed by an orchestra changes greatly during the performance, because different parts of a musical work require different sets of musical instruments. However, the energy-spectral curve of an object (for example, a person) remains approximately the same throughout his entire life from birth to death: the internal “musical instruments” (energy filaments) of his energy body play about the same “melody”, which changes slightly with age depending on the development of his personality in connexion with upbringing, education and other factors. This is with the exception of cases, when his energy spectrum undergoes a “repainting” caused by external influences. In such cases, his internal “musical instruments” begin to play a different “melody”, following the new “notes” delivered by external factors of influence. Even more. Some of his internal “musical instruments” may stop playing, and those “instruments” that were previously silent begin to play their part, thereby fundamentally changing the curve of this person’s energy spectrum.

IN PARTICULAR, all animals belonging to the same species have energy spectra of a specific common type, which is characteristic only for this particular species. That is, the characteristic frequency curve of the complex oscillations of their energy bodies distinguishes animals of this particular species from animals of all other species. In addition, each animal of a certain species has its own unique personal energy spectrum, the frequency curve of which is slightly different from the common energy spectrum characteristic of this species. This distinguishes individual animals of the same specific species from each other.

The same is true for all types of plants, animals, people, minerals and their associations into various types of complex ecological and social systems.

THE ELECTROMAGNETIC SPECTRUM

THE PROCESS of how people see the world has already been explained above. A particular case are the various oscillations that we observe in the world of matter. The clot of energy (energy body) of each object experiences complex oscillations at many frequencies, which are a superposition of oscillations of all its constituent (smaller) clots of energy. The human brain tries to create a picture of the oscillating clots of energy by looking for suitable analogies in the list of commonly accepted descriptions of “material” objects and phenomena stored in the brain. As a result, instead of different types of oscillating energy clots, the human brain combines suitable descriptions into the illusion of different types of oscillating substances. These are, for example, charged particles, electrically neutral particles and continuous material environments, biological substances (components of organs, blood and others), social groups, natural and labour resources, money stocks, securities markets and other types of matter that are known in physics, chemistry, biology, psychology, sociology, economics, as well as in other sciences.

Electromagnetic oscillations are as well a fragment of the illusion that people call the “material world”. According to the commonly accepted description, these are oscillations of electrically charged material particles, such as electrons and atomic nuclei, which constitute material bodies and environments. An oscillating electron or atomic nucleus produces waves in the surrounding electromagnetic field, which are called *electromagnetic waves* and have the same frequency as the electromagnetic oscillations of their source. The *electromagnetic spectrum* is the frequency spectrum of these material oscillations and waves.

In addition, according to the same commonly accepted description,

a complex system of the electric forces acting between electrons and atomic nuclei is the basis of the so-called covalent bonds that hold together particles of material solids and liquids. That is, people of the current historical era believe that the figurative description, which they call “electric forces and covalent bonds”, is most consistent with the energy bonds that hold together particles of the “material” solids and liquids. Consequently:

THE ELECTROMAGNETIC SPECTRUM is a material manifestation of the energy spectra of those oscillating energy clots in the energy world, which are prototypes for charged particles of matter thereby forming the physical figures (geometric outlines) of “material” solids and liquids.

On the other hand, for example, human physiology, his psychological and intellectual abilities are determined by other modes of oscillations of his energy body, and not those that are manifested in the form of electromagnetic oscillations. In other words, the electromagnetic spectrum of an object is a material manifestation of only one “tonal curve” out of all the “tonal curves” of oscillations, which together make up the general curve of the energy spectrum of this object.

ALTHOUGH MATERIAL OBJECTS are only imaginary figures that exist in human imagination, the frequency composition of their oscillations is a connecting bridge that “synchronizes” these images with their real prototypes, which are oscillating energy clots. In Nature there is a wide variety of types of material oscillations: physical, chemical, biological, psychological, social, financial and others, each of which has its own prototype in the world of energy. Therefore, if we somehow find the frequency spectrum of such complex material oscillations characteristic of, say, a person, we can conclude about the frequency spectrum of his energy body (his energy spectrum).

The above is true about animals, plants, stones, and everything else, including any complex system of these components. For example, the frequency spectrum of a social group of people consists of the spectra of all its constituent individuals. Following this way, we can find the energy spectra of not only an individual object or person, but also anything, for example, large social groups of people (such as the population of a city or a country), biological ecosystems, natural and labour resources, money stocks, securities markets and so on.

This task — finding frequency curves characterizing the energy spectra of various objects and their associations — requires many various tests, the description of which is quite long and, generally speaking, is beyond the scope of this brief survey.

UNDERSTANDING BIOLOGICAL SPECIES BASED ON THEIR ENERGY SPECTRA

A **BIOLOGICAL SPECIES** is defined in biology as a group of biological individuals that can have sex together and have common progeny, but cannot have common progeny with biological individuals of other groups (other species). That is, the main attribute of a biological species is the ability of all its biological individuals to have common progeny.

In terms of energy spectra, the ability to have common progeny means the following. Each biological individual of a certain biological species has its own unique energy spectrum, where the order of spectral peaks and hollows is characteristic of biological individuals of only this particular species. That is, the spectral peaks, hollows and their groups in the spectra of different biological individuals of a certain biological species can be shifted, stretched or compressed relative to each other on the frequency scale. But their order is the same for all biological individuals of the same species: biological individuals of another species have energy spectra with another order of spectral peaks, hollows and their groups. Each peak, each hollow, even a very short sequence (group) of peaks and hollows in the energy spectra of a biological individual is responsible for a certain part of this living organism. Changing the sequence order of spectral peaks and hollows even in a very short fragment of the energy spectrum of an organism makes this organism nonviable. Therefore, if biological individuals have energy spectra with the same order of spectral peaks, hollows and their groups, i.e., the same type of their energy-spectral curves, and these spectral peaks and hollows lie within the same frequency range, they can have common progeny. But they cannot have common progeny, if their spectral peaks

and hollows have even a slightly different order or lie in different frequency ranges.

Figuratively speaking, this is similar to how the grooves on the key fit into the lock: if the grooves of the key match the grooves in the lock, this key can open the lock, and if they do not match, then the lock cannot be opened with this key.

As a result, we arrive at a *biophysical definition of biological species* based on the energy spectra of their biological individuals:

BIOLOGICAL SPECIES. The same order of spectral peaks, hollows and their groups, i.e., the *same shape of the spectral enveloping curve* in the energy spectra of biological individuals, determines their ability to have a common progeny and, therefore, their belonging to one biological species.

It is the difference in the type of the energy-spectral curves that is the cause why humans and animals of other species cannot have common progeny, despite the fact that their energy spectra can substantially overlap each other on the frequency scale. Therefore, humans can, theoretically, have sex with other hominids and primates in general, in the event of the loss of a significant part of human morality, but cannot have common progeny with them.

Thus, the observed diversity of biological species is due to the variety of types of their energy-spectral curves.

EACH PERSON has his own unique energy spectrum, i.e., the unique frequency curve (frequency composition) of complex oscillations of his energy body, which distinguishes him from all other people. Nevertheless, the spectral curves of all humans have the same specific sequence of spectral peaks and hollows on the frequency scale. That is, the energy-spectral curve of each person is unique in that it is shifted, stretched, contracted or deformed in some other way relative to the spectral curves of other people, but the general type of the spectral curve is the same for all humans — individuals of one common biological species *Homo sapiens*.

A SYMPHONY ORCHESTRA needs a wide variety of musical instruments, each of which adds its own unique tones and semitones to the sound spectrum of a symphony. Removing even one musical instrument from the orchestra leads to cacophony in the part where it parti-

cipates. But each musical instrument should perform only its own part in a symphony, in accordance with a score written by a composer.

The same is true about the energy spectra of human communities. They are of different types, like different musical works, where each specific person “performs” his unique “spectral part” in the common “symphony”.

Indeed, people of different races are different. But these differences are just a diversity in the framework of one biological species. We should appreciate the unique abilities that are characteristic of each particular race or nation, because together they are a manifestation of the diversity of the energy spectrum characteristic of our common biological species, *Homo sapiens*.

**A PROGRAM CODE STORED IN ENERGY SPECTRA. GENES AS
EXECUTABLE PROGRAM FILES**

EACH PERSON receives information about other energy bodies due to energy exchanges with them. That is, each clot of energy experiences complex oscillations at the frequencies of its energy spectrum. For an external observer, this looks like a “flickering” of the energy clot at these frequencies. With signals of such a “flickering”, each clot of energy transmits complete information about itself to other clots of energy. As a result, the observer receives information about the world in the form of “flickering signals” emitted by other energy clots. Thus, we arrive at the *concept of the energy-spectral code*:

THE ENERGY-SPECTRAL CODE. This is a code in which different types of individual spectral peaks and hollows of energy spectra play the rôle of “text characters” or “musical signs”, and their chains are a kind of encoded text or musical notation. All information about the external world comes to the observer from other energy clots with chains of frequency peaks and hollows of their “flickering”, i.e., with the energy-spectral code of their energy spectra.

The human brain matches each received energy-spectral code, i.e., each sequence of “text symbols” or “musical signs” recorded on the frequency spectrum of each observed clot of energy, with a list of descriptions of “material objects” commonly accepted among people. As a result, the human brain identifies a certain type of energy clots with a description called “biological objects”, which is fundamentally different (for the human brain) from all other “non-biological objects”. Then, the human brain searches in the list of available descriptions for such material carriers that are suitable for individual elements (“text symbols”

or “musical signs”) of the code sequences in the energy-spectral curves of these “biological objects”.

The above process is performed in the following order. The list of available descriptions of “material objects”, their terminology and the level of detail depend on the particular historical era. At first, someone, due to an external influence on his energy spectrum (see the Chapter SPECTRAL REPAINTING below), formulates an abstract idea of a material object or phenomenon without a clear connexion with its material carrier. As people say in this case, “the idea is already in the air”. Then this idea becomes known among other people through social communication between them. The brain of each of these people automatically begins to search for suitable correspondences between this abstract idea and descriptions of material objects contained in the list. After some time, which can last for months or decades, these people, communicating with each other, unconsciously agree that “this particular material object or phenomenon is most suitable for this abstract idea”. This means that the brain of each of these persons unconsciously fixes the correspondence of this idea to an existing description in the list of commonly accepted descriptions. Thus, this idea becomes added to the list of available descriptions of material objects and phenomena. That is, people already know how this idea “looks” in material embodiment, but they do not yet realize it. Then, once a person whose attention, consciously or unconsciously, is most “sharply” focused on this idea, inevitably begins to “see” this idea in its material embodiment. People usually say in this case that “this person has made a scientific discovery”. And this is despite the fact that the discovered “material” object or phenomenon is just an image created in human imagination by the collective of all those people who agreed that this “material” object or phenomenon exists.

A TYPICAL EXAMPLE of how an idea finds its “material” embodiment in the imagination of people is the discovery of genes and the genetic code.

In the mid-19th century, many biologists and physiologists independently began to suppose that the hereditary traits of animals and plants have a molecular carrier. “The idea was already in the air.” Next, deoxyribonucleic acid (DNA) as a chemical substance and chromosomes as compounds of chemical substances were discovered (isolated

from animal cells) in 1869 and 1882, respectively, but without any connexion with inheritance. Thus, DNA and chromosomes were added to the list of commonly accepted descriptions of “material objects”. In the mid-1880s, Theodor Boveri (1862–1915), who studied empirical rules of inheritance based on experiments, supposed that the number of chromosomes is the same for all biological individuals of the same species. He also supposed that chromosomes are individual for each biological individual of the same species, and came to the conclusion that chromosomes are material carriers of hereditary traits. In 1902 and 1903, respectively, he and Walter Sutton (1877–1916) independently proposed the chromosome theory of inheritance in accordance with Mendel’s laws. Then in 1905, Wilhelm Johannsen (1857–1927) introduced the key terms *gene*, *genotype* and *phenotype*. In his book *ELEMENTE DER EXAKTEN ERBLICHKEITSLHRE* (1909), Johannsen defined *gene* as a unit of hereditary information, *genotype* as the complete hereditary information of a biological individual (his unique set of genes), and *phenotype* as the manifestation of his complete hereditary information (*genotype*) in the external environment. Naturally, it was supposed that the *genotype* of a biological individual is stored in his complete set of chromosomes, and individual genes are small parts of each chromosome.

Then, during the 20th century, many experimental discoveries were made in the field of molecular biology (the science that studies the mechanisms of storage and transfer of genetic information). For example, it was found that chromosomes are specially packaged DNA molecules, DNA and chromosomes were found in plant cells, the fine molecular structure of DNA molecules was discovered, genes were identified with small molecular fragments of DNA chains (however, this matter still remains foggy, since it was found that a part of the hereditary information is stored in the spaces between genes), and so on and so forth. These experimental discoveries influenced genetics as a whole, in fact “creating” the contemporary, commonly accepted picture of hereditary trait transfer.

Thus, we see that at first one scientist proposed the idea that the hereditary traits of animals and plants have a molecular carrier. By common agreement of the community of scientists, this idea was accepted, i.e., unconsciously added to the list of commonly accepted descriptions of material objects and phenomena. Then the scientists who began

work on this problem used the power of their brain to gradually add more and more details to this new and initially foggy description. Thus the supposed material carriers of hereditary traits began to be described in more and more detail in human imagination. It looked so that the scientists who focused on this problem, step-by-step, saw the material carriers of hereditary traits in ever sharper contours, but still not clearly enough. Finally, as soon as the description of one of the supposed material carriers of hereditary traits has been completed, the contours of the idea become so ultimately clear and sharp in the collective imagination of people that one of the scientists who worked on this problem “discovers” this “material” object in an experiment: the new “material” object has first appeared before the eyes of its discoverer. Thus, genes and the genetic code (genotype and gene pool) got their “material embodiment” in accordance with their descriptions in the form of images created by the human brain in human imagination.

This process of “materialization” of material carriers of hereditary traits continues to this day, ten days before Christmas 2019, when your humble servant writes these lines. This is because, by common agreement of the community of scientists, there, in the list of descriptions of material objects and phenomena, its section called “genetics” is not yet complete, but still remains open for adding new items. Otherwise, if they all arrived at a common decision that this list of descriptions was completed, new descriptions in this field would not be accepted by the human brain and, therefore, new details of the genetic system of inheritance of traits would not be materialized (discovered) by scientists.

HEREDITARY TRAIT TRANSFER is one of many examples of energy-spectral coding.

Consider a clot energy, which, in accordance with its energy spectrum, is interpreted by the human brain as a “biological individual”. As mentioned above, the energy-spectral code of any object contains complete information about it. Thus, in particular, even a very short chain of grouped peaks and hollows on the energy-spectral curve of each biological individual is responsible for a certain trait, property or ability (skill) that this biological individual has inherited or acquired. That is, in general, all traits, properties and abilities of living organisms, including their hereditary traits that associate them to specific biological species, are determined by their energy-spectral code stored in chains of

frequency peaks and hollows of their energy spectra. In particular, the energy-spectral code of each person determines all of his hereditary traits, as well as innate and acquired psycho-behavioural characteristics and abilities.

The commonly accepted molecular system of carriers of hereditary traits is only a human interpretation of the fine structure of energy spectra, which is characteristic of the current historical era. That is, the above system exists only in the imagination of modern people as a synthesis of suitable descriptions of material objects and phenomena commonly accepted at the beginning of the 21st century.

Having another list of commonly accepted descriptions of material objects and phenomena, people will “see” another system of “material” carriers of hereditary traits. But this will only be a different interpretation of the same *energy-spectral system of inheritance*, which is the sole source of these and all other possible mental (material) interpretations of the transfer of hereditary traits from generation to generation.

COMPUTER SOFTWARE TERMS are best suited to explain genetics and inheritance.

The energy-spectral curve, unique for each energy spectrum is a frequency curve that smoothly envelopes all frequency peaks and hollows of the spectrum. At the same time, all these frequency peaks and hollows are elements of a code stored in the spectrum. Therefore, each energy-spectral curve is merely an “analog representation” of the corresponding energy-spectral code.

The energy-spectral code stored in any energy spectrum is digital. It is a sequence of different frequency peaks and hollows of the spectrum, which play the rôle of discrete “text symbols” or “musical signs” and are grouped into chains (information blocks). That is, the energy-spectral code is similar to the *source code of computer programs*. In particular, the energy-spectral code, unique for each biological individual, is nothing more than *source code* of this individual. In other words, each biological individual as a material body is a *computer program*, which is compiled and running in the imagination of the observer in terms of commonly accepted descriptions of “material” objects and phenomena.

In fact, the above is a “digital form” of the statement that the individual energy spectrum (energy-spectral curve) of each individual de-

termines all of his hereditary traits, as well as all of his innate psycho-behavioural characteristics and abilities.

In this process, the *human brain* performs the function of an *interpreter of the compiler type*, which compiles the source code received from other energy clots into program files recorded on “material” carriers of information. In the case of biological objects, such “material” carriers are specific chains of organic molecules that constitute their material bodies. Further, we call such chains of organic molecules *biofiles* by analogy with program files recorded on a computer hard drive. There are two primary types of biofiles:

1. EXECUTABLE BIOFILES. They contain:
 - “Names” of biological organisms, i.e., their classification according to the commonly accepted list of all other biological organisms;
 - Executable instructions for the basic “material” processes performing in biological organisms at all scale levels, including up to the molecular level of scale that determine their birth, functioning, development, breeding, death, etc.;
 - Databases of descriptions (*dynamic libraries*) of the necessary “material” elements up to the molecular level of scale to properly run the above instructions. In particular, these databases contain descriptions of the basic properties of biological organisms, such as their hereditary traits, including their innate psycho-behavioural characteristics, abilities, etc. These databases of descriptions are necessary for the normal functioning of biological organisms and are thus always called by the executable instructions;
2. LIBRARY BIOFILES (*static libraries*). They contain:
 - Databases of descriptions of auxiliary “material” elements of biological organisms;
 - Databases of executable instructions for the auxiliary “material” processes that may run in them. These auxiliary executable instructions and descriptions, if necessary, can be called by the instructions stored in executable biofiles.

Genes, i.e., these specific fragments of a DNA molecule that consist of chains of smaller organic molecules (called nucleotides), are thus *executable biofiles*:

- Genes that store hereditary traits and transmit (materialize) them make up only a small percentage of all genes contained in a DNA molecule;
- Many genes perform other auxiliary functions, for example, reproduce their DNA, etc.;
- Most genes of a DNA molecule do not show any activity, thus remaining passive. Speaking the language of computer software, these executable biofiles never run. Their potential functions are unknown to modern scientists.

Respectively, *DNA molecules* are *biofile folders* containing executable biofiles (genes) and library biofiles (some other DNA fragments). *Chromosomes* are *archived biofile folders* (archives of DNA molecules). Chromosomes are located in the cell nucleus, and free DNA is located in various cell organelles (mitochondria and plastids). There are different types of chromosomes. They differ in the types of DNA folder packaging, like file folders packed using different archiving programs on a computer.

So forth, using the language of computer software, we can explain such important terms of genetics as *genotype*, *phenotype*, *genome* and *gene pool*.

THE GENOTYPE of a biological individual is a set of only those executable biofiles and libraries contained in his DNA molecules (biofile folders) that store information about all his hereditary traits such as his “exterior” and body constitution, innate psycho-behavioural characteristics, abilities and preferences. In other words, a biological individual’s genotype is a *program* consisting only of *coding biofiles* contained in his DNA molecules (biofile folders) and transmitting his hereditary traits, unlike other *non-coding biofiles* also contained in his DNA. Coding biofiles are not all biofiles of DNA, because, like many computer programs that contain fragments of obsolete/abandoned program code, DNA contains many biofiles that are never used to generate biological organisms. Non-coding “junk biofiles” make up the majority in any DNA and are not elements of the genotype stored therein.

That is, speaking in terms of the energy-spectral code (the source code of biofiles), the genotype biofiles of a biological individual are compiled only from those source code elements (only those frequency peaks and hollows) of his energy spectrum that encode his hereditary

traits. Other, “junk” frequency peaks and hollows of his energy spectrum are the source code of “junk biofiles” in his DNA.

THE PHENOTYPE of a biological individual is a complete set of images called “material” objects and phenomena that are generated, by the program of his genotype, in his external environment. In other words, his phenotype is the complete output of his hereditary information that is stored in the source code (energy-spectral code) of his genotype biofiles onto the “screen” of the imagination of an observer, i.e., to the world of images called “material” objects and phenomena.

Thus, concerning humans, the phenotype of a person includes his physical body with all its individual details, all of his innate psycho-behavioural personality, abilities and preferences, as well as all “material” objects manufactured by him. For example, all results of human production and technical activities, including transport, telecommunications devices, electronic gadgets, industrial waste, and so on and so forth, are integral parts of the phenotype of a modern man as a typical individual of the biological species *Homo sapiens*. This is just because all these objects do not exist in Nature without a connexion with modern people. For example, in the scientific literature on genetics, a well-known example is often mentioned that a beaver dam is an integral part of the beaver phenotype, because it does not occur in Nature in the absence of beavers.

THE GENOME of a biological species is a complete set of all those biofiles (both coding and non-coding ones) that are common to DNA molecules (biofile folders) of all individuals of this species. In particular, coding biofiles belonging to the genome of a species store information only about common hereditary traits characteristic of individuals of this species. Therefore, the genome of a biological species characterizes this species as a whole, and each biological individual of this species has also his own traits as variations or deviations from this common list.

THE GENE POOL is more general than the genome. The gene pool of a biological species is a complete set of all coding and non-coding biofiles plus *all their individual variations and deviations* that are contained in DNA molecules (biofile folders) of all individuals of this species. The same is true about the gene pool of a biological population. A population is a group of biological individuals of the same species (i.e.,

they all have the same genome) that live for a long time in the same territory. Therefore, the gene pool of a biological species includes the gene pools of all its populations.

In other words, the *genome* of a species is a *program* stored in DNA molecules (biofile folders) of each biological individual belonging to this species, and transmitting all the traits characteristic of this species. The genome program includes both coding and non-coding biofiles of the DNA folders, but only those that are common to all individuals of this species. The *gene pool* of a biological species is another *program*, more complex than the genome. The gene pool program includes all biofiles of the genome plus all their variations and deviations that can be found in all biological individuals of this species. Therefore, the gene pool program transmits not only all the traits characteristic of this species (as the genome), but also all individual variations and deviations of them.

In terms of the energy-spectral code (the source code of biofiles), the *genome biofiles* of a biological species are compiled from all those source code elements (those frequency peaks and hollows) of its energy spectrum that are common to all its biological individuals. The *gene pool biofiles* of a biological species are its genome biofiles plus the biofiles compiled from the source code elements (frequency peaks and hollows) that are unique for each of its biological individual. In other words, the source code of the gene pool of a species or population is the superposition of all frequency peaks and hollows (source codes) of the energy spectra of all its biological individuals.

SUMMARY. The human brain compares information encoded in chains of clustered peaks and hollows in the energy spectra of observed energy clots (i.e., in their energy-spectral code) with commonly accepted descriptions of biological objects. Then, on the basis of the energy-spectral code identified as that of biological objects, the human brain creates virtual images of the “material carriers” of the code on the “screen” of human imagination. These virtual images are nucleotide chains (*biofiles*, e.g., genes), grouped in DNA molecules (*biofile folders*) and chromosomes (*archived biofile folders*). That is, when running *executable program biofiles* (i.e., genes) step-by-step, they create virtual images of biological objects (again, on the “screen” of human imagination). Whereas the genotype of a biological individual, the gen-

ome of a species, as well as the gene pool of a population or a species are *programs* consisting of such biofiles, namely:

THE GENOTYPE of a biological individual is a *program* that generates (materializes) *all his hereditary traits* such as his appearance and body constitution, innate psycho-behavioural characteristics, abilities and preferences, etc. This program consists only of coding biofiles contained in DNA molecules (biofile folders) of the biological individual, unlike other non-coding “junk biofiles” also contained in his DNA;

THE PHENOTYPE of a biological individual is the *result of the performing of his genotype program* — it is a full set of all those “material” objects and phenomena that are generated by the genotype program, i.e., the complete output of his hereditary information into the material world. The phenotype of a person includes his physical body, innate psycho-behavioural personality, abilities and preferences, as well as all “material” objects manufactured by him;

THE GENOME of a biological species is a *program* that generates (materializes) *all the traits that are characteristic of biological individuals belonging to this species*. The genome program consists of the coding and non-coding biofiles contained in those DNA molecules (biofile folders) that are common to all biological individuals of this species;

THE GENE POOL of a biological species is a *program* that generates (materializes) *all the traits characteristics of this species* (as the genome), as well as *all their variations and deviations* that can be found in all biological individuals of this species. This program consists of the genome biofiles of this species, as well as all those biofiles that are unique to biological individuals of this species. The aforesaid is also true for the gene pool of a particular population of a species. The only difference is that this program includes the biofiles that are unique to only this population.

That is, any human as a material body, as well as all his abilities and deeds are the result of the performing of his personal program, similar to computer programs. The source code of this program is encoded in chains of frequency peaks and hollows of the energy spectrum of his

energy body. Moreover, all human populations, as well as the entire biological species *Homo sapiens*, are the result of the performing of corresponding programs encoded in the human energy spectrum. The same is true about all other biological creatures (plants, animals, micro-organisms) and their associations: all of them are generated (materialized) by corresponding programs encoded in the energy spectra of their energy bodies.

Absolutely all material objects in Nature, and not just biological individuals, are created according to this scheme. But, in the case of non-biological objects, say, minerals, the source code stored in their energy spectra has some other material carriers of information, not biofiles.

THE IMAGINATION FIELD

THIS IS A PHYSICAL FIELD that is psychologically associated with a material organ of any human, as well as all vertebrates and most invertebrate animals, called the *brain*. The imagination field of each individual observer is his “personal screen” on which he sees virtual images called “material” objects and phenomena, based on how his brain “sees” energy exchanges of the energy world. This is one of the most interesting, but almost unexplored research field for a biophysicist. For this reason, your humble servant can yet explain only the basics of this process of “vision”.

To explain the aforementioned process of “vision”, we need to understand the following term:

CONSCIOUSNESS. As explained above, the true world is a world of energy. Objects of the energy world are fragments of distributed energy, outlined by a fall in the density of borderline energy exchanges. Each fragment of distributed energy is characterized by energy exchanges inside it, whose frequencies create their own unique spectrum of oscillations (*energy spectrum*). As a result, each human in the energy world, like any other energy object in Nature, is a clot of energy (*energy body*) plus the field of oscillations of the energy clot, called *human consciousness*. Respectively, the *consciousness* of any object in Nature is the field of oscillations of its energy body.

The planet Earth in the energy world is also a clot of energy plus its oscillation field (the planet’s consciousness). For humans, the frequency range of oscillations of their energy bodies lies in the upper frequency range of oscillations of the planet’s energy body. In other words, this means that human consciousness belongs to the upper frequency range

of the planet's consciousness. Weak electrical impulses in the range of 0–24 Hz, which are registered in the human brain using an electroencephalograph, are only a low-frequency “material echo” of the work of human consciousness; they do not show the entire spectrum of human consciousness.

In terms of biophysics, a person's consciousness, i.e., the field of oscillations of his energy body, performs the function of a *spectral-frequency filter of the energy world*, which determines which objects of the energy world are “existent” and which remain “non-existent” for him. So, when signals come to an observer from other energy objects, only those of them are absorbed by his energy body, whose frequencies fall into the frequency range of his energy body's oscillations (the frequency range of his consciousness). Signals of lower or higher frequencies do not affect his energy body; as a result, the energy objects that emitted such lower or higher frequency signals remain “non-existent” to this person.

THE BRAIN and its main functions are the next thing we need to understand.

Note that inside the energy body of a human, as well as inside any other biological object, there are no “organs” similar to the organs of his material body, but only internal clots of different energy density. The internal clots of energy, shining with their specific energy colours (i.e., “flickering” at their specific spectral frequencies), exchange energy flows with the external energy environment outside his energy body and with each other inside it in accordance with the law of conservation of energy, thereby performing their certain functions in the overall energy exchange of their “host” energy body. Material organs of a human (his brain, heart, blood vessels, and everything else), like any other material objects, are merely geometric figures created in our imagination to visually outline the density boundaries of the corresponding energy exchanges in his energy body.

The brain as a material organ of any human, as well as of all vertebrate and most invertebrate animals, is a geometric figure, the contours of which outline a group of those local energy exchanges in his energy body that control the process of his “vision” of the energy world. These local energy exchanges “flicker” at their specific frequencies, thereby creating an oscillation field associated with his brain energy. This field,

like the field of oscillations of energy associated with any other organ of his material body (his heart, blood vessels and everything else), is just one of the integral parts of the general oscillation field of his energy body, i.e., is one of the integral parts of his consciousness.

The brain as an organ of our material body is usually associated with our personal “repository” of commonly accepted descriptions of “material” objects and phenomena that we directly “see” or merely know that they exist elsewhere. However, in reality, these descriptions are not stored in a material organ called the brain. They are stored in the energy-spectral code (i.e., in the sequence of frequency peaks and hollows) of the field of oscillations of energy, outlined by the geometric contours of the brain. These are descriptions of both other “material” objects and phenomena, and the observer’s material body in all its details, such as the brain and other organs, up to their fine molecular structures. Here, “commonly accepted” means that these descriptions are somehow synchronized, i.e., “agreed” in all details, between this particular observer and all other observers who communicate with him and with each other. As a result, all these observers have the same representation of “material” objects and phenomena. Such a synchronization among humans is performed using a cultural tradition and knowledge of the basics of the phonological series, which we perceive as a language in the sense of not a method of speaking or writing, but as a component of the specific figurative symbolism of “immersion” in the world of objects.

Consider signals coming from objects of the energy world to an observer. As explained above, only those signals are absorbed by his energy body, whose frequencies fall into the frequency range of his energy body’s oscillations, and signals of a lower or higher frequency do not affect his energy body thereby remaining “non-existent” to him. This is the *first stage of filtering the incoming energy*, where the filter is the observer’s consciousness (the oscillation field of his energy body).

At the *second stage of the two-stage filtering* of the incoming information, a part of the absorbed signals is converted in the observer’s brain into virtual images called “material” objects. Only those of the absorbed signals are converted whose energy-spectral code (stored in the sequence of frequency peaks and hollows of their energy spectra) coincides with fragments of the energy-spectral code of the field of oscilla-

tions of his brain energy, which is the source code of commonly accepted descriptions of “material” objects and phenomena. Such signals find a response in the field of oscillations of his brain energy in the form of *resonances*. Other signals of the energy world do not become fragments of the material world that the observer “sees”.

Thus, given any person, the field of oscillations of his brain energy performs the function of a *spectral-frequency filter of the material world* that he “sees”.

Based on the above, we arrive at a *biophysical definition of material objects*:

MATERIAL OBJECTS, in terms of biophysics, are virtual images, created in human imagination by the human brain on the basis of how the brain “sees” instant three-dimensional “slices” (snapshots) of multidimensional space-time flows of energy. That is, material objects are what we “see” in our imagination instead of the contours of “stopped energy exchanges” interpreted in accordance with the list of commonly accepted descriptions of material objects and phenomena (stored in the human brain). In other words, a material object is a three-dimensional *geometric figure*, outlining (in accordance with our understanding of this figure) the corresponding energy exchange, which, in turn, is the *shape energy* that fills this geometric figure, i.e., this material object.

