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(Translation from Russian)*

## **DEVELOPMENT OF PERFECT ENERGY SOURCES TO ENSURE MANKIND SURVIVAL UNDER CONDITIONS OF GLOBAL EARTH CLIMATE CHANGE - SPACE PHASE OF CLIMATE COOLING**

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1. *“In this situation neither rich nor poor, neither master nor subordinate, neither clever nor silly ... will survive”*
2. *It is not fantasy, rather it is dreadful reality that seems fantastic today*

### **Introduction**

*“The text was written “at a breath”, and as such may contain errors though not fundamental, easily correctible and described with respective comments in further works of the author”.*

The current year **2007** has been marked by unprecedented weather peaks in many Earth areas caused directly by climate changes [1].

In terms of the whole planet, the average temperatures in January and April were the highest starting from 1880: the winter month proved to be 1.89°C warmer than the climatic normal, and the spring month was 1.37 °C warmer.

Given below, is some information related to climate change on the Earth in our time.

#### ***Northern Hemisphere:***

In June-July the South-East Europe suffered from unprecedented heat with the air temperature exceeding 40oC.

In May the air temperature in Moscow reached 32.9°C, which has not been observed since 1891.

The ice melting speed on the North Pole caused millions of cubic meters of ice to disappear resulting in a strait that split the whole mass of the Arctic ice into two parts [2].

South-to-North flowing rivers such as the Lena river (in Siberia) eroded dozens of meters of the bank and changed river channels [3] – a non-typical impact of the Coriolis force.

Four monsoon depressions (twice the normal rating) caused powerful floods in India, Pakistan and Bangladesh. As a result, over 500 people died, more than 10 million people were banished from their native places, vast crop areas were destroyed along with cattle and property.

Floods and land slides in Southern China affected 13 million inhabitants and carried away lives of 120 people.

The first tropical cyclone in history was registered in the Arabian Sea.

Record-breaking rain showers swamped England and Wales where the May to July precipitation reached 406 mm, which is the highest indication since the year 1766 when the first weather records were made, etc.

### ***Southern Hemisphere:***

There was a spell of unusually cold weather in South America that brought snow storms and occasional snowfalls; Argentina and Chile suffered from real frosts in July, with temperatures as low as minus 22 and 18°C, respectively.

The first snow since 1981 fell in South Africa where up to 25 mm of precipitation fell out in some areas.

An iceberg appeared for the first time near the South-African coast of South African Republic. It was a fragment of Antarctica's ice cover with the above-water portion as big as 25 by 25 meters, <http://www.rambler.ru/news/world/0/11354521.html>, etc

The brief analysis of changed climatic parameters (the weather, etc.) in the Northern and Southern Hemispheres based on multiple publications [4-6], knowledge,

observations and intuitive considerations of the author reveals the following phenomena:

- noticeable climate warming in the Northern Hemisphere and cooling in the Southern Hemisphere;
- change of channel processes in the atmosphere followed by tornado formation zone shifting, e.g. the zone of the Pacific Coast (China, Japan) “shifts” to the Indian Ocean zone (the Arabian Sea) while the tornado zone of the Atlantic Ocean (Caribbean Islands) “will move” to the Pacific Ocean zone (near California Coast), etc.

The author sees only one reason for the above climate changes: soft *change of the Earth axis tilt angle against the ecliptic plane, namely the ~23.4° “permanent” angle, in the author’s opinion, has decreased by at least ~1.4° and became ~22°*.

### **Factors Affecting the Climate Change on the Earth**

The results of investigations made by Serbian astronomer Milutin Milankovitch (1879-1958) are based on three factors of the global climate change on the Earth [7-9]:

- Change of the Earth axis tilt angle;
- Deviations in the shape of the Earth revolution orbit around the Sun;
- Precession: change of the axis tilt position respective the orbit.

The author offers his own system of factors (cycles) prioritized by their impact degree - ***Shikhirin Factors/Cycles System*** that consists of at least 17 factors (forces) that cause global climatic changes on the Earth.

#### ***I. Forces that change parameters of channel processes in the Universe occurring in a super-rarefied gas flow (Fig.1)***

- Super-rarefied gas is “swaying” foam<sup>4</sup> (dodecahedrons or their variations) of an infinite bulk/size [10-12]. The streaming foam is likely to reflect its re-structuring process when dodecahedron bubbles make “skips” to take places of the nearest neighbors [13].  
“Skips” are step-by-step/discrete sliding of a single dodecahedron layer or a group of layers respective surrounding dodecahedron layers. The slide pitch is equal to the length of one dodecahedron or a dodecahedron group.

- Conversion of agglomerated/clustered foam<sup>4</sup> to a Bundle<sup>4</sup> (a stream) is accompanied by stretching of a dodecahedron group with simultaneous rotation of dodecahedrons respective their longitudinal axis.
- In the Bundle<sup>4</sup>, i.e. in the stream, automatic meandering takes place with meanders containing self-supported single and multiple VTortexes (Foam<sup>VTortex</sup>), the so called “universal tornadoes/whirlwinds” (Universal VTortexes) opened, probably, in 2006 by a group of Japanese scientists using Subaru and Keck telescopes on Mauna Kea; these are often referred to as “giant galactic filaments” stretched to 200 million light years [14]. The filaments consist of inclusions – single and multiple Universal VTortexes (Foam<sup>VTortex</sup>)

**II. Forces that change parameters of channel processes occurring in rarefied gas flowing through Plato-Shikhirin<sup>4</sup> Channels housing all active and dead galaxies and stellar matter (Fig.1)**

**III. Forces that change parameters of a meander acting in the stream of the Plato-Shikhirin<sup>4</sup> Channel containing our VTortex Galaxy (Fig.1).**

**IV. Forces that change parameters of the neighboring or the same meander housing the Andromeda Nebula galaxy which in this or that way has or will have an impact on our Galaxy (Fig.1), e. g.:**

- integration with our Galaxy in the case of their rotation in one direction;
- repulsion of the two galaxies if they rotate in the opposite directions.

Integration or repulsion of galaxies (tornadoes and alike) occurs according to the laws of vortex behavior and interaction:

- specific movement trajectories of vortices rotating in one or the opposite directions,
- mutual repulsion of vortices rotating in the opposite directions,
- their integration if they rotate in the same direction, etc., e.g. [15].

In any case there will be global, probably disastrous calamities for our Solar System and the Earth, respectively.

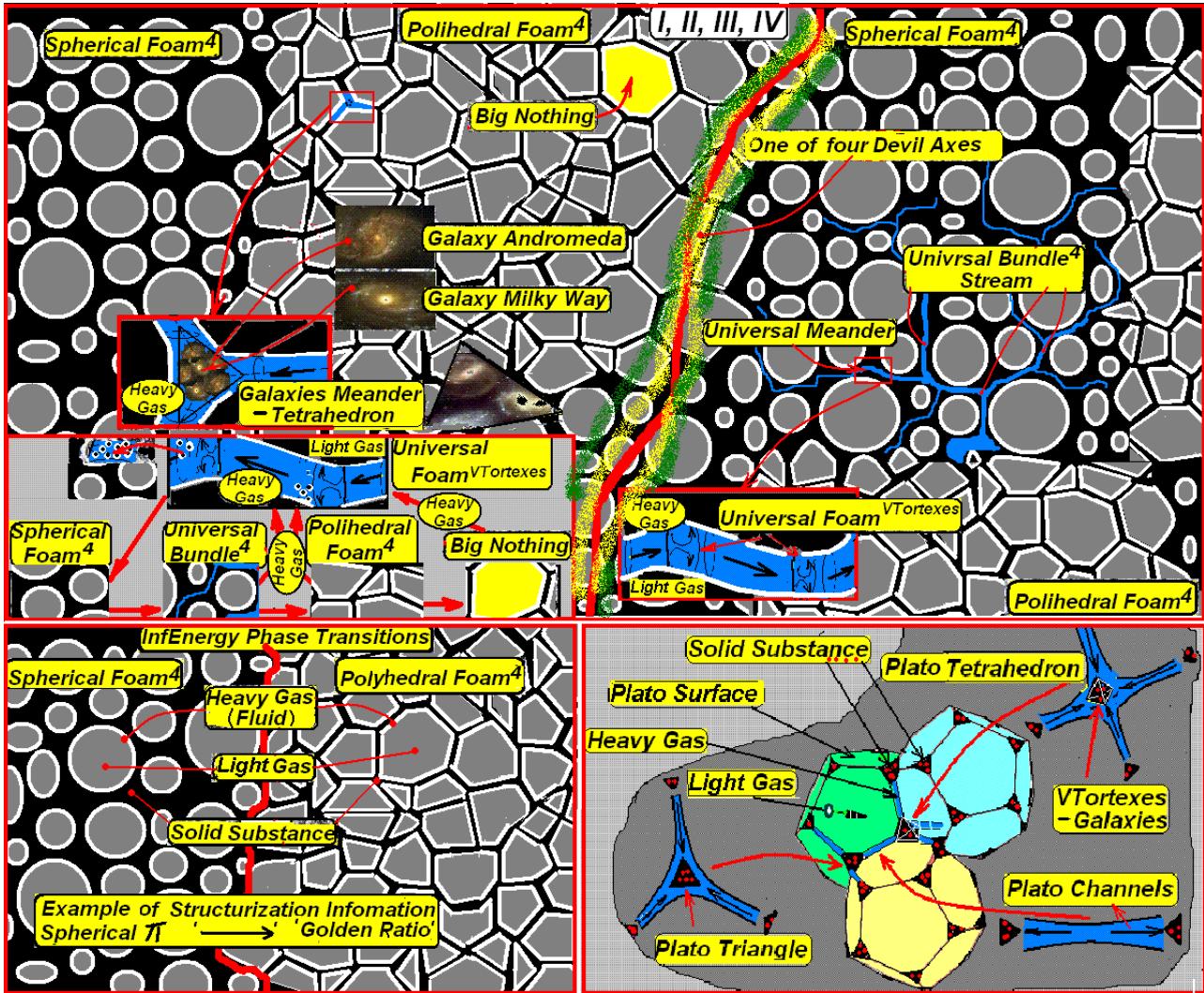


Fig. 1 The structure of the Universe and the first 4 climate change factors.