An example of the above is a tree with its branches, as well as the branches of its root system underground, which outline, in accordance with our understanding of how this tree should look, the corresponding energy exchanges in the tree as an object of the energy world.

THE IMAGINATION FIELD. Understanding this field in terms of biophysics follows from the second stage of filtering the incoming energy, in which virtual images of “material” objects that we “see” are generated by our brain.

It is resonances in the field of oscillations of energy, associated with the observer’s brain, that “appear before his eyes” in the form of virtual images called “material” objects and phenomena. That is, purely visually, any observer perceives the field of oscillations of his own brain energy as a personal volumetric “screen” into which he is immersed and on which he “sees” virtual images (resonances) called “ma-

terial” objects and phenomena. The latter are descriptions (fragments of the energy-spectral source code of this field) that are “highlighted”, i.e., selected from all descriptions encoded in the energy spectrum of this field, by resonances with signals from other objects of the energy world. Thus, on the basis of these “highlighted” descriptions of “material” objects and phenomena arising in his brain, each observer “assembles” his own “material” world that he eventually “sees”. In other words, at the second stage of filtering the incoming energy, each observer creates his own “material” world in the form of a *virtual image* that is “assembled” on the basis of resonances arising on the volumetric “screen” of the field of oscillations of his brain energy.

As a result of the above, we arrive at a *biophysical definition of the imagination field*:

THE IMAGINATION FIELD is a resonant pattern that “highlights” (makes visible) “material” objects and phenomena against the background of the field of oscillations of the brain energy.

Here is just one typical example of the second stage of filtering of the incoming energy. Consider an observer. If there is no external signal or signals affecting the field of oscillations of his brain energy, then no resonances arise in this field. In this case, his imagination is absolutely blank: he perceives his imagination field, i.e., the observed “material” world, as a uniform white fog surrounding him from all sides. As soon as signals emitted as a result of energy exchanges inside his energy body affect the field of oscillations of his brain energy, the resulting resonances in this field “highlight” virtual images of his material organs, including the virtual image of the brain itself. That is, the virtual images that arise in his imagination are merely commonly accepted descriptions of the corresponding organs, “highlighted” by the resonances. As a result, any observer perceives himself in his imagination in the form of his own “material” body with its organs, senses, and so on and so forth. The same is true about the signals coming from other objects of the energy world.

So, through resonances caused by signals emitted by objects of the energy world, any observer transmits information (commonly accepted descriptions) about himself and the world from the field of oscillations of his brain energy to the resonance pattern of this field, which is his imagination field, into which he is psychologically “immersed”. That is,

humans as “material” objects, like all other objects and phenomena of the material world, are just *virtual images* created in our imagination based on how our brain “sees” certain energy exchanges taking place in the energy world.

THE COMPUTER TECHNOLOGY of how software applications are loaded from the computer ROM into RAM and run there is very close to how the observed world of “material” objects and phenomena appears “before our eyes”.

As we know from the basics of computer technology, ROM (read-only memory) is a storage location. All program applications and the operating system itself, which are the software installed on a computer, are stored in its ROM. RAM (random-access memory) is the place where programs run. When we run a program (or the entire operating system when we turn on the computer), this program is loaded from the computer ROM to RAM and runs there, and the result of the program is displayed as pictures on the screen of the computer display.

At the same time, as follows from the foregoing, all “material” objects are images generated by programs similar to computer programs, the source code (description) of which is stored in each observer’s personal “ROM”, which is the field of oscillations of energy of his brain. This source code is synchronized (descriptions of these objects and phenomena are “agreed” in all details) between this particular observer and all other observers who communicate with him and with each other. As a result, all the observers are psychologically “immersed” in the world of the same objects: each of them “sees” almost the same pictures (with slight differences) of “material” objects and phenomena selected from their synchronized lists of descriptions. In terms of computer software, this means that all “synchronized” observers do not have individual operating systems for each of them, but a common operating system, similar to the operating system of a computer network. While the material bodies of all these observers, including their organs up to DNA molecules consisting of nucleotide chains, as well as all other “material” objects and phenomena that the observers “see”, are pictures resulting from software applications running under their common “network operating system”.

Resonances in the field of oscillations of the observer’s brain energy (they are caused by signals from other objects of the energy world)

“highlight” certain fragments of the energy-spectral code of this field, which are the source code descriptions of certain “material” objects and phenomena. For the observer, this “highlighting” process is similar to compiling the source code of these “material” objects and phenomena into executable and library program files that thus become elements of his material world and “visible” for him. In terms of computer technology, this means that the resonance pattern arising in the field of oscillations of his brain energy and called the imagination field is his personal “RAM”. That is, this is the place, where the program files of “material” objects and phenomena are compiled from fragments of the source code of the observer’s brain energy field, and where these program files run, thereby creating a system of generated virtual images called the “material world”.

At the same time, each observer is psychologically “immersed” in the world of pictures of his own imagination field. Therefore, the field of oscillations of his brain energy called the imagination field is not only his “RAM”, but also the volumetric screen his personal “computer display”, on which he “sees” a system of generated virtual images, called the “material world”.

On the one hand, the brain as a material organ is just a geometric figure that outlines an instant snapshot of that local group of energy exchanges inside the energy body of a person that control the process of his “vision” of the energy world. On the other hand, the field of oscillations of his brain energy is his personal “ROM” containing the source code (inactive hidden descriptions) of all known “material” objects and phenomena. Fragments of these source code descriptions are selected (activated) by resonances with signals from other objects of the energy world, thereby loading from this person’s “ROM” to his “RAM”.

And, third, the brain is a program — an *interpreter of the compiler type*, which compiles the “activated” source code into “material” program files. In the case of biological objects, such compiled “material” files are visible images of chains of small organic molecules, nucleotides, which we call *biofiles*. These are, as explained above, in particular, genes (executable program biofiles), grouped in DNA molecules (biofile folders) and chromosomes (archived biofile folders). When running executable biofiles, i.e., genes, they create virtual images that we perceive as biological organisms.

AN ORDINARY OBSERVER is usually psychologically “immersed” in the world of “material” objects and phenomena. Therefore, he does not see energy exchanges in the energy world, but only resonances in the field of oscillations of his brain energy, which are caused by energy exchanges.

Can an observer somehow directly see the energy world? Yes, he can. In order to do it, he needs to “turn off” the entire process of his thinking, i.e., the entire process of creating the material world performed by his brain. In terms of biophysics, the process of seeing the energy world is seeing the source code of energy exchanges, which is the digital matrix of the world of energy — the true world, of which we are elements. To see the source code of energy exchanges, we obviously must ignore all resonances that arise in the field of oscillations of our brain energy. That is, we must ignore compiling the source code of these resonances in the brain into a system of virtual images called the material world. Instead focusing on resonances in the field of oscillations of our brain energy, we must somehow focus on directly “viewing” the source code of external signals absorbed by our energy body (the frequencies of such signals fall into the frequency range of oscillations of our energy body, which is the frequency range of our consciousness).

How to “turn off” the process of thinking and directly see the energy world is a special and very interesting area for further research for a biophysicist.

SUMMING UP all that has been surveyed in the current Chapter, we obtain the following overall picture.

The true world is a *world of energy*, wherein each object — a fragment of distributed energy, outlined by border energy exchanges, has its own unique *energy spectrum*, which is an overlay of the frequencies of all energy exchanges inside it. The frequency peaks and hollows of any energy spectrum are units of a code called *energy-spectral code* that stores complete information about the source of this energy spectrum and is similar to the *source code of computer programs*.

Energy clots exchange energy with each other through their multi-frequency “flickering” resulting from their complex oscillations, thereby transmitting to each other their own energy-spectral code (their own source code) containing complete information about themselves. In this

process of energy exchange, the source code of other energy clots, i.e., their source code as that of computer programs, stored in the sequence of frequency peaks and hollows of their energy spectra, is absorbed by the energy clot (energy body) of the recipient, who is, for example, a person.

All signals (information) coming from other energy objects to an observer are first “filtered” by the field of oscillations of his energy body, i.e., by the field of his consciousness. This means that the observer’s energy body absorbs the incoming energy (information) only within the frequency range of oscillations of his energy body (the frequency range of his consciousness). That is, the incoming signals from other energy objects saturate the observer’s energy body with energy (information) only at those frequencies, which fall within the frequency range of the observer’s energy spectrum. All information coming at lower or higher frequencies does not affect the observer’s energy body, thereby remaining “non-existent” for him. This is the *first stage* of filtering the incoming energy (information), where the field of oscillations of the observer’s energy body (the field of his consciousness) performs the function of a *spectral-frequency filter of the energy world*, which determines which objects of the energy world are “existent” for him, and which remain “non-existent”.

At the *second stage* of filtering the incoming energy (information), a part of the absorbed signals resonates with the field of oscillations of energy associated with the observer’s brain (which is a fragment of his energy body). Only those of the absorbed signals resonate, the energy-spectral code of which (the sequence of frequency peaks and hollows of their energy spectra) coincides with fragments of the energy-spectral code of the field of oscillations of the observer’s brain energy. The latter is the program source code of commonly accepted descriptions of “material” objects and phenomena stored in the observer’s brain. Consequently, the resonances arising in the field of oscillations of the energy of the observer’s brain are physically “highlighted” descriptions of material objects and phenomena that he “sees”. Respectively, the three-dimensional pattern of these resonances, called the *imagination field*, is a personal volumetric “screen” into which the observer is immersed and on which he “sees” “highlighted” virtual images and actions, called “material” objects and phenomena.

Thus, in this process of the “material world creation”, the field of oscillations of the observer’s brain energy performs the function of a *spectral-frequency filter of the material world* that he “sees”.

This process of the “material world creation” is very similar to how software applications are compiled from the source code, loaded from the computer hard drive (ROM) into RAM and run there, and then create a virtual world on the screen of the computer display. In terms of computer technology, the field of oscillations of the observer’s brain energy is *his hard drive* (his “ROM”) that stores the source code of all known “material” objects and phenomena, while the resonance pattern (we call it the *imagination field*) arising in the oscillation field is *his random-access memory* (his “RAM”). Due to the resonances with signals from other objects of the energy world, the resonating fragments of the source code descriptions are loaded from the observer’s “ROM” to his “RAM”, where they are compiled to program files (the brain plays the rôle of an interpreter of the compiler type), and then run, thus generating a system of virtual images called the “material world”.

The source code descriptions “recorded” in the observer’s “ROM” are synchronized (agreed) with the other observers, who communicate using the same figurative symbolism. As a result, all these observers are psychologically “immersed” in the world of the same “material” objects and phenomena, which are virtual images generated from the same source code using the same software applications running under their common network operating system, where the observers are remote computer terminals having their own “ROM” and “RAM”.

So, an ordinary observer does not see the energy world. He is psychologically “immersed” in the world of virtual images, called “material” objects and phenomena, which are essentially resonances arising in the field of oscillations of his brain energy as a response on the incoming energy signals. To see the energy world, he needs to “turn off” the entire process of his thinking, i.e., the entire process of creating the material world, performed by his brain.

UNDERSTANDING INFORMATION. INTUITION

BASED ON ENERGY SPECTRA and the energy-spectral code embedded in them, we can explain *understanding information* and *intuition* in terms of biophysics:

UNDERSTANDING INFORMATION. Consider a person. He understands the information transmitted to him with a signal, if this signal has been absorbed by his energy body and, then, has been “converted” in his imagination into images of commonly accepted “material” objects and phenomena. That is, speaking in terms of biophysics, the information transmitted with a signal, is understood by a person, if two conditions are met:

1. The energy spectrum of the signal falls within the frequency range of the energy spectrum of the person (the spectrum of oscillations of his energy body), i.e., within the frequency range of his consciousness;
2. The energy-spectral code of the signal (chains of frequency peaks and hollows of its energy spectrum) coincides with fragments of the energy-spectral code of the field of oscillations of his brain energy, which stores commonly accepted descriptions of “material” objects and phenomena. The resulting resonances create a pattern (the field of his imagination) containing virtual images of “material” objects and phenomena that he “sees”.

In other words, each person understands any elements of his imagination field, i.e., fragments of the world of “material” objects and phenomena that he “sees”. He considers such objects and phenomena to be self-evident and understandable. That is, as soon as the frequency peaks and hollows of the energy spectrum of the incoming information (signal) find full correspondence with some frequency peaks and hol-

lows of the energy spectrum of his brain, the *condition of instant understanding and acceptance* arises: the person feels that “all this is true” without additional explanations and proofs. In such a case, the person says: “I understand the seen (heard, read, felt)”. A *request for proof* means that a small fraction of the peaks and hollows of the signal’s energy spectrum does not match the energy spectrum of the brain of this person (does not match his list of commonly accepted descriptions of “material” objects and phenomena), thereby causing him a psychological feeling of doubt against the background of general agreement with the information received.

INTUITION. Consider the case, where the energy spectrum of a signal falls within the frequency range of the energy spectrum of the person, but the energy-spectral code of the signal *does not match* any fragments of the energy-spectral code of the field of oscillations of his brain energy. In other words, as in the previous case, the incoming signal has been completely absorbed by the energy body of the person, i.e., his energy body “knows” the information transmitted with the signal. But not all this information becomes a part of the field of his imagination, i.e., not all this information is transformed by his brain into virtual images of “material” objects and phenomena that he “sees”. In such a case, the person says: “I intuitively feel or know something, but I cannot explain this clearly” (in terms of commonly accepted “material” objects and phenomena).

MISUNDERSTANDING INFORMATION. If the energy spectrum of the signal extends beyond the frequency range of the energy spectrum of the person, his energy body does not completely absorb this signal and, therefore, “knows” only unrelated fragments of information that this signal carries. In such a case, we say that “this information or idea is outside the frequency range of his consciousness” or “the width of the range of his consciousness is insufficient to perceive this information or idea”.

So, in other words, understanding and misunderstanding some information are *spectral criteria* that characterize the energy spectrum of a person. Understanding of certain information is the *Spectral Permission* to this information for a given person, and misunderstanding is the *Spectral Taboo* on this information for him.

AGGRESSIVE REJECTION of incoming information by a person is his protective behaviour reaction that protects his brain from any information transmitted with high-frequency signals. The higher the frequency of the signal (information), the more energy it carries. Low-frequency resonances in the field of oscillations of the brain energy are characteristic of animal consciousness. The higher the frequency range of information (energy) perceived by a biological individual and, thus, the higher the frequency of resonances caused in his brain energy field, the higher the level of his consciousness. The more “advanced” the idea (information), the higher its frequency and, thus, the higher its energy. The science of the future carries information at frequencies close to the upper frequency limit of perception by the brain of a modern man and even goes beyond this limit. If there are no resonances in the brain energy field of a person at frequencies close to the upper frequency limit of his perception, then the emergence of powerful (luminous) resonances with external high-frequency (high-energy) signals at these frequencies means the emergence of very unusual ideas in his imagination, which can “burn his mind”, question his entire concept of reality and thus destroy his material world, which he used to “see” every day. Figuratively speaking, the resonance of the brain energy field of such a person with such high-frequency signals are analogous to the contact of his brain with a high-voltage live wire. In this case, we say that “this person does not have a wide enough range of perception to accept new advanced ideas”.

Therefore, the human brain protects himself, i.e., his familiar material world. As a result of this protective reaction, incoming high-frequency information is perceived by the person as *absolutely false*. The source of this information, say, a book, is perceived by his brain as stupidity, deception or something else of this kind, while the person transmitting this information is perceived as someone who wants to deceive him, present him as a fool, etc. A typical sign of such a protective reaction of the brain, well known to any psychoanalyst, is a “cunning squinting” of the eyes indicating the person’s inner conviction that he is being “deceived”, but he knows this. In reality, such a protective reaction keeps his brain safely from the high-frequency information, the perception of high energy of which can destroy his so-familiar material world of the “good old ideas” he was used to.

A typical example of such a defensive reaction of a “low-frequency” brain to advanced high-frequency (high-energy) information is the aggressive rejection by some scientists of Einstein’s theory of relativity and, in particular, the aggressive rejection of the multidimensionality of our world and ourselves as space-time multidimensional objects. The bandwidth of perception of the retarded “low-frequency” brain of such people does not cover the frequency range of new “high-frequency” ideas. As a result, the brain of such people, not having the innate ability to perceive advanced “high-frequency” ideas, for example, to learn the mathematical apparatus of Riemannian geometry, and to understand why all this is necessary at all, focuses on the personality of the author of a new theory or discovery, on the details of his biography, in order to present these details in a negative light for unconscious “protection” of his own insufficient bandwidth of perception, for “self-justification” of his own natural inferiority and backwardness.

Many other similar examples of aggressive rejection of advanced “high-frequency” information can be found not only in the history of science, but also in the history of visual arts, the history of music, etc.

Event cylinders (multidimensional space-time bodies) of such people, after their visible “darkening” as a whole, i.e., after their visible disintegration into constituent energy filaments (event cylinders of constituent particles) at the time of death, are not filled with energy as a whole again at a higher frequency range, and become a set of scattered event cylinders of low-frequency planetary environments. In other words, such people will not become parts of the humanity of the future, but will become scattered elements of low-frequency natural and man-made environments of the planet.

The perception of textual information is a particular case of the above. Thus, the aggressive rejection of the above texts indicates insufficient bandwidth of the energy spectrum of the reader’s brain in the high frequency range. On the contrary, the acceptance of these texts and biophysical explanations points to the fact that the reader’s brain has a wide enough energy spectrum to perceive the “high-frequency” information that is a fragment of the science of the future.

SPECTRAL ZONES ON THE PLANET. FORMING THE HUMAN
ENERGY SPECTRUM

TO UNDERSTAND what the current Chapter is about, we need to imagine how the planet Earth looks like in the world of energy.

Consider the multidimensional (space-time) body of our planet Earth. This is an *event cylinder*, having the diameter of our planet (with the atmosphere) and stretched into a very elongated spiral along the trajectory of the planet in the Galaxy. In fact, the event cylinder of the planet exists in the space-time as an *integral object*, everywhere tightly filled with terrestrial events throughout its entire space-time volume from its beginning in the past, to its end in the future. Therefore, all past and future events on the Earth, including the events of all terrestrial “inhabitants”, are real: they, separated in time and space, really take place (occur) in the corresponding fragments of the event cylinder of the planet. However, from the viewpoint of a three-dimensional observer, the event cylinder of the planet is “created” due to its revolution around the Sun and their common revolution around the centre of the Galaxy. This is because a three-dimensional observer perceives life as a “living movie” consisting of sequential three-dimensional pictures of events, i.e., frames of this “movie”; these frames are created by the observer’s brain in the process of “scanning” his own cylinder of events (which lies inside the event cylinder of the planet) in the direction from the past to the future due to his motion together with the planet along its spiral trajectory in the Galaxy. As a result, he really believes that only a three-dimensional “slice” of the event cylinder at the moment of observation (i.e., a frame of this “movie” at the present moment of time) is real, and everything before and after this moment in time does not exist, despite the fact that the event cylinder exists in the space-time as an integral

object from its beginning in the past to its end in the future.

The event cylinder of the planet Earth is not an “empty” geometric figure, but a real physical object woven from a multitude of filamentous flows of energy — the event cylinders of the particles that make up terrestrial environments (solid, liquid, gas) and “inhabitants” of these environments (minerals, plants, animals, people). A three-dimensional “slice” of any event cylinder (energy flow), taken like an instant “snapshot” at a point in time, is a three-dimensional *clot of energy*. For example, a three-dimensional “slice” of the event cylinder of the planet Earth as a whole is a clot of energy, which we call the *energy body* of the planet. The same is true about the energy filaments that fill the event cylinder of the planet: their instant “slices” are small clots of energy — the *energy bodies* of the particles that make up terrestrial environments, and their associations are the energy bodies of the “inhabitants” of these environments. All these small clots of energy are integral parts of the energy body of the planet.

The brain of an ordinary observer identifies the energy body of the planet with the commonly accepted description of the terrestrial globe surrounded by the atmosphere, stored in the brain, while the many small clots of energy that make up the energy body of the planet are identified with the commonly accepted descriptions of the particles that make up terrestrial environments and the material bodies of their “inhabitants”. This is how the human brain “sees” the energy body of the planet and the energy bodies of its “inhabitants”.

SPECTRAL COLOURS. Since the event cylinder of each specific object is created by its unique composition of different energy flows that have their own specific wavelengths (energy is transmitted elsewhere in Nature in the form of waves), its instant “slice” (a three-dimensional clot of energy, identified by the human brain as this specific “material” object) pulsates at a unique set of frequencies, which correspond to these wavelengths. According to the constituent energy flows, the energy of its oscillation is different at each of these frequencies. Therefore, each specific material body or continuous medium is characterized with its unique *energy spectrum* having its own conditional colour, which we call the *general spectral colour*, at the frequencies of which the oscillation energy has a maximum and which, thus, prevails over other colours in the spectrum.

Here we use the term “spectral colour” by analogy with the colours of the visible range of the electromagnetic spectrum. In fact, the concept of “spectral colour” applies to the spectrum of distribution of anything. Thus, we divide the frequency range of any energy spectrum into seven conventional colours of the visible spectrum in a sequence of increasing frequency: red, orange, yellow, green, cyan, indigo, violet.

SPECTRAL ZONES ON THE PLANET. So, the filamentous energy flows that make up the energy body of our planet altogether form the energy-spectral composition of the planet, i.e., the planet’s energy spectrum. Each specific area of the planet is also formed by its own unique composition of specific energy clots (in the material world, they are observed as various minerals, plant and animal species, and human populations), each of which has its own unique energy spectrum. Thus, each specific area of the planet has its own unique energy spectrum, formed by overlapping the energy spectra of all its components, where the components are various minerals, plant and animal species, and human populations specific to this area, and is characterized by its *general spectral colour* that prevails over other colours in the spectrum.

As a result, the planet Earth consists of different spectral colour areas, which we call *spectral zones*. Seen from the outside from space, in the energy world, the “surface” of the planet looks more like a patchwork quilt, sewn from fragments, each of which has its own general spectral colour.

Physically, each spectral zone of the planet is a complex formation, the energy spectrum of which, including its general spectral colour, is composed of the energy spectra of the land with its characteristic topography (mountains, plains, lakes, etc.) and underground deposits of minerals, certain species of plants and animals, as well as certain human races and nations, whose people created characteristic cultural and industrial environments on this territory.

The major largest spectral zones on land are associated with the regions of eight major world cultures (world civilizations), indicated in Samuel Huntington’s *THE CLASH OF CIVILIZATIONS* (1993) and separated by cultural fault lines; these are the regions of modern Western (European), Confucian (Sinic), Japanese, Islamic, Hindu, Slavic-Orthodox, Latin American and African cultures, and the “cultural fault lines” separating these regions are merely lines of change in energy spectrum,

including a change in the general spectral colour in the transitional boundary bands between these spectral zones. This connexion is due to the fact that Man is at the top of the chain of consumption of terrestrial environments (resources). As a result, the energy spectrum of a person is formed from the energy spectra of all natural and technogenic (man-made) terrestrial environments in the region of his origin, as well as from the energy spectra of all plant and animal species in this region (since plants and animals are created from particles of these terrestrial environments and, thus, are their integral parts included in the consumption chain).

Each major spectral zone of the planet is characterized by its own general spectral colour, at the frequencies of which its energy spectrum has a maximum, and consists of many smaller spectral zones, each of which has a slightly different spectral colour. In addition, these small spectral zones can contain even smaller “enclaves” of completely different spectral colours. The general spectral colours of these small spectral zones and enclaves within them together form the diversity of the energy spectrum of the major spectral zone that they make up. The multicolour diversity of countries, as well as of national and cultural autonomous regions inside the countries, show this, but in their conditional colours, on the political map of the world.

That is, since Man is at the top of the chain of consumption of terrestrial environments, and land is almost completely inhabited by people, the multicolour “patchwork quilt” of the political map of the world indicates both the major spectral zones on land and their constituent fragments (smaller spectral zones).

In addition, there are almost unpopulated and undeveloped lands on the planet, which, therefore, are not included in the consumption chain of modern Man. The largest of them are Antarctic and Greenland, along with Amazonia, Eastern Siberia, Sahara and others. These large spectral zones, as well as the smaller spectral subzones of which they are composed, are associated with not the human factor, but only with the natural chains of consumption of terrestrial environments.

The largest spectral zones in the World Ocean are associated with major ocean currents, seas and large bays. This is because the energy spectrum of each marine spectral zone, including its general spectral colour, consists of the energy spectra of the seabed with its characterist-

ic topography and mineral deposits, and also certain species of marine plants and animals. Each major marine spectral zones, like the major spectral zones on land, consists of smaller marine spectral subzones, including small marine spectral “enclaves”, each of which has its own general spectral colour.

FORMING THE ENERGY SPECTRUM OF A PERSON from the energy spectra of terrestrial environments and their “inhabitants” in the region of his origin.

So, each object has its unique energy spectrum characteristic of this specific type of objects, say, minerals, plants or animals, people. This is a sequence of spectral peaks and hollows, enveloped by their common spectral curve. Spectral peaks and hollows play the rôle of “text characters” or “musical signs”, and their complete sequence in the energy spectrum of an object is a kind of encoded text or musical notation — an *energy-spectral code* that is unique for each object and is similar to the source code of computer programs. Each type of particles that make up terrestrial environments, including their “inhabitants” has its characteristic energy spectrum with its characteristic energy-spectral code. Thus, all terrestrial environments, including all their “inhabitants”, are similar to computer programs of various types, executed in their common virtual space, called the “material world of the planet Earth” (see THE IMAGINATION FIELD for detail).

“Food products” for plants are solar radiation, which is necessary for photosynthesis of organic matter, plus particles of mineral and organic terrestrial environments (minerals, soil, water, air). As a result, the energy spectrum of each plant species has been formed from the energy spectrum of absorbed solar radiation, as well as the energy spectra of minerals, soil, water and air characteristic of the region of origin of this plant species. Due to the absorbed solar radiation, which, in turn, is the absorbed and then re-emitted radiation of galactic environments through which the Sun passes along with all other objects of the Solar System, the plant world is an indicator that reacts earlier than animals and humans to changes in the composition of galactic environments.

Animals consume plants, water and air, and carnivorous and omnivorous animals also consume herbivores. Thus, the energy spectrum of each herbivorous animal species has been formed from the energy spectra of edible plants and, thus, from the energy spectra of solar radiation,

solid minerals, soil, water and air in the region of origin of this species, and the energy spectrum of each species of carnivores and omnivores has been supplemented by the energy spectra of the herbivores (also natives of this territory) eaten by them.

Because Man is at the top of the chain of consumption of all terrestrial environments, the energy spectrum of each person has been formed from the energy spectrum of solar radiation and the energy spectra of the terrestrial environments (minerals, soil, water, air) and all their “inhabitants” (plants and animals), which are characteristic of the region of his origin and are included in the consumption chain of Man.

The energy-spectral curve, i.e., the sequence of spectral peaks and hollows (energy-spectral code) of each biological species, in particular, of humans, is somehow “fixed” in the energy-spectral code of their biological individuals, i.e., at the level of genes — in their genome with all its coding and non-coding (junk) genes, which, in the language of computer software, are biofiles compiled from their energy-spectral code (see GENES AS EXECUTABLE PROGRAM FILES). This “fixation” of the energy spectra of biological individuals, in particular, of humans, remains unchanged after they migrate to another region of the world due to retaining their original local culture, traditions, religion and food preferences, which, in turn, are the manifestation (materialization) of the corresponding fragments of the energy-spectral code characteristic of the region of their origin. Therefore, people, after they have moved from the region of their origin to another region of the world, in the vast majority of cases retain their energy spectrum (energy-spectral code) and, therefore, retain their hereditary traits for generations, since all these traits, typical to the people of their homeland, are determined by their energy spectrum (energy-spectral code).

As for plants and animals, their survival after transportation from the region of origin of their species to another region of the world is ensured by nutrition, the energy spectrum of which has a spectral composition familiar to them: this is planting in the soil as similar as possible to the soil in the region of their origin (for plants), as well as providing them with their familiar feed (for farm animals).

Europeans brought from the American colonies and cultivated in Europe some key crops and farm animals, such as frost-resistant wheat, potatoes, corn, turkeys, etc. They also began to export tobacco, cocoa

beans and other American products to Europe. Thus they adapted the energy spectrum of their native European spectral zone, including the energy spectra of Europeans, to the energy spectra of their colonies in the New World.

That is why it is necessary to completely abandon products brought from America (potatoes, corn, cocoa and chocolate, tobacco, etc.), from the East (rice, coffee, tea, spices, etc.), as well as from other spectral zones of the planet to all those who want to understand the history and traditions of the original European peoples, for example, researchers of the Gaelic peoples, Hellenic and Romanic cultures, etc.

MUTATION of the material bodies of biological individuals — this is how the process of forming the energy spectra of new biological species and subspecies, say, new species of plants or animals, people, looks like in the world of matter.

This can be a very slow evolutionary process that continues for many generations under the influence of continuous “injections” of the energy spectra of those terrestrial environments and their “inhabitants” that are characteristic of the region of living and are included in the chain of consumption of a given biological individual (say, a plant, animal or person).

However in most cases this is a fast process that takes decades, i.e., just one generation of biological individuals such as humans. In these cases, biological individuals mutate under the influence of an altered energy spectrum of the surrounding galactic environment. This is due to the entry of the Sun along with all the bodies of the Solar System into a new, neighbouring galactic sector, where the galactic environment has a different energy-spectral composition than in the previous sector. In this case, this new galactic environment having a different energy spectrum accordingly changes the energy spectrum of solar radiation, and then, through solar radiation and through the chains of consumption on the planet Earth, makes corresponding changes in the energy spectra of terrestrial environments and all their “inhabitants”, for example, plants, animals, people.

EACH COMPONENT of any spectral zone, due to the continuous exchange of energy with all its other components, plays its own unique spectral rôle that is in accordance with its energy spectrum. Each component performs its own “spectral part” in a joint “symphonic

orchestra” of this spectral zone, thereby participating in the formation of its unique spectral curve, including its general spectral colour. Different spectral zones — different compositions of “musicians” in such an “orchestra”, which determines the difference in the energy spectra of these zones.

Spectral rôles are different for different types of spectral zone components, i.e., for objects with different types of energy spectrum, including the general spectral colour, which prevails over other colours in its spectrum. For example, such “musicians”, performing their different “spectral parts” in a joint “symphonic orchestra” of a spectral zone, are reserves of different minerals (water, oil, ores), species of wild and agricultural crops, species of wild and farm animals, human populations, different types of industrial enterprises and agricultural farms, money reserves of different currencies, different types of securities, etc.

In particular, the aforesaid is true about human populations as fragments of spectral zones on the planet. People perform their specific rôles in society, like actors on a theatrical stage. This fact is well known to any political scientist and economist.

Now, through our knowledge about energy spectra as applied to biophysics, we understand that the “scripts” for people, following which they perform their rôles in society, are “recorded” in their energy spectra. The “script” for the main rôle of each person is “recorded” in a fragment of his energy-spectral code, i.e., in a local chain of spectral peaks and hollows, at those frequencies, where the envelope of these peaks and hollows has a main maximum and, hence, where the maximum energy in the spectrum is. This main “spectral hill”, as well as this main rôle, are expressed by the main (brighter) conditional spectral colour characteristic of this person, which prevails over other colours in his energy spectrum. The “scripts” for his secondary rôles in society are “recorded” in fragments of his energy-spectral code at frequencies (spectral colours) of lower “hills” of his energy-spectral curve.

STABILIZATION OF SOCIETY. Any human community as a spectral system is in a stable state if all its components are in stable spectral energy exchange with each other within this system, and this system as a whole is in stable spectral energy exchange with other spectral systems on the planet (other human communities and natural terrestrial environments). In other words, if each member of a society performs his

spectral rôle corresponding to his energy spectrum, i.e., according to the “script”, which is recorded in his energy-spectral code, this society is in a stable state. If a significant number of members of a society cease to perform their spectral rôles, the stable exchange of energy within the society is disrupted; this society comes to an unstable state, which can develop up to social resonances such as interracial clashes, revolution, civil war, genocide of ethnic or religious minorities, etc.

In terms of music, this means that each musician in a symphonic orchestra must perform only his part in accordance with the general score of the symphony. Otherwise, if one of the musicians in the orchestra makes inaccuracies in the performance of his part, we hear a “false note” in the performance of the symphony. And if there are many such musicians, or some of them stop performing their parts at all or start performing something else, not from this symphony, then the performance of this symphony turns into a cacophony.

Therefore, a mono-ethnic society is spectrally impossible as well as a symphony performed by a single musician. National, cultural, religious and other minorities play an important rôle; their energy spectra create the necessary spectral diversity in society.

These are facts known to any political scientist and economist. Now these facts are scientifically substantiated on the basis of the *spectroscopy of biological species*, which is a new branch of biophysics, potentially having far-reaching prospects.

It should be noted that your humble servant servant has always been engaged only in the mathematical theory of space-time and its biophysical applications. He found and read Huntington’s *THE CLASH OF CIVILIZATIONS* only in 2018. That is, the *spectroscopy of biological species* is the result of only biophysical research, and not a development of Huntington’s research in the field of economy and politics. Therefore, your humble servant is very pleased that research in biophysics and the space-time theory provide an independent natural science substantiation of the facts known in such seemingly distant humanitarian sciences as economics and political science.

SPECTRAL REPAINTING. THE LAW OF TERRITORIES

ONCE OUR PLANET EARTH, together with the Solar System, enters a sector of the Galaxy, where the surrounding galactic environment has another composition of the energy spectrum, including a different general spectral colour, the energy bodies of the Sun and all other objects of the Solar System, including the Earth's energy body, undergo *spectral repainting* in accordance with the general spectral colour of the galactic environment into which they enter. As a result, the energy exchange between the spectral zones on the planet, as well as the energy exchange within the spectral zones, changes in accordance with the new general spectral colour of the galactic environment.

Those spectral zones of the planet, the general spectral colour (frequencies) which coincides or is very close to the general spectral colour (frequencies) of the new surrounding galactic environment, greatly increase the amplitude of their oscillations due to the emerging colour frequency resonance with the radiation of the new galactic environment. Thus, these spectral zones significantly increase their influence on neighbouring spectral zones of a different general colour, which is manifested in the expansion of their home territories and territories of their influence due to the spectral absorption (repainting in its general spectral colour) of a part of the home territories and territories of influence of these adjacent spectral zones.

We call this process *spectral repainting* influenced by the altered general spectral colour of the surrounding galactic environment, and the spectral rule for changing (expansion or contraction) of the territories of spectral zones as a result of spectral repainting — the *law of territories*.

With spectral repainting, some spectral zones of the planet *expand*, some *decrease*, and some other spectral zones may even disappear,

completely repainted in the general spectral colour of the new galactic environment by the “resonant” spectral zone, i.e., *completely absorbed* by the “resonant” spectral zone.

EXPANSION, ADAPTATION AND ABSORPTION are three different responses of spectral zones of the planet (according to the general spectral colour of each of them) on the altered general spectral colour of the surrounding galactic environment.

For example. Consider three neighbouring energy zones of the planet. The general colours of their energy spectra are skyblue, yellow and red, respectively. The zones are in a stable state of energy exchange with each other along their border territories, with the subsequent transfer of the received energy to their central areas.

Then the planet, together with the Solar System, enters a neighbouring sector of galactic environments, whose main “colour” of the energy spectrum is indigo. The exchange of energy between the spectral zones changes in accordance with the law of conservation of energy, manifested as the law of territories. In the yellow zone, its central “core”, where the energy at the “yellow frequencies” is very high, is repainted from yellow to green due to the new high-frequency radiation of indigo colour. The peripheral areas bordering the skyblue zone, where the energy at the “yellow frequencies” is much weaker, are completely repainted in indigo and violet: the formerly yellow territory decreases due to the loss of areas adjacent to the skyblue zone, and the remaining “core” changes its general colour to green, thereby increasing the frequency of its energy spectrum. The skyblue zone enhances its influence by increasing its overall frequency and, as a result, acquiring a higher frequency of indigo colour. It expands its territory at the expense of both the borderline and inland territories of the neighbouring yellow zone, which were previously “yellow”, but now repainted in skyblue and indigo. The red zone with the lowest energy frequency of the three neighbouring zones ceases to exist due to the new high-frequency radiation of indigo colour: the “core” of the formerly red zone is repainted from red to indigo and violet; the red zone decays into many small zones that are also repainted in new colours (because any spectral zone is not homogeneous, but includes enclaves of spectral colours other than the general colour of the zone). In this process, the expansion of the skyblue zone is a manifestation of the Permission of Time for the

energy of “skyblue frequencies”, and the reducing and repainting of the yellow zone, as well as the total decay and disappearance of the red zone are manifestations of the Taboo of Time for the energy of “yellow” and “red frequencies”, where both the Permission and Taboo of Time are due to the general colour of the energy spectrum of the current surrounding galactic environment.

The law of territories is a spectral form of the law of conservation of energy, manifested in world politics, economics, ecology, in the world of plants and the world of animals, in biogeocoenosis, etc.

ABSOLUTELY EVERYTHING IN NATURE is arranged according to this scheme. It is spectral repainting that is the cause of all natural and man-made processes on the planet, since Man is a part of natural environments of the planet, the industrial environment and other man-made environments are also natural environments of the planet.

In other words, absolutely everything in all natural and man-made environments of the planet occurs as a result of spectral repainting in accordance with the law of territories, i.e., in the form of expansion, adaptation and absorption of different spectral components of these systems, depending on the correspondence of their energy spectra to the energy spectrum of the surrounding galactic environment. These are:

- changes in weather and climate, i.e. redistribution in the air environment of the planet;
- season and non-periodic redistribution in the water environments of the planet, such as oceans, continental seas, rivers, lakes, ponds, etc.;
- epidemics, i.e., bursts of the reproduction of pathogenic bacteria and viruses, including “unexpected” (for biologists) bursts of their mutations;
- redistribution of the areas of plant species, the areas of animal populations, changes in ecosystems in general, the origin and disappearance of species, etc.;
- economic redistribution, for example, changes in labour markets and securities markets, including the creation and disintegration of these markets, accumulation and loss of capital, redistribution of zones of influence in business, etc.;
- political changes such as the creation, rise and disintegration of states, changes in state borders, revolutions, wars, etc.;

- cultural, scientific and technological rise of some peoples, accompanied by cultural degradation, as well as the scientific and technological decline of others;
- expansion of local agricultural and industrial zones, accompanied by large-scale destruction of natural environments in these and adjacent regions (deforestation of the territory, environmental pollution, etc.);
- changes in specific zones of the soil environment of the planet (natural increase or decrease in the area of deserts, etc.), including soil depletion and destruction caused by agricultural and industrial activities of people;
- redistribution in the solid-rock environment of the planet, such as a change in the terrain, the motion of tectonic formations, the formation of mineral deposits, etc.

The speed of reaction to the altered energy spectrum of the galactic environment is different, depending on the speed of energy exchange in each of these systems. The fastest are energy exchanges in the gaseous environments of the planet. Thus, the full cycle of energy exchange in the air environment takes hours, and the energy exchange in the solid-rock environment, resulting in an evolutionary change in the terrain, takes tens and hundreds of thousands of years.

For this reason, spectral changes in the surrounding galactic environment cause rapid reactions in the gas and liquid environments within rock masses. However, a very slow energy exchange in minerals does not have time to react to these rapid changes, which entails the strongest mechanical stress, heat release and, as a consequence, a *catastrophic type of reaction* in the solid-rock environment of the planet. Evidence of a globally catastrophic tectonic reaction and, as a result, the response of the World Ocean to the total spectral repainting of our planet has been preserved in the legends of the last millennia of the history of Mankind. Less significant spectral repainting of our planet Earth occurs quite often (daily, weekly, monthly) due to local spectral inhomogeneities in the galactic environments through which the planet travels together with the Solar System. A catastrophic response in the solid-rock environment to such a less significant spectral repainting is observed in the form of volcanic eruptions and earthquakes of various magnitudes along the “spectral fault lines” separating different (large

and small) spectral zones of the planet.

To understand how this happens, you need to realize the following. It would be a mistake to think that the gas, liquid and solid environments are separated in the space of the planet. In reality, they are “embedded” into each other: the gas and liquid environments actually “permeate” the solid environments of the planet:

1. The fastest are weather and climate changes, i.e. energy exchange in the *gaseous environments* of the planet:
 - 1.1. The atmosphere — the gas shell of the Earth, consisting of layers, the density of which decreases with altitude above the Earth’s surface: troposphere (0 to 12 km); stratosphere (12 to 50 km); mesosphere (50 to 80 km); thermosphere (80 to 700 km); exosphere (700 to 10,000 km and higher). The gas plume of the exosphere is “smeared” along the Earth’s orbit in front of and after the planet at a distance of tens of its diameters, as well as far into space to the Moon, which is located at a distance of only 30 diameters of the Earth;
 - 1.2. Gases inside the bodies of plants and animals, including human bodies;
 - 1.3. Gas molecules in the water environments;
 - 1.4. Free molecules of various gases (including free hydrogen and helium) and adsorbed gases in the intermolecular space inside solid rocks (including granite and basalt deep underground), as well as gas molecules in a bound form, which are a part of the crystal lattice of minerals;
2. Slower than in the gaseous environments is energy exchange in the *water environments* of the planet, including:
 - 2.1. Water reservoirs on the Earth’s surface, such as oceans, continental seas, rivers, lakes, ponds; underground aquifers at shallow depths of up to tens of meters (ground and artesian waters); underground seas and rivers (they were discovered while drilling super-deep boreholes up to 12.262 km deep);
 - 2.2. Water inside of plants and animals, including humans, since their bodies are 50–90% water;
 - 2.3. Free water molecules and adsorbed liquid water in the intermolecular space inside solid rocks, as well as water in a bound form, which is a part of the crystal lattice of minerals;

2.4. Water in the form of clouds in the lower atmosphere, as clouds are composed of small water droplets or ice crystals;

2.5. Free water molecules in the atmosphere at high altitudes, including in the exosphere of the planet.

The reaction in gas and water contained in other environments of the planet to external spectral repainting is a “trigger” for all other environments. Thus, following the gas and water environments, simplest microorganisms (microbes) undergo spectral repainting.

The word *microbe* comes from the Greek words μικρός (small) and βίος (life). In particular, microbes are *viruses* and *bacteria*. The direct reaction of microbes to changes in “space weather” was first discovered in the 1920s and studied by Serge Velhover (1887–1943), a microbiologist, who was an active researcher of solar-terrestrial connexions and a correspondent of Alexander Chizhevsky (1897–1964). From 1925 to 1943, Velhover conducted daily observations of the activity of colonies of various pathogenic bacteria, in particular corynebacteria, in connexion with solar activity. His first preliminary reports ON SOME OF THE FUNCTIONAL PROPERTIES OF CORYNEBACTERIA (1935) and MICROBES AND RADIATION FACTORS (1936) were then summarized in his unfinished monograph MICROBE AND SPACE (1943). These results together with fragments of Velhover’s letters, were cited by Chizhevsky in his article THE SPACE WEATHER BAROMETER (1962). In short, Velhover discovered that bacterial cells, and then the nervous apparatus of humans and animals, are the first to respond to changes in “space weather”. And only after some time, due to the inertia of the huge mass of the Sun’s substance, the reaction to these cosmic changes appears on the surface of the Sun in the form of solar activity phenomena, such as sunspots, flares, ejections of particles, etc. Therefore, Velhover called microbes in general and bacteria in particular the *space weather barometer*.

Then, following microbes, more complex organisms, such as the bodies of plants and animals (including humans), undergo spectral repainting. Following plants and animals, spectral repainting occurs in the man-made environments, such as the economic, industrial, political and cultural environments of the planet (as was explained above, they all are also natural environments of the planet).

However, the solid-rock environment, due to the very slow speed of internal energy exchange, does not have time to react to this “trigger”.

As a result, instead of evolutionary spectral repainting, the solid-rock environment undergoes spectral repainting of a catastrophic type, manifested in the form of earthquakes, volcanic eruptions, and other tectonic activity of a catastrophic type.

THE FORERUNNERS of the scientific understanding of the periodic spectral repainting of our planet in the Galaxy were the studies of Nikolai Morozov (1854–1946). During 1932–1944, he conducted a bulky search for possible galactic effects on the weather and other geophysical phenomena, based on data taken from the meteorological yearbooks of the world’s main weather stations. These results were published in his summary article ON THE POSSIBILITY OF A SCIENTIFIC PROGNOSIS OF THE WEATHER WITH THE INTRODUCTION OF GALACTIC IMPACTS INTO ANALYSIS (1944). More results are contained in his unfinished monograph on this subject (your humble servant read this manuscript in the archives of the Russian Academy of Sciences).

To identify galactic influences, Morozov, with the assistance of the staff of the astronomical department of the research institute, where he was the director, over many years carried out a bulky work on recounting the records of all accessed meteorological yearbooks commencing in the 1860s from the solar local time, according to which they are recorded, to sidereal time (sidereal days are 4 minutes shorter than solar days). The results were presented in the form of more than 200 graphs. For diurnal stellar influences (tied to the stellar map), graphs of the same type were obtained as for solar influences. So, he wrote: “Among the hundreds of tables I calculated, there was not a single contradictory case in Europe, Asia, Africa, America or Australia.” All the discovered maxima of stellar-diurnal effects, determined taking into account the reaction lag time in the Earth’s atmosphere (which is obviously the same for both the solar exposure after the highest rise of the Sun at noon and for the stellar exposure), indicated that the main source of galactic impact on the weather is in the starry sky in the region around 10–11 hours of right ascension. Its radiation at the highest rise (culmination) in the equatorial latitudes of the Earth increases the air temperature by more than 1/7 solar heating, the rate of water evaporation by 1/3 and absolute humidity by 1/2 solar effect. A similar maximum within 10–11 hours of right ascension were found in rain precipitation, thunderstorms, as well as in the stellar-diurnal fluctuations in the electric and

magnetic strengths of the Earth's electromagnetic field. The aforementioned fractions from the magnitude of the solar impact decrease significantly with an increase in the geographical latitude of observation in the northern hemisphere. This made it possible to calculate the approximate coordinate of declination of this source, which indicated the constellation Carina in the southern hemisphere of the starry sky. In this area of the starry sky are located: the star cluster Southern Pleiades, which is grouped around the star θ Carina (right ascension 10 hours 42 min 57.4 sec, declination $-64^{\circ} 23' 40''$); the double supergiant star Foramen (η Carina, right ascension 10 hours 45 min 3.59 sec, declination $-59^{\circ} 41' 4.26''$), which is one of the most luminous stars in the Galaxy, the luminosity of which exceeds that of the Sun by more than 5 million times; as well as the double supergiant star WR 25 (right ascension 10 hours 44 min 10.34 sec, declination $-59^{\circ} 43' 11.41''$) — the most luminous of the known stars in the Galaxy, the luminosity of which is 6 million 300 thousand times greater than the Sun.

Besides, Morozov discovered two more smaller maxima of stellar-diurnal influences on the graphs of the absolute humidity (the amount of water vapour in the atmosphere). One of these small maxima points to approximately the 18th hour of right ascension in the constellations of Sagittarius or Scorpio. Presumably, this is the superpowerful radio source Sagittarius A (right ascension 17 hours 45 min 40.05 sec, declination $-29^{\circ} 0' 27.90''$), which is located near the centre of the Galaxy. Another maximum indicates 3–4 hours of right ascension in the constellation Taurus, where the Pleiades star cluster is located, the main star of which is η Taurus (Alcyone, right ascension 3 hours 47 minutes 29.1 seconds, declination $+24^{\circ} 06' 18.5''$). However, these small maxima are not present in the graphs of other weather parameters.

In addition, Morozov suggested that the phenomena of solar activity are simply resonances of the phenomena of activity on the surface of galactic energy emitters, which periodically repeat with periods of their axial rotation, when the active regions on their surface turn towards us. He wrote that the 11-year and 208-year cycles of solar activity, as well as the 19-year period of cyclones in the middle geographic latitudes discovered by him, are only an echo of periodic impacts of “cosmic protuberances” originating in the surface of superpowerful galactic energy emitters that rotate around their own axes with these periods.

THE FOLLOWING OBJECTS are, therefore, the main galactic sources affecting our planet.

Foramen (η Carina) is a double star, one of the most luminous stars in the Galaxy. It consists of two blue superhot supergiants that revolve around a common centre of gravity with a period of 2022.7 days (5.54 years). Foramen looks like a faint star due to its long distance to us (2,300 parsecs) and because of its variability. In 1843, it was one of the brightest stars on the night sky: its luminosity exceeded the solar one by 50 million times. Now its luminosity is 5 million times greater than the Sun. The binary star WR 25 is probably the most luminous star in the Galaxy. It is visible only through a telescope because of the dark dust nebula that absorbs most of its light and because of the large distance to it (2,000 parsecs). Its main component is also a blue superhot supergiant, whose luminosity is 6 million 300 thousand times greater than the luminosity of the Sun.

Blue superhot supergiants are Wolf-Rayet stars. They have a very high luminosity, which is hundreds of thousands (sometimes millions) times greater than that of the Sun. They are also sources of an intense outflow of substance from the surface into interstellar space (strong stellar wind), which includes heavy elements. The velocities of this outflow reach 3,000 km/sec and more. More than two hundred Wolf-Rayet stars are now known in our Galaxy; they are located at distances, as a rule, of more than 2,000 parsecs from us, but there are also a dozen of such stars at distances from 300 to 1,000 parsecs. Although Wolf-Rayet stars can be found in almost all constellations, many such stars, including Foramen and WR 25, are concentrated in the Trumpler 16 group in the constellation Carina.

The Southern Pleiades in the constellation Carina and the Pleiades in the constellation Taurus are composed of blue-white hot giants. The distance to θ Carina, the main star of the Southern Pleiades, is approximately 140 parsecs. Its luminosity exceeds 25 thousand solar luminosities. The distance to Alcyone (η Taurus), the main star of the Pleiades in Taurus, is approximately 135 parsecs; its luminosity is approximately equal to 2–2.4 thousand luminosities of the Sun. The rest of the stars of the Pleiades and the Southern Pleiades (also blue-white hot giants) have luminosities in the range from 600 to 1,000 solar luminosities. Despite the fact that blue-white hot giants can be found in all constellations, the

Pleiades and the Southern Pleiades represent local concentrations of a significant number of such stars.

The superpowerful radio source Sagittarius A is located at a distance of approximately 8,000 parsecs from us. Astronomers associate it, and the less powerful radio sources near it, with compact objects in the centre of our Galaxy.

SO, THERE IS AN ASTRONOMICAL SYSTEM of periodic influence on our planet. Now we understand this, taking into account the scientific results collected over the past decades. We understand that the observed thermal, electromagnetic and other galactic influences on the planet Earth are different material manifestations of the periodic spectral repainting of the planet's energy body in the general spectral colours of rotating superpowerful sources of directed energy emissions in the Galaxy. Whereas the observed influence of solar activity and much more weaker influences of planetary activity on the Earth are only "echoes" of these galactic influences, re-emitted by the Sun and the planets and, thus, reach the Earth with some delay after the direct influence of these galactic sources.

This is how it goes. Each source of superpowerful directed emissions of energy in the Galaxy, like any ordinary star or other object, revolves around its axis with its own rotation period. Thus, the areas of activity on its surface (these areas are similar to sunspots, flares and ejections of matter) also rotate, periodically turning towards our planet. The energy of these emissions does not propagate spherically, but along compact "protuberances" extending from these active areas on its surface throughout the entire Galaxy, repainting the energy spectra of the intragalactic (interstellar) environments and, in general, everything in its path in the general colour of its own energy spectrum. As a result, the planet Earth, together with all its spectral zones and their "inhabitants", undergoes periodic spectral repainting in the general spectral colours of rotating superpowerful sources of directed energy emissions in the Galaxy. The long lag time required for this impact to reach the Earth does not matter, since all these impacts are periodically repetitive due to the rotation of their sources.

ALL TERRESTRIAL EVENTS are, therefore, formed as a result of the spectral repainting of our planet Earth under the influence of the following cosmic factors:

1. Spectral repainting caused by direct galactic influences:
 - 1.1. The most powerful sources of spectral repainting in the Galaxy are clusters of *blue superhot supergiants* (Wolf-Rayet stars). So, superpowerful energy emissions from the two most luminous stars of the nearest such cluster, Foramen and WR 25 (distances of approximately 2,300 and 2,000 parsecs respectively), make the main contribution to the spectral repainting of our planet. The luminosity of each of these stars exceeds the solar one by many millions of times;
 - 1.2. A secondary contribution to spectral repainting is made by the nearest clusters of *blue-white hot giants*, such as the Southern Pleiades and Pleiades in Taurus (distances of 120–180 parsecs). Apparently, very active processes also occur inside such stars, which is expressed in powerful phenomena of activity on their surface, such as spots, powerful flares and ejections of substance. The luminosity of each of these stars exceeds the solar one by thousands and tens of thousands of times;
 - 1.3. Also, a secondary contribution is made by *superpowerful radio sources*, such as the radio source Sagittarius A and the surrounding lower-power radio sources (they are located in the centre of the Galaxy at a distance of about 8,000 parsecs from us). Most likely, very active processes take place inside such objects, leading to the formation of areas of powerful activity on their surface and, as a consequence, to powerful emissions of energy from these areas into interstellar space;
 - 1.4. *Visually bright stars* in the Earth's sky. These are either giants with a luminosity of 10,000 to 200,000 solar luminosities, located within about 500 parsecs from us, or the nearest to us (closer than 30 parsecs) ordinary stars, the luminosities of which exceed the solar one by no more than several tens of times. The latter appear as bright objects in the night sky due to their small distance to us. Although energy ejections from active regions on their surface are weaker than those of hot giants and supergiants, they also contribute to the spectral repainting of our planet;
2. Spectral repainting of our planet caused by the response of the Sun and the planets to the activity of galactic sources:

- 2.1. The main source of the response to galactic spectral repainting is the Sun, i.e. continuous solar radiation and directed emissions from the solar surface (solar activity);
- 2.2. The secondary sources of the response to galactic spectral repainting are the planets and the Moon, i.e. phenomena of planetary activity;
3. Spectral repainting caused by a combination of galactic and solar-planetary factors that occurs when their sources conjunct in the celestial sphere. When two celestial bodies are conjuncted, their right ascensions are the same and, thus, they simultaneously cross the celestial meridian. Thus, when two celestial bodies are in conjunction or close to this position, the radiation fluxes emanating from active regions on their surface are summed up. In particular, this leads to resonance of the radiation of these bodies at the same frequencies of the energy spectrum and, thus, to a multiple increase in the spectral repainting of terrestrial objects at these frequencies:
 - 3.1. Conjunctions of the Sun, the Moon and the planets with galactic sources of spectral repainting;
 - 3.2. Conjunctions of the superior planets (Mars, Jupiter, Saturn, etc.) with each other;
 - 3.3. Conjunctions of the inferior planets (Venus and Mercury) with each other, as well as their inferior conjunctions with the Sun, when the planet is located between the Sun and the Earth;
 - 3.4. Conjunctions of the Moon and the planets, as well as conjunctions of the Moon and the Sun, including their extreme conjunctions, when a lunar or solar eclipse occurs.

PERIODS OF TERRESTRIAL EVENTS, i.e. the periods of spectral repainting of our planet are therefore subdivided into the following groups and subgroups:

1. The periods of spectral repainting caused by direct galactic influences:
 - 1.1. The periods of integral variability of galactic sources of spectral repainting, including the variability of integral activity on their surface;
 - 1.2. The periods of axial rotation of galactic sources (turning active areas on their surface towards the Earth);

2. The periods of spectral repainting caused by the response of the Sun and the planets to the activity of galactic sources:
 - 2.1. The periods of solar and planetary activity. Their duration is the same as that of galactic sources;
 - 2.2. The periods of axial rotation of the Sun and the planets (turning active areas on their surface towards the Earth);
3. The periods of spectral repainting caused by the conjunctions of galactic sources, the Sun and the planets:
 - 3.1. The periods of conjunctions of the Sun, the Moon and the planets with galactic sources;
 - 3.2. The periods of conjunctions of the superior planets (Mars, Jupiter, Saturn, etc.) with each other;
 - 3.3. The periods of conjunctions of the inferior planets (Venus and Mercury), as well as the periods of their inferior conjunctions with the Sun, when the planet is located between the Sun and the Earth;
 - 3.4. The periods of conjunctions of the Moon with the planets and the Sun, including the periods of solar and lunar eclipses;
4. The periods of exposure of the Earth's surface to space sources due to the movement of the Earth:
 - 4.1. The periods caused by the rotation of the Earth: solar day — the period of exposure to the Sun; sidereal day (shorter than solar day by about 4 minutes) — the period of exposure by galactic sources and the planets;
 - 4.2. Lunar month — the period of exposure to the radiation of the Moon for one complete cycle of the lunar phase change;
 - 4.3. The periods caused by the Earth's orbital revolution around the Sun: solar year — the period of exposure to the Sun; sidereal year (about 20 minutes longer) — the period of exposure to galactic sources;
 - 4.4. The precessional solar year (about 21,000 years). The Earth's axis makes a precession in a circle among the stars for 25,765 years (the precessional sidereal year) in the direction opposite to the motion of the Sun; therefore, the equinoxes occur each year slightly earlier than the previous year. At the same time, the major axis of the Earth's orbital ellipse moves in a direction opposite to the precession, with a period of

111,528 years. As a result of the addition of these motions, the seasons of the year return to their original dates after each 20,930 years;

4.5. The period of oscillation of the angle of inclination of the Earth's axis to the ecliptic plane (the plane of the Earth's orbit) and, as a consequence, of the change in the height of celestial bodies above the horizon (approximately 41,000 years);

4.6. The period of oscillation of the "elongation" (eccentricity) of the Earth's orbit due to its "stretching" by the attraction of the planets (approximately 96,000 years);

4.7. The addition of the precessional solar year, the period of change in the inclination of the Earth's axis and the period of change of the eccentricity of the Earth's orbit, decomposed into harmonic series, revealed long cycles of heating of the Earth's surface by the Sun, in which the harmonics of these series are added, forming resonances. These cycles (Milankovitch cycles) coincide with the major and minor ice ages.

IN FACT, THE PLANET EARTH, travelling along its trajectory in the Galaxy, periodically crosses galactic environments spectrally coloured in the form of swirling fan-like sectors (spiral arms) originating in the activity areas on the surface of these emitters. The superposition (overlay) of these periods, each of which is associated with the general spectral colour of the corresponding galactic energy emitter and the magnitude of its impact, forms an *astronomical system of periodic spectral repainting* of the spectral zones of our planet together with all their "inhabitants" and, as a consequence, changes in their territories.

Every star, as well as every other source of spectral repainting in the Galaxy (radio, X-ray, gamma source, etc.) has its own energy spectrum. Accordingly, the radiation of each of galactic sources, possessing the same energy spectrum as its source, carries a unique energy-spectral code, which is recorded in the chains of peaks and hollows of its energy spectrum and stores all information about it. When radiation is absorbed by any object, the energy-spectral code of the radiation and, accordingly, of its source, is transmitted to the energy body of this object. This leads to repainting of the energy spectrum of this object in accordance with the general colour and half-tones of the energy spectrum of the radiation source. Thus, when the Sun and the planets absorb radiation

flows coming from galactic sources and then re-emit them into the surrounding interplanetary space, they add their own energy-spectral code to the energy-spectral code of the absorbed radiation. As a result, the radiation emitted by the Sun and the planets carries a combination of their own energy-spectral code and the energy-spectral code of galactic sources.

As a result, each galactic source, each cluster of galactic sources, as well as the Sun and each planet has its own unique influence on our planet, initiating terrestrial events of a special type, recorded in the energy-spectral code of this celestial body and specific only for it. Having found associations between the energy-spectral code (type of “chromaticity” of the energy spectrum) of each celestial body that has at least some significant effect on the spectral repainting of our planet, with the type of events that occur on the planet as a result of its radiation, we will find the relationship between each of these celestial bodies and earthly events, which is its initiator.

Those spectral zones and individual inhabitants of the planet, whose energy-spectral curves are similar to the energy-spectral curve of a celestial body, under the maximum energy release of which they fell, receive additional energy for their development and expansion of the territory of their influence due to resonance with the radiation of this celestial body. But those spectral zones and individual inhabitants, whose energy-spectral curves much differ from the energy-spectral curve of the impacting radiation, experience strong changes. These changes are accompanied by a decrease in their territory up to the complete destruction (decay) of their physical bodies, accompanied by the creation, on the basis of their remains, of new spectral zones and new species of the inhabitants of the planet.

There is a strict *astronomical timetable*, or, in other words, a *calendar* of spectral repainting of our planet by radiation of galactic sources, the Sun and the planets, based on the list of periods of their exposure (see above) and including the energy-spectral characteristics of each of these emitters, including the types terrestrial events initiated by the radiation of each of them. This astronomical timetable is strict, since we can neither change the route of our planet in the Galaxy, nor the sequence of spectral sectors in the interstellar (galactic) and interplanetary environments on its route.

Climate change, the emergence and decay of ecosystems, epidemics, wars, the emergence, development and death of civilizations, the rise and fall of the economy, the rise and fall of stock exchange prices, technological progress and degradation, etc. — all these processes are the result of spectral repainting of the energy spectrum of our planet in strict accordance with the astronomical timetable and the law of conservation of energy, manifested on the planet in the form of the law of territories.

Having a spectral map of our planet and a timetable of spectral repainting, it is possible to calculate changes in the territories of the planet's spectral zones both in the future and in the past. In particular, knowing the energy-spectral characteristics of the “inhabitants” of each of the spectral zones, it is possible to calculate the events of these “inhabitants” in the future and the past, since all terrestrial events are determined by the redistribution of energy between spectral zones and within them in strict accordance with the law of conservation of energy and the timetable of spectral repainting.

This is a new area of scientific research that is critical to the survival of all of humanity.