Physically the Universe is a biphasic medium with “solid” inclusions (stellar matter, surfactants, etc.) (see Table 1), namely:

- light gas/vapor -
- heavy gas, possibly liquid.

Table 1

The Universe Physical Structure, Mass/Volume	Light Gas,	Heavy Gas (Liquid)	Solid Substance	Total, %
Spherical Foam <sup>4</sup>	20/60	75/38	5/2	100/100
Polyhedral Foam <sup>4</sup>	5/90	85/8	10/2	100/100
Universal Bundles and VTortexes	1/1	95/98	4/1	100/100

Stellar matter (Galaxies, Surfactants, etc)	0/0	0/0	100/100	100/100
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Functionally, the Universe structure is a tight pack (inseparable composition) of 4 groups of structural shell components representing typical forms of working fluid medium existence in Nature (Fig. 1, top, and Table 2), such as:

- spherical (wet) Foam<sup>4</sup>;
- polyhedral (dry) Foam<sup>4</sup> made by dodecahedrons or their combinations;
- Bundles<sup>4</sup> (flows) consisting of “heavy” gas – stretched dodecahedrons or their variations - rotating in one direction respective their longitudinal axes;
- Foam<sup>VTortexes</sup>.

The intergroup- and intershell space is filled with Plato channels, Plato triangles and Plato tetrahedrons that concentrate therein all stellar matter, including surfactants, moving in the following directions:

**... (Plato channels ⇒ Plato tetrahedrons)...**

After destruction of polyhedral Foam<sup>4</sup>, i.e. Plato tetrahedrons, the stellar matter movement process is repeated.

Table 2

The Universe Structural Components	Volume, %	Mass, %
1. Spherical Foam <sup>4</sup>	40	7
2. Polyhedral Foam <sup>4</sup>	30	3
3. Universal Bundles	25,9	55
4. Universal VTortexes	4	10
5. Stellar matter (Galaxies, Surfactants, etc.)	0,1	25
Total, %	100	100

Note: Percentage ratios of the physical composition, masses and volumes of structural components in the Universe which is infinite in terms of weight and volume are provided in Tables 1 and 2, respectively.

Fig.1 shows “the eternal turnover of working fluid medium in the Universe”, or a closed cycle of a system of automatic self-supported typical technological processes (TTP) ensuring formation of typical forms of fluid medium existence.

Plato Triangle is given arbitrarily as a transient process between Plato Channels and Plato Tetrahedron, i.e.:

**Plato Surface  $\Rightarrow$  Plato Channels  $\Rightarrow$  (Plato Triangle)  $\Rightarrow$  Plato Tetrahedron**

Galaxies and, accordingly, all stellar matter are concentrated in Plato Tetrahedron.

Since this TTP system has neither the beginning nor the end, the initial TTP is taken arbitrarily, for instance, the TTP of Polyhedral Foam<sup>4</sup> formation as a result of Spherical Foam<sup>4</sup> transformation.

*1. Spherical Foam<sup>4</sup>  $\Rightarrow$  Polyhedral Foam<sup>4</sup>.*

Foam<sup>4</sup> bubbles, as sphere-like soft shells or polyhedron shells, are filled or have been filled with gas/vapor under excess pressure, respectively, and their shell material consists of heavy gas (possibly, liquid).

Formation/transformation of spherical Foam<sup>4</sup> into polyhedral Foam<sup>4</sup> is based on interaction forces of “point” pressure charges residing in the center of every spherical Foam<sup>4</sup> bubble.

This process is similar to interaction of electrical point charges in space that was considered by Coulomb as he studied interaction between two electrical point charges.

In our particular situation the matter concerns interaction of two pressure charges existing in the centers of two spherical Foam<sup>4</sup> bubbles.

For a general case, this refers to force interaction of  $n$  pressure charges in a “free lying” Foam<sup>4</sup> conglomerate consisting of  $n$  spherical bubbles.

A) Force interaction of pressure charges both inside and between bubbles leads to heavy gas displacement from Plato surfaces (a space between two contacting polyhedron faces) into Plato Channels and Plato Tetrahedrons.

Due to excess pressure in the bubble shell the bubble starts to increase in volume to reach at least the volume of a polyhedron circumscribed around a spherical bubble. In this way polyhedral Foam<sup>4</sup> is formed

*2. Polyhedral Foam<sup>4</sup>  $\Rightarrow$  Bundle<sup>4</sup>.*

Being gradually displaced from Plato Channels to Plato Tetrahedrons, the heavy gas overflows the latter and tries to find new living space. It begins to concentrate in space between small and “weak” bubbles and destroys them filling the vacant space. In this situation heavy and light gases get partially mixed up.

This gives rise to flows, i.e. to formation of a “Bundle<sup>4</sup>”.

3.  $\text{Bundle}^4 \Rightarrow \text{Foam}^{\text{VTortexes}}$ .

Formation of a stream, i.e. a Bundle<sup>4</sup>, i.e. a system of stretched dodecahedrons or their variations rotating in one direction respective their longitudinal axes is automatically followed by formation of meanders in the vicinity of which VTortexes combined into Foam<sup>VTortex</sup> are generated (compare with Benard cell formation). Each VTortex consists of  $7n_p$  Shikhirin<sup>7</sup> cells.

4.  $\text{Foam}^{\text{VTortexes}} \Rightarrow \text{Spherical Foam}^4 \dots$

Rolls of a helical rolling mill stretched and rotating in one direction around their longitudinal axes [ ] under overpressure conditions force light gas bubbles out of the light and heavy gas mixture. These bubbles are combined to form spherical Foam<sup>4</sup>.

In other words, an infinite number of cycles takes place:

$$\dots (.... 3 \Rightarrow 4) \Rightarrow (1 \Rightarrow 2 \Rightarrow 3 \Rightarrow 4) \Rightarrow (1 \Rightarrow 2 \Rightarrow 3 \Rightarrow 4) \Rightarrow (1 \Rightarrow 2 \dots) \dots$$

***Controlled disturbance of the structurization process of the typical working fluid medium forms, such as Foam<sup>4</sup>, Bundle<sup>4</sup>, VTortex (Foam<sup>VTortex</sup> consisting of a single VTortex) u Foam<sup>VTortex</sup>, is an inexhaustible source of structurization energy and information; transformation of the above forms will lead to absolutely new classes of energy systems, drivers, RF electronic devices, etc.***

Fig 1 (right view in the middle) shows a “quiet zone” of the Universe, or Foam<sup>4</sup>, that houses our Galaxy and the Andromeda Nebula Galaxy. The figure elaborated by the author was taken from [13], with the left view describing the spherical form of water foam<sup>4</sup> (early stage of existence), and the right view describing a polyhedral form of water foam<sup>4</sup> (the medium form of existence). The figure may be looked on as “a copy” of the gas Foam<sup>4</sup> that makes the Universe.

The circles enclose a giant bubble “Big Nothing” and a dodecahedron or its variation where no space objects were detected in a space stretching to a billion light years (compare with the distance between the Earth an the Sun which is 8.3 light minutes).

In the space extending to  $10^{21}$  kilometers there are neither galaxies nor single stars, nor “black holes”, nor even mysterious “dark matter” [16].

It becomes clearer if we remember that all galaxies containing stellar matter are concentrated in vertexes of big or small dodecahedrons and/or their variations, or in this case, in vertexes of their giant representatives; the foam<sup>4</sup> is not uniform.

**V. *Centrifugal and centripetal forces directed from/ towards the longitudinal axis of the VTortex Galaxy, respectively*** (Fig.2).

The VTortex Galaxy rotates around its longitudinal axis and its rotation direction matches the twisting direction of its two hypothetical branches/hoses; in so doing it generates centrifugal and centripetal forces directed from and towards the VTortex longitudinal axis, respectively

**VI. *Centrifugal and centripetal forces directed from/towards the transverse VTortex Galaxy axis, respectively*** (Fig. 2).

Two VTortex Galaxy hoses, in one of which our Solar System resides, move progressively together with the VTortex toroidal shell “material” by eversion/rolling (explosive process) from the Life Belt warm zone to the “Eternal Cold” zone towards the Galaxy toroid periphery.

The temperature relation on the surface of this torus-like shell is as follows:  $T_E$  (End) <  $T_S$  (the current location of the Solar System) <  $T_B$  (Beginning). In this case centrifugal and centripetal forces are generated directed both from and to the transverse axis/surface or to the VTortex Galaxy string, respectively, or to/from its periphery “helping” the working fluid medium overpressure ( $F_P$ ) to stretch the torus-like shell from the inside.

**VII. *Forces of the working fluid medium overpressure stretching the torus-like shell from the inside*** [17, 18] (Fig.2).

**VIII. *Forces (structurization energy) striving to form the two branches of our VTortex Galaxy into a honeycomb cell system meeting the Universal Gravity Law.***

The two branches are a system of  $7n_p \times 2 = 14n_p$  honeycomb cells (where  $n_p$  is 2,4,5,7,8, ... number unequal to 3), i.e. Shikhirin<sup>7</sup> cell bases, formed by the structurization energy. Stellar matter automatically accumulates/concentrates in honeycomb cell vertexes (Shikhirin Arrowheads) and edges (Plato-Shikhirin Channels) [12].

## **IX. Forces that center VTortex Galaxy respective its longitudinal axis (Fig.2).**

While rotating around its longitudinal axis, the VTortex Galaxy advances by eversion (explosion) with its central part rotating simultaneously, and automatically keeps the equilibrium between areas and volumes/weights in at least 3 directions, and what is more, twisting all along (natural astatic gyrostabilized eversible platform) [12]. This phenomenon has much in common with the properties of the so called “devil’s (magic) square” of the fourth order, with n-numbers 1 to 16 (part of the natural scale) inscribed therein in a certain order. The partial sum of the divergent scale is  $1+2+3+4+\dots+16 = n(n+1)/2 = 136$  (“triangular number”).

Various transformations performed on these numbers such as rotation, reflection, down and up row permutation, etc. – totally 238 options – give equal sums of numbers of four cells placed along the meridian, the parallel or the diagonal, namely 34 in each case.

Physically it may have the following meaning:

the torus area,  $S_t$ , consists of 16 different areas:  $S_t = S_1 + S_2, \dots + S_{15} + S_{16} = 4\pi\pi R_t^2 = \pi\pi R_t^2/34 (1+2+3+4+\dots+16)$ , where  $\pi\pi R_t^2/34$  is “unit area”; irrespective of the torus specific gravity or material density, the volume/weight of the torus,  $V_t$ , also consists of 16 different volumes/weights:

$$V_t = (V_1 + V_2 + \dots + V_{15} + V_{16}) = 2\pi\pi R_t^3 = \pi\pi R_t^3/68 (1+2+3+4+\dots+16),$$

where  $\pi\pi R_t^3/68$  is “unit volume/weight”.

$\pi$  is toric Pi, and  $\pi$  is spherical Pi, respectively.

## **X. Forces that nonlinearly increase the VTortex Galaxy size and mass (Fig. 2)**

The VTortex Galaxy (like any active galaxy), the Solar System and the Earth in particular, increases its size and mass nonlinearly as a result of:

- Bloating Law action [10];
  - electrostatic attraction of space matter (dust, meteorites, asteroids, etc.).
- According to photo pictures and publications, the dirty/dusty explosive end of the Galaxy gradually becomes free from space matter at the implosive end zone.

**The author believes that elements of star showers (rains, swarms) “falling” onto stars, planets, including the Earth, as well as other bigger (compared**

to star showers) stellar matter particles, such as comets, small comets, asteroids, bolides and alike, do not actually fall but are “electrostatically” attracted to them as to objects having a greater electrostatic potential.

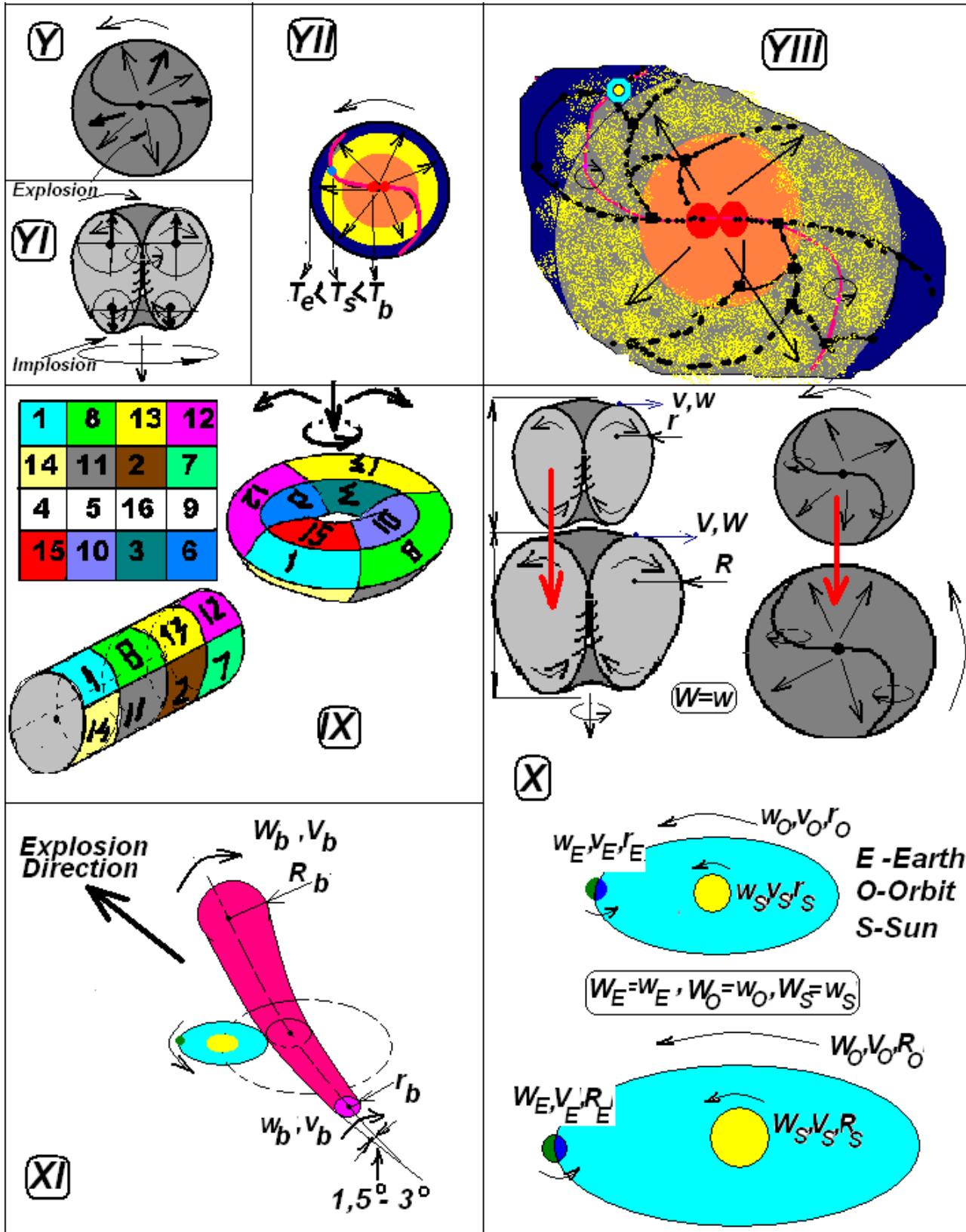
“Unattracted” star shower elements just change their orbit trajectories.

Moreover, in the functioning of any star system the equilibrium between its elements, let alone “ballistic features” set by the helical rolling mill of an active galaxy [4], is achieved by “electrostatic” attraction-repulsion forces of element charges.

**XI. *Centripetal and centrifugal forces existing in the VTortex Galaxy branches rotating respective the longitudinal force axes of each branch* (Fig.2).**

As it advances by eversion, a cone-shaped branch ( $\sim 1,5^\circ - 3^\circ$ ) rotates around its longitudinal axis (planet precession), while the Solar System disc rotating in the opposite direction, rolls off the cone-shaped surface (Plato-Shikhirin<sup>7</sup><sub>3</sub> Channel) of this branch.

Edges of honeycomb cells that make Shikhirin<sup>7</sup> cell bases rotate around their longitudinal axes and are located in the direction of the knot (3;2) (coil) line, i.e. edges rotating around their longitudinal axes give rise to centripetal and centrifugal forces directed transversely to/from the line.



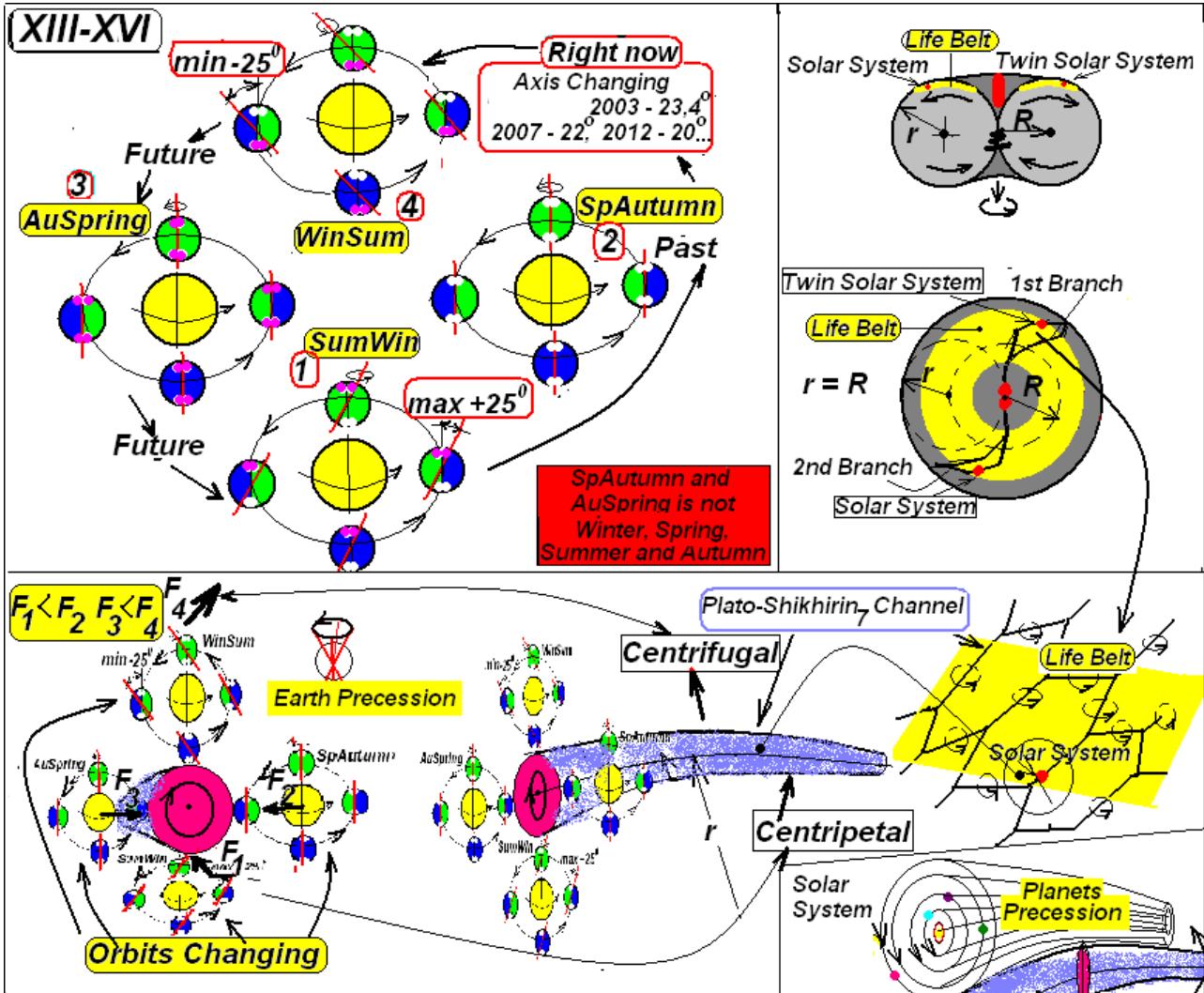


Fig. 2 Factors impacting the global Earth climate change.