To achieve success on this path, politicians must have an *iron will* and *faith in the correctness of your decisions* to perform actions that are unpopular among the masses of people who do not understand (so far) the basics of spectral repainting. It is the iron will, backed up by the knowledge of the spectral map of our planet and the spectral repainting timetable, that is necessary for the economic reorientation of entire regions of the planet, mass evacuations from those regions in which, according to the spectral repainting timetable, we expect natural disasters, economic collapse, military clashes, etc., with the apparent absence (for the mass of people) of reasons and the need for such radical actions. It is the iron will and accurate knowledge that will help people to implement the necessary social redistributions on the planet in advance and, thus, mitigate the catastrophic consequences of the expected spectral repainting, including a significant reduction in economic damage and the number of victims.

SPECTRAL FORECASTING OF CATASTROPHES

THE TOPICS of the current Chapter are spectral forecasting of natural, technogenic and social catastrophes, measures to mitigate the consequences of expected disasters, and spectral control as a stabilizing factor in politics, economics and ecology.

Intuitive guesses about the existence of the technology of spectral forecasting of events in general and of catastrophes in particular have probably existed at all times of human history. Examples of these are the astrologers of the past with their primitive methods of prediction that do not take into account the mechanism of the formation of events on the planet. As a result, the predictions made by astrologers are far from accurate scientific forecasts, and also strongly depend on the cultural traditions of a particular era and a particular people. For example, the ancient Egyptian horoscope, the Druidic horoscope, the Vedic horoscope, the Western European modern horoscope and others give different predictions based on the same mutual positions of the stars, the Sun and the planets. Nevertheless, astrologers of the past are the intuitive harbingers of the modern scientific method of spectral forecasting of events, based on knowledge of the sources and the mechanism of spectral repainting of the planet, including maps of the planet's spectral zones and energy-spectral characteristics of their "inhabitants".

CATASTROPHE is a special type of events. Below we will define this type of events and explain how and why such events occur.

A CATASTROPHE is an event, all the elements of which, including the participants, the location and the moment in time of this event have the same general colour of the energy spectrum. Thus, when all the participants find themselves at the site and time of the catastrophe, their bodies cease to be their own: they merge

together with a fragment of the terrain, forming a single body called the *body of the catastrophe*.

THE ASSEMBLY OF A CATASTROPHE is the process of merging the bodies of its participants and the site of the catastrophe into a single body, and the time of a catastrophe is the time when the assembly of its body ends.

In other words, the assembly of a catastrophe is the merger of the bodies of all participants in the catastrophe, as well as of the catastrophe site into a single body (the body of the catastrophe). Accordingly, the process of assembling a catastrophe is a journey of all participants in the catastrophe along their individual routes from the past to the future to the catastrophe site and its time (the moment of time, when the assembly of the catastrophe body is completed), as well as the journey of the remains of these participants along their individual routes from the future to the past to the catastrophe site and its time.

To understand why the assembly of a catastrophe occurs both from the past and from the future, it is necessary to realize that the bodies of all participants in the catastrophe, as well as the body of the catastrophe itself, like any other bodies, are multidimensional space-time objects. Each of them is an event cylinder, woven into the event cylinder of the planet Earth, stretched along its spiral trajectory in the Galaxy. The event cylinder of each body is woven from a multitude of threadlike event cylinders of its constituent particles at the time of its assembly (birth) and disintegrates into many threadlike cylinders of particle events at the time of its decay (death). The three-dimensional bodies that we observe are instant “slices” of the space-time event cylinders of these objects, fixed by the brain as a three-dimensional instrument of the observer’s perception: the observer’s brain “scans” the event cylinder of the planet in the direction from the past to the future due to the motion of the observer along with the planet along its spiral trajectory in the Galaxy; thus the observer perceives life as a “living movie” consisting of successive discrete three-dimensional images of the surrounding world (frames of this “movie”) — successive instant “slices” of the space-time cylinder of planetary events.

The multidimensional space-time body of a catastrophe has two fundamental differences in comparison with the space-time body (event cylinder) of any other object. These differences are:

1. MONOCHROMATICITY. A catastrophe is woven from the event cylinders of its participants and the catastrophe site, the energy spectra of which have the same general spectral colour;
2. INSTANTANEOUSNESS. Whereas the space-time body (event cylinder) of any other object has a certain “length” in time from the moment of its assembly (birth) to the moment of its disintegration (death), a catastrophe body exists for only one moment in time — the moment of completion of the assembly of this body, which also is the moment of the beginning of its decay. A catastrophe body has no “length” in time.

To complete the assembly of a catastrophe, it is necessary that all its participants arrive at a place that has the same general spectral colour as the participants in the catastrophe. This is the catastrophe site. Their arrival should take place synchronously at that moment in time, when the general spectral colour of the external cosmic influence in this place is similar to the general spectral colour of the participants and the catastrophe site. When these conditions coincide, the bodies of all participants in the catastrophe resonate with each other and with the terrain — their bodies merge into a single body, which means the end of the catastrophe assembly. At this moment in time in this place of the planet, a phenomenon occurs, which is called a catastrophe.

The final assembly of the catastrophe body is carried out, thus, as a result of coincidence:

- the general colour (chromaticity) of the energy spectra of all its participants;
- the chromaticity of the catastrophe site as a superposition of the general spectral colours of the relief, vegetation, etc. at this location;
- the chromaticity of the moment of time of the catastrophe assembly as the general spectral colour of the external cosmic influence on this place of the planet at this moment in time.

SPECTRAL FORECASTING of any events in general and catastrophes in particular is based on the analysis:

- the energy-spectral characteristics of the alleged participants in the events;
- the spectral terrain map;
- the timetable (calendar) of the spectral repainting of our planet.

The difference of spectral forecasting of catastrophes is that we are looking for the coincidence of the general spectral colour of the inhabitants of the planet, the terrain and the moment in time, which together leads to a catastrophe. Whereas, in the general case, we forecast the events of the inhabitants of the planet in accordance with the change in the general spectral colour of each of them, which occurs according to the timetable (calendar) of spectral repainting of the planet.

THE TIMETABLE OF SPECTRAL REPAINTING is a kind of calendar in which each specific hour, day, month and year has its own spectral colour according to the energy spectrum of that sector of galactic environments through which our planet flies during this period of time. This timetable is a calendar analogue of the route map of our planet in the Galaxy, where our planet periodically crosses swirling fan-like sectors (spiral arms) of galactic environments, originating in active regions on the surface of galactic sources of spectral repainting, and also of the Sun and the planets. So:

1. Each hour of the day has its own chromaticity according to the general spectral colour of that galactic source of spectral repainting, which during this hour passes the point of its highest rise above the horizon (the point of its upper culmination, i.e., the intersection point of the celestial meridian), where the magnitude of its influence on the terrain is maximum:
 - 1.1. Since the daily rotation of the celestial sphere is only 15° per hour, then 1 hour is the minimum time interval during which the sources of spectral repainting change;
 - 1.2. If, within an hour, several sources of spectral repainting pass their upper culmination, then the chromaticity of this hour is the superposition of their general spectral colours;
 - 1.3. The time of the day, when the same stars pass their upper culmination, slowly shifts day after day due to the annual motion of the Earth around the Sun and completes a full daily cycle in 1 stellar year. Therefore, the colour of each hour of the day changes approximately every 2 calendar weeks;
2. Each day of the lunar month (a full cycle of the Moon's phase change, about 29.5 days) has its own chromaticity, which is a superposition of the general spectral colour of the Moon in the current phase and the general spectral colours of those galactic

sources (and, in the new moon, of the Sun), against the background of which the Moon moves during this day:

2.1. The Moon moves relative to the stars, completing a full cycle on the celestial sphere in 1 lunar month. Thus, the Moon moves against the background of different galactic sources of spectral repainting during each day;

2.2. On a new moon, the Moon and the Sun are conjuncted, i.e. they cross the celestial meridian at the same time. Moreover, if the declinations of the Moon and the Sun coincide, a total solar eclipse occurs. During its total phase (2–3 minutes), the solar radiation is completely screened by the Moon. Thus, in the total phase band on the Earth's surface, there is the radiation of only the general spectral colour of the Moon's radiation in the new moon phase and of the general spectral colours of those galactic sources, against the background which the Moon and the Sun are moving on this day;

2.3. Due to the fact that the lunar month is shorter than the calendar month, the lunar year is shorter than the solar year: a normal lunar year has 354 days, and a leap lunar year has 355 days. As a result, the lunar calendar lags behind the solar calendar, completing a full annual cycle in about 33.6 years. Thus, the chromaticity of the same day of the ordinary solar calendar is different every year and is determined by the lunar calendar;

3. Each calendar month has its own chromaticity, which is a superposition of the general spectral colour of solar radiation and the general spectral colours of those galactic sources against which the Sun moves during this month:

3.1. The Sun slowly moves relative to the stars, completing a full cycle on the celestial sphere in 1 solar year (shorter than a sidereal year by about 20 minutes). As a result, the solar year is divided into 12 approximately equal spectral intervals (calendar months), each of which has its own chromaticity according to the superposition of the general spectral colours of those galactic sources that are in sky, during this month, within 15° (1 hour of right ascension) to left and right of the point of conjunction with the Sun in the sky;

- 3.2. These 12 spectral intervals are associated with the zodiacal constellations that the Sun crosses in turn throughout the year. This association is approximate, since the boundaries of the constellations are established by the conventions of human imagination, which makes up the figures of objects from the stars in the sky;
4. Due to the motion of the planets around the Sun, each of the planets very slowly moves relative to the stars along its specific trajectory along the belt of the zodiacal constellations (ecliptic belt). Thus, the positions of the planets relative to the stars, the Sun and the Moon also affect the chromaticity of time intervals:
 - 4.1. When at some hour of the day one of the planets passes the celestial meridian (its upper culmination) at the place of observation, its general spectral colour is superimposed on the chromaticity of this hour of local time;
 - 4.2. If one of the planets is located within those 12.2° in the sky (1 day of the lunar month), which the Moon passes during this day, then its general spectral colour is superimposed on the chromaticity of this day;
 - 4.3. If a planet is located within 30° of one of the 12 sections of the ecliptic belt (zodiacal constellations) that the Sun passes during this calendar month, then its general spectral colour is superimposed on the chromaticity of this calendar month;
 - 4.4. If two or more planets for a period of time approach each other in the sky within 15° (1 hour of right ascension), then the general spectral colours of these planets are superimposed on the chromaticity of this entire period of time;
 5. The Sun is the main retransmitter of galactic radiation in the Solar System, i.e. spectral repainting by solar radiation is dominant in magnitude of the impact on the Earth. Therefore, each year has its own chromaticity, which is determined by the solar activity that year:
 - 5.1. Each of the cycles of solar activity is caused by the cyclic activity of the corresponding galactic source and, thus, has the chromaticity (general spectral colour) of this source with a magnitude that changes during this cycle;

- 5.2. Accordingly, the chromaticity of each year is determined by the superposition of the maxima of the solar energy spectrum, each of which has the chromaticity of the corresponding solar activity cycle (that of the galactic source of this cycle) and the magnitude determined by the intensity of energy emissions from the surface of this galactic source in this year;
- 5.3. At present, astronomers know with certainty the cycles of solar activity lasting approximately 11 years, 22 years, 88 years, 208 years, 2,300 years, and 6,000 years. Their durations are known approximately; the last two cycles were detected by the concentration of radiocarbon ^{14}C in the annual rings of long-lived trees (dendrochronology). The connexion of each of these cycles with specific sources of spectral repainting in the Galaxy is a subject of research;
- 5.4. Most likely, there are others, both short-period (several months or years) and long-period (hundreds and thousands of years) cycles of solar activity. The search for these cycles and their galactic sources by the methods of heliobiology and astronomy is the subject of research;
6. The chromaticity of time intervals slowly changes due to the precession of the Earth's axis. The Earth's axis makes a precession in a circle among the stars for 25,765 years (precessional stellar year) in the direction opposite to the motion of the Sun; therefore, the equinoxes occur each year a little earlier than the previous year. As a result, the Sun on the days of the equinox appears against the background of the same stars with a period of 25,765 years. Therefore:
- 6.1. The chromaticity of each hour of the day is determined by the stars crossing the celestial meridian at that hour and, thus, changes to the chromaticity of the previous hour approximately every $25,765 / 24 = 1,073.5$ years;
- 6.2. The chromaticity of each day is determined by the Moon and those stars against which the Moon moves on this day, and thus changes to the chromaticity of the previous one approximately every $25,765 \times 29.5 / 365.25 = 2,081$ years;
- 6.3. The chromaticity of each calendar month is determined by the Sun and those stars against which it moves in this month,

and thus changes to the chromaticity of the previous calendar month approximately every $25,765/12 = 2,147$ years;

7. The magnitude of spectral repainting depends on the height of its sources above the horizon and, therefore, in addition to daily and seasonal fluctuations, it experiences the following long-period fluctuations:

- 7.1. Since the Earth's axis makes a circular precession among the stars for 25,765 years (precessional stellar year), the height of the celestial objects above the horizon and the magnitude of spectral repainting by radiation from galactic sources, the Sun and the planets fluctuates with a period of 25,765 years;

- 7.2. The major axis of the Earth's orbital ellipse moves in the direction opposite to the precession of the Earth's axis, with a period of 111,528 years. As a result, the seasons of the year return to their original dates earlier than in one precessional stellar year, namely, every 20,930 years (precessional solar year). In our era, the middle of summer in the northern hemisphere of the Earth occurs in July and, thus, the magnitude of spectral repainting by solar radiation in July is maximum. However, in about 10,500 years in the northern hemisphere, July will be midwinter and thus the magnitude of solar spectral repainting in July will be minimal;

- 7.3. Oscillation of the inclination of the Earth's axis to the plane of the Earth's orbit (the plane of the ecliptic) with a period of about 41,000 years leads to a change in the height of objects on the celestial sphere above the horizon and, as a consequence, to a change in the magnitude of spectral repainting by radiation from the Sun, the planets and galactic sources with the same period;

- 7.4. Oscillation of the eccentricity of the Earth's orbit with a period of approximately 96,000 years (due to the "stretching" of the orbit by the attraction of the planets) changes the distance from the Earth to the Sun and thus leads to a fluctuation in the magnitude of spectral repainting by solar radiation with the same period;

- 7.5. The addition of the precession solar year, the periods of change in the inclination of the Earth's axis and the eccentricity

ty of the Earth's orbit, decomposed into harmonic series, give long-period fluctuations in the magnitude of spectral repainting by solar radiation, on which the harmonics of these series are added, forming resonances. These cycles (Milankovitch cycles) coincide with the major and minor ice ages;

8. When calculating events of the distant past and future, you must have:

8.1. Ephemerides of the Sun, the Moon and the planets, calculated for millennia into the past and future;

8.2. Accurate information about the periods of activity of galactic sources, the Sun and the planets;

8.3. Accurate information about the proper motion of stars, since their position relative to each other changes noticeably over such long periods of time as millennia;

8.4. When calculating events even not so distant past and future, one should take into account the fact that astronomical ephemeris and calculations are made according to the Julian calendar, since it accurately shows the natural change in the dates and seasons of the year due to the Earth's motion. However, the now generally accepted Gregorian calendar is specially designed so that it compensates for the annual shift in the equinox dates; this calendar was adopted in 1582 to replace the Julian calendar solely because of the requirement of the Roman Catholic Church to celebrate Easter in spring. The Gregorian calendar does not display the precession of the Earth's axis and much more, and therefore is not suitable for astronomical calculations.

THE CHROMATICITY OF EACH HOUR, each day, each month and each year is formed, thus, as a superposition of the chromaticities of those maxima of the energy spectrum that distinguish this time interval from other time intervals of the same duration.

EACH HOUR OF THE DAY has its own energy spectrum with four groups of maxima:

- A. The main group of maxima corresponding to the general spectral colour of solar radiation in the current solar activity year;
- B. A group of secondary maxima corresponding to the chromaticity of the current calendar month, i.e. the general spectral col-

ours of those galactic sources and the planets against which the Sun moves during this month;

- C. A group of secondary maxima corresponding to the chromaticity of the current day of the lunar month, i.e. according to the general spectral colour of the Moon in a current phase and the general spectral colours of those galactic sources and the planets against which the Moon moves during this day;
- D. A group of secondary maxima corresponding to the chromaticity of the current hour, i.e., the general spectral colours of galactic sources and the planets passing the celestial meridian (upper culmination) during this hour.

Group D determines the spectral chromaticity of the hour.

EACH DAY of the lunar month has its own energy spectrum with three groups of maxima:

- A. The main group of maxima corresponding to the general spectral colour of solar radiation in the current solar activity year;
- B. A group of secondary maxima corresponding to the chromaticity of the current calendar month, i.e. the general spectral colours of those galactic sources and the planets against which the Sun moves during this month;
- C. A group of secondary maxima corresponding to the chromaticity of the current day of the lunar month, i.e. according to the general spectral colour of the Moon in a current phase and the general spectral colours of those galactic sources and the planets against which the Moon moves during this day;

Group C determines the spectral chromaticity of the day.

EACH CALENDAR MONTH has its own energy spectrum with two groups of maxima:

- A. The main group of maxima corresponding to the general spectral colour of solar radiation in the current solar activity year;
- B. A group of secondary maxima corresponding to the chromaticity of the current calendar month, i.e. the general spectral colours of those galactic sources and the planets against which the Sun moves during this month;

Group B determines the spectral chromaticity of the month.

EACH YEAR has its own energy spectrum, containing just one group of maxima:

- A. The main group of maxima corresponding to the general spectral colour of solar radiation in the current solar activity year;
Group A determines the spectral chromaticity of the year.

SPECTRAL TERRAIN MAP is a kind of geographical map that shows the spectral colours of landscape elements and its inhabitants. The following short list includes only the main types of spectral maps:

1. Geological spectral map:
 - 1.1. Tectonic rocks. Each type of rock is indicated by its own spectral colour;
 - 1.2. Inorganic and organogenic sediment deposits, shown by their own spectral colours;
2. Spectral maps of habitats of natural landscape inhabitants:
 - 2.1. Spectral map of the soil layer, where each type of soil is indicated by its own spectral colour:
 - 2.1.1. Various types of mineral components of the soil layer (each of them brings its own spectral hue);
 - 2.1.2. Areas of distribution of each species of soil inhabitants, such as various types of microbes, fungi, worms, insect larvae, roots of terrestrial plants, etc. (each of them brings its own spectral hue);
 - 2.2. Spectral map of vegetation, where each plant species is indicated by its own spectral colour;
 - 2.3. Spectral map of the animal kingdom, where each animal species is indicated by its own spectral colour;
3. Spectral maps of the distribution of anthropogenic elements:
 - 3.1. Spectral map of the main world civilizations (cultures), each of which is shown by its own spectral colour:
 - 3.1.1. Territorial distribution of major religions, shown by their own spectral colours;
 - 3.1.2. Territories of states and autonomies, shown by their own spectral colours;
 - 3.2. Spectral map of agricultural and industrial resources. Each resource type has its own spectral colour:
 - 3.2.1. Agricultural resources (crop species and domestic animal breeds);
 - 3.2.2. Industrial resources such as factories, etc., where the spectral colour of each of them corresponds to the spectral

- colour of the product being produced;
- 3.2.3. Emission fields of industrial enterprises, repositories of biological, chemical and radioactive waste, etc.;
- 3.3. Spectral map of the development of fossil resources (copper ore, oil, etc.), indicated by their own spectral colours;
- 3.4. Spectral map of the territorial distribution of labour resources, each of which is indicated by its own spectral colour according to profession;
- 3.5. Spectral map of the territorial distribution of monetary reserves, currencies and securities, each type of which is indicated by its own spectral colour;
- 4. A comprehensive spectral map, which shows the spectral ecosystems of the planet, which combine the previous ones along the chains of consumption:
 - 4.1. The main spectral zones of the planet;
 - 4.2. Spectral sub-zones within the main spectral zones;
 - 4.3. Natural and anthropogenic spectral enclaves within the main spectral zones and subzones;
 - 4.4. Natural and anthropogenic spectral inhomogeneities of small terrain areas.

A CAR ACCIDENT is a typical example of the final assembly of a catastrophe body — the merger of the bodies of the catastrophe participants into a single body based on the general colour (chromaticity) of their energy spectra. The elements of such a catastrophe are:

1. Cars involved in the accident. The spectral chromaticity of each car is formed as a superposition:
 - 1.1. The spectral colour of the manufacturer as a superposition of the spectral colours of the letters of the alphabet that make up the name of the company (extends to the energy spectra of all products of that company);
 - 1.2. The spectral colour of that region, where the car was assembled (cars of the same model, assembled in different spectral regions, have different spectral colours);
 - 1.3. The spectral colour of the assembly time (superposition of the spectral colours of the hour, day, month and year) as a result of the complex impact of galactic sources, the Sun and the planets at the time of assembly;

- 1.4. Spectral colours of car units and parts as superposition:
 - 1.4.1. Spectral colours of those spectral zones where these units and parts were made;
 - 1.4.2. Spectral colours of materials from which these units and parts are made;
 - 1.4.3. Spectral colours of the times of their production, i.e. spectral colours of the hour, day, month and year of manufacture as a result of the complex impact of galactic sources, the Sun and the planets;
2. Drivers and passengers of the cars involved in the accident. The spectral chromaticity of each of them is a superposition:
 - 2.1. The spectral colour of his identity (language, culture, religion, etc.);
 - 2.2. The spectral colour of the place of birth;
 - 2.3. The spectral colour of the time of birth (superposition of the spectral colours of the hour, day, month and year of birth) as a result of the complex impact of galactic sources, the Sun and the planets at the time of the transition of a newborn to autonomous nutrition by planetary environments (primarily through respiration). The spectral colour of this “food”, which he consumed during the first hour after birth, together with the spectral colours inherited from his parents, form the energy spectrum (spectral chromaticity) of the newborn;
3. The place of final assembly of the catastrophe. The spectral chromaticity of the area is formed as a superposition:
 - 3.1. The spectral colours of tectonic, sedimentary and soil layers (underworld) at the catastrophe site;
 - 3.2. The spectral colour of vegetation (plant species) at the catastrophe site;
 - 3.3. The spectral colour of the animal kingdom (animal species) at the catastrophe site;
4. The moment of time of final assembly of the catastrophe body. The superposition of the spectral colours of the hour, day, month, year forms the chromaticity of the moment of the final assembly of the catastrophe (within one hour).

As soon as cars, the general spectral colour of which (taking into account the spectral colours of their drivers and passengers) is similar

to the general spectral colour of the crash site, simultaneously arrive at the crash site within the time interval of the same spectral colour, a squall chain reaction of micro-events occurs — the final assembly of the catastrophe body. As a result of this chain reaction of micro-events, parts and assemblies of the cars, the bodies of their drivers and passengers, as well as other elements of the crash site, such as elements of stones, soil, vegetation and fauna of this place merge into a single body of this car accident.

Moreover, if the general spectral colour of one or several elements of a car accident (any units or parts of the cars, anyone of the drivers and passengers) does not fully correspond to the general spectral colour of the catastrophe, then the body of this element is only partially integrated into the catastrophe body:

- if these are units or parts of a car, then only some of their replaceable parts are integrated into the body of the accident (thus, these units and parts can be subsequently repaired and reused after the accident);
- if these are drivers or passengers, then only the non-vital parts of their bodies are integrated into the body of the accident; such persons do not die in the accident, but receive injuries of varying severity: the less the coincidence of the spectral colour of the participant in the catastrophe with the spectral colour of the catastrophe itself, the easier his injury.

AIRPLANE AND MARINE CATASTROPHES occur for the same reason that is the common energy spectra of the participants, the location and time of the catastrophe.

The difference between airplane crashes and catastrophes at sea lies in the speed and degree of integration of the participants into a single catastrophe body. Water is almost a thousand times denser than air: the density of air at normal pressure on the Earth's surface is about 1.2 kg/m³, while the density of water at 20°C is about 1,000 kg/m³. Therefore, all processes in the air occur hundreds of times faster than in the water environment. In particular, the integration of the participants into a single body of an airplane crash occurs hundreds of times faster than the ordinary movements of people, while the speed of integration of participants into a single body of a catastrophe at sea is comparable to the speed of human reaction. As a result, the participants in airplane

crashes survive in very rare exceptions, while the number of survivors of catastrophes at sea is many times greater: with the obvious approach of a catastrophe at sea, the crew and passengers of the ship manage to take the necessary actions to save themselves, i.e. remove their bodies from the local area of the final assembly of the catastrophe body.

Suppose that an airplane has a general spectral colour (as a set of energy spectra of units and parts of this airplane, its pilots and passengers), similar to the general spectral colour of an area on its route. As soon as such an airplane approaches this spectral area within a time interval of the same spectral colour (as a result of the influence of the corresponding galactic sources, the Sun and the planets), a squall chain reaction of micro-events is launched, leading to the merger of this airplane, as well as the bodies of the pilots and passengers into a single body airplane crash.

“Accidental” failure of a unit or part of an airplane, “wrong” action by the pilot, “unexpected” collision with a bird, etc. — this is the beginning of a squall chain reaction of micro-events, the end of which is the merger of the bodies of all participants in the catastrophe (units and parts of the airplane, the bodies of the pilots and passengers, etc.) into a single body of the catastrophe, after which the chain disintegration of this single body immediately begins. But, based on the analysis of the energy spectra (spectral chromaticity) of the units and parts of the airplane, the pilots, the passengers and other elements of the airplane crash, we understand that there is nothing “accidental”, “wrong” or “unexpected”.

The assembly of the body of a catastrophe at sea follows a similar pattern. Suppose that a ship as a complex object has a general spectral colour (as a set of the energy spectra of the units and details of this ship, its commander, crew, passengers and cargo), similar to the general spectral colour of an area of the ocean on its route. As soon as such a ship enters this spectral area within a time interval of the same spectral colour (as a result of the combined effect of the corresponding galactic sources, the Sun and the planets), a squall chain reaction of micro-events is launched, leading to the merger of this ship, the body of its commander, the bodies of the crew, passengers and cargo into a single catastrophe body. In this case, “accidents”, “wrong actions” or “unexpected events” are only links in this chain reaction occurring due to the

common chromaticity of the energy spectra of its participants.

A ship on which serious accidents often occur, including with human casualties, or which periodically gets into serious natural disasters, has units and parts in its design, the energy spectra of which have a similar general spectral colour. In this case, the sailors say: "This ship was doomed (cursed) from the moment it was launched". If accidents and disasters begin to haunt the ship from the moment of the change of its crew or from the moment when the crew was led by a new commander, the sailors say: "This crew is cursed (or this commander is cursed) and their ship will surely go to the bottom". In this case, the key in the catastrophe assembly is the colour of the crew's energy spectrum or the colour of the commander's energy spectrum, which coincide with the general spectral colour of the ship: when such a ship enters the spectral zone of the ocean with a similar general spectral colour in a time interval of the same spectral colour, this leads to a chain reaction of micro-events completing the assembly of the catastrophe body.

As in the case of a car accident, if the general spectral colour of one or more elements of an airplane crash or a catastrophe at sea does not fully correspond to the general spectral colour of the catastrophe, then the body of this element is only partially integrated into the body of the catastrophe. If such an element is a unit or part of an airplane (or ship), then this unit or part can be restored after the catastrophe. If such an element or elements are people on board this airplane (or ship), then they survive the crash: the less the general spectral colour of the participant in a catastrophe coincides with the general spectral colour of the catastrophe itself, the easier his injury.

SPECTRAL HETEROGENEITY of units and parts was originally incorporated in the design of almost all machines and mechanisms due to the unconscious striving of engineers and designers for harmony as spectral diversity. It is the wide variety of spectral peaks and hollows of the energy spectrum of a car, airplane, ship or any other vehicle that excludes the coincidence with the general colour of the energy spectrum of a terrain and the energy spectrum of a time interval, and, thus, excludes this vehicle from falling into a catastrophe. Therefore, most cars, airplanes and ships do not fall into accidents throughout their entire service life (for modern cars, this is usually within ten years, for airplanes and ships — several decades).

The variety of spectral peaks and hollows of the energy spectrum of a car, airplane or ship can be controlled deliberately at the design and manufacturing stages by selecting units and parts of the most diverse spectral colours. Thus, a car, airplane or ship, produced from a manufacturer's facility, can be deliberately made *emergency-safe*. Conscious production of such emergency-safe vehicles and technical devices in general (based on the knowledge of the energy spectra of units, parts, materials, terrain and time intervals) is the task of engineers and technologists of our time. However, even this measure cannot prevent the merger, for example, of an initially emergency-safe car, airplane or ship with the body of any catastrophe due to the fact that the energy spectra of the people in this vehicle can make its general spectral colour similar to the general spectral colour of the site and time of the catastrophe.

It is this factor (commonly called the *human factor*, without a conscious connexion with the energy spectra of vehicles and the persons driving them) that should be the focus of attention during the operation of cars, airplanes, ships and other vehicles in order to avoid catastrophes during their operation. Selection of car drivers, airplane crews and ship crews must be carried out on an emergency-safe basis, i.e. taking into account the effect of adding the energy spectra of these persons to the energy spectrum of a particular vehicle: their total energy spectrum should have a wide variety of spectral peaks and hollows, which will prevent the vehicle from being involved in a catastrophe.

In addition to this, when planning a route, one should avoid areas whose general spectral colour (spectral chromaticity) is similar to the general spectral colour of the vehicle as a complex object that includes people. If, due to a number of unavoidable organizational reasons or the critical need for this route, it is impossible to avoid such a coincidence, it is necessary to close the road, cancel the flight or sea travel for that time interval, the spectral chromaticity of which is similar to the spectral chromaticity of this vehicle and one of the fragments of its route (the area of a potential catastrophe).

Such spectral design and manufacture of vehicles, spectral staffing of them with people, as well as spectral planning of their routes and travel schedules, will avoid most catastrophes with vehicles (cars, airplanes, ships, etc.) to the extent that we can accurately implement the mentioned spectral planning.

AN ACCIDENT AT A NUCLEAR POWER PLANT is a typical example of the final assembly of a catastrophe body at a stationary industrial facility. Stationarity in this case means that the spectral composition of the energy spectrum of the terrain, including its general spectral colour, does not change during the operation of this object, in contrast to dynamic catastrophes, such as a car accident, a plane crash or a catastrophe at sea, where the main object of the catastrophe moves on the surface of the planet. Accidents at any other stationary industrial facilities occur according to the same scenario and for the same reasons.