### XII. Jump-like movement of turns of the rotating $(3n_p + \{n_q + [I(n_q - 1)/2]\})$ knot line respective its longitudinal axis.

Comment: If the VTortex moves progressively by eversion, the  $(3n_p; \{n_q + [I(n_q - 1)/2]\})$  torus knot thread which “reinforces” the shell material, i.e. the VTortex outer toroidal surface, also everts with it; moreover, in so doing the thread is being forcefully untwisted, i.e. rotating around its longitudinal axis with the help of accumulated energy (Fig. 16 in [10]):

- **E<sub>LB</sub>** - **Longitudinal Bend energy**, or “economic” Euler’s bend: longitudinal bending of a flexible and resilient rod when it is bent along its longitudinal axis.

- **E<sub>DB</sub>** - Transverse Bend energy, or economic Shikhirin's bend: cross bending of a flexible and resilient rod when it is twisted in the direction of its longitudinal axis.

A single twist-back relieving the tension generated by the  $i$ -th one-turn twist is followed by all twists coming undone in succession turn-by-turn starting from the  $(i + 1)$  twist. The last  $(i - 1)$  twist props up the  $i$  twist to impart energy to the latter for subsequent untwisting of further twists.

In fact, we see a continuous process of VTortex progressive movement by eversion with permanent relief and transfer of energy to a next turn/twist and parallel receipt of energy from a preceding turn/twist.  $(3n_p + \{n_q + [(n_q - 1)/2]\})$  events of energy transfer/receipt occur simultaneously. For instance, a galaxy simultaneously has  $\sim 3n_p$ , i.e. hundreds/thousands of such events per hour occurring with a linear velocity of hundreds of thousand miles per hour.

For the VTortex, the ends of the thread are twisted by  $(3n_p + \{n_q + [(n_q - 1)/2]\})$  full turns respective one another around its meridian and longitude with their subsequent joining, which introduces additional principal bend and twist tensions. For instance, for an active galaxy this means twisting the thread by  $(3_p n_p + 2)$  twists, and for a tornado by  $(3_p n_p + 5)$  twists, respectively.

The above means **the biggest danger of destruction of life on the Earth, primarily of Man who will not withstand giant loads affecting the human organism** as a result of swift shifting of turns after accumulation of respective energy to overcome accumulated energy of the longitudinal and transverse bends in the band:  $1 \rightarrow 2, 2 \rightarrow 3, \dots, (n-1) \rightarrow n, n \rightarrow (n+1)$ .

At such a moment the Earth may quickly change its position in several ways respective its axis or/and ecliptic plane, e.g. the Earth may flip  $180^\circ$  respective its axis, which means reversal of its poles.

This specific feature is explained by **the author using the following model** (Fig. 3):

1. A narrow strip (band) is cut out of elastic (flexible) polyamide/polyethylene film, e.g. photo film, having a minimal width (e.g.  $\sim 5$  mm) and a length of  $\sim 200\text{-}300\text{m}$ . The band is used instead of an elastic/flexible rod/thread (simulating an elastic/flexible branch of any active galaxy) made of the same material since the next operation is extremely difficult to implement.

2. The band is twisted by  $180^\circ$  (Mobius band),  $360^\circ$ , or  $n(360^\circ+180^\circ)$  or  $n(360^\circ)$ , respective its longitudinal axis, where  $n$  is a number of full turns. Then the band's ends are glued together to obtain a ring with accumulated longitudinal and transverse bend energies
3. Holding the band with the thumb and the forefinger of the left hand, use the thumb and the forefinger of the right hand to pull it out, etc. (Fig. 3). Several cycles should be performed until spontaneous fast relocation (shifting) of all the turns in the direction opposite to the direction of pulling occurs. In other words, turn numbers are shifted:  $1 \rightarrow 2, 2 \rightarrow 3, \dots, (n-1) \rightarrow n, n \rightarrow (n+1)$ .
4. A variety of devices operate based on this “spring” principle.

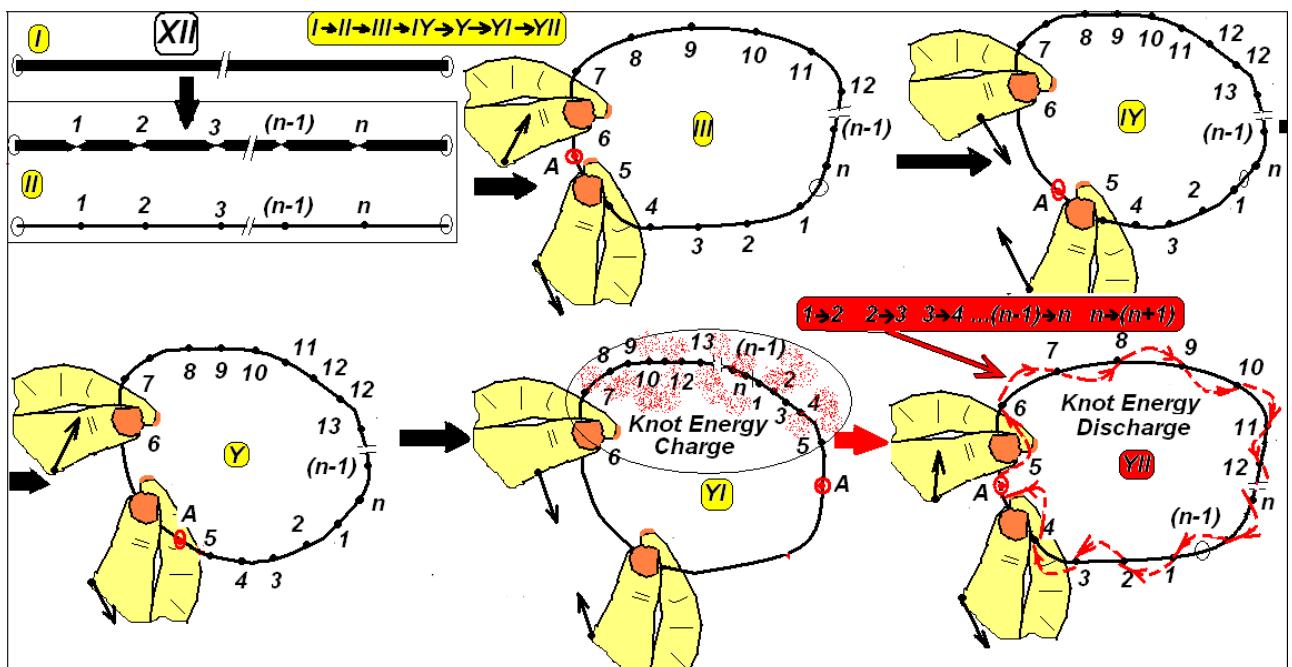


Fig. 3 Spontaneous fast relocation (shifting) of all the turns

### XIII. Forces that change the Earth axis tilt angle respective the ecliptic plane – nutation (Milancovitch parameter) (Fig.2).

Один оборот ветви Галактики имеет четыре (через  $90^\circ$ ) ключевых климатических положения, при этом соотношение температур  $T_4 < T_3 < T_2 < T_1$ :

One turn of a Galaxy branch has four ( $90^\circ$  pitch) principal climatic positions, with the temperature relation being  $T_4 < T_3 < T_2 < T_1$ :

- a. **SumWinter (T1):** Summer → Autumn → Winter → Spring, clearly defined year seasons, the Earth axis tilt angle against the ecliptic plane varies through precession (“circular cone”) within  $0^\circ \rightarrow +25^\circ$  (Max);
- b. **SpAutumn (T<sub>3</sub>):** there is no change of year seasons; the Earth axis tilt angle against the ecliptic plane varies through precession within  $-25^\circ \rightarrow 0^\circ$ ;
- c. **WinSummer (T<sub>4</sub>):** Winter → Spring → Summer → Autumn, clearly defined seasons, the Earth axis tilt angle against the ecliptic plane varies through precession (“circular” cone) within  $0^\circ \rightarrow -25^\circ$  (Min). This corresponds to the present position of the Solar System, with the Earth axis tilt angle against the ecliptic plane being  $\sim -22^\circ$ ;
- d. **AuSpring (T<sub>2</sub>):** there is no change of year seasons, the Earth axis tilt angle against the ecliptic plane varies through precession (“circular” cone) within  $-25^\circ \rightarrow 0^\circ$ .

According to the author, the Earth makes circular motion around its orbit line. In this situation:

- at a tilt angle of  $0^\circ$  to  $180^\circ$  against the ecliptic plane the Earth rotates west to east;
- at a tilt angle of  $180^\circ$  to  $360^\circ$  against the ecliptic plane the Earth rotates east to west;
- Since the time of the Solar System formation there were several full rotations of the axes of all Solar System planets, including the Earth’s axis.

Direct proofs of this process are different rotation axis tilt angles of Solar System planets continuously rotating counter-clockwise respective their Sun orbit lines (Fig. 4).