The participants in an accident at a nuclear power plant (elements of the catastrophe) are:

1. Actually a nuclear power plant as a stationary industrial facility. Its spectral chromaticity is formed as a superposition:
 - 1.1. The spectral colour of the name of the power plant. This spectral colour is formed as a superposition of the spectral colours of the letters of the alphabet that make up the name (name-as-word spectroscopy);
 - 1.2. The spectral colour of the area, where this power plant is located (the site of a future catastrophe). The spectral chromaticity of the area is formed as a superposition:
 - 1.2.1. The spectral colours of tectonic, sedimentary and soil layers (underworld) of this area;
 - 1.2.2. The spectral colour of vegetation as a superposition of the spectral colours of plant species at this area;
 - 1.2.3. The spectral colour of the animal kingdom as a superposition of the spectral colours of animal species at this area;
 - 1.3. The spectral colour of the time interval (a year or several years) during which the construction of this power plant took place as a result of the complex impact of galactic sources, the Sun and the planets during this period of time;
 - 1.4. The spectral colours of the structures of the building of this power plant, as well as the spectral colours of its power units (as a set of mechanical and electronic units and parts):
 - 1.4.1. The spectral colours of those spectral zones, where these structures, units and parts were manufactured;
 - 1.4.2. The spectral colours of the materials from which they have been made;

- 1.4.3. The spectral colours of the time intervals of their production, i.e. the spectral colours of the hour, day, month and year of the manufacture as a result of the complex impact of galactic sources, the Sun and the planets;
- 1.5. The spectral colour of the fuel for this power plant, in this case (a nuclear power plant) — enriched uranium;
2. The personnel of this nuclear power plant. The spectral chromaticity of each employee is a superposition:
 - 2.1. The spectral colour of his identity (language, culture, religion, etc.);
 - 2.2. The spectral colour of the place of birth;
 - 2.3. The spectral colour of the time of birth (superposition of the spectral colours of the hour, day, month and year of birth) as a result of the complex influence of galactic sources, the Sun and the planets at the time of the transition of the newborn to autonomous nutrition by planetary environments. Together with the spectral colours inherited from his parents, it forms the spectral chromaticity of the newborn;
3. The moment of the final assembly of the catastrophe body. The superposition of the spectral colours of the hour, day, month, year forms the chromaticity of the moment of the final assembly of the catastrophe (within one hour).

A nuclear power plant, like any other industrial facility, is stationary on the Earth's surface. In this case, the assembly of a catastrophe can occur due to such a replacement of the elements of this complex object, which changes its initial general spectral colour to one similar to the general spectral colour of a period of time and, as a consequence, leads to a catastrophe during this period of time.

As soon as such a replacement occurs and, as a consequence, the general spectral colour of the nuclear power plant as a complex object becomes close to the general spectral colour of an expected time interval, all local elements of the catastrophe are ready for its final assembly. If you do not change the resulting general colour of the energy spectrum of the nuclear power plant to another, then, as soon as a period of time of the same spectral colour begins (like the influence of a specific configuration of galactic sources, the Sun and the planets), a squall chain reaction of micro-events occurs — “accidents”, “wrong ac-

tions” or “unexpected events” occurring with the participants in the catastrophe due to the commonality of their energy spectra. As a result of this chain reaction of micro-events, the units and parts of this nuclear power plant, its nuclear fuel, the personnel bodies, as well as the terrain (with its rocks, soil layer, vegetation and animals) merge into a single catastrophe body.

A competently designed and constructed nuclear power plant is in a state of spectral diversity. Engineers intuitively incorporate spectral diversity into the design of most industrial plants at the level of an unconscious desire for harmony. That is, in most cases, a nuclear power plant, as a complex object, including its units and parts, fuel, personnel and the area on which it is erected, has an energy spectrum with a wide variety of spectral peaks and hollows, which excludes its coincidence with the energy spectra of time intervals. It is the spectral diversity of the energy spectrum that excludes the entry of a nuclear power plant into a state of spectral resonance with time intervals, which triggers a chain reaction of the assembly of a catastrophe body. As a result, the overwhelming majority of nuclear power plants, like any other industrial enterprises, operate in a trouble-free mode throughout their entire service life (during decades).

To avoid an accident, all that is required of the managers of a competently designed and constructed nuclear power plant is to maintain its spectral diversity as a complex facility. Since a nuclear power plant is a stationary object, the energy spectrum (spectral chromaticity) of the terrain does not change. The spectral colours of the building structures and the fuel of the power plant do not change either. Therefore, an accident at a nuclear power plant is possible for the following reasons:

- due to the spectral colour of units and parts of the nuclear power plant after their spectrally incorrect replacement at the end of their service life;
- due to the spectral colour of the personnel as a whole as a result of spectrally incorrect replacement of its individual members, i.e. without taking into account their individual energy spectra, which can lead to dangerous monochromaticity of the entire team of employees;
- due to the spectral colour of the technological chain during technological experiments or tests in order to improve the spec-

trally safe technology used, which can also lead to a situation of local monochromaticity with the general spectral colour of a time interval and, as a consequence, to the starting of a chain of events for assembling the body of a catastrophe.

It is these factors that should be in focus in order to avoid accidents during the operation of nuclear power plants (accidents at nuclear power plants are accompanied by colossal negative consequences for the planet's natural environments and are the most dangerous type of man-made catastrophes).

In addition, various configurations of galactic sources, the Sun and the planets create a wide variety of spectral colours and hues of time intervals (hours, days, months, years). A situation is possible in which one of the main maxima (frequency hills) of the spectrally diverse energy spectrum of a stationary industrial facility, for example, a nuclear power plant, is close or coincides in its chromaticity with the general spectral colour associated with a repeating time interval — hour, day, month, year as a periodically repeating specific configuration of galactic sources, the Sun and the planets. This is a periodically recurring catastrophe condition.

Such a periodically repeated coincidence is unremovable, just as it is impossible to change the routes of motion of celestial bodies, including the route of our planet in the Galaxy. If such a coincidence and the frequency of its repetition are calculated in advance, it is necessary to take all organizational measures to explain the situation and convince the managers of this industrial enterprise to interrupt its work for this calculated period of time (with a time margin for a better confidence).

Your humble servant understands that in some cases it is technologically very difficult to stop the operation of an industrial enterprise for a while (such as temporarily stopping the operation of a continuous blast furnace) or is associated with significant domestic inconveniences for millions of people and associated financial losses (as in the case of a temporary shutdown of a working nuclear power plant). However, any losses associated with the temporary suspension of the operation of a nuclear power plant for the spectral period of the risk of an accident are negligible compared to the colossal negative consequences of a planetary scale for people and planetary environments in general due to such a catastrophe associated with nuclear energy.

A STOCK EXCHANGE CRASH is a stationary financial catastrophe. The stationarity of the catastrophe means that the area, i.e. the spectral composition of the energy spectrum of the area does not change during the chain of actions leading to the catastrophe. The body assembly of a stationary financial catastrophe, such as a stock market crash, occurs similarly to an accident at a stationary industrial facility and for the same reasons.

Securities are a conditional “fuel” for the stock exchange as a financial enterprise. Each specific security (both basic securities and derivatives) has its own individual spectral chromaticity, consisting of:

1. The spectral colour of the product, property, monetary resource, natural resource or obligation (as an action), which is the mortgage of this security;
2. The spectral colour of the issuer (state, corporation, company, etc.) that issued this security;
3. The spectral colour of the holder, if it is a registered security;
4. The spectral colour of the date of its issue (for perpetual securities) and the spectral colour of the period of its validity (for term securities) as a result of the influence of the specific configuration of galactic sources, the Sun and the planets at the time of its issue;
5. The spectral colour of the place of its release (spectral zone, sub-zone or spectral enclave).

Any stock exchange is a complex object that includes a building, location, securities (as “fuel”) and personnel. Any stock exchange is stationary on the Earth’s surface, i.e. the energy spectrum of the area remains unchanged during its work (trading sessions). Therefore, the assembly of a financial catastrophe on any stock exchange is possible only because of the spectral imbalance of its dynamic elements (securities and personnel), leading to the monochromaticity (coincidence) of the general colour of its energy spectrum with the general spectral colour of a period of time. That is, the spectral catalysts of a financial catastrophe on a stock exchange are:

- narrowing the variety of traded securities;
- monopoly collusion among traders.

Spectral diversity is inherent in the energy spectrum of almost any normally operating stock exchange due to the wide variety of securities

traded, as well as the independence of traders from each other (no monopoly collusion among them). Therefore, stock exchange is one of the most catastrophe-resistant businesses.

Narrowing the variety of securities traded or monopoly collusion among traders does occur, but rarely. This usually happens during wars, revolutions or other social upheavals. Nevertheless, we know that financial catastrophes on the stock exchanges of different countries sometimes happen even in the absence of social tension among people. Moreover, such stock market crashes occur periodically, with more or less negative effect (not necessarily fatal for the stock exchange). The reason for this, like business cycles in the economy, is periodically repeating configurations of sources of spectral repainting (i.e., galactic sources, the Sun and the planets), which creates a wide variety of periodically repeating spectral colours and hues of time intervals (hours, days, months, years). As a result, even with the spectral diversity of the energy spectrum of any stock exchange, any of the main maxima (frequency hills) of its energy spectrum can coincide in its chromaticity with the general spectral colour of some periodically repeating time intervals (hour, day, month, years), thus creating a condition for the assembly of periodically recurring financial catastrophes. As soon as such a coincidence occurs, the resulting spectral monochromaticity immediately leads to spectral resonance of the stock exchange with the time interval, which, in turn, triggers a chain reaction of seemingly “wrong actions”, “accidental” or “unexpected” events upon the final assembly of the body of a financial catastrophe and leads to the stock market crash, the termination of trading and the collapse of the stock exchange (financial catastrophe).

Such a periodically repeating catastrophe condition is unremovable, since we cannot change the motion of celestial bodies, including the motion of our planet in the Galaxy. Nevertheless, if such a coincidence and the frequency of its repetition are calculated in advance, the management of the exchange can avoid a financial catastrophe in the simplest way: stop the exchange and declare bank holidays for the entire spectrally dangerous period of time (with a time margin of several days for better confidence).

EPIDEMICS are examples of dynamic waves of micro-catastrophes propagating over the surface of the planet. Hurricanes and military

clashes also belong to this type of phenomenon.

Dynamic waves are waves propagating in systems with dynamic (non-static) equilibrium. Such systems include, in particular, spectral zones, subzones and spectral enclaves, as well as any local spectral systems in general on the planet (businesses, social systems, machines, mechanisms, etc.). They all find equilibrium and go through a state of catastrophes in the dynamics of interaction with each other, caused by the influence of spectral repainting.

Any *epidemic* is an example. In Nature, two types of chain reactions are known — the reproduction of pathogenic microbes (pathogenic viruses and bacteria) during an epidemic, as well as a nuclear chain reaction. In both cases, these are chains of synthesis and decay micro-catastrophes that propagate in the form of dynamic waves.

The speed of a chain reaction depends on the type of catastrophe and the environment in which it occurs. The fastest known catastrophe body assemblies are an uncontrolled chain reaction of the decay of uranium and transuranium nuclei, leading to a nuclear explosion, or an uncontrolled chain reaction of the synthesis of nuclei of light elements, leading to a thermonuclear explosion (the most powerful of the known types of catastrophes). In this case, the bodies of any inhabitants of the planet who fall into the zone of a nuclear or thermonuclear chain reaction at the time of the explosion completely merge with the single body of this catastrophe (there are no survivors).

Pathogenic microbes (microorganisms), such as pathogenic viruses and bacteria, reproduce millions of times faster, destroying the “mother” organism in which they reproduce within days or even weeks. However, not every organism infected with squally reproducing pathogenic bacteria or viruses completely merges with a single body of an epidemic as a catastrophe. The highest percentage of complete merger of the bodies infected with the body of a catastrophe (disease) occurs when animals and humans are infected with the bacterium *Bacillus anthracis*, which causes a disease called anthrax (Siberian plague). In the case of the intestinal form of anthrax, the mortality rate is approximately 50%, while in the case of the pulmonary form of this disease or in case of brain damage (anthrax meningitis), the mortality rate exceeds 90–95%, even in the case of medical care. A similar situation occurs in the case of infection with certain viruses from the Filoviridae family (filovir-

uses), such as Ebola virus and Marburg virus, which cause Ebola hemorrhagic fever. Mortality among infected people reaches 50% in the case of the use of qualified medical care, such as the use of the rVSV-ZEBOV vaccine, and can exceed 90% in the absence of medical care. For comparison, according to the World Health Organization, the mortality rate due to infection with various strains of the coronavirus COVID-19 during the 2020–2021 pandemic was 3.4%. However, when infected with most types of pathogenic viruses and bacteria, the mortality rate does not exceed 0.01%, even in the absence of medical care. Thus, the mortality rate due to complications from the common influenza virus is 7.5–23 per 100,000 cases, i.e. 0.0075–0.023%. This means that the bodies of the overwhelming majority of those infected are only partially integrated into the body of a catastrophe associated with a chain reaction of reproduction of most types of pathogenic viruses or bacteria.

Spectral forecasting of any epidemic and measures to reduce the number of infected and deaths are carried out according to the following unified scenario.

Any kind of microbes has its own unique energy spectrum: it is a unique sequence of frequency peaks and hollows, which is characteristic only for this type of microbes and is an energy-spectral code chain that stores complete information about microbes of this species as material creatures. In other words, any individual virus or bacterium, like any other material creature, is merely *information*, a source code, on the basis of which our brain creates in our imagination a virtual picture depicting a “material” carrier of this information, i.e. this virus or bacterium as a “material body”.

Signals coming from galactic sources, the Sun and the planets are also chains of energy-spectral code. The brain, not finding analogies to signals in its list of “material” objects and phenomena, interprets them as light, the visible colour of which is identical to the spectral colour of their frequency maximum. Nevertheless, regardless of our brain, the energy-spectral code of these signals merges with the energy-spectral code of the inhabitants of the planet (radiation receivers), forcing them to perform the actions that are stored (described) in the code.

Thus, in laboratory conditions, using the methodology of Serge Velhover (1887–1943), a microbiologist who in the 1920s discovered the connexion between the activity of microbes and solar activity (see

the Chapter SPECTRAL REPAINTING), we can track the change in activity of various pathogenic viruses and bacteria depending on the mutual configurations of galactic sources, the Sun and the planets. As a result, we get accurate information about the radiation of which particular source or several different sources of spectral repainting contains an energy-spectral code with a command to start a chain reaction of reproduction of each specific pathogenic virus or bacterium.

So forth, using the spectral map of the planet, we find the spectral zone, subzone or spectral enclave of the same spectral colour, i.e. such an area or several areas on the planet where the spectral resonance of such a command and terrain is possible. Then, based on the spectral repainting timetable of the planet, we determine the time interval during which this spectral resonance is expected, i.e. the time interval of an epidemic caused by a chain reaction of the multiplication of this virus or bacterium.

Employees of the civil and military epidemiological services, having this information at their disposal, can in advance (deliberately and without a hurry) cordon off and completely isolate the focus or foci of the expected epidemic, and also evacuate the entire population from there for the duration of the epidemic, calculated in accordance with the spectral repainting timetable of the planet. Then, as soon as the influence of these sources of spectral repainting ceases (their configuration in the sky disintegrates due to their motion relative to each other), the signal containing the command to start the reproduction of the virus or bacterium causing this epidemic also stops. The epidemic ends. Civilian and military epidemiological personnel can decontaminate the epidemic area and then return the evacuated population to their homes.

The actions described above will reduce the regions of epidemics to small areas of primary reproduction of pathogenic viruses or bacteria and, thus, prevent the spread of waves of epidemics throughout the planet, which will lead to a decrease in the number of infections and deaths by thousands of times.

A HURRICANE AND A MILITARY CLASH are chains of micro-catastrophes that occur according to similar scenarios and propagate over the surface of the planet in the form of dynamic waves, involving more and more participants in the assembly of micro-catastrophe bodies on their way.

A *military clash* is a chain of anthropogenic micro-catastrophes that occur with most participants in hostilities and propagate over the surface of the planet in the form of a dynamic wave of displacement of the contact zone of the belligerent armies (a front-line strip, the width of which is usually 50–100 km).

A hurricane is a chain of natural micro-disasters that occur with the population, as well as natural and anthropogenic environments along the hurricane's motion strip (the dynamic wave of micro-catastrophes). However, a hurricane, even such as the Great Hurricane of 1780 (also known as Hurricane San Calixto), which passed from 10 to 16 October 1780 through the Lesser Antilles of the Caribbean Sea (the most powerful hurricane recorded), is not comparable in scale of destruction and casualties to a full-scale war.

In the case of both a hurricane and a military clash, the participants (elements) of micro-catastrophes occurring along the route of the catastrophe's dynamic wave are:

- affected population — the killed, died from wounds, received physical injuries and psychological trauma;
- affected elements of the natural and anthropogenic environments of the planet, such as landscape, flora, fauna, cultural, financial and industrial environment, completely or partially destroyed as a result of a hurricane or military action.

Accordingly, only that object in the hurricane or on the battlefield will become part of the body of a micro-catastrophe, the energy spectrum of which has a general spectral colour similar to the general spectral colour of this hurricane or war. If the coincidence of these spectral colours is full, then the body of this object is fully integrated into the body of a micro-catastrophe on the way of a hurricane or military front line. In this case, the body of the object becomes completely destroyed, stopping its normal functions: if it is a person, then he dies (immediately or subsequently from his wounds). With a partial coincidence of these spectral colours, the body of the object is damaged, but the object itself as a whole remains not completely destroyed, but continues to function after the micro-catastrophe: if it is a person, he is injured, after which he recovers.

In other words, if the general spectral colour of the energy spectrum of a person does not correspond to the general spectral colour of a par-

ticular hurricane or military clash, then this person will not suffer, even if he falls into the centre of this hurricane or battlefield. This, it would seem, sounds paradoxical from the usual everyday point of view. Nevertheless, history knows cases, for example, from the history of World War I and World War II, when some of the soldiers who served in the infantry regiments that actively participated in hostilities and suffered much losses (infantry suffer the most numerous losses), over the years the war did not receive even a single wound. The general spectral colour of the energy spectrum of such a soldier did not at all coincide with the general spectral colour of any of the battles in which he participated, and thus did not fall into spectral resonance with them.

As a result, the body of this soldier did not become part of the body of any of the many micro-catastrophes that happened to his comrades-in-arms who fall into the same bloody whirlwind on the battlefield. This rarely happens (due to the spectral diversity of military battles), but, nevertheless, such cases take place and are recorded in the history of wars of the 20th century. Now we understand that this is not an “accident” or “will of providence”, but a scientifically explainable (based on the knowledge of energy spectra) phenomenon of Nature.

In this regard, not only spectral forecasting of hurricanes and military clashes is possible, but also measures to reduce the number of destructions and victims.

So, using the timetable of spectral repainting of the planet and the textbook of world history, we can find a correspondence of military clashes and natural disasters to specific mutual configurations of galactic sources of spectral repainting, the Sun and the planets. At the same time, the dates of all events after October 4, 1582, when the Gregorian calendar was adopted, must be recalculated to the dates of the Julian calendar (since the Julian calendar is commonly accepted in astronomical ephemeris). As a result of this, we can find the spectral chromaticity of each of the military clashes and natural disasters, i.e. to find, the radiation of which particular source or several different sources of spectral repainting contain an energy-spectral code with a command to start a chain reaction of micro-catastrophes for each of these military clashes and natural disasters.

Then, as soon as the “spectral weather barometer” in the world politics of the current time shows a similar situation, foreshadowing a

military clash, the governments of countries on the brink of a military conflict should be informed of the need to urgently change the spectral situation in their countries, as well as about the monstrous consequences that are expected as a result of spectral resonance if this is not done. Such a mission can be carried out by ambassadors-at-large, sent by the governments of the leading countries of world progress or by the United Nations. Measures to eliminate the danger of spectral resonance can be:

- spectral change in the economies of the opposing countries both by the governments of these countries and, if these governments are unable to control the situation, with the help of external control under the mandate of the United Nations;
- evacuation of those national or cultural communities from the spectrally unstable regions, where their presence creates a threat of spectral resonance (to avoid subsequent genocide);
- and so on and so forth.

A detailed study of world history in order to search for spectral resonances that led to military clashes and natural disasters in the past will make it possible to predict such anthropogenic and natural disasters in the future in advance (in accordance with the timetable of spectral repainting of the planet). The detailed development of the above measures to prevent such spectral resonances will significantly reduce the number of military clashes. “Principiis obsta” — we must always remember this proverb for the sake of protecting human civilization and progress.

SPECTRAL CONTROL is the main stabilizing factor, including in politics and economics. From the above examples, it can be seen that in order for an object not to become a part of the body of a catastrophe it is necessary and sufficient that its general spectral colour does not coincide with the general spectral colour of the catastrophe body. Thus, the main task of spectral control is to forecast the monochromaticity of the energy spectra of units and parts of mechanisms with the general spectral colour of their site and time and, thus, to take the necessary measures in advance to reduce the negative consequences of future catastrophes.

Spectral control plays a similar rôle in society. A mono-national or mono-cultural society is not spectrally viable. Any attempts to create

such a society (the last such attempt was made in the 1930s in Germany) lead to the monochromaticity of its energy spectrum, after which it remains to wait a short time before the onset of the nearest period of time having the same general spectral colour, during which this country and the people become part of the body of a catastrophe. This is exactly what happened to Germany in September 1939, when a chain reaction of events started that led the whole of Germany, with its society monochromated by the Nazis, to the catastrophe of 1945.

At the same time, spectral diversity should enrich the energy spectrum of society, and not transform the musical harmony of its frequency peaks and hollows into a cacophony of ordinary noise. This is also the subject of spectral control.

The list of examples of natural and man-made disasters can be continued for a very long time. Nevertheless, the basics of *spectral forecasting of catastrophes* are clear enough from the above examples.

A VERY DANGER TO CIVILIZATION is posed by the chains of an increasing number of natural and anthropogenic catastrophes occurring during the transition from one “spectral era” to another, when a total spectral repainting of the planet takes place. At present, our planet, moving along with the entire Solar System in the Galaxy, crosses the border between two adjacent of the 12 fundamental spectral sectors of galactic environments (ecliptic sectors), the indicator of movement along which is the precession of the Earth’s axis. Since the Earth’s axis makes a precession in a circle among the stars for 25,765 years (precessional stellar year), the duration of motion through each of the 12 spectral sectors of the ecliptic is $25,765 / 12 = 2,147$ years (the chromaticity of each calendar month changes with the same period, see above). So, over the past two thousand years, the vernal equinox drifted along the Pisces constellation. Now it is entering into the Aquarius constellation. Therefore, what is happening to our planet now is called the transition from the *era of Pisces* to the *era of Aquarius*.

The physical boundary between the spectral sectors as galactic environments having different spectral chromaticity is blurred. Therefore, the process of transition from one spectral sector to another and, accordingly, the spectral repainting of the planet to a state of spectral equilibrium with the new galactic environment, does not occur instantly, but over several decades, and sometimes — several centuries.

The events taking place on the planet in the process of its total spectral repainting are the result of the spectral redistribution of energy on the planet in accordance with the law of conservation of energy, expressed as the law of territories. These events depend on the general spectral colour of the new galactic environment, as well as on the chromaticity of the spectral zones of the planet, subzones, spectral enclaves and their “inhabitants”.

Thus, the galactic environment in the *spectral sector of Pisces*, in which our planet moved during the previous two thousand years, has an energy spectrum, the maxima of which are grouped in a lower frequency range than the maxima of the energy spectrum of the galactic environment in the *spectral sector of Aquarius*, into which our planet is entering presently.

In conditional colours, this is a transition from the galactic environment of the violet spectral colour to the galactic environment, the spectral colour of which is lilac. Lilac (violet-red) colour on the colour wheel is a transition from violet (highest frequency) colour of one spectral range to red (lowest frequency) colour of another, higher frequency range. Thus, during the transition from the Pisces sector to the Aquarius sector, our planet enters the region of galactic environments of a higher frequency spectral range, as a result of which the frequencies of energy exchanges on the planet increase.

During the transition from the Pisces sector to the Aquarius sector, in accordance with the general spectral colour of the new galactic environment and the spectral colours of the main spectral zones of our planet, including the spectral colours of natural and anthropogenic environments (industrial-technical, cultural, religious environments, etc.), the following major events are expected:

1. An increase in the number of natural disasters associated with the catastrophic reaction of tectonic-sedimentary rocks to spectral repainting of the planet’s gaseous environments (due to slow energy exchange in minerals):
 - an increase in the number of volcanic eruptions and earthquakes of various magnitudes along the “lines of spectral faults” separating some spectral zones and subzones of the planet, as well as the tsunamis caused by them (if these are underwater earthquakes);

- humanitarian disasters caused by volcanic eruptions, similar to the interrupted flights from April 15 to May 24, 2010 in Europe due to the ash plume emanating from the erupting Eyjafjallajökull volcano in Iceland, but on a much larger scale due to the increased frequency of volcanic eruptions around the world;
 - humanitarian disasters caused by earthquakes and tsunamis, similar to the 300,000 deaths caused by the tsunami on December 26, 2004 due to an underwater earthquake with a magnitude of 9.1 to 9.3 in the Indian Ocean, but on a much larger scale due to the increased frequency of earthquakes and tsunamis around the world;
2. The increasing number of disruptions and interruptions in the operation of modern electronic control and communication systems due to superpowerful bursts of solar activity and, as a result, superpowerful geomagnetic storms, such as the Carrington event of 1859 — the most powerful recorded geomagnetic storm caused by a superpowerful ejection of coronal matter from the Sun's surface, which caused the failure of telegraph systems (and bank transfers) across Europe and North America. As a result of a series of such events, we expect:
 - massive disruptions and interruptions in banking operations;
 - industrial disasters, since modern production control systems are based on electronics and are vulnerable to superpowerful solar flares like the Carrington event;
 - humanitarian disasters, such as interruptions in the supply of electricity, gas, water, etc., due to the vulnerability of electronic control systems in the event of superpowerful solar flares;
 3. Changes in the territories of influence of world religions in accordance with their spectral colours and the general spectral colour of the new galactic environment:
 4. Changes in the global economy in accordance with the change in the territories of the main spectral zones of the planet as a result of their spectral repainting under the influence of the new galactic environment:

- the collapse of the modern system of the world economy;
 - the revival of the world economy as a system self-contained in the use of only waste-free and environmentally friendly technologies;
5. As a result of the changes in the world economy and financial system described above, we expect:
 - the termination of financial and technological aid, which was previously provided to the underdeveloped countries throughout the 20th century;
 - economic, cultural and humanitarian collapse in underdeveloped countries, accompanied by local military conflicts based on cultural differences, ethnic and religious contradictions;
 6. A series of pandemics, each of which is subsequently accompanied by a significantly larger number of infected and deaths
 - epidemics that cover all countries and continents (πανδημία — the whole people) and adapt the energy spectra and bodies of recovered people to the general spectral colour of the new galactic environment:
 - this series of pandemics will slightly reduce the population of developed countries, which will be accompanied by the development of herd immunity and a significant increase in life expectancy;
 - in the underdeveloped countries, the population will decrease significantly as a result of the impending series of pandemics, which will solve the problem of overpopulation in these countries;
 7. The emergency and development of new technologies, the description of which is laid down in the energy-spectral code of the new galactic environment:
 - new technologies in communications and engineering based on low-current bionics and using geopathogenic radiations;
 - mastering and developing the technology of observation (visualization) of past and future events (the technology of real time travel), experimental study of the real history of Mankind, preparation for the nearest future events based

on calculations and visualization using spectral maps of the planet and a spectral repainting timetable;

- mastering and developing the technology of real interstellar travel in the Galaxy and beyond (lasting from several hours to several days) and, as a result, starting communication with other civilizations that have also mastered similar technologies of interstellar travel, cooperation with these civilizations in various fields, including joint participation in the current wars in the Galaxy.

In order to internally accept the above, the reader should understand that the process of real evolution in Nature is a chain of catastrophes leading to the extinction of some species and the generation of others based on the descriptions contained in the energy-spectral code of the galactic environment through which our planet travels in the Galaxy. This process of changing species on our planet cannot be stopped, just as it is impossible to “drop an anchor” to stop our planet during its flight in the Galaxy.

IN THE END, it should be noted that there are many other aspects of spectral repainting, in particular, many other aspects of the phenomenon of catastrophes as spectral resonances.

For example, the general spectral colour of an object or spectral zone is a superposition of all frequency maxima (hills) of this spectrum. If these maxima are wide scattered over the frequency range, then even the coincidence with the general spectral colour of a forthcoming time interval does not lead to assembling a catastrophe, since there is no spectral resonance. Spectral resonance and, as a consequence, the assembly of a catastrophe occurs only when several main frequency maxima (hills) of the energy spectrum of each of its participants are close to the frequency of the general spectral colour, thus creating a state close to monochromaticity. That is why most of the objects and spectral zones of the planet repeatedly pass through time intervals of the same spectral colour, without forming a state of catastrophe. Spectral diversity of the maxima of their energy spectra, i.e. the scattering of the main spectral maxima (spectral hills) in frequency is a factor protecting them from falling into a catastrophe.

However, this and many other aspects of the spectral forecasting of catastrophes are beyond the scope of this brief survey.

It is also necessary to understand that all of the above is not a hypothesis or speculative theory, but is a scientific description of the basic principles that govern the real processes taking place on our planet. Generally speaking, all the above is obvious for everyone who knows the basics of modern physics. Aggression, if it appears while reading this text, is associated with the obvious fact that the energy spectrum of such a reader is not sufficiently expanded towards the high-frequency range to understand what is written. Otherwise there would not be aggression, but merely quiet understanding (see an explanation of aggression in the Chapter UNDERSTANDING INFORMATION).

**THE NATURE OF LIFE AND DEATH. REINCARNATION.
LIVING WORLD HISTORY**

THE NATURE OF LIFE AND DEATH. So, any three-dimensional body or medium is only an instant three-dimensional “slice” of the corresponding space-time event cylinder that exists in the space-time as a single object, woven from the event microcylinders of its constituent particles at the space-time point of birth and decaying into microcylinders of particle events at the point of death. The event cylinder of any terrestrial object is interwoven (together with the event cylinders of other terrestrial bodies and environments) into the event cylinder of our planet, elongated along the trajectory of the planet in the Galaxy. “Material figurines” are three-dimensional images formed by the brain in our imagination on the basis of instant three-dimensional “slices” of the space-time event cylinders, while these cylinders are filled with energy: in terms of the commonly accepted descriptions of objects and phenomena stored in the human brain, these forms, consisting of energy, exist only potentially and are the causes and driving forces of everything that happens to the three-dimensional figurines of objects in our imagination. The human brain combines images of successive three-dimensional “slices” of the observed world as frames of a film strip into a “live movie” that we perceive as a “material world”.

So, we see the conditional flight of the planet with all its inhabitants along the conditional path in the Galaxy. “Conditional” because the multidimensional (space-time) cylinder of the planet’s events does not move anywhere, as well as the interweaving of the event cylinders of terrestrial inhabitants, of which it consists, rigidly fixed relative to each other. Only the magnitude and spectral composition of the filling energy changes along the event cylinders. In fact, nothing moves in space-

time, but only “illumination” changes in the form of a wave-like pulsation of energy, which is observed as the motion of three-dimensional “bodies”.

Consequently, galaxies, stars, planets and in general nothing “flies” in the Universe, but there is only an observed change in illumination in a three-dimensional “picture” created in the observer’s imagination by his brain, which “scans” its own space-time event cylinder in the direction from the past to the future. These “travelling waves” of illumination paint in the observer’s imagination a continuously changing three-dimensional picture of moving bodies of the “real living world”.

THE LIFE of a creature is, therefore, the pulsation of energy that fills his event cylinder, at frequencies that lie in the perception range of an external observer. As a result, the observer perceives each instant three-dimensional “slice” of the event cylinder of this creature as a luminous “living” clot of energy. The observer’s brain, analysing this picture, replaces the observed energy clot with a suitable description of a “material” body from its list. As a result, the observer “sees” in his imagination some kind of “living material being”.

THE DEATH of a creature is an almost instant decay of the pulsations of his energy clot at the frequencies of the perception range of an external observer. The observer perceives this process as an almost instant “extinction” of the general glow of the energy clot of this creature and its subsequent disintegration into a multitude of dimly glowing energy microclots of its constituent particles. The observer’s brain, on the basis of direct observation of this process, forms in his imagination a picture of an almost instant cessation of the vital activity of the organism of this creature and, then, a prolonged disintegration of his “dead material body”.

How is death perceived by the dying person? As noted earlier, people visually perceive the world around them at frequencies below the lower limit of the frequency of their vision as a *completely black background* without any details, since human perception is unable to distinguish details at such low frequencies. Oscillations at frequencies close to the lower frequency limit are perceived by people in very dark red tones. This property of perception manifests itself in the cultural tra-

dition of people, in particular, in the form of visions of dark red images of the “threshold of hell” with devils in a dark red flame, followed by an immersion into the complete blackness of the so-called “absolute hell”. This is how the human brain reacts to information about the world around the person, received at frequencies close to the lower frequency limit of his perception. Conversely, the world around us at frequencies above the highest frequency limit of human vision is perceived as a *completely white background* without any details, since human perception is also unable to distinguish details at such high frequencies. Therefore, when people receive high-frequency information at the highest frequency limit of their perception, it is perceived as “divine radiance”.

Thus, a Christian perceives the displacement of the pulsation frequencies of his own energy clot to a lower frequency range as *falling into hell*, while for all those who remained he actually died and his “material” body begins to undergo natural decay. Accordingly, the shift of the frequencies of the pulsations of his energy clot to a higher frequency range is perceived by a Christian as *going to Heaven*. These transitions, as well as pictures of “posthumous reality” are formed in the imagination of a Christian (up to the final extinction of the pulsations of his energy clot) in accordance with the list of descriptions of “material” bodies and phenomena recorded in his database by the Christian tradition.

It is the life experience of what in medicine is called short-term (reversible) death, acquired both in ancient times and today by people who have experienced clinical death (as a short-term complete extinction of their energy clots), is the basis of the *legend of hell and Heaven*, and also the *legend about the immortality of the human soul*. Followers of other religious and cultural traditions perceive the process of their death differently, in accordance with their database of descriptions of “material” bodies and phenomena recorded in their mind (energy-spectral code) due to their cultural tradition.

In this, Man is not unique. Living beings of any kind have a similar life experience of short-term (reversible) death. Biologists and theologians can be convinced of this for themselves by establishing a connexion, for example, with some animals and plants at the frequencies of their communication with each other.

THE BIRTH of a creature is, accordingly, the “filling” of its energy clot with the energy of his parents, pulsating in the frequency range of perception of an external observer. The energy clot of this creature begins to “glow” in the perception range of an external observer and, thus, becomes “visible” to him. The observer’s brain, on the basis of its list of “material” bodies and phenomena, selects a suitable description for this energy clot, as a result of which an image of a “living material being” is formed in the observer’s imagination.

Thus, birth, life and death are fragments of a single process, similar to a change in illumination within a creature’s event cylinder.

At the space-time point of “birth” of a creature, his event cylinder is filled with pulsating (glowing) energy storing both the energy-spectral code of his parents and the energy-spectral code of planetary environments in the places, where he was conceived, his embryo developed, and he was born (his body is “assembled” from these environments). This luminous energy plays the rôle of the binding energy of the event microcylinders of its constituent particles and tightly fills his own event cylinder throughout its space-time volume from the point of “birth” to the point of “death”.

At the beginning of the space-time event cylinder, the energy that fills it gradually increases the magnitude of its pulsation during the period of “growth” of the creature to a certain maximum, after which, in the main section of its space-time length, the event cylinder glows approximately evenly, except for those of its fragments during which this creature is sick: in these fragments of his event cylinder, the magnitude of the pulsations (and the intensity of the glow) of the filling energy decreases. If the death of a creature is preceded by a period of old age, the magnitude of the pulsation of his energy gradually fades away in this fragment of his event cylinder. The pulsation of energy in the event cylinder of a creature stops at the space-time point of “death”: at this point in space-time, his event cylinder gives up all the energy of its complex pulsation (its internal bond energy) to planetary environments and, thus, stops glowing as a whole, decaying into a multitude of dimly glowing event microcylinders of its constituent particles.

REINCARNATION. The law of conservation of energy says: “Energy can neither be created nor destroyed, but can only be transformed

or transferred from one of its forms to another.” So is the individual energy-spectral code of each person, “recorded” in the form of a sequence of frequency peaks and hollows of his energy spectrum and storing complete information about this person. In particular, those fragments of his energy-spectral code, which store the individual characteristics of his psyche, his memory and life experience, i.e. what we call the *personality of a human*.

At the moment of the irreversible death of a person, the binding energy of his energy clot is transferred to planetary environments and, thus, the glow of his energy clot dies out completely. Moreover, in most cases, the individual energy-spectral code of a dying person disintegrates into fragments, which are also transmitted along with the binding energy of his energy clot to various planetary environments. Accordingly, his personality, memories and life experience stored in his energy-spectral code also disintegrate and become fragments of the energy-spectral code of planetary environments. Then the planetary environments, carrying scattered fragments of the energy-spectral code of the deceased, are woven into the cylinders of events of other bodies at the space-time points of “birth”, scattered over different times and regions of the planet. Thus, the energy-spectral code of the deceased is transmitted fragmentarily or completely to other persons, animals, plants, minerals, realizing a *fragmentary or complete reincarnation* (reproduction) of his personality.

In fact, reincarnation is not a rarity, but a fairly widespread phenomenon in Nature. There are three main types of reincarnation.

1. FRAGMENTARY REINCARNATION. In this case, planetary environments containing scattered fragments of the energy-spectral code, which store the peculiarities of the psyche, memory and life experience of different deceased people, are woven at the space-time point of “birth” into the event cylinder of another person.

This type of reincarnation is the most common: most people from time to time have “flashes” of more or less fragmentary memories (both in the state of wakefulness and sleep) about the life of some other people from past times. These are manifestations of scattered fragments of their energy-spectral code, “built-in” at birth into the energy-spectral code of a given person.

It should be noted here that during fragmented reincarnation, scattered fragments of the disintegrated chain of the energy-spectral code of a deceased individual of a certain species are “built-in” in the energy-spectral code of any “inhabitants” of the planet, and not necessarily individuals of the same species. Therefore, fragments of the disintegrated chain of the energy-spectral code of a deceased person, including fragments of his memory and life experience, i.e. what in the religious tradition is called “soul particles” can become fragments of the energy-spectral code of various objects and phenomena such as, for example, a stone, plant, animal, screw of a device, thunderstorm, a child from the family of bankers, a fragment of cow excrement, etc. The phenomenon of fragmentary reincarnation has been known since ancient times and underlies the *legend of the reincarnation of the human soul*, adopted in some world religions, such as Hinduism and Buddhism.

2. FAMILY (ANCESTRAL) REINCARNATION takes place in the family tree of almost every genus. In this case, significant fragments of the unique energy-spectral code, including those that store the peculiarities of the psyche, memory and life experience of ancestors, are inherited from generation to generation.

Family members, born sequentially generation after generation and living at different times, are fragments of the same multidimensional body (branched cylinder of events) of their genus, which is a single object in space-time. Visually, it looks like the branches of the common space-time body of these people, i.e. the branches of the genealogical cylinder of events of their genus are filled with energy (illuminated from within) and, thus, are visible within the time intervals in which these persons live (incarnate).

Not only physical hereditary traits, but also ancestral memory is one of the manifestations of family (ancestral) reincarnation. Fragmentary memories (in the state of wakefulness or sleep) about events that happened to ancestors in the distant past, as well as “fairy tales” and “legends” composed on the basis of these memories and passed down from generation to generation, are a manifestation of fragments of the energy-spectral code of the ancestors, inherited by their descendants.

Family (ancestral) reincarnation can manifest itself to a greater or lesser extent, depending on the length and completeness of the ancestors’ energy spectral code chains inherited by their descendants. So,

there are many cases when a physical pathology, say, the little finger and ring finger fused together, is inherited and manifests itself once after several generations. In such a case, a baron with a thousand-year pedigree and having such a congenital defect, standing in his family crypt at the open tomb of his ancestor, who had a similar defect and died a thousand years ago, and looking at his remains, is actually looking at fragments of his own multidimensional body, located from him for a thousand years in the past. And the fact that he sees not “living flesh and bone”, but rather unrepresentable remains, testifies only to distortion in the thickness of space-time through which he “looks” at these so far distant fragments of his own multidimensional body.

3. INDIVIDUAL REINCARNATION. In this case, fragments of a person’s energy-spectral code, which store the individual characteristics of his psyche, his memory and life experience, i.e. what we call the *personality of a human* is transmitted in whole or in part to another person’s body who is born later. In this case, the personality of the deceased, i.e. his psyche, his memory and life experience are reproduced in whole or in part in a “new human body”.

In this case, two event cylinders, remote in space and time from each other and being branches of two different genealogical trees, are combined into a single body by filling with glow (pulsating energy) of almost the same spectral composition: the frequency spectrum of energy pulsations filling these two spaced event cylinders is completely or almost the same in those fragments of the energy-spectral code of which (a sequence of frequency peaks and hollows) stores information about the individual characteristics of the psyche, memory and life experience of the person. Since during reincarnation only fragments of the operator’s energy-spectral code are transmitted, his three-dimensional dead body remains at the “start” point of reincarnation (if the operator’s energy-spectral code is transmitted completely, his three-dimensional body would instantly disappear at the “start” point). Nevertheless, even the preservation of a significant part of the accumulated memory and life experience is one of the paths to *real immortality*.

This type of reincarnation happens on very rare occasions. This is either the result of an unintentional confluence of some factors (isolated cases), or the result of a deliberate “synchronization” of the energy

pulsations of one's own event cylinder with the energy pulsations of the event cylinder of another human body in the future.

The technology of individual reincarnation, i.e. deliberate "synchronization" of fragments of the frequency spectrum of two glowing event cylinders — one's own multidimensional "body" and another's multidimensional "body", separated in space and time — is similar to the technology of real time travel (see details below). This technology is realized by the method of "burning" (transmission) of the energy-spectral code of the operator's personality through one or more of the energy filaments (event microcylinders) of the particles entering and leaving these two event cylinders and, thus, connecting them in space-time like a fiber-optic cable.

Thus, reincarnation, like real time travel, is possible only into the body that is connected to the operator's body by the energy filaments of such a "fiber-optic cable". The difference lies in the selection of fragments of the event cylinders for "synchronization", as well as the completeness of the transmitted energy-spectral code of the operator. In the case of individual reincarnation of an operator, the decay point of his event cylinder is "synchronized" with the assemblage point of another event cylinder in the future through the energy filament (or filaments) connecting these points. In this case, "synchronization" does not occur completely, but only in those fragments of the operator's energy-spectral code that store information about his psyche, his memory and life experience. Thus, at the space-time point of the "start" of reincarnation, a dead three-dimensional body of the operator remains at the "finish" point, his new three-dimensional body is born, and the return of his personality to the moment and place of "start" is not provided.

The energy filling each of the two event cylinders that are "synchronized" by individual reincarnation can glow (pulsate) not necessarily in one, but in different frequency ranges, but with almost the same energy-spectral code. An analogy is a melody played on two different carrier frequencies of a radio signal (two different radio channels). In this case, the individual reincarnation of a personality takes place in a body that was born in another frequency layer (world) of the planet's space or, in general, in the world of some other, unearthly environment, to which the energy filaments (event microcylinders) of the particles entering and leaving this person's body reach.

THE CHARACTERS OF WORLD HISTORY are thus intertwining event cylinders, woven into the event cylinder of our planet and everywhere tightly filling its space-time (multidimensional) volume due to the motion of the planet from the past to the future along its spiral trajectory in the Galaxy. Whereas the three-dimensional bodies of the world history characters are three-dimensional instant “slices” (cross-sections) of their own event cylinders. That is, the characters of both the past and future of world history actually exist each in their own fragment of the multidimensional event cylinder of our planet on its space-time trajectory in the Galaxy. So, Napoleon, Charles the Great, Gaius Julius Caesar and other characters of the past live their lives, in their past for us, fragments of the event cylinder of the planet Earth, while our descendants and other characters of the future already live in their (future for us) fragments of the cylinder.

Our world history textbook is the result of our “scanning motion” along the event cylinder of our planet in space-time, where the three-dimensional surface, which, like a travelling wave, scans this cylinder, is formed by the events on the planet simultaneously with us. Whereas all people of the past and future are not immovable “statues”, but live their lives in their own (past or future for us) fragments of the cylinder of the planet’s events.

The ruins and remains that we see at the site of ancient settlements are real buildings and living creatures of the past, observed by us through the thickness of space-time. The fact that we see not new buildings and living people, but their ruins and remains, testifies only to the distortion and absorption of the signal in that thickness of space-time through which we “look” these objects so far from us in space-time.

The distortion and absorption of a signal is different in different fragments of the event cylinder of our planet and depends on the properties of the environment. That is why we see well-preserved historical buildings in one place, while in another place the historical buildings of the same historical era look like ruins, i.e. much more distorted and muddy images of the originals, although these buildings have not been subject to human destruction or natural disasters.

Observation of objects and events of the past or future in their original form, without distortion and turbidity caused by distortion and absorption of the signal passed through the thickness of space-time, is

possible only for an operator who is located in the same fragment of space-time as these objects and events of the past or future. This is the task of a new science, *experimental history*, solved using the technology of real time travel.

Understanding all of the above is strictly necessary for the subsequent understanding of what *real time travel* is, and, accordingly, for the engineering development of technology that implements such travel (see the next Chapter).

REAL TIME TRAVEL

THE BASIC PRINCIPLES of the technology of real time travel are simple and quite understandable based on the above-described concept of all objects as multidimensional bodies existing in space-time. The engineering implementation of various versions of this technology (it is assumed that various options for its engineering implementation are possible), for example, the option described in the text THE IMAGING SCREEN, is quite feasible based on the technologies available to human civilization of the late 20th and early 21st centuries, and does not require huge financial costs.

However, such an engineering implementation is only possible with a deep understanding of the underlying principles of this technology. These principles are yet familiar to only a few pioneers in this field, and are not yet part of the thinking of most modern engineers and technologists. If they understand these basic principles, i.e. make them part of their own description of the world, then the implementation of real time travel will become just one of the current technical problems that need to be solved.

FIRST, you need to understand that real time travel is very different from what is described in modern science fiction literature.

The true reality of our planet is its multidimensional event cylinder, which glows due to the energy of events filling it and is elongated from the past into the future along the spiral trajectory of the planet in the Galaxy. The cylinder of planetary events is everywhere tightly filled with intertwining luminous event cylinders of its inhabitants, each of which, in turn, is an interweaving of luminous event microcylinders of particles of planetary environments that enter and leave these cylinders, connecting them with each other like fiber-optic cables.

Each event cylinder glows because of the energy that fills it, which pulsates, thus producing a glow at the frequencies of these pulsations. The energy of the event cylinder of a particle pulsates (glows) only at certain frequencies, while the spectral range of pulsations (glow) of the energy of the event cylinder of the planet is so wide that it includes the frequency spectra of the pulsations of event cylinders of all planetary environments, inhabitants, particles of planetary environments and all objects of which it is woven. The energy-spectral code of the event cylinder of any object, stored in the sequence of frequency peaks and hollows of the spectrum of its energy pulsations, is unique and stores complete information about it. As for a person, the energy-spectral code of the glow (energy pulsations) of his event cylinder stores complete information about his hereditary physical characteristics, individual characteristics of the psyche, his memory and life experience.

We can synchronize the energy-spectral code of two event cylinders if they have common energy filaments (microcylinders) of particles from which they are woven. Thus, by synchronizing a fragment of the operator's event cylinder (having the duration of the "communication session") with a fragment of another event cylinder in the past or future, we transmit the operator's energy-spectral code, completely or fragmentarily, by the "burning" method along one or more of the energy filaments (event microcylinders) of particles entering and leaving these two cylinders of events and, thus, connecting them in space-time like a fiber-optic cable.

Such synchronization is analogous to rewriting a melody from one magnetic tape to another: the melody is read from one magnetic tape and simultaneously transmitted and recorded on another magnetic tape "over" another melody previously recorded on it.

Two types of such synchronization are possible: fragmentary and full synchronization.

1. **FRAGMENTARY SYNCHRONIZATION.** With fragmentary synchronization, the operator's body (as a three-dimensional "slice" of his space-time event cylinder) is in a state of sleep in the laboratory, while the fragments of his energy-spectral code that store the individual characteristics of his psyche, his memory and life experience accumulated at the time of synchronization are temporarily "rewritten" into a fragment of the event cylinder.

der of another person in the past or future (the length of this fragment of the event cylinder corresponds to the duration of the “communication session”).

In this case, the communication channel through the “fiber-optic cable” of common microcylinders of particles, which connects the operator’s event cylinder with the respondent’s event cylinder located in the past or future, is maintained in an active state, i.e. it glows with the energy of the operator’s energy-spectral code filling it during the entire “communication session”.

This is a special state of *controlled sleep*, in which the operator’s body remains asleep in the laboratory, and fragments of his energy-spectral code that store the individual characteristics of his psyche, his memory and life experience accumulated at the time of the experiment are transmitted, in the case of specific adjustment of sleep parameters, for the time of the REM sleep phase (when the sleeper sees dreams) to the body of another person living in the past or future. Thus, during the REM sleep phase, the operator experiences all the events that occur with the body of his respondent in the past or future as his own.

2. FULL SYNCHRONIZATION. With full synchronization, the entire energy-spectral code of the operator is transferred to a fragment of the event cylinder of another person (his respondent) in the past or future. This leads to a state of instant teleportation of the operator into the body of his respondent: as soon as the energy-spectral code of the operator is completely transmitted to the body of his respondent, the three-dimensional body of the operator instantly disappears from the laboratory, while the operator finds himself in the body of his respondent living in the past or future.

The “fiber-optic cable” of common microcylinders of particles, which connects the operator’s event cylinder with the respondent’s event cylinder, is maintained in an active state (glows with the energy of the operator’s energy-spectral code filling it) during the entire “communication session”. This provides a reverse transmission of the operator’s energy-spectral code (inverse synchronization), i.e. his return to the laboratory at the end of the “communication session”.

The moment of full synchronization, i.e. the moment of instant motion in time and space is felt by the operator as one blink of his eyes:

first, the operator sees his laboratory, then, “blinking his eyes”, he immediately sees the surrounding reality in the time and space of his respondent, actually looking with his eyes and fully feeling this reality with all his senses of his body.

Full synchronization leads to the fact that the glow of the space-time cylinder of the operator’s events is completely extinguished in the laboratory for the duration of the “communication session”: the operator’s three-dimensional body instantly disappears from the laboratory at the moment of synchronization, while his respondent ceases to exist as a person at the moment of synchronization according to time of his era (in the past or future): the energy-spectral code of the respondent is rewritten with the operator’s code at this point in time. As a result of full synchronization, the operator, having moved into the body of a respondent living somewhere in the past or future, continues his full life in the body of the respondent and is, thus, a direct witness and participant in the historical events of that era (in the past or future).

This is what *real time travel* is, in contrast to those morbid fantasies that are described in modern science fiction literature.

The functionality of the device for fragmentary or full synchronization of an operator with the body of another person in the past or future provides conditions for visualizing events of the past or future individually for each operator. This visualization, in the case of fragmentary synchronization, is a vision of past or future events in a controlled dream, and in the case of full synchronization, it provides full participation in these events (within the duration of the “communication session”). In fact, it is a *time travel device*.

SECOND, you need to understand that a time travel device is not some kind of mechanical or electronic-mechanical device, like a car, that can be driven by any driver along the available road network (within the limits of the fuel supply). This is a *biotechnical system*. That is, the operator as a person with all his individual properties and characteristics, is an integral part of the device for time travel, one of its main working units, without which this device cannot work.

In particular, the “network of roads” available for travel in space-time for a particular operator is a network of energy filaments of micro-cylinders of particles that enter and leave his event cylinder, connecting it with the event cylinders of other beings in the past or future like a

fiber-optic cable. That is, those eras and regions of the planet, into which these “fiber-optic cables” of the operator are paved, are *allowed* (open) for his time travel. These eras and regions of the planet are determined by the genealogy of the operator’s ancestors and descendants, his own journeys throughout the planet before and after the “communication session”, the journeys of his ancestors and descendants throughout the planet, information received by him, by his ancestors and descendants, etc.

Thus, the time travel device is customized for a specific operator. Replacing one operator with another requires changing the setting of the entire system.

THIRD, it is necessary to clearly understand all the stages of *real time travel technology*. These are the stages of preparing, configuring and operating a *time travel device*, which is a biotechnical system that integrates the time travel capsule and the operator himself. Depending on the settings, this device provides conditions for either visualizing the events of a selected fragment of the past or future in a state of sleep, or instant teleportation of the operator to the selected fragment of the past or future. This is followed by the stage of drawing up a report by the operator about what he saw, and then — the stage of analysing reports made by different operators who visited the same historical era, in order to compile an objectively reliable chronicle of this era.

STAGE 1. PRELIMINARY PREPARATION OF THE OPERATOR.

1.1. Using the methods of psychophysical training, the operator must realize (learn to imagine at the level of sensations) his three-dimensional body with all its internal organs as a three-dimensional slice of the “multidimensional Gulliver’s” body glowing with energy — his multidimensional event cylinder that exists as an integral object in space-time.

1.1.1. At first, the operator, being in an almost completely dark room, where he is able to distinguish only the contours of objects, should look with a scattered gaze on the body of another person located opposite him at a distance of about 3 meters (in order to cover his entire body with one glance). The room should be kept at a comfortable temperature and free of any sounds or other distractions. A prerequisite: the operator’s brain during these exercises must be free of any

thoughts, i.e. the operator's internal dialogue with himself or an imaginary interlocutor (a state common for almost all ordinary people) must be completely stopped, otherwise nothing will work. Such training should be carried out daily for several hours.

1.1.2. After several weeks of such training, the operator begins to see a neutral-grey glow that fills the body contour of the person in vision and extends beyond his figure in the form of a luminous "cocoon" approximately 2.5 meters in size. After several more weeks of training, the operator begins to distinguish the colours of this glow, different in places of different organs (within the body contour) and in different fragments of this luminous "cocoon" (outside the body contour).

1.1.3. After several months of training, the operator begins to clearly distinguish (with the inevitable delight of what he saw) the glowing energy filaments from which the glow of the human energy body is woven and which enter and leave it as if from a shaggy multi-coloured "cocoon". The operator needs to remember his sensations accompanying this vision, and learn to evoke these sensations at the level of a *physiological skill*, even under normal lighting.

1.1.4. Then the operator needs to apply the acquired skill, examining his own hands and body, first in semi-darkness, then, when the necessary progress is made, in normal lighting. An indicator of the level of training required for time travel is the operator's ability to see the glowing filaments from which the glow of his own energy body is woven.

1.2. Trainings for the purpose of acquiring the skills of quick memorization of information, as well as the skills of academic (realistic) drawing from memory.

In real time travel, the operator can neither "bring" any items from the past or future, nor take any items from his laboratory with him on time travel: recording devices, weapons, etc. The operator can only observe the events of his respondent's era, being in his body, or even consciously participate in these events (in the case of full synchronization).

All that the operator can “bring” from real time travel is his memories of the events, which he witnessed or participated in, as well as any other information that he remembered there.

Therefore, possession of the skills of quickly memorizing information and the skills of academic (realistic) drawing from memory will allow the operator to compose a detailed description of the visited historical era, including memorized texts of books and other documents of that era, graphic illustrations and realistic portraits of historical characters.

STAGE 2. DESIGN AND PREPARATION OF THE TIME TRAVEL CAPSULE.

2.1. The capsule is designed to accommodate the operator (time traveller) and provide the necessary conditions for his synchronization with the respondent’s body in the selected fragment of the past or future during the entire “communication session”.

2.2. The capsule isolates the operator from low-speed energy exchanges in planetary environments. Thus, being inside the capsule, the operator finds himself in the field of energy filaments only of high-speed energy exchanges common for the galactic environment and planetary environments, such as gaseous media (see SPECTRAL REPAINTING), while the energy filaments of low-speed energy exchanges of planetary environments are cut off by the walls and the capsule. Therefore, the material for the walls and the cap of the capsule is a very hard natural mineral (material with the lowest possible internal energy exchange rate), such as granite or basalt.

2.3. The capsule is a massive rectangular box made of granite or basalt (or a similar natural mineral). The walls of the capsule 10 cm thick are sufficient to isolate the inner space of the capsule from low-speed energy exchanges of planetary environments. The internal space of the capsule must be sufficient for the operator to be free and comfortable in the supine position, without a lack of air for breathing. The top cap of the capsule should be located at least 1 meter above the operator so that in the closed position and in low light inside the capsule, the operator does not feel a closed space (he should not distinguish the walls and the cap of the capsule in semi-darkness).

Even his short-term presence in the capsule should create a feeling of being in an infinite (not limited by the walls of the capsule) volume outside of space and time.

2.4. The blocks of the capsule must be free from metals, organic materials or synthetics. In addition, the design of the capsule must be free of electronic components and any electrically conductive materials in which electric currents induced by external electromagnetic fields can be generated.

The space of our planet is heavily “noisy” by anthropogenic electromagnetic radiation, especially in cities. Therefore, the time travel laboratory (and capsule) should be located in a forested area or remote highlands, where the geomagnetic field strength approaches the normal background level and does not experience significant jumps.

In the laboratory and nearby buildings there should be no working generators of strong electromagnetic radiation.

“Communication sessions” with the past or future should not be conducted during solar flares and intense emissions of coronary solar substance, as they have a significant disturbing effect on the Earth’s electromagnetic field.

2.5. The capsule also provides acoustic isolation from the sound noises of planetary environments: the sound noises disorient the operator during preparation and during the “communication session”.

2.6. The capsule should be equipped with an optical system of controlled diffused illumination supplied to the inside of the capsule from the laboratory.

2.7. The capsule should be equipped with a mechanical system to maintain a comfortable temperature regime. Air of the required temperature is supplied to the inside of the capsule from the laboratory (the system must operate silently).

STAGE 3. SYNCHRONIZATION OF THE OPERATOR WITH THE BODY OF HIS RESPONDENT IN THE PAST OR FUTURE.

3.1. While inside the time travel capsule, the operator must either have no clothes at all or be dressed in light clothing made of thin plant material. Clothing should be loose and almost weightless so that the operator does not feel it on his body.

3.2. While inside the capsule, the operator needs to reproduce the sensation that accompanies the vision of the glowing filaments of the energy body. As soon as this sensation becomes indistinguishable from reality, the conditions are realized for seeing the filaments of high-speed energy exchanges in the galactic environment, which mixes with the air environments of our planet, in particular, with the air environments of the operator's body (low-speed energy exchanges of planetary environments are cut off by the walls and the cap of the capsule). He sees glowing energy filaments that enter and leave the glow of his own energy body, woven from these glowing filaments.

The operator sees only those energy filaments of the galactic environment and planetary environments that enter and leave his energy body. Otherwise he would not have seen them.

All sensations and emotions (feelings) arising from the operator are manifested in the form of contrasts and different colours of the glow of the energy filaments of his energy body.

The energy filaments entering and leaving the operator's energy body like a fiber-optic cable connect him with other energy bodies in other spaces of the past, present and future. These are his personal channels for travel in time and space, "open" only to him.

3.3. Then, clearly seeing the energy filaments entering and leaving his energy body, the operator needs to reproduce, i.e. imagine as his own, those visual images, sensations and emotions (feelings) that his respondent supposedly sees and experiences in his region of the planet, in his era of the past or future.

These images, sensations and emotions manifest themselves in the form of pulsation of contrasts and colours in those luminous energy filaments that connect the operator with the body of his respondent in the past or future, and thus activate the "communication channel" between them.

Reproduction of a complex of visual images, sensations and emotions (feelings) characteristic of a particular person provides conditions for the operator to synchronize with the body of this person, and not with the body of another person, plant, animal, technical device or planetary environment.

As soon as this complex of visual images, sensations and emotions reproduced by the operator becomes indistinguishable from reality, conditions are created for his full synchronization with the respondent. As a result, the operator instantly teleports to the body of his respondent: the operator for a fraction of an instant finds himself inside the sparkling tunnel of his “communication channel”, connecting him with the body of his respondent, and, then, instantly finds himself in the respondent’s body in his region of his era of the past or future.

3.4. To synchronize the operator with the respondent’s body, it is necessary to know the navigational landmarks (visual reference points, sensations and emotions) that are specific only for the region and the historical era of this respondent.

In the process of preparing for long working “communication sessions”, the operators of the laboratory need to carry out a series of short-term synchronizations with the bodies of any respondents with whom it will be possible to synchronize in the right region of the planet and of the right historical era. The purpose of such “training” time travel is reconnaissance: the collection of “navigational information” about people, terrain plans, visual landmarks, sensations and emotions, specific only for the respondents of the selected region and only in the selected historical era.

Travelling to the past is the most reliable from the point of view of navigation, since in this case the laboratory staff can preliminarily collect at least some navigational information from historical chronicles. Therefore, it is much easier to get to the right region of the planet in the right era of the past.

We do not have sources for preliminary collection of information on navigation landmarks in the future. Therefore, when travelling to the future, there is a very significant percentage of the probability of falling into the unknown and, as a result, a much higher percentage of losses among the operators than when travelling to the past.

3.5. In group time travel, both in the case of fragmentary synchronization (group controlled sleep) and in the case of full synchronization (teleportation), the leading operator takes the

navigational reference, like the navigator of a leading aircraft, and the accompanying operators follow him. In this case, each member of the group finds himself in the body of his personal respondent, but in the same historical era of the same region of the planet.

STAGE 4. ACTIONS OF THE OPERATOR IN THE ERA OF HIS RESPONDENT.

4.1. The operator's task in his time travel is to collect as diverse and detailed information as possible about the historical era of the respondent (in the past or future relative to the era of the operator's laboratory) during the entire "communication session", in particular:

4.1.1. Information about all regions and all objects that the operator visited during his stay in the respondent's era, as well as about those regions and objects that he learned about there from indirect (written or oral) sources;

4.1.2. Information about all the events of the respondent's era, the operator was a witness or participant in, including those events that he learned about there in the era from indirect sources;

4.1.3. Information about all the people with whom the operator contacted during his stay in the respondent's era, as well as whom he learned about there from indirect sources;

4.1.4. The texts of books and other documents memorized by the operator during his stay in the respondent's era;

4.1.5. Any other information available in that era.

4.2. The operator, being in the era of his respondent, must adhere to the stereotypes of behaviour characteristic of the given historical era, social status and gender of the respondent.

The operator should understand that gender, i.e. the set of material external traits and internal organs that distinguish men and women is nothing more than a virtual image created by the human brain in his imagination on the basis of two main types of luminescence of the human energy body. The operator's gender does not necessarily match the respondent's gender. For this reason, the operator, being in the era of his respondent, must adhere to the stereotypes of behaviour specific to the gender of the respondent.