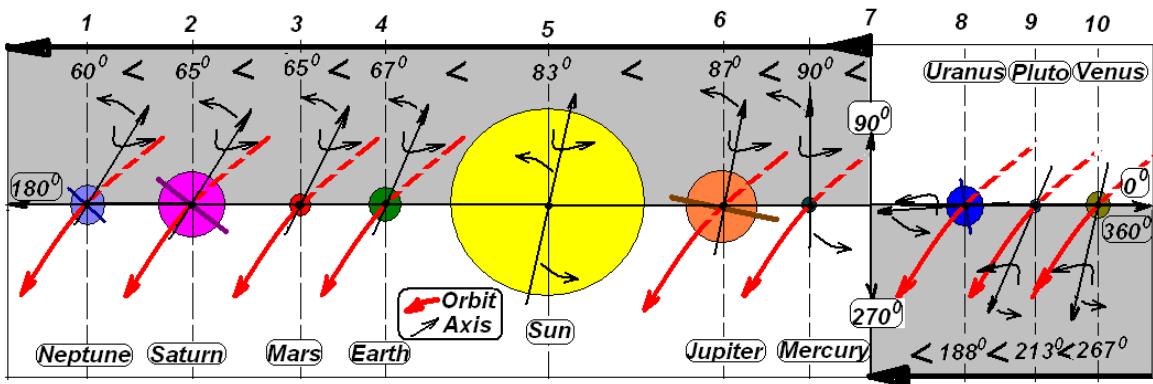


Fig. 4 shows the process of fan-like CCW rotation of Solar System planet axes respective their Sun orbit lines in the order of slewing angle advancement (left-to-right).

**XIV. Forces that change parameters of the Earth's orbit around the Sun (Milancovitch parameter)(Fig. 2).**

**XV. Forces that generate precession processes at the Earth's rotation around its longitudinal axis. (Milancovitch parameter) (Fig. 2).**

**XVI. Centrifugal and centripetal forces arising at the Earth's rotation around its axis (Fig.2).**

**XVII. Impact of the anthropogenic factor onto the Earth's ecological environment.**

The global climate change occurs in the following “force” sequence **with unchangeable priority**:

$I \Rightarrow II \Rightarrow \dots \Rightarrow XYI$ , i.e. a cycle in a cycle, ... in a cycle.

Apart from the factors/cycles (about 17) described in this paper, in the next deliverable the author is going to supplement the above-mentioned factor (cycle) system with well-known cycles [19] impacting the global change of the Earth climate and provide his own reasons, namely:

- 11-year G Schwabe's /A. Chizhevsky's /G. Sperer's cycle
- 22-year D. Heil's cycle
- 80/90-year age cycles
- ~ 10 thousand years: a revolution of the Earth's orbit around the Sun (revolution of the orbit perihelion)
- ~ 26 thousand year Milankovitch cycle – Earth axis precession;

- ~ 41 thousand year Milankovitch cycle – Earth rotation axis tilt change;
- ~ 100 thousand year Milankovitch cycle – Earth orbit eccentricity fluctuations, etc.

The least significant factor affecting the Earth climate changing is anthropogenic impact (at the space background level) which can be neglected because:

- by volumes of “adverse” emissions into the Earth’s atmosphere, volcanic emissions by far exceed adverse emissions produced by Man’s activities;
- “adverse” emissions into the Earth atmosphere produced by Man’s activities on the Earth have, primarily, a positive impact, in fact **they represent more sophisticated structurization energy and information processes as a result of which the major part of “adverse” substances is automatically consumed to sustain vegetable and/or animal world species that are in need of them; for instance, traditional “food” of the vegetable world does not provide it with adequate energy and building material. The major energy as a smart and “fine” building material comes from external environment** (these investigations will be described in the next author’s deliverables)

Moreover, as shown by the investigations into the greenhouse effect and the carbon cycle conducted in 2000 by the Russian Transarctic Expedition in the Arctic Zone (under the guidance of **practical** scientist I. Semiletov of the Russian Academy of Sciences), the planetary maximum distribution of CO<sup>2</sup> and CH<sup>4</sup> is not observed at latitude 60° North where over 90% of carbon fuel is consumed but rather over the Arctic/Subarctic Zone where anthropogenic activity is relatively small: less than 5% of produced hydrocarbon fuel is burnt between latitudes 60° and 70° North.

Why? The answer is simple. Greenhouse gases are not emitted by man-made plants which do not exist in this giant area but originate from the endless tundra (the planet’s vegetable world) which emits the major part of CO<sup>2</sup> and CH<sup>4</sup>!

More important is the following: while “investigating into the past of the Earth” by methods of ultra deep drilling and underground detonation, Man (a Fool) can destroy our planet from the inside, namely, “release” vacuum from its center (see [4] for more details).

This will cause destruction of the “rope” system tightening the entire Earth construction towards its center with deep vacuum, and hence its disintegration followed by formation of a new “asteroid” belt (New Kuiper Belt).

There are only two technologies to provide structurization of a geometrical form, e.g. a dodecahedron:

- 1) explosive formation of a dodecahedron under internal forces, i.e. its bloating by overpressure directed from its center towards the periphery - soap bubble formation;
- 2) its implosive formation, i.e. bulk compression of substance by external forces directed from its periphery towards the center - pea or plasticine or lead ball formation.

The functional properties of the two seemingly “identical” dodecahedrons will be different, as shown below.

**Technology No. 1:** If we make a thin hermetically sealed soft shell shaped, say, as a dodecahedron and create excess pressure of the fluid medium inside it, then the maximum tension of the shell material will be at geometrical centers of 12 pentagons.

By virtually linking these centers we obtain an icosahedron.

In other words, the excess pressure inside the shell will be distributed over the internal faces of the icosahedron inscribed into the dodecahedron in the direction from their common geometrical center towards the periphery.

The maximum pressure charge value will be in the shell’s center and the minimum – at its internal surface. The charge distribution over the internal surface is as follows: the charge decreases discretely from the maximum value at the pentagons’ geometrical center, along pentagon edges to the minimum pressure charge value in the dodecahedron vertexes.

The same process occurs in every polyhedral Foam<sup>4</sup> bubble.

**Technology No. 2.** Plasticine or lead balls, when pressed, are transformed into dodecahedrons. In this case the “maximum” low-pressure charge will be in the center of the plasticine dodecahedron. The “minimum” pressure charge will be distributed discretely over the pentagon surface in the direction from the maximum charge located in the geometrical center of the pentagons, then along pentagon edges to the minimum low-pressure charge in the plasticine dodecahedron vertexes.

The icosahedron-dodecahedron structure of the Earth suggested by Soviet Union scientists and its possible application to practice [22], e.g. for searching minerals, primarily oil and gas, seems to locate directly the coordinates of oil and gas fields that can be used for “forced” and uncontrollable extraction of hydrocarbons from the Earth’s interior.

Fortunately,

- overlapping the dodecahedron net with icosahedron net makes no sense since it is only the dodecahedron that “works”;
- the dodecahedron orientation by the Earth’s poles can hardly be correct; superposition of the dodecahedron net onto the Earth’s surface should be aligned with the Maginot’s line and other “landmarks” [12];
- non-linear bloating of the Earth in a pear-like manner has considerably distorted the real coordinates of the regular dodecahedron net nodes.

It must be known that:

- 12 dodecahedron faces make 12 pentagons being the bases of 12 pyramids of which the Earth is “constructed”, while the vertexes of these pyramids “butt against” the Earth’s center,
- the pyramid edges of the icosahedron inscribed into the dodecahedron are actually Plato ANTI-channels collectively called “Shikhirin Rope System” (Fig. 5). What differs this system from the Plato channel system is that while heavier gas or liquid is squeezed through Plato channels out to Plato tetrahedrons, i.e. in the direction from the polyhedron center towards its periphery, the center of Shikhirin Rope System has the “maximum” low-pressure (vacuum) charge that pulls the 20 triangle bases of the Earth towards the Earth’s center through icosahedron rope edges constituting the force mainframe of the earth,
- the 12 icosahedron vertexes or the geometrical centers of the pentagons (the icosahedron is inscribed into the dodecahedron) located at the Earth’s surface are its most tense and weakest places and need reliable sealing,
- therefore the vertexes/nodes of the Earth icosahedron (“traps” by the geological terminology) are coated with a triple-layer sealant under excess pressure (referred to as a “tight plug”) consisting of:
  - gas and/or gas condensate,

- thick and viscous mineral oil,
- water.

Moreover, generation of oil, gas and water as any solid planet sealant occurs at the stage of its “fabrication” by the helical rolling mill, i.e. by the central part of any active galaxy.

A similar process takes place on all solid planets, i.e. on all solid planets there is a triple-layer sealant under excess pressure (the “tight plug”): gas, oil, water – no need to make a long search.

Primary high-pressure valves on any planet including the Earth have already worked in the process of the Earth helical rolling. Gas exhausts have left craters on the Earth and other planets.

Secondary shallow high-pressure valves are operative until now, for instance, on the Earth releasing “extra” excess pressure from its interior (volcanoes).