4.3. The operator should also understand that being in the past, he will not be able by his actions to change events in the era of the existence of his laboratory. The cylinder of planetary events exists as an integral object in space-time. The human brain only creates the illusion of the flow of time, when it scans the already existing body of the cylinder of the planet's events in the direction from the past to the future. Indeed, by changing something in one fragment of the planet's event cylinder, we change the entire body of the "multidimensional Gulliver". At the same time, all events of the past, present and future are the consequences of the influence of certain configurations of celestial bodies, each specific to its own moment of time. Therefore, all changes in the body of the "multidimensional Gulliver" are predetermined, including the operator's journey into the past or future and all his actions in that historical era. The operator cannot change the trajectories of celestial bodies in the Galaxy and, therefore, he cannot change the sequence of events in world history.

4.4. When travelling in a group in time, the group members should act according to the following plan:

4.4.1. Gathering of all members of the group in a prearranged place (in the chosen era of the past or future);

4.4.2. Identification of each member of the group by a personal password, since each member of the group is present in the body of his respondent, the appearance (and gender) of which may be unknown to other members of the group;

4.4.3. Repetition of the action plan;

4.4.4. Separation of the group members to perform their personal tasks or the performance of one task by the joint action of all group members;

4.4.5. Gathering all members of the group in a prearranged place after completing the assignment. Backward synchronization (return to the laboratory).

4.5. With fragmentary synchronization, the duration of the "communication session" in the laboratory is limited by the phase of REM sleep, when the sleeper is dreaming (approximately 8 to 25 minutes).

With full synchronization, when the operator teleports to the era of his respondent, the “communication session” in the laboratory can last as long as necessary from the moment of synchronization and within the lifetime of his laboratory.

4.6. The “communication session” has a different duration in the operator’s laboratory and in the era of his respondent. The “fiber-optic cable” of common microcylinders of particles, which connects the capsule in the laboratory with the body of the respondent in the past or future and glows with the energy of the energy-spectral code of the operator filling it during the “communication session”, is like a long retractable dog leash. Therefore, the “communication session” in the laboratory can last only a few minutes, while the operator’s stay in the historical era of his respondent can last from several minutes to many years, depending on the task assigned to the operator and is limited only by the lifespan of the respondent’s body after the moment of synchronization.

4.7. The operator does not need to worry about the personality of his respondent. After the closure of the synchronization channel with the operator (the end of the “communication session”), the respondent keeps only vague memories of the events that happened to his body during the “communication session”: the respondent remembers that something happened to him, but cannot remember what exactly.

4.8. The operator independently makes a decision to terminate his stay in the fragment of his respondent’s time. In the case of risk to life, the operator should immediately find the necessary conditions for backward synchronization and return to the capsule in his laboratory. Each operator should understand the following. If he dies in the body of his respondent (due to some circumstances of that historical era), in the case of fragmentary synchronization, his respondent will die for real in that era, and the operator himself will instantly wake up in his body, which lies in the capsule in his laboratory. However, with full synchronization with the body of his respondent, the operator will die for real in that historical era and his return to the laboratory will be impossible.

STAGE 5. RETURN OF THE OPERATOR TO HIS LABORATORY.

5.1. The condition for the operator to return to the capsule located in his laboratory is to maintain the “communication channel” with the capsule in an active state.

5.2. To do this, the operator must always have an object on the body, which, if removed, causes a phantom sensation of its presence for a long time (this object should also not enter into chemical reactions with the body). The best option is a gold ring, tightly worn on the ring finger. The ring should be thin so as not to cause low frequency interference due to the presence of metal in the capsule.

5.3. During fragmentary synchronization with the respondent’s body in the past or future, the operator in a state of controlled sleep feels the phantom presence of this “control ring” on his ring finger. This keeps the operator’s “communication channel” active with his body asleep in the capsule.

With full synchronization, the operator’s body is teleported, i.e. instantly disappears from the capsule, but the ring remains inside the capsule (we remember that the operator cannot “bring” any object from the laboratory with him to the past or future). Being in a fragment of the past or future in the respondent’s body, the operator feels the phantom presence of this “control ring” on the ring finger of his respondent’s body, which maintains his “communication channel” with the capsule in the laboratory in an active state.

5.4. Return of the operator to the capsule. As soon as the operator, being in the body of his respondent in the past or future, decides that his mission has been accomplished, he, preferably retiring alone in a dark room with a comfortable air temperature, evokes a sensation accompanying the vision of the luminous filaments of energy bodies and the galactic environment. So forth, physically seeing the luminous filaments entering and leaving the energy body of his respondent, the operator focuses on the sensation of the phantom presence of the “control ring” on the ring finger. This sensation, reproduced by the operator in such a way that it becomes indistinguishable from reality, creates the conditions for his instant teleportation back into the

capsule. The operator instantly finds himself in his own body, instantly appearing inside the capsule in a fragment of space and time of his laboratory. After doing so, he discovers that the “control ring” is put on his ring finger.

5.5. The wife of a male time traveller (or the husband of a female time traveller) has a responsibility to provide the time traveller with a stable sense of psychological comfort. Tension in relationships at home creates conditions for an unconscious desire to break off this relationship and start some other, new and better life. This unconscious desire first arises somewhere deep in the human psyche and then develops imperceptibly for him. Time travel gives the operator very vivid emotions and impressions, much more vivid than those in ordinary life. In such a situation, the operator’s unconscious desire to break off relationship at home can create conditions for breaking his “communication channel” with the capsule in the laboratory: if the “communication channel” breaks, the operator remains in the time and region of his respondent forever (in his body).

Therefore, a good psychoanalyst should be brought in to provide psychological support to the operator and his or her family throughout his or her work in the laboratory.

STAGE 6. COMPILING A TIME TRAVEL REPORT.

The operator’s report should include a consistent and detailed description of all his actions during the time travel, as well as all the information received by him during his stay in that era, including:

- 6.1. The operator’s feelings that he experienced during preparation for synchronization and at the time of synchronization;
- 6.2. A consistent list and description of all objects that the operator visited, as well as all events, witness or participant in which he was in that era;
- 6.3. A list of names and a verbal description of the appearance of all people with whom the operator contacted during his stay in that era;
- 6.4. A list of names and other information about all people and events that the operator indirectly learned about (heard, read, etc.) during his stay in that era;

- 6.5. Any other information that the operator has somehow collected during that era;
- 6.6. Feelings of the operator, which he experienced at the moment of return and later, during the rehabilitation period;
- 6.7. The texts of books and other documents read and memorized by the operator during his stay in that era of the past or future and recorded by him from memory after his return (in the original language);
- 6.8. Graphic illustrations of the journey, such as realistic portraits of people encountered, drawings of buildings, site plans, as well as illustrations of historical events made by the operator after his return using his academic (realistic) drawing skills from memory.

STAGE 7. COMPILING AN OBJECTIVELY RELIABLE CHRONICLE OF THE VISITED HISTORICAL ERA.

7.1. Comparing reports compiled by all those operators who, individually or as members of the same group, have visited the same era in the past or future. Selecting the same pictures of that era, which were sketched by different operators from memory. Selecting identical texts of that era, which were memorized and then recorded by different operators from memory. If there are many discrepancies in these records, the analyst selects their common fragments.

7.2. Based on the sample made, the analyst compiles an objectively reliable chronicle with detailed descriptions of the events of the historical era visited by the operators, including graphic illustrations and realistic portraits of historical characters.

USING THE TECHNOLOGY of real time travel, we, in particular, can refine our knowledge about the events of the past world history, including the dates of these events.

In fact, real time travel is the observation of objects and events of the past or future in their original form, without distortion and turbidity caused by distortion and absorption of the signal in the thickness of space-time (when observing through the centuries, we see ruins and remains instead of new buildings and living people). In other words, it is easier to find a living witness of historical events and talk to him than to engage in fortune-telling over the ruins and remains. This is the task of

a new science, *experimental history*, the main research method of which is real time travel.

So, for example, after a series of journeys into the era of Ancient Greece and Ancient Rome, we will be able to know exactly which authors existed in the Antique period and which books they wrote. As a result, we will be able to unambiguously determine which books in our libraries are pseudo-antique imitations written in the era of the early and middle Renaissance, as well as replenish our libraries with the texts of lost real works of ancient literature and science.

The current Chapter is one of the “technological” Chapters of the COMMENTARIES. The perception of this information (as well as any information in general) depends on the energy spectrum of the reader. So, for example, when travelling to the past, you can try to explain to a scientist of the middle of the 19th century the principle of operation of modern electronic gadgets, say, a smartphone or computer. But he still will not understand anything, since the energy-spectral code of the galactic environment on the flight path of our planet in the 19th century does not contain a description of the principles of operation of electronics. The description of electronics begins to appear fragmentarily in the energy-spectral code of the galactic environment only starting from the sector of this environment flown into by our planet in the middle of the 20th century. Therefore, even if you draw a smartphone or computer to a scientist of the 19th century and begin to explain to him how it all works, he will most likely think that you are a mentally ill person.

Or, with a more trusting acquaintance, he will believe in the reality of such a device, but at the same time he will look at you with a “cunning squinting” of the eyes (a typical sign of the protective brain reaction, indicating a person’s inner conviction that he is being “deceived”; see the Chapter UNDERSTANDING INFORMATION). He will think that you are a talented inventor who tells all sorts of nonsense to hide the real principles of these devices. But in fact, inside a smartphone or a computer there are mounted many microscopic steam engines, which ensure the functioning of these devices.

Similarly, when trying to explain how technologies of the future work to a scientist or engineer at the end of the 20th century, he will not believe, but will look for electronic units in their description, because in the mind of a person of the end of the 20th century, the presence of

electronics is a sign of “high technologies”.

The same is true about information about real time travel technology. The description of the basic principles of this technology, as well as of other technologies mentioned in the COMMENTARIES, is stored in fragments of the energy-spectral code of the galactic environment since the late 1980s. That is, this technology is, in principle, available for mass understanding by people since the end of the 20th century, but is not yet familiar to the understanding of most engineers and technologists. Formal repetition of some mechanical actions does not give anything. Engineers and technologists need to “saturate” their minds with the basic principles of this technology. Only then they, clearly understanding the basic principles, features and details of this technology, will be able to implement time travel in practice.

At the same time, someone, having quickly scrolled through the current Chapter over a cocktail, can speak out, thereby showing the defensive reaction of his own low-frequency animal brain:

- “This biotechnical technology is too complex, since a significant part of it is the human factor. Give us a purely technical time travel device that can be operated by anyone without special skills or qualifications!”

This is best answered, as in the case of a similar statement, for example, about the “difficulty” of studying Riemannian geometry or mastering the skills of academic drawing:

- “Do you want to play the violin, but so as not to learn it for a long time?”

**REAL INTERSTELLAR TRAVEL OVER LONG DISTANCES
EXCEEDING 100 PARSECS**

THE CURRENT CHAPTER is about the technology of real interstellar travel lasting from several hours to several days (similarly to modern intercontinental air travel or sailing on a modern ocean liner).

The engineering implementation of various versions of this technology is also within the technical capabilities of human civilization of the late 20th and early 21st centuries and does not require huge financial costs, but requires a deep understanding of the basic principles of this technology. In other words, engineers and technologists must “saturate” their minds with these basic principles in order to clearly understand what they are doing. Since we all know that a monkey, in principle, can assemble a radio-receiver from blocks under the guidance of a human trainer, and this radio-receiver will work (until its batteries are discharged). But this monkey itself will never be able to make the second one the same, since it does not understand the basic principles of the operation of this device.

The technology of real interstellar travel is fundamentally different from the “kerosene technology” on which modern near-Earth manned space exploration is based. The “kerosene technology” of jet engines was given to humanity at the end of the 19th century only to realize the fact that we are not locked on our planet Earth, and to publicly demonstrate the possibility of going beyond our planet, into space, and not for real travels through the Solar System and even more so to the stars (the “kerosene technology” of jet engines is completely unsuitable for such travels).

Your humble servant would be very disappointed in the level of development of the current generation of people, if, having studied the

current Chapter and the previous Chapters of the COMMENTARIES, his contemporaries did not reproduce devices working on the basis of the technology of real interstellar travel.

A SHORT DIGRESSION should be made here to mention one misconception about the modern theory of space-time (the theory of relativity): many believe that, according to the theory of relativity, motion faster than the speed of light, including instantaneous motion in space and instantaneous transmission of signals, is impossible. This misconception is widespread among non-professionals who have never studied Riemannian geometry, which is the basis of the theory of relativity. Popular books and articles are the source of this myth.

In fact, the myth of the irresistibility of the speed of light is a fiction. Your humble servant can say this surely, since he is an expert in the theory of physical observables in the theory of relativity (the theory of chronometric invariants), who, together with L., his closest female colleague and co-author, presented their common research on this topic in three monographs published in English and French, as well as in a number of scientific articles. There are other studies on this topic written by experts in the theory of relativity and included in the bibliography of the above monographs.

When we talk about the speed of light as the limiting speed of motion of bodies and the transfer of information, we mean the speed registered by an observer, who synchronizes his reference frame and the reference frames of the observed objects using light signals, and thus receives information about the world around him using light signals. Einstein selected this synchronization method since light was the fastest of the known synchronization methods at that time. His system of synchronization (getting information about the world) provided a mathematical explanation for the length contraction and time dilation observed in particles moving at speeds comparable to the speed of light: these effects resulted from distortion of space and time in the four-dimensional pseudo-Riemannian space, where the speed of light in vacuum is the speed of synchronization between the observer and objects of his observation. These distortions are visible in the observer's resting reference frame, and the moving bodies themselves remain unchanged.

At the same time, in Riemannian geometry there is no "prohibition" on other synchronization systems, for example, on reference frames as-

sociated with superluminal particles (tachyons), and even with particles displacing instantly. According to the theory of relativity, tachyons travel at superluminal speeds in an imaginary region of space-time, invisible to an observer who perceives the world using light signals.

Light is transverse waves travelling in the electromagnetic field. At the same time, back in 1918–1920, many researchers showed that if the reference frames are synchronized using sound signals, i.e. using sound waves in the air, we get the same Lorentz transformations as in the theory of relativity, while the speed of sound in the air plays the rôle of the speed of light. In other words, an observer who receives information about the world around using only sound signals will assume that the speed of sound in the air is the limiting speed of motion of bodies and the transfer of information in Nature. Although, of course, bodies can also move at supersonic speeds.

Your humble servant spent summer seasons of his childhood near a military airfield and often watched as a jet interceptor, moving at a supersonic speed, is visible far ahead of the point in the sky from which the sound of its engine emanates. Whereas, if you close your eyes and, thus, receive information about the world using only sound, it will seem that this airplane is flying at the speed of sound (sound waves in the air). In terms of Riemannian geometry, from the point of view of a person with closed eyes, a jet interceptor, moving at a supersonic speed, is in the imaginary region of space-time, while its observed phantom moves in the sky at the speed of sound.

Many theories in science survived “childhood illnesses” early in their development. For example, now the postulates of the theory of relativity are of interest only to historians of science as an illustration of how this theory developed. Whereas after the historical discussion between Grossmann and Einstein in Zürich, it became clear that the basis of the theory of relativity is Riemannian geometry, and all the consequences of the theory are mathematically derived from the geometric structure of the pseudo-Riemannian space without the need for any postulates or principles.

The theory of relativity (Riemannian geometry) was given to humanity in order to realize the multidimensionality of the world and ourselves as multidimensional space-time objects. This multidimensional worldview is the basis for the worldview of the future Man.

With this, your humble servant concludes the above short excursion into the basics of the theory of relativity and returns to the main topic of this Chapter.

THE BASICS OF THE REAL INTERSTELLAR TRAVEL TECHNOLOGY became available for understanding thanks to research in the field of heliobiology (see the works of Chizhevsky, Dewey, Velhover and their followers). We analysed the data of heliobiology based on modern ideas about space-time, everywhere tightly filled with energy flows. The result is the following picture.

The Sun absorbs the flow of energy from the oncoming galactic environment, then re-emits the absorbed energy through its own surface, but already at the frequencies of the pulsations of its own energy body (frequencies of the solar spectrum). Other stars also absorb the flow of energy from the oncoming galactic environment, and then re-emit it through their surface at their own frequencies. The planet Earth in the same way absorbs the energy flows of the solar environment and the oncoming galactic environment, and then re-emits the absorbed energy through the Earth's surface at the pulsation frequencies of the gas, liquid and solid-rock environments of the planet.

The spectra of pulsations of galactic (interstellar) energy flows and energy flows re-emitted by planets intersect each other in the frequency range of energy exchanges of the gaseous environment. But their maxima lie in different frequency ranges. The less binding the state of the environment is, the higher the frequency of energy exchanges in it: the frequencies of energy exchanges in gases are many orders of magnitude higher than the frequencies of energy exchanges in liquid environments, and the frequencies of energy exchanges in solid environments are the lowest. For this reason, galactic gaseous environments and the gaseous environments of stars and planets, pulsate in a much higher frequency range than the liquid and solid-rock environments of planets.

Thus, the entire space-time of the Galaxy is filled with “winds” of various energy flows, instant three-dimensional sections (slices) of which are perceived by the human brain as three-dimensional galactic and planetary environments. At the same time, the pulsation frequencies of the galactic “winds” (they come from stars and other galactic sources) are in a much higher frequency range than the pulsation frequencies of the “winds” emanating from planets.

This picture, drawn on the basis of data from heliobiology, gives a possibility to develop a technology for real interstellar travel.

So, our planet Earth, moving along its route in the Galaxy, continuously absorbs the flows of energy from stars and planets, recycles the absorbed energy inside its own energy body, and then re-emits it through its surface into the surrounding space of the Solar System.

If to create a shield that shields the “wind” of the flow of terrestrial energy, continuously outgoing from the inside of the Earth’s body through its surface into the surrounding space of the Solar System, and install this shield across the flow of this “wind”, i.e. in parallel to the Earth’s surface, then the “wind” of the Earth’s energy flow will push this shield out of the planet’s space into the surrounding space.

Such a shield works like the sail of a sailing ship. A vehicle equipped with such a shield is a sail-type device (such devices do not need a source of energy, since they are moved by wind energy). The pilot of such a vehicle is like a yachtsman steering the sail of a yacht: by changing the angle of inclination of this shield in relation to the Earth’s surface and, therefore, to the flow of outgoing terrestrial energy, the pilot changes the direction of motion of the entire vehicle — the “tack” relative to the Earth’s surface.

Such a shield must have a lattice-cavity structure, where the size of microcells corresponds to the frequency of the maximum energy exchanges in low-frequency planetary environments, and the cavity structure of the microcells makes it possible to shield the energy flows of planetary environments. In practice, it is convenient to use not a monolithic shield, but a panel consisting of many narrow jalousie blinds, which are mounted on a platform (like an ordinary jalousie window in an office). A large number of jalousie blinds on the panel is necessary so that each of them separately does not have a significant shielding effect (does not create a significant draft) and, thus, the assembly process of such a panel would be more or less safe.

In the inactive position, the jalousie blinds of the panels are fixed opposite each other in such a position that the shielding (sailing) property of one of them compensates the shielding property of the other. With such a mutual position of the jalousie blinds, the platform on which the panel with these jalousie blinds is mounted does not shield the energy flows outgoing from the Earth, and thus this platform can be

safely transported in any position from one place on the planet's surface to another (or manually carried, if this is the mobile version of such a device).

When the jalousie blinds of the panel are fully opened, the platform moves vertically from the Earth's surface due to the complete overlap of the outgoing flow of terrestrial energy. Other "tacks", such as slow vertical ascent and descent, descent along the glide path, motion horizontally along the Earth's surface (forward, backward, left, right), etc., are achieved at other angles of opening of the jalousie blinds relative to each other. Driving such a vehicle differs from driving a yacht only in that the yacht moves on the surface, while the vehicle is moving in volume.

Such a panel, together with the cockpit and the cabin for passengers and cargo, which are mounted altogether on a platform on top of this panel, is a *sail-type vehicle for moving in the space of our planet* within the atmosphere, water environment, solid-tectonic environment and in the near-Earth space so far away, how effective is the "wind" of the flow of energy outgoing from the Earth.

The travel speed of such a vehicle is theoretically unlimited. More precisely, its upper limit is determined by the area of the jalousie panel (sail). Even the mobile version of such a vehicle, in which the area of the shielding jalousie blinds is only 0.5 m^2 , allows one pilot to move in the air along the surface of the planet at speeds up to 1,700 km/hour. When moving vertically, i.e. with the jalousie blinds fully opened, the speed of motion would be much higher (analogous — the yacht moves strictly downwind much faster than at right angles to the wind).

ONE OF THE CONSEQUENCES OF SHIELDING the outgoing flow of terrestrial energy is that, from the point of view of an external observer, the shielding panel together with the entire vehicle is *invisible while in motion*.

To understand this, a small digression into the theory of observable quantities according to the theory of relativity is necessary. Signals in space-time are filamentous event microcylinders, each of which is filled with the energy of a particle carrying a signal and is laid along either a geodesic (shortest) or non-geodesic (distorted by external influence) line from the signal source to the observer. The observer perceives these energy filaments in the form of their instant three-dimensional

“slices” (cross-sections) — three-dimensional microclots of energy, on the basis of which his brain draws in his imagination a picture of material particles, for example, photons, according to a suitable description from his list of “material” objects and phenomena. In fact, the space-time energy filaments of signals are elements of the “body” of space-time itself, since the observer knows about its existence only as a result of signals received from these event microcylinders (along geodesic and non-geodetic lines of space-time), while everything that is outside the event microcylinders of the signals received by the observer *do not exist for him*.

We see an object close to us or far in space only if the three-dimensional (instant) cross-section of our space-time event cylinder at the time of observation is connected with the cross-section of the event cylinder of this object (at the moment when the signal left it) at least through one common energy filament — the event microcylinder of a particle (say, a photon), common for this object and us. If we do not have common event microcylinders of particles (energy filaments) with an object, then we *do not see it* even if it is located very close to us.

So, stars and planets, figuratively speaking, are “hairy balls of energy”. There is no “spherical flux of radiation” emanating from stars and planets, but only a multitude of discrete energy filaments extending from each of them into outer space. We see each stars or planet as a luminous point in the sky only because, due to its extraordinary remoteness in space, only one of the many energy filaments (event microcylinders of particles) emanating from it reaches our body.

In particular, the event microcylinders of the flow of terrestrial energy outgoing through the Earth’s surface into space are physically world lines of the local space-time of our planet, since everything that is outside the event microcylinders of the flow of terrestrial energy *does not exist for the terrestrial observer* (his reference frame is linked to the Earth), i.e. is *outside the space-time of the planet*.

That is why the panel shielding the outgoing flow of terrestrial energy is *invisible* together along with the entire sail-type vehicle during its motion. In the reference frame of the pilot and passengers of such a vehicle, during its movement, the world lines of the local space-time of our planet bend around the panel and the cockpit, and then again converge together above the cockpit, while in the frame of reference of

an external observer associated with the planet, the world lines of the local space of the planet remain unperturbed. As a result, the pilot and passengers of the vehicle see everything that happens outside the vehicle, while external observers do not see this device in motion: the shielding panel and the entire vehicle, merely *do not exist for them*.

This is vaguely similar to how a jet torpedo moves under water in a cavitation bubble that it creates. But, unlike such a torpedo, the “cavitator” of the said vehicle (shielding panel) is located at its “stern”, and the “bubble” in which the vehicle moves is outside the local space-time of the planet and, therefore, is not visible to external observers located in the reference frame linked to the planet.

Since the aforementioned vehicle while moving is outside the space-time of the planet, its structural elements, the pilot and passengers do not experience the effects of acceleration during its acceleration and deceleration. This provides ample room for manoeuvring. For example, sharp turns at almost right angles without slowing down, almost instant cruising speed and almost instant braking are not a problem for such a vehicle.

For the same reason, such a vehicle can move equally rapidly in any of the planetary environments: in the air, water, and even solid-soil-tectonic environment. In the reference frame linked to the planet, i.e. linked to any of the planetary environments, such a vehicle does not exist when it moves. Therefore, planetary environments do not provide any resistance to the moving vehicle and, accordingly, do not experience any deformations on the trajectory of its motion. While the pilot and vehicle passengers observe the environment in which they move (air, water or tectonic rocks), through distorted world lines in their frame of reference. Deformation of a planetary environment occurs only when the vehicle stops inside it, which, thus, becomes a foreign element that “suddenly” appears inside this environment: this creates serious problems when trying to stop inside tectonic solid rocks, soil layer or even in the water environment, up to the vehicle accident and the death of the crew.

RREAL INTERSTELLAR TRAVEL is possible using a *galactic vehicle of the sailing type* designed to travel through galactic (interstellar) environments. Its design is very similar to the planetary travel device, but with two differences:

- the jalousie blinds of the shielding panel (sail) must have such a lattice-cavity structure, the size of microcells of which corresponds to the frequency of the maximum energy exchanges in stellar-galactic environments, and the cavity structure of the microcells allows to shield the energy flows of stellar-galactic environments;
- the cockpit and passenger cabin must be blocks of a living compartment equipped with a life support system, which is designed for a long time of autonomous travel (weeks and months of flight).

For travelling in the Galaxy, it is advisable to use a vehicle of a mixed planetary-galactic type, which we call a *galactic cruiser*. Such a vehicle is equipped with two types of shielding panels: the “planetary” jalousie blinds have the size of microcells and a cavity structure that allows shielding energy flows in a lower frequency range, typical for energy exchanges in planetary environments, while the size of the microcells and the cavity structure of the “galactic” jalousie blinds allow shielding energy flows in the ultra-high frequency range, typical for energy exchanges in galactic (interstellar) environments.

Such a galactic cruiser starts directly from the surface of a planet, say, from the surface of the Earth, as a result of the fact that the cruiser pilot opens the jalousie blinds of the “planetary” panel. Thus, at the beginning of flight, the galactic cruiser moves due to the shielding of the flow of energy outgoing from the planet. Then, as soon as the cruiser is already at a sufficient distance from the planet to safely accelerate to galactic hyperspeeds, the cruiser pilot opens the jalousie blinds of the “galactic” panel and, having accelerated the cruiser to the required hyperspeed, drives it along the planned course in the Galaxy.

Such a cruiser can also be used not only for interstellar travel in the Galaxy, but also for high-speed flights within the Solar System.

Galactic environments are very rarefied gases. The frequencies of energy exchanges in gases are many orders of magnitude higher than the frequencies of energy exchanges in liquids, which, in turn, are many orders of magnitude higher than the frequencies of energy exchanges in solids. In addition, the more rarefied the environment, the higher the speed of energy exchanges in it. The average density of interstellar gas in our Galaxy is about 10^{-24} gram/cm³ with variations hundreds of times

depending on a particular region of the Galaxy. With a “tailwind” in an interstellar environment having such a density, such a galactic cruiser can reach speeds tens of thousands or more times higher than the speed of light (depending on the area of the shielding jalousie blinds and the angle of their opening). Thus, moving at a cruising speed of 10,000 times the speed of light, the galactic cruiser covers a distance of 100 parsecs in just 13 Earth days.

As in the case of a sail-type device moving in planetary environments, the world lines of the local space-time of the Galaxy bend around the body of a moving galactic vehicle under its “stern”, where the panels with the shielding jalousie blinds are mounted, and then converge together again in front of the hull along the course of the vehicle. In other words, such a galactic vehicle moves outside the local space-time of the Galaxy. Therefore, the galactic vehicle in motion is *invisible* from the reference frame of an external resting observer (in his reference frame, the world lines of the space-time of the Galaxy remain undistorted), while the pilot and passengers of the moving galactic vehicle see everything that happens outside. For the same reason, the pilot and passengers do not experience acceleration during acceleration and deceleration of the vehicle (see above for explanation).

THE ENGINEERING IMPLEMENTATION of the real interstellar travel technology became possible thanks to research in bionics, conducted in 1988–1993 by one of the closest colleagues of your humble servant, V. G. (1927–2001), who, in addition to his research in biophysics, was a professional entomologist (and also a very good person with a difficult fate).

Bionics is biologically inspired engineering. Most of the technologies created by Man already exist in Nature. Therefore, it would be natural to expect that the aforementioned technology for real interstellar travel also exists somewhere in Nature around us, but we have not yet discovered it.

V. G. discussed how, back in the 1970s, at his Institute, he conducted a research on alfalfa leaf-cutting bees (*Megachile rotundata*). He drew attention to the well-known fact that in winter, even at very low air temperatures during periods of severe frost, a comfortable temperature is always maintained inside bee nests: it is 20–25°C in the centre of the bee nest, where the queen bee is located, and 15–18°C at its per-

phery, although the design of bee nests does not contain an internal heat source and thermal insulating shell (they are made of glued cellulose). Popularizers of science write that bees generate heat in winter... from their muscular energy, continuously flapping their small wings inside the nest. A professional entomologist, who studied the thermodynamics of a bee nest, would take the above “explanation” rather as a joke, since a bee nest dissipates energy so actively in the cold that it would cool down in an hour in severe frost (while already at 6–8°C, bees fall into a daze and then die from hypothermia).

Continuing his research in the thermodynamics of the bee nest and modelling bee nests, V. G. discovered that the bees in the nest are not generators, but consumers of energy, while this energy is somehow generated due to the specific size and structure of the honeycomb cells. Moreover, it does not matter what material these honeycombs are made of: being made from different materials, they create a heat flow only because of their geometric texture. Other similar structures from the insect world, such as a bumblebee honeycomb, a wasp honeycomb, etc., have a similar property to create a flow of energy. V. G. called them *lattice-cavity structures*.

Almost two decades later, analysing the above results on the basis of modern ideas about space-time, we realized that the bee honeycomb is a natural “convector” of energy. The honeycomb captures a small fraction of the flow of energy that is continuously outgoing from the Earth at a frequency corresponding to the size of the honeycomb cells. This is similar to how a radio telescope’s lattice antenna captures the flow of energy from space at the radio frequency that matches the size of the antenna’s cells (a distant analogy). Then, due to the specific structure of the honeycomb cells, they retain the captured energy and, like a room radiator, dissipate the retained energy into the surrounding space inside the bee nest.

At this point, we came close to the story of the engineering implementation of the real interstellar travel technology.

In the 1980s, V. G. conducted research on the mechanics of the flight of beetles. He found that the beetle avionics does not allow beetles to fly: the vertical thrust created by the beetle’s small wings is absolutely insufficient to lift it into the air. In other words, the beetles are lifted into the air using another lifting force, and their wings only serve

to create horizontal thrust in flight, like the engines of an airship (dirigible balloon) pushing it forward when it hovers in the air.

In May-June 1988, V. G. focused on the avionics of the beetle elytral (wing-case) system, since there was enough “material” for research after the mass flight of beetles in May. Examining the elytra of one of the beetle species through a microscope, he discovered a specific volumetric texture, similar to the texture of a honeycomb, but having very small (microscopic) cells “engraved” by Nature on the inner surface of the lower part of the elytra. Since he had so many of these elytra on his working desk near the microscope, which created a mess, he tried to stack them all one on top of the other. As a result, V. G. immediately discovered that in this position the elytra strongly repel each other, so that he could not tightly press one elytra to the other with his fingers.

This was a great discovery. During the next year, two working prototypes of the sail-type vehicle were manufactured: there were a lot of elytra (they were taken from the dead beetles of this species, which were collected after their flight in May-June), and these elytra could be easily glued onto the narrow jalousie blinds mounted on a platform. The area of the jalousie blinds (pasted over with the beetle elytra), required to lift one kilogram into the air, as well as the expected motion speed of the vehicle, were calculated in proportion to the elytra area of one beetle, its mass and its flight speed.