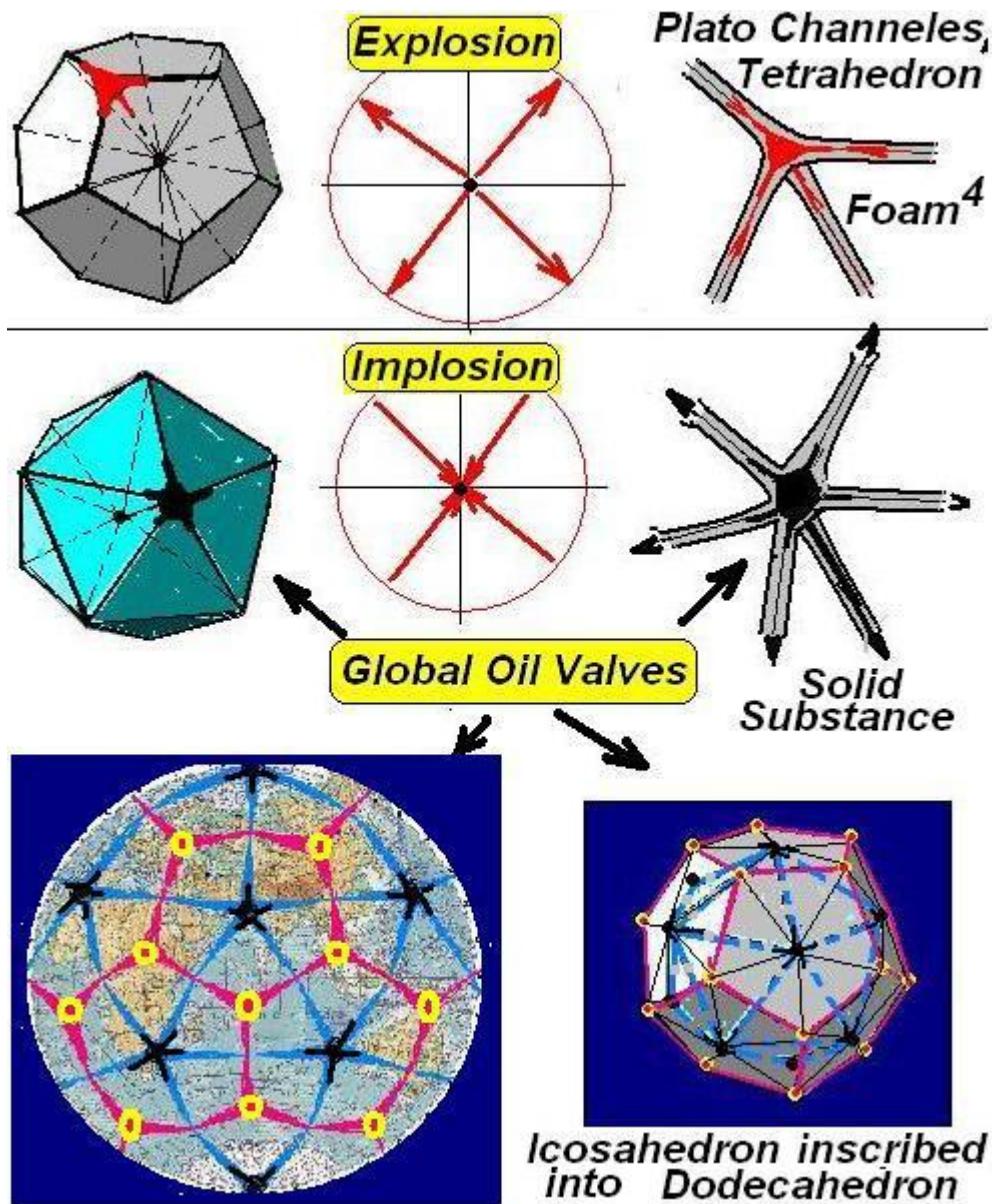


Fig. 5 Plato channels and Shikhirin Rope System are explosive and implosive processes, respectively. Alignment of the icosahedron and dodecahedron nets (the icosahedron is inscribed into the dodecahedron) is arbitrary, without reference to particular Earth coordinates.

The above figure shows formation of stress areas in dodecahedral Foam<sup>4</sup> and forcing out (sucking out) the heavier fluid medium through Plato channels.

In the middle of the figure it is shown how stress areas are formed in the plasticine dodecahedron and how the sealant is forced in (sucked in, self-sealed). In other words, this is like “tight plugging” of weak places of the Earth (12 points) by the composite valves.

The author believes that Phaeton Planet earlier located between Jupiter and Mars is now a group of asteroids scattered around Phaeton's orbit and shaped into an asteroid belt. It may have been destroyed by its inhabitants in a similar manner by barbarian "studies of the past" and "mineral extraction".

It should be noted that at that time the Solar System was at the beginning of the "Life Belt", that is Phaeton Planet had all the conditions for life organization and maintenance, whereas the Earth and Mars conditions were similar to those of the current Venus.

So, with all the sixteen (maybe more) factors active, the self-supported (structurization energy) VTortex Galaxy should have the following unchangeable parameters:

- torus knot characteristics, i.e. a number of turns around the "longitude" and the "latitude" of the Galaxy torus surface;
- speed of explosion/ implosion processes;
- angular velocity of the hoses rotation around their longitudinal axes irrespective of the Galaxy size at different stages of its existence and bloating;
- angular velocity of revolution of planets about the Sun and of the Sun's rotation;
- angular velocities of planets rotating around their longitudinal axes, including the Earth;
- "Zero" force effect of the Moon onto the Earth under the "universalgravitationlaw" allegedly causing tidal processes, etc.

It comes from the above that when volumes and masses of planets and the Sun increase nonlinearly or their orbit parameters change, etc., time intervals (calendars) in any galaxy remain unchanged!

Taking the Earth as an example, it means that lengths of seasons, months, weeks, days, etc. are permanent but the linear Earth surface motion velocity today (with the Earth's radius and mass increased) is greater than the linear Earth surface motion velocity in the past.

For instance, with the Earth's radius twice as small in the past, the linear Earth surface motion velocity (together with us) today is twice as fast, compared to that in the past, in fact we are flying!

Disturbance of any parameter stability for all VTortexes, including galaxies, leads to galaxy splitting into two two-branch galaxies rotating in the same direction, or galaxy destruction in which case the working fluid medium under pressure leaves the broken VTortex toroidal shell.

### **Conclusion:**

While a self-supported VTortex galaxy performs complex movement simultaneously increasing its giant volume and mass, its structure is getting naturally disturbed including deformation of Shikhirin<sup>7</sup> cells, their honeycomb cell bases, edges and vertexes along with changes of physical parameters.

Along with these natural destructive processes, the structurization energy automatically corrects/restores the VTortex structure as a typical form of working fluid medium existence in Nature.

Such correction as a function of a “force parameter” can go smoothly, intermittently or by a sudden jump (jerk) after a strictly definite time, which leads to natural “upheavals” in the Solar System, on the Sun and the Earth.

In case of the Earth, for instance, its orbit parameters may change as well as its axis tilt angle against the ecliptic plane, reversal of the poles, etc, all leading to the climate change.

For instance, a sudden jerk-like change (decrease) of the Earth’s axis tilt against the ecliptic plane at some starting point of time will lead to large-scale and short-lived transfers of water in oceans, seas, lakes and rivers by giant waves (of super-tsunami type) dozens or hundreds of meters in height followed by return wave movement.

This will result in flooding of vast areas and destruction of, first of all, people on all South-East coasts of continents. The return wave will kill many of those who remained alive and wounded and wash lifeless bodies away back to old and new water reservoirs. Subsequent forward and return waves will gradually decay.

As time goes by, thanks to specific features of channel processes in the Earth’s water and air environments new streams, seas, lakes, rivers, tornado formation zones, etc., will emerge.

Convincing examples are provided by ancient legends and stories from the Bible related to the so called “universal floods” of the past one of which may suddenly happen, perhaps, even in this century.

Floods occurring from time to time nowadays have no relation to universal floods.

*In other words, the global change of the Earth's climate is just a consequence of the VTortex Galaxy's loss of balance and the result of subsequent automatic correction of its physical parameters by structurization energy.*

*Altogether this process represents functioning of a self-supported natural system.*

Even minor local fluctuations in the Solar System (Schwabe/Chizhevsky/Sperer's cycles, etc.) give rise to abnormal and catastrophic natural phenomena on the Earth including their impact on Man, which is demonstrated, for instance, by changed blood parameters and blood behavior in the cardiovascular system.

Cyclic changes (a cycle in a cycle ... in a cycle, etc,) of the Sun's activity dramatically affect the vegetable and animal world, including Man who has by now only learnt to study this issue in a primitive way.

Future Space impacts on our planet due to scarcity of investigation methodologies cannot be understood yet except one: large-scale and quick death of everything alive on the Earth.

The majority of people identify Nature with God who allegedly generates global catastrophes "to save righteous men and send sinners to hell".

But, unfortunately, Nature (God) just puts its basic elements in order. A sudden downpour of huge water mass or mudflows because of dam destruction, or deathly gas and liquid magma from a volcano crater do not bypass Life should the latter get in their way, they just destroy it together with righteous men and sinners.

Moreover, current catastrophic global climatic changes on the Earth are foretokens of catastrophic climate deterioration, forthcoming cooling due to inevitable centrifugal explosive radial movement of the Solar System, currently being at the hot ("the bulge") source end of the "Milky Way" VTortex Galaxy dipole, towards the "supercold" zone, i.e. the centripetal implosive radial cold ("the Bar") sink end (Fig.2), see [4] for more detail.

In this event the Solar System will cross the "Life Belt" boundary (energy "illuminated" surface) and get into an area of lower (super-ultra low) temperatures at which the Sun fails to receive required amount of electromagnetic energy from the Galaxy Bulge to maintain convection processes on its surface, hence it will be cooling down without emitting needed thermal energy to sustain life on the Earth.

Today's "local" climate warming is short-lived warming against the background of space-phase cooling, which is connected with the location of our Solar System on the surface of the Galaxy hose rotating around its longitudinal axis at a point located nearer to the Galaxy Bulge.

The Bulge of every galaxy, including our Galaxy, has the maximum electric (electrostatic) magnetic field potential that powers the Sun.

Therefore, the next movement of the Solar System from the Bulge to the Bar will immediately reduce electromagnetic energy access to the Sun and a cooling spell will commence but with temperatures much lower, as compared to similar periods that occurred in the past.

Mechanisms of interrelated movement of the Galaxy, the Solar System and the Earth in space and time, climatic features specific to these processes and their consequences as well as processes of electromagnetic energy generation in any active galaxy are described in the author's other papers [4,12,20,21].

### **VTortex Energy as the Only Energy Type Allowing Mankind to Survive**

A forecast for current and prospective energy types, their features and potential capabilities for Mankind's survival has been made for the USA as an energy-dependent country [[www.energy.gov](http://www.energy.gov) - Department of Energy, USA], from which it may be concluded that forced transition to intensive use of VTortex energy is one of the most prospective ways to meet the challenge (Table 3).

Other energy-independent countries engaged in a state business of selling hydrocarbon and atomic energy may eventually come to a continuous and deep economic and scientific crisis which may end in disintegration or even extinction of a state.