The first (pocket) working prototype was capable of lifting a heavy rubber eraser into the air. The second (mobile) prototype was able to lift one person and reach speeds of up to 1,700 km/hour in the lower atmosphere (at altitudes below 3 km). It possessed all the properties characteristic of a sail-type vehicle for moving in planetary environments, including the invisibility in motion, as well as the ability to move in the soil environment (an attempt to stop inside the ground had created the danger of an accident).

However, as often happens in the case of promising scientific and technical developments, other people wanted to take all the achievements for themselves. Such people, possessing unlimited administrative power, have not set a single scientific problem, have not solved a single equation and have not conducted a single experiment: all this was done for them by their subordinates, who were completely dependent on them and created a “successful scientific career” for their bosses. This

is a known “business scheme” that was widely used throughout the 20th century in science and technology: to take a successful scientific or technical development for yourself and “get rid” of the real developers so that they do not chat about the true authorship of this development.

Therefore, as soon as such a prospect of events became real, V. G. disassembled the working prototype, replacing it with a plaster model, outwardly indistinguishable from the original. He said that he had scattered its details along the road leading to his Institute. The protocols of this work were not recorded for security reasons. Therefore, other scientists and engineers, who did not have access to this work, did not know “how it works” and, thus, had no chance to assemble a similar working prototype on their own.

This “coming out” caused fatal consequences: in 1993, all works on this topic were stopped, and V. G. returned to ordinary entomological studies of bees and bumblebees at his Institute. Shortly thereafter, he suffered an unexpected stroke, which severely limited his living abilities, and, a few years later, passed away in 2001.

In the course of these events, your humble servant and L. were engaged in purely theoretical research. The fate of a theoretical physicist is much simpler than that of an experimentalist or engineer, since a theoretician is not obliged to manufacture any devices. As your humble servant said: “I am not an engineer. A screwdriver for me is a self-defence weapon, and not a working tool.”

OTHER TECHNOLOGIES of real interstellar travel are also possible, such as the technology based on the effect of stopped light, described in the 1990s in the common works of L. and your humble servant. This technology uses the stopped light effect to transcend our regular (Riemannian) space-time. By changing the physical conditions of exit and entry, one can return back to our space-time at any distance from the exit point. This is one of the ways of non-quantum teleportation in “his own body”.

But this technology is still an “unplowed field” for an engineer, in contrast to the interplanetary-interstellar sail-type vehicle.

WHEN PLANNING real interplanetary and interstellar travel, the following important aspect must be taken into account: almost all people of the 20th century belong to the biological species *Homo tellust* (*earthly man*). The energy body of such a person is woven from the en-

ergy flows of the planet Earth, which saturate him with energy in the necessary frequencies, which manifests itself as a balance of chemical bonds in his material body. Violation of the “feeding” of the energy body at the necessary frequencies manifests itself as a disease (imbalance of the chemical bonds). The replacement of a person into the region, where energy flows have other frequencies, leads to the termination of the “feeding” of his energy body, i.e., to the extinction of its glow, which manifests itself as an irreparable destruction of the chemical bonds in his material body, which causes his death.

Far from the Earth, the energy clot of an earthly human is like a small clot, fed from the main energy clot of the planet Earth along a thin filament of its energy flow having the Earth’s spectrum composition. The rupture of this energy supply line is analogous to the abortion for an embryo. When the spectral and energy situation (local equilibrium) in the Solar System changes, for example, with abrupt changes in solar activity, this feeding energy filament is cut off: the energy clot of an earthly human somewhere between the Earth and Mars is extinguished, having lost its recharge with energy flows of the usual spectral composition from the native planet — the person dies. No supply of food and air will help him to continue his interplanetary flight. The same is true for earthly plants and animals, since their energy bodies are fragments of energy flows of the planet Earth.

But this will not always be that way. On its galactic route, the planet Earth, together with the Solar System, passes through galactic energy flows of different spectral compositions, processing them and changing themselves in accordance with the spectral composition of the processed energy. The transition from one spectral region to another leads to global changes in the planet as a habitat. Together with the planet, all its inhabitants, including humans, are transformed (mutated).

In recent decades, menacing signs indicate the impending leap-like transition of our planet (and Man) to a new state of natural balance. These changes in natural and man-made environments are equivalent to stretching the elastic by 9/10 of its extensibility. Further, there will be a global “rupture” of it. It will happen instantly.

Since the flows of energy outgoing from the planets are recycled flows of solar energy, the future Man will be able to be fed not only by the flows of energy outgoing from the planet Earth, but also by energy

flows outgoing from the Sun and other planets of the Solar System. The perception of such a person will have an extended spectral range, close to that of the Sun: he will be able to safely perceive significant doses of solar radiation. His spacewalk without a safety suit would be like a swimmer diving into water — an environment with a different density, but suitable for short stays with a breath-hold: remember the story of the founding members of the Vacuum-Breathers' Club from Arthur Clarke's short story TAKE A DEEP BREATH (1958).

This will be a man of a new biological species — *Homo solaris* (*solar man*). This generation of people will create artificial space biosystems, where they will breed mutated species of earthly plants that can survive in the flows of energy outgoing from other planets and the Sun, and, thus, provide people with food far from the Earth. This will allow a solar man to live on space stations orbiting the Sun, as well as on other planets for many years without returning to Earth, and, thus, gradually populate the entire Solar System.

Children born on space stations-cities orbiting the Sun will be different from children born on the Earth: they will not perceive the planet Earth as their homeland. Their homeland will be their space stations; they will love them as their home, they will strive there in difficult times, it is these stations that they will defend in a case of danger. Their psychological impressions of space flights to different locations of the Solar System will be similar to the impressions of today's trips to different countries.

Then the mutation will lead to the formation of an even more perfect species, *Homo galacticus* (*galactic man*), able to survive in the flows of energy outgoing from other stars. Therefore, a galactic man will be able to adapt and live in other star systems of our Galaxy, just as people of the species *Homo tellust* (*earthly man*) adapt and live in different climatic regions of the planet Earth. It is the people of galactic humanity who will make the first flight to the nearest galaxy, the Andromeda Nebula (with a braking flyby).

With taking into account the current evolutionary changes for the entire Earth and Mankind, long-distance space travel is a reality for the coming decades. For this, new training methods will be applied. In the process of training, the astronauts will live at high-altitude near-Earth stations located tens of thousands of kilometres from the Earth. During

this time, they will only eat food cooked from vegetables and fruits grown in greenhouses at the same high-altitude orbital stations. This will allow the astronauts to adapt to life in the greatly weakened energy flows of the planet Earth.

But that is not all. As long as the planet Earth is visible, the sense of home remains. But then the planet becomes one of a row of luminous stars. Volumetric stellar space begins to squeeze the psyche of the astronaut. No entertainment will help, since the planet Earth invisibly guards the human mind with its spectral range. Psychoses and depression will intensify in progression as the station moves away from the Earth. Therefore, in preparation for further interplanetary and interstellar flights, psychological training is needed to accustom astronauts to the idea that the Solar System is our large “home country”, where we have to explore new territories that have not yet been entered by a human foot.

At this stage, the word of the Church is invaluable for preparing for long-distance space flights. Like the priests on board of Columbus’ ships, *space chaplains*, along with other crew members of interplanetary and interstellar pioneers, will be exposed to all the hardships of long-distance space travel. With their words, they will support the weakened in spirit and keep the “hotheads” from making rash decisions, for no tricks of psychological science can be compared in strength with the True Faith. Only the True Faith will help interplanetary and interstellar pioneers far from their home planet to preserve their minds and, as a result, their bodies.

After the creation of the first space stations in circumsolar orbit, as beacons of human habitation in the vastness of the Solar System, these difficulties will diminish.

At the same time, real interplanetary flights will last several hours, like today’s intercontinental air travel, and real interstellar travel will last from several days to several months, like sailing on a modern ocean liner. But is it really any wonder? After all, only six decades ago, the flight of the first man into a near-Earth orbit seemed to be an event on the verge of fantasy!

WORLDS (LAYERS) OF THE MULTILAYER SPACE OF THE PLANET EARTH

OVER MANY YEARS, your humble servant doubted: “To write this book, or not to write?” There was an obvious reason not to write, because normal life and work of a scientist is possible only in a quiet, calm environment without any problems with the powers that be. On the other hand, it would be a crime against Mankind if the unique research studies and technologies, to which your humble servant was connected, were “buried” in safes and archives and thus become inaccessible to the public. Therefore, in February 2018, your humble servant decided to collect the texts he had and publish them, accompanied by his own INTRODUCTION and COMMENTARIES. But in May 2021, when this book was almost done, your humble servant felt that “some forces” were trying to stop him. Therefore, he was forced to release this book in an unfinished form, without the last Chapter listed in CONTENTS.

Now, one year later, your humble servant has returned to this Chapter with the intention of completing the book.

THE MAIN TOPIC of the current Chapter are, figuratively speaking, “gates” to other realities (worlds) of our planet Earth, discovered using geometry.

SO, DIFFERENT-FREQUENCY “SPECIMINA” (worlds) of our planet, topologically embedded into each other, i.e., filling the same volume of the planet’s body), but existing in different frequency ranges. Understanding the structure of the multidimensional space of our planet comes from modern scientific concepts, a brief review of which is presented in the INTRODUCTION.

So, modern knowledge about the geometry of space-time and the topology of multidimensional spherical spaces indicates that our planet

Earth is a multidimensional cylinder of the planet's events stretched along a very elongated spiral of its trajectory in the Galaxy. The three-dimensional spatial spread and the time spread inside the event cylinder are topologically "embedded" into each other, thus forming a multidimensional (space-time) volume. The cylinder of events of the planet is everywhere tightly filled with many intertwining event cylinders of the "inhabitants" of the planet, each of which, in turn, is everywhere tightly filled with the intertwining event microcylinders of its constituent particles. The event microcylinders of these particles are drawn from the infinite cosmos, tightly intertwined with each other inside the event cylinder of the planet, and then pulled back into the cosmos. Figuratively speaking, the planet's event cylinder is like a thick "hairy" rope, laid along a very elongated spiral trajectory of the planet in the Galaxy.

What we observe as the "material body" of the planet, i.e., a solid globe surrounded by an extended atmosphere and flying together with all its inhabitants along its spiral trajectory in the Galaxy is a "picture" of an instant three-dimensional cross-section of the multidimensional cylinder of the planet's events. Such instant pictures drawing the "material world" of our planet are created in our imagination at each successive moment of time by our brain. In fact, the brain "scans" the multidimensional cylinder of the planet's events in the direction from the conditional "past" to the conditional "future", thereby creating in our imagination the illusion of successive three-dimensional frames of a "movie" perceived by us as "real life" among three-dimensional "material" objects in three-dimensional space.

As was also explained in the INTRODUCTION, according to modern scientific concepts, the multidimensional volume of space-time is a world of energy. Thus, the multidimensional volume inside the event cylinder of our planet Earth is filled with the totality of energies of all earthly events, and the volume inside the event cylinder of each "inhabitant" of the planet is filled with the energy of his/its own life events.

According to the basics of combinatorial topology, the existence of any multidimensional space is expressed as a continuous cyclic inversion of its spreads one into another and back. In particular, the existence of any event cylinder is expressed as a pulsation of energy that fills its multidimensional volume. Such an "illumination" inside the spatial spread of the event cylinder of the planet Earth, pulsing in the range

from its maximum brightness (the maximum existence of this spatial spread) to its complete invisibility (non-existence) and again to the maximum brightness, is a manifestation of a continuous cyclic inversion of the internal spatial spread of the event cylinder of the planet to its internal time spread and back.

The probability with which the spreads of a multidimensional space are successively inverted into each other has a maximum, which depends on the number of dimensions and determines the number of unique “specimina” of these spreads. As is known, spherical three-dimensional spread is the main stable form of observed objects in the range of scales from elementary particles to planets and stars. Using the methods of combinatorial topology, it was calculated that the most probable (stable) state of any spherical three-dimensional spread that continuously fills and empties the internal volume of a torus (thereby cyclically inverting itself into the created three-dimensional time spread and back) is its existence as 7.256946404 unique “specimina”. All these three-dimensional “specimina” are topologically embedded into each other, i.e., each of them everywhere tightly fills the same volume, but they exist in different frequency ranges of inversion (di Bartini, 1965, see INTRODUCTION).

So is our planet Earth. Its spherical three-dimensional spread is everywhere tightly filled with a unique “specimen” of the planet. This is an instant three-dimensional cross-section of the event cylinder of our planet (as a fragment of a torus). The existence of the event cylinder of the planet as a multidimensional object in space-time is expressed as a continuous cyclic inversion of its spherical three-dimensional spread into its three-dimensional time spread and back along the entire event cylinder, thereby everywhere tightly filling its space-time volume from the point of its assembly to the decay point (see INTRODUCTION).

Accordingly, the most probable (stable) state of our planet as a spherical three-dimensional spread is its existence as 7.256946404 unique “specimina”, topologically embedded into each other (each of them everywhere tightly fills the same volume of the planet), but existing in different frequency ranges. We are the “inhabitants” of one of the “specimina” (worlds) of the planet.

FREQUENCY SEPARATION OF THE “SPECIMINA” (worlds) of our planet. The carrier frequency of all “specimina” of the planet is the

same. This is the *global carrier frequency of our planet*, which is a frequency at which the planet's three-dimensional spatial volume is cyclically inverted to its three-dimensional time volume and back.

The volume of the planet is the same for all its "specimina". If each of the "specimina" of the planet had its own individual carrier frequency of inversion into a three-dimensional time spread, then the spherical three-dimensional spread of the planet would be topologically "broken" by the number of its "specimina" and, thus, the planet would not exist as a single object.

With that, the range of *modulation frequencies* of the planet's carrier frequency is different for each of its "specimina". The individual spectrum of modulating frequencies characteristic of each "specimen" (world) of the planet is its unique spectrum of existence, consisting of all individual sets of frequencies (individual modulation spectra) characteristic of the "inhabitants" of this "specimen". Figuratively speaking, different "specimina" of the planet are like different radio communication channels, where all "talks" are transmitted on the same carrier frequency, but each of these "talks" (communication channels) is a modulation of this carrier frequency in its individual frequency range.

In total, the frequency separation of the "specimina" (worlds) of the planet is due to the fact that each of them is a manifestation of its own modulation spectrum of the planet's carrier frequency, unique and characteristic only for this "specimen", while the modulation spectra of the "specimina" of the planet lie in different frequency ranges.

PLANETARY ENVIRONMENTS are associated with different-frequency "specimina" of the planet. The weaker the binding energy between the particles of the environment, the higher the speed of energy exchanges in it. Thus, the frequencies of energy exchanges in gases are the frequencies of the spectra that modulate the carrier frequency of the planet in its gaseous environments (the gas "specimina" of the planet). These frequencies are many orders of magnitude higher than the frequencies of energy exchanges in liquid environments (the frequencies of the spectra that modulate the planet's carrier frequency in its "specimina" associated with liquid environments). These frequencies, in turn, are many orders of magnitude higher than the frequencies of energy exchanges (the frequencies of the modulation spectra of the planet's carrier frequency) in solid environments, while solid environments are

associated with conditionally solid “specimina” of the planet (“conditionally solid”, because there is nothing solid in the world of atoms).

There is an opinion widely held among dilettantes, according to which gas, liquid and solid environments are separated in the space of the planet like successive layers in an onion head. Actually this is not true. Any geochemist knows that gaseous and liquid environments actually “permeate” the solid body of the planet (and vice versa).

So, consider the atmosphere — the gaseous environment of our planet Earth. Its density decreases with height above the Earth’s surface, and the gas plume is “smeared” far into space at a distance of tens of the planet’s diameters. The atmosphere does not end at the Earth’s surface (the surface of the planet is only conventionally “solid”). Atmospheric gases are contained in the bodies of plants and animals. Gas molecules are contained in water. Free molecules of atmospheric gases, including free hydrogen and free helium, as well as adsorbed molecules of these gases, are contained in the intermolecular space within solid rocks, even such as granite and basalt deep underground. Also, the molecules of atmospheric gases in a bound form are “embedded” in the crystal lattice of minerals. In fact, the atmosphere permeates the entire liquid environment and solid body of the planet.

The water (liquid) environment of the planet. These are not only water bodies on the Earth’s surface (such as oceans, continental seas, rivers, lakes, ponds, etc.), but also underground aquifers at shallow depths (ground and artesian waters), as well as underground seas and rivers (geologists have discovered them at all available depths, including the deepest well 12.262 km). Water is found in the organisms of plants and animals (their bodies are 50–90% water). Free water molecules and adsorbed liquid water are contained in the intermolecular space inside solid rocks. Also, water in its bound form is “embedded” in the crystal lattice of minerals. Water is present in the lower, densest layer of the atmosphere in the form of clouds (clouds consist of many small water droplets or ice crystals). Free water molecules are present in the atmosphere at high altitudes, including in the upper atmosphere (exosphere) at a height equal to tens of the planet’s diameters.

The solid environment of the planet, often mistakenly perceived as a “solid globe”, does not end at the observable surface of the planet. Particles of the planet’s mineral rocks are the elements, the totality of

which makes up the Earth's solid environment. These elements of the solid environment of the planet are present in the form of suspensions both in the liquid environment and in the gaseous environment, including at high altitudes wherever there is the Earth's atmosphere.

These facts are well known to any geochemist. Thus, all planetary environments are topologically "embedded" into each other, filling the same volume of our planet, and are associated with different-frequency "specimina" of the planet. Each of the planetary environments has its own unique spectrum of existence, which modulates the carrier frequency of the planet's existence (the frequency at which the planet's three-dimensional spatial volume is cyclically inverted to its three-dimensional time volume and back) in the frequency range individual for each of the planetary environments. In other words, planetary environments are different-frequency worlds of the planet Earth, each of which has its own unique topography (landscape) and is inhabited by its own "inhabitants", specific only for this "world".

THE SEVEN WORLDS OF THE PLANET EARTH. So, according to combinatorial topology, in total there are seven complete "specimina" (worlds) of our planet. "Complete" in the sense that each of them everywhere tightly fills the three-dimensional spherical spread of the planet. Each of the "specimina" of the planet exists in its own frequency range and has its own unique spectrum of existence, expressed in the form of its own unique landscapes, "inhabitants" and events.

An example of how far apart the frequency ranges of these worlds are: a nuclear explosion in one frequency "specimen" (world) of the planet causes a slight breath of wind in another.

We see objects in the form of their specific forms filled with "dense matter" only because of the strong difference in the speed of energy exchanges inside and outside these objects. Thus, motions perceived as "very fast" in our frequency range simply do not have time to be recorded by our brain, which is tuned to the frequencies of a much lower frequency range, and thus create the illusion of empty space. This phenomenon is perceived by us as a difference in the "substance density": the slower the energy exchanges in the medium, the denser we see this medium (and vice versa). For example, the speed of energy exchanges inside the human body, i.e. in solid and liquid media (they are the main filler of the bodies of animals and plants), is much lower than the speed

of energy exchanges in a gaseous medium. Thus, the skin is a visible surface, outlining the shape of the human body, only because on the surface of the skin there is a strong increase in the speed of energy exchanges in terrestrial media.

So, the mineral “specimina” (worlds) of our planet. The frequencies of energy exchanges in these worlds are so low that we perceive the “inhabitants” of these worlds of the planet as solid immobile rocks (non-living matter). Rare exceptions are the ultra-fast motions of objects in the mineral worlds, observed in our frequency “specimen” of the planet as mysterious moving stones and similar “inexplicable” phenomena. We perceive catastrophic changes in the mineral worlds of the planet in the form of “natural” tectonic phenomena, such as earthquakes, volcanic eruptions, landslides, etc. The folklore and legends of the ancient peoples are more accurate: they associated tectonic phenomena with the social activity of the “underground inhabitants” and their gods, although these views of the ancients have a very distant relation to real events in the mineral worlds of the planet. The extraction and processing of mineral resources, growing during the industrial era of our civilization, is perceived in the mineral worlds of the planet as a rapid increase in natural disasters.

The mineral “specimina” (worlds) of our planet have frequency ranges that lie at frequencies much lower than the frequency range of our “specimen” (world) of the planet. Visions of hell, the underworld of the dead, etc., are specific of the visualization of the highest-frequency mineral world, which is closest to the frequency range of our world. The frequency ranges of other mineral “specimina” (worlds) of our planet are even lower. These worlds are so different from ours that the human brain does not find suitable analogies from the list of descriptions of “material” bodies and phenomena that it has. Therefore, the visualizations of the lower-frequency mineral worlds of the planet are abstract and far from the forms we are used to.

The mineral “specimina” of our planet are the “lower worlds”, in the sense of the frequency ranges in which they exist.

The frequency range of the water “specimen” (world) of our planet lies at frequencies that are even closer to the frequency range of our world. Therefore, the mutual influence of events in the water and our worlds of the planet is even more significant.

Our “specimen” (world) of the planet Earth, in its frequency range, is borderline between the low-frequency worlds and the high-frequency (gas) worlds of the planet: mineral, water and gas energy exchanges are the basis for the functioning of the bodies of plants and animals.

Meanwhile, these are different frequency ranges: energy exchanges in the water environment are too slow for the human brain to distinguish between individual objects in the total mass of the water environment, and gas energy exchanges are so fast that our brain perceives the air as empty space. Therefore, we do not see the inhabitants of the water “specimen” and gas “specimina” of the planet.

In other words, our “specimen” of the planet Earth is the “middle world” of our planet.

The gas “specimina” (worlds) of our planet. The frequencies of energy exchanges in these worlds are so high that the human brain does not have time to fix the ultra-fast motions of the objects of these worlds, and, as a result, perceives these worlds as an almost empty, unfilled space. A certain feeling of the presence of the atmosphere is created only due to the suspension of water droplets or ice crystals (clouds) present in it, as well as the suspension of particles of the planet’s mineral media (mineral dust in the atmosphere).

The gas “specimina” of our planet Earth are the “higher worlds” of the planet. Inhabited by “transparent” (for our brain) beings (we do not see them because of the high speed of energy exchanges in these worlds, leading to ultra-fast motions of these creatures), these worlds are described in folklore and legends as the “lands of elves” and the lands of other peoples similar to them. One of the higher (gas) worlds of our planet is described in the Christian tradition as the location of Heavenly Jerusalem — a world that will become home for the descendants of modern people at the next stage in the evolution of Mankind.

So legends and folklore testify to other “specimina” of our planet, existing in the same spherical three-dimensional volume of the planet, but each in its own frequency range of existence. Each of them becomes perceived as a “material world” as soon as the brain becomes tuned to the frequency range specific of this “specimen”. The world around us that we observe every day, the world inside the “hollow Earth”, the worlds of various Elvish peoples and others are different-frequency “specimina” of our planet.

Read below how the authors of legends about other worlds of our planet and the peoples inhabiting them received this information.

LANDS AND PASSAGES connecting different-frequency “specimina” of the planet Earth — “gates” to other worlds of our planet.

So, according to combinatorial topology, the calculated number of “specimina” of any spherical three-dimensional spread, which ensures its most stable existence, is 7.256946404 (di Bartini, 1965, see INTRODUCTION). This means that there are seven complete “specimina” of our planet, each of which everywhere tightly fills the planet’s volume, as well as a certain number of “incomplete specimina” of the planet, each of which only partially fills its volume. The “incomplete specimina” are like pieces of paper sheets in a stack, due to which a topological transition is possible from the surface of one paper sheet to the surface of an adjacent one (and the surfaces of other sheets stuck together) in the same stack. Thus, due to the “incomplete specimina” of the planet, a transition between its complete “specimina” (worlds) is possible.

Physically, such an “incomplete specimen” of a planet is a piece of terrain (landscape) of greater or lesser extent, the space of which is common to two (or more) complete “specimina” (worlds) of the planet neighbouring in the frequency ranges of their existence. Such are local tunnels (passages) connecting the worlds of our planet, or even more or less extended lands connecting these worlds.

It is difficult for a person who is unaccustomed to the terminology and images of combinatorial topology to imagine how two or more signals (melodies) modulating the carrier frequency of the planet in different frequency ranges can be performed (listened) in the same frequency range. A distant analogy, understandable to a radio engineer, is a system of two or more detectors tuned to the frequencies of different radio signals, but transforming (detecting) these signals into the same acoustic frequency range accessible to our hearing. Approximately this happens in the “incomplete specimina” of the planet, i.e., in local topological “gluings” of its different-frequency complete “specimina”. That is why the inhabitants of different worlds of our planet, once in such an area, see the same landscape, see each other and interact with each other, thereby creating their own unique layer of world history, specific only to their small community, and absent in the history of peoples that inhabit the complete “specimina” (worlds) of the planet.

In particular, one of these “middle lands”, as well as local tunnels (passages) connecting some of the worlds of our planet, were described by John R. R. Tolkien (1892–1973) in his “literary” novels, written by him on the basis of texts obtained from his “informant”. The events of his novels took place with the joint participation of peoples originating from different “specimina” (worlds) of our planet, but on a single landscape of the “Middle Earth”, which is a local topological gluing of some of the planet’s “specimina”, and, thereby, unites fragments of the “underworld”, our world and the “higher worlds” of the planet.

Another example is the legends about King Arthur. These events unfolded not in England and Wales at the beginning of the Dark Ages, but on the lands of another “specimen” of our planet, connected by topological passages with, presumably, the Welsh lands of that era. Therefore, the legends about King Arthur “dropped out” of the early medieval chronicles, recorded by the chroniclers in our frequent “specimen” of the planet, but were an everyday reality for the local Welsh of that time, since they personally communicated with the inhabitants of that “specimen” of the planet.

Enclaves are very small incomplete “specimina” of our planet, comparable in size to a small valley or even a medium-sized farm, and connected by a passage to only one of the complete “specimina” of the planet (and not several). Evidence about Shambhala in the Himalayas, about the Isle of Avalon, about the “immortal valleys” in which one can live almost forever (compared to the life expectancy in the world of our “specimen” of the planet), and about other enclaves are well known.

Physico-chemical processes and, as a result, the physiology of organisms in the “middle lands” and local enclaves can differ significantly from those to which we are accustomed to in our “specimen” (world) of the planet. So, for example, there may be a different rate of the biological clock (a different rate of aging), different needs for food and water, etc. All these processes are determined by the frequency range and the individual existence spectrum characteristic of each particular “middle land” or enclave.

As for passages to other complete “specimina” (worlds) of the planet, “middle lands” and local enclaves, these can be cracks in the rock or soil (for example, a passage to Saint Martin’s Land). Such passages can also exist in the atmosphere, in the rivers and seas.

Due to their topological incompleteness, the passages connecting the worlds of our planet, the “middle lands” between the worlds, as well as local enclaves, are unstable. But their joint volume remains unchanged, thereby realizing the total number of 7.256946404 “specimina” of the planet, which ensures the stability of its existence as a single topological object.

Due to their instability, the passages connecting the worlds of our planet open in an area, and then, after a certain period of time (several hours, days, decades), they close, remaining in the memory and legends of local residents. This is why the folklore of some secluded rural areas of Europe is full of legends about dragons, dwarves, elves and other creatures as real participants in ancient events, despite their absence in the chronicles recorded in cities. Irish legends about the ancient peoples who inhabited Ireland and some other lands that are not on the modern world map also describe the inhabitants and events of other “worlds” of our planet, the passages to which were an everyday reality in ancient Ireland. There are many other similar examples.

Active passages to other “specimina” of our planet, “middle lands” between different “specimina” of the planet, as well as local enclaves exist even now. But little is known about them. Modern civilization initially focused the masses of people on religious dogmas, and in recent centuries — on technology and industrial progress, thereby “erasing” the descriptions of these passages and worlds from the list of material objects and phenomena contained in the human brain, thereby making them non-existent (invisible) for the vast majority of modern people. In the past, most of the people who knew about other worlds of the planet and passages to them were exterminated during the medieval religious terror and plague epidemics, and the informed who lived already in the Renaissance and later, for example, Edmond Halley (1656–1742) and others were not heard. Only now, the knowledge about other “specimina” and “middle lands” of our planet is becoming publicly available thanks to the latest achievements in combinatorial topology and the theory of relativity (the space-time theory).

AFTERWORD

ALL OF THE ABOVE is not some kind of speculative hypothesis, but a description of proven scientific facts. This description was obtained on the basis of the analysis of extensive empirical data collected in the field of physics and biophysics, which it turned out to be possible to combine into a single picture using the concepts of physical observable quantities registered by an observer in space-time (in accordance with the theory of relativity).

This is a description of the real structure of our planet as a multidimensional object in space-time, as well as the basic principles that govern the real processes on the planet, including the origin of species and world history.

The key to understanding the real geometric structure of the world described above is the awareness of the multidimensionality of our world and all its objects, including ourselves, as well as mastering the methods of the theory of colour. It is the theory of relativity by Albert Einstein and the theory of colour by Johannes Itten, which appeared to Mankind at the beginning of the 20th century, that are the most fundamental discoveries of our civilization over the past thousand years.

One must learn to think in terms of space-time. It is necessary to visualize the event cylinders as multidimensional objects in space-time (the world of energy). It is necessary to visualize how each of the event cylinders is “flickering” with energy pulsations of the event microcylinders of all its constituent particles, thereby creating a unique energy spectrum of its existence, which has its own general spectral “colour” (general frequency) and “colour shades” (secondary frequencies). It should be understood that the three-dimensional world of our planet is only an instant three-dimensional cross-section of its multidimensional

event cylinder. It is necessary to understand how the brain creates in our imagination a picture that we call the “observed world of material objects and phenomena”.

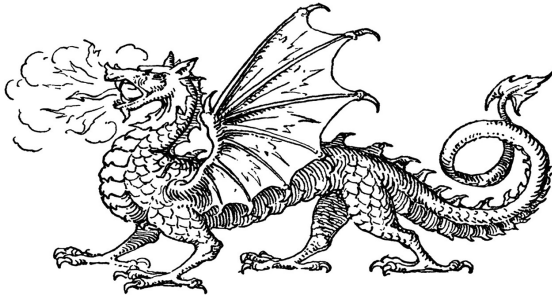
The internal acceptance of this new amount of information leads not only to an understanding of the principles that govern the real processes on the planet, including the origin of species and world history, but also to the mastery of the technologies of real time travel and real interstellar travel (see the Chapters above).

The people of our frequency “specimen” of the planet Earth, living now, at the beginning of the 21st century, already have this knowledge at their disposal. Therefore, our civilization can open doors to other worlds of our planet, as well as master the technologies of real time travel and real interstellar travel right now, at the beginning of the 21st century. With everything we need now, it would be foolish to delay this great step for a thousand years.

Historically, throughout the 19th and 20th centuries, all advanced technologies were concentrated and developed in the military-industrial complex (defence industry). The studies about which your humble servant writes here are no exception. Therefore despite how strange it may sound, the fundamental task of creating and mastering the new technologies described in this book is entrusted to the defence industry.

People, be reasonable. Think about your own future and the future of your children!

The acceptance and practical development of this knowledge is not a subject for loose talk among philosophizing pseudo-intellectuals, but a *necessary condition for the survival of Mankind* in the current conditions of global spectral repainting of our planet and all its spectral zones (together with their inhabitants) in the given section of its trajectory in the Galaxy.



HIC SUNT DRACONES

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