The reason is future absence of global demand for the above energy types and inability of states to save the population from the killing frost and hunger

Table 3

Energy types, features and potentials for use by Mankind

<b>Energy types</b>	<i>Continuous(+) or discontinuous (-)/ endless (+)</i>	<i>Use on the Earth against the climatic</i>	<b><i>Use in space and outside the Solar</i></b>	<i>Adverse impact on the Earth's ecology</i>
---------------------	--	--	--	--

	<i>or limited(-) use</i>	<i>change background</i>	<i>System</i>	
Hydrocarbon	+/-	+	-	+
Nuclear	+/-	+	-	+
Water	+/+	+	-	+
Wind	-/+	+	-	-
Bio	+/+	+	-	+
Surf	-/+	+	-	-
Solar etc	-/+	+	-	-
<b>VTortex P</b>	+/+	+	+	-

From Table 3 it follows that:

- Nuclear, Hydrocarbon (Coal, Natural Gas, Crude Oil, Petroleum) types of energy require continuous use, are exhaustible (their reserves come to the end or their production becomes unprofitable) and harmful.
- Water (hydropower stations), Bio types are continuous in use, inexhaustible (**as long as the source exists**) and harmful
- Wind, Surf, Solar types are discontinuous in use, inexhaustible (**as long as the source exists**) and not harmful.

For instance, recent investigations of British, US and German researchers proved that in case of production and use of rape or corn biofuel, nitrous oxide ( $N_2O$ , “laughing gas”) emissions into the Earth’s atmosphere by 50%-70% exceed those generated by combustion of an equivalent gasoline amount [22]. Is the game worth the candle?

As for the vortex-type **VTortex** energy, or structurization energy of a typical VTortex form [10,11,20,21] – a key to the Universe existence and “operation” of natural self-supported systems such as tornado and galaxy – it may be obtained at any point of the Universe and used everywhere without adverse impact on the Earth’s and Space ecological environment.

In today’s variety of vortex definitions there is a lot of ambiguity, many of its functional features are not categorized, etc.

The author offers his own vortex classification available for further development and clarification. Only closed vortices are considered: vortex dipoles or VTortexes, i.e. shaped as a torus or a toroid.

Vortex dipole type	Vortex activator	Conditions of existence			Torus knot	Number of Shikhirin cells	Torus type				Produced energy		
		Self-support	Activator support	No support			Cylinder	Cone	Bloating cone	Closed	Open	Toroid	Electric - Magnetic
<i>Circular (fading)</i>					(3:1)	7							
<i>Newton's bucket</i>					(3n <sub>p</sub> ; 2,4,5,7,8,...)								
<i>Milovich dipole</i>													
<i>Shikhirin dipole (VTortex)</i>					7n <sub>p</sub> × (2,4,5,7,8,...)								

Example in Nature	Milovich dipole	Shikhirin dipole
<i>Galaxy</i>		
<i>Whirwind</i>		
<i>Ball lighting</i>		
<i>Small comet</i>		
<i>Hadley cells</i>		
<i>Benard cells</i>		
<i>Vortices in liquid or gas</i>		
<i>stream meanders</i>		

Fig. 6 Vortex classification

In the next deliverable the author is going to develop Kelvin's theory of *vortex atoms*, or atoms of chemical elements having closed vortex lines with a different number of (*torus*) knots.

A torus knot is a closed line at the torus periphery. It is a guideline respective which the bases of at least seven Shikhirin<sup>7</sup> cells (honeycomb cells) have been formed, with cell edges rotating around their longitudinal axes. See [12] for more information.

In the author's opinion,

1. VTortex torus is a basic construction of any chemical element
2. The number of

- turns around the longitude and the latitude of the torus
- Shikhirin<sup>7</sup> cells, and
- links in a torus knot

is the key feature of any particular chemical element.

2. A tight pack of similar VTortex toruses is the backbone of “any” chemical element (pure substance).

3. A tight pack of dissimilar VTortex toruses is the backbone of a chemical compound.

4. Chemical elements included into the Mendeleev periodic table are only a portion (a block, a module) of a hyper-system of chemical elements in Nature.

In 2016 (two presidential terms) this energy may account for ~45% of the total energy consumption (Tables 4, 5).

The share of renewable energy sources remains at the old level. It is hardly possible to “squeeze out” more than 10% of additional energy from renewable sources – it is a limit.

Moreover, under conditions of global climate change/cooling, such as the Earth axis tilt angle changing, temperature, wind and other zones will shift in the North-West direction and, as a result, a lot of money will be needed for disassembly of energy conversion systems and their installation in new places. The energy extraction capacities in this case will neither increase nor decrease.

It should be known that:

- use of hydrogen (cheap?) energy may destroy the water ((H<sub>2</sub>O) and air (O<sub>2</sub>) equilibrium on the Earth; the atmosphere will be eventually deprived of its key elements (O<sub>2</sub>, H<sub>2</sub>O, etc.), which will lead to its subsequent destruction;
- in XX century water consumption increased sixfold;
- In Central Asia there appeared first indications of the future full-scale war of a new type – for water rather than for oil and gas. The first clashes between Tajikistan and Uzbekistan have already begun. Other countries of this area including Russia are sure to follow suit [24].

Table 4

Itemized use of current energy types and VTortex energy

<i>Energy types</i>	<i>2008/2016</i>
---------------------	------------------

Hydrocarbon (Coal, Natural Gas, Crude Oil, Petroleum)	85%/45%
Nuclear	8%/5%
Renewable (Wind, Bio, Surf, Solar, etc)	7%/7%
<b>VTortex</b>	<b>0%/43%</b>

Table 5

Use of current-type and VTortex energies in individual fields of economy

<b>Use Fields - 2008/2016</b>	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Transport</b>
Hydrocarbon, Nuclear, Renewable	21%/0%	18%/20%	32%/30%	29%/5%
<b>Vtortex</b>	<b>0%/15%</b>	<b>0%/0%</b>	<b>0%/5%</b>	<b>0%/25%</b>

For an energy-independent society to develop dynamically, it is necessary to create natural VTortex energy sources and put into use within 8-10 years to replace hydrocarbon and atomic energy producing capacities. The amount of the VTortex energy consumption should reach as high as 50% of the total energy consumption.

In the first place this energy portion should fall on transport vehicles and consumption by the population (Fig. 7,8).

In view of the scale of such projects, the development of ultra-power VTortex energy sources for the industry will take more time. At the same time their usage will not lead to global man-caused catastrophes as it happens in production of hydrocarbon or atomic energy.

***Only this type of energy will allow Man to go beyond the Solar System boundaries, find a new planet and emigrate to it to ensure life of future generations.***

***A long time before this was done by our clever far away ancestors.***

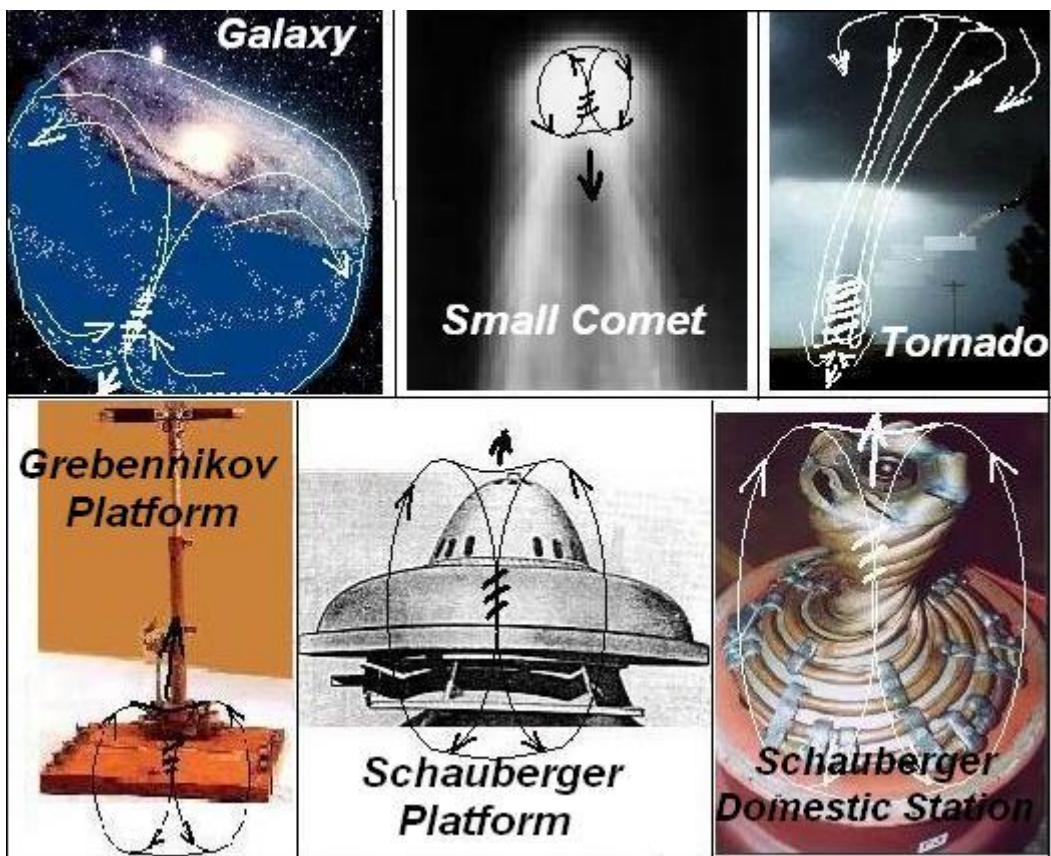


Fig.7 Self-supported natural (top) and “forgotten” (bottom) man-made samples of energy systems and unsupported (self-supported) movers (developed in the second half of the 20-th century).

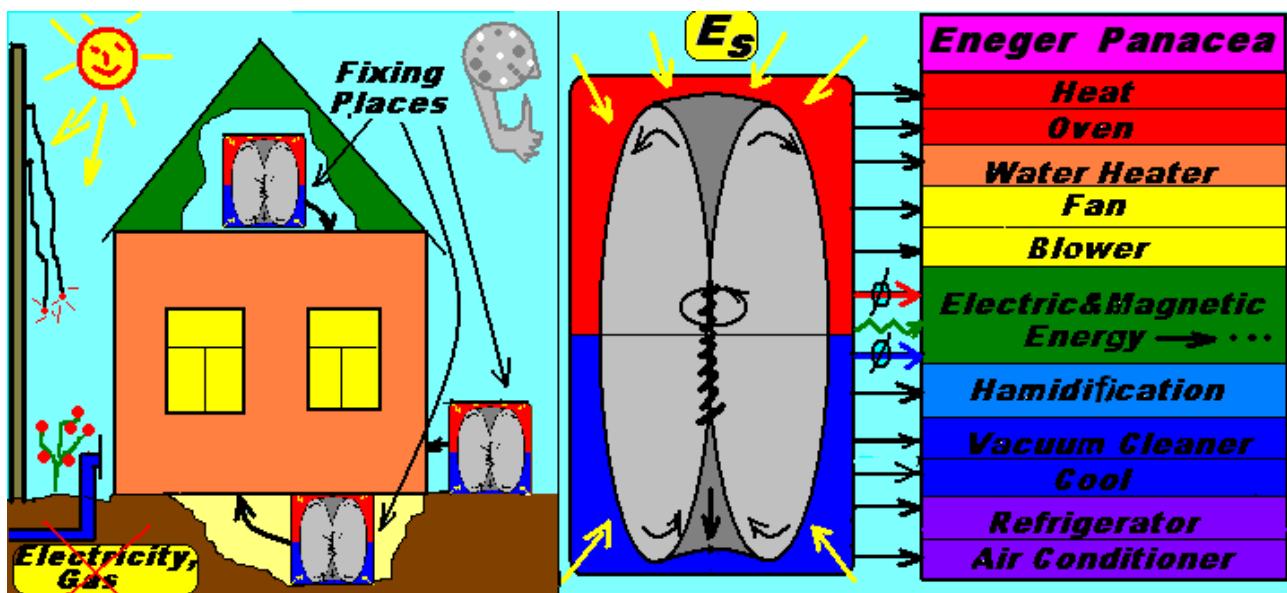


Fig. 8 Panacea energy system with a set of attachable devices (right) for separation, accumulation and use of additional “products” naturally produced by VTortex.

## **Non-Profit “The Forced Global Space Emigration Fund<sup>TM</sup>” (FGSEF<sup>TM</sup>)**

At present we witness

- disastrous global climatic changes on the Earth;
- hydrocarbon resources depletion;
- desperate fight for what is left;
- mortal danger of using atomic fuel and consequences of secondary waste product contamination;
- mortal danger caused by hydropower stations including
  - generation of “dead” water in an artificial water basin;
  - acquisition by water (after it has been passed through a turbine) of properties adversely effecting vegetable and animal life (oncologic diseases);
  - “provoking” earthquakes by vibration, etc.
- shortage of wind, sun and other energy volume and power;
- lack of space transportation vehicles capable of reaching other galaxies within a man’s lifetime;
- using food products for production of hydrocarbon energy, which is a reason for additional harmful emissions into the atmosphere, food price hiking and hence preconditions for global hunger;
- ignorance, unawareness, reluctance to know, purposeful and ostentatious neglect, fighting down competitors and experts in different power engineering technologies, etc.

The best solution to the energy-dependence problem *is full elimination of hydrocarbon fuel dependence, that is* transfer to intensive use of perfect energy, or free energy sources (*structurization energy*).

With this purpose the author and his colleagues are now establishing a non-profit fund “The Forced Global Space Emigration Fund” (FGSEF).

### **1. Parties involved:**

R&D institutes of FGSEF, with research and development contributions made by Dr. Valeriy Shikhirin and his fellow colleagues from the USA, Germany, Ukraine, Russia and Israel

The R&D works are primarily based on energy and information technologies of matter structuring in the Universe

In particular, they refer to development of perfect VTortex energy sources similar to natural ones such as tornado, small comets, ball lightnings, galaxies, etc.

## ***2. Users of R&D work performed by the Fund:***

The USA, Canada, Great Britain, EC countries, Ukraine, Australia, South Africa – energy (hydrocarbon) dependent countries, areas and continents.

## ***3. Grounds for Work Performed by the Fund***

See the section “***Factors Affecting the Climate Change on the Earth***” at the beginning of the paper.

## ***4. Goals and Objectives***

**Main Goal:** Forced preparation for long-term habitation in a cold climate on the Earth and emigration and finally emigration itself of the best representatives of Mankind to another planet to save the population, like our ancestors once did.

The reasons for emigration are;

- natural freezing of all living beings on the Earth;
- jerk-like change of the Earth axis tilt angle against the ecliptic plane.

In such events Man may

- fail to withstand extreme dynamic and temperature loads on the human organism, or
- be killed in global catastrophes generated by the Earth axis tilt angle change: giant tsunami (global floods), volcano eruptions, holes in the Earth surface, etc.

**To eliminate the above-mentioned, precise timing of these fatal events should be calculated in advance, etc.**

### **Subgoals:**

1. Preparation of Mankind for the climate cooling on the Earth and living in a colder climate before emigration to another planet. Lowering of temperature will be invariably followed by change of atmospheric pressure parameters, chemical composition of the atmosphere, its channel processes and other characteristics. This will, probably, create the worst conditions for the human organism and require development of autonomous closed systems for living including construction of bionic rooms with microenvironment, special environmental suits, etc.

2. Development of information systems (computer engineering) and energy systems (energy sources) based on structurization energy and information for everyday needs of Mankind [4, 21].
3. Development of various-type transport vehicles:
  - For the Earth and other planets environments: individual, collective and cargo vehicles for land, above-water, subwater, air transportations;
  - For interplanetary and intra-galaxy navigation: individual, collective and cargo transport vehicles moving in rarefied gas environment.
2. Development of elastic/soft machines, mechanisms (consumer, medical and other appliances) and building blocks based on torus technologies, elastic mechanics [17,18,21,22,25-27] and perfect life support systems using perfect natural “free” energy (structurization energy).
3. Training pioneers of Mankind for emigration to another planet.
4. Search, preparation and development of a new planet
5. Mass-scale (voluntary) emigration (when technically possible)

Unfortunately,

- all Mankind will not be able to leave the Earth since it is technically hardly possible;
- with every day of delay in development of structurization energy sources Mankind moves away from the possibility to save its population;
- so far nobody knows for certain how much time is left to save at least part of Mankind.

***In the course of the project implementation the following principal tasks should be solved:***

1. Defining the role and place of Mankind among other civilizations of the Universe (at least in the vicinity of the nearest space stream meander, e.g. Andromeda Nebula galaxy), provided They will let us join the “civilization family” if we are humane. Or, in other words, we will live according to the laws of the so called “Space Community” based on principles of humanity and mutual aid, i.e. solve tasks matching our hierarchical (in terms of the civilization existence period) intellectual level.
2. Investigation into the Universe, the Galaxy, the Solar System and the Earth structure formation covering the following issues:

- Structure formation in nano-, micro-, macro- and megaworlds;
  - Typical forms of fluid medium (matter) existence;
  - VTortex<sup>TM</sup> as the superior form of fluid medium structurization in Nature;
  - VTortex<sup>TM</sup> galaxy as the Time structurer and the cause of the climate change on the Earth;
  - The Life Belt, the Death Belt, the Life Torch, time and temperature indications for Life.
  - The Bloating Law;
  - The gas and liquid VTortex<sup>TM</sup> as a super-cold helical rolling mill for polyhedrons such as planets, liquid drops as well as gas “cavitation” bubbles;
  - Channel processes in the atmosphere and Space.
  - Natural structurization energy and information;
  - The vegetable and animal world, development of its adequate and sufficient component set, technologies of its reproduction and future self-reproduction at other planets. Natural development of electricity, magnetism, gravitation, etc.
3. Analysis of technologies, experience and knowledge obtained in various areas of the Earth to use after climate cooling, taking into account recently invented new materials. For instance,
- in areas having large forestlands including EC countries, Ukraine, Canada, America, etc., one can make use of technologies, experience and knowledge of such regions as Alaska, Siberia, the Urals, Transpolar Region, North Europe, etc.;
  - in desert, steppe and prairie areas including equatorial regions of Africa, America, Australia, Asia, etc. the experience of such countries as Kazakhstan, Kirgizia, China and alike may be useful;
4. Integration of knowledge of Nature obtained in various natural sciences;
5. Revision of contemporary physics fundamentals in the fields of matter composition, nature of gravitation, inertia forces, heat, electricity and alike;
6. Revision of natural science concepts and development of a unique natural technology of the Universe and its elements organization.
7. Development of:

- various unsupported or self-supported transporting vehicles for land, sub- and above-water movement as well as for movement in the atmosphere and space by studying natural propulsive units moving in an unsupported or self-supported manner, including galaxies, tornadoes, small comets, ball lightnings, fish, insects, etc.;
- machines and mechanisms based on torus technologies and elastic mechanics.
- structurization energy and information sources such as:
  - long-life energy sources and ambient energy converters;
  - energy transfer to long distances (including wireless transfer);
  - development of active shielding principles and devices for field shielding (electromagnetic, gravitation and inertia fields), quantum shielding (invisibility), force shielding (energy protection of objects against power and impact mechanical effects), etc.
- new smart materials based on structurization information;
- bionic/natural architectural constructions preserving thermal energy to a maximum degree to be used for construction of residential and industrial buildings.

All nature from giant space structures to vegetable and animal cells is a system of nested spherical and torus-shaped shells that separate different media and simultaneously ensure continuity and discontinuity of a single topologically linked medium. Artificial objects created by Man in unfriendly and often extreme environment must be robust and long-lasting and interact smoothly with Man himself for which purpose they have to be seamlessly built into a natural hierarchy of natural shells including the metaphysical level. The role of architecture here is to use laws of Nature to solve problems of function, structure and form synthesis in the best way.

Shell structures are mounted on the plane, do not need complicated interface assemblies and are transformed into a predetermined spatial position by means of reversible transformation [28].

8. Artificial extension of Mankind's existence on the Earth.
9. Taking measures to discard technologies that destroy the Earth's environment and the Earth itself, ban their development and use accompanied by equipment

system disintegration and immediate disposal of work results including prohibition of:

- plasma and atomic weapons testing and use;
- atomic submarine operation;
- ultra-deep drilling (over 500 m), especially in the world ocean;
- “forced” and uncontrollable extraction of hydrocarbons;
- operation of hydroelectric power stations destroying natural channel processes, hence the Earth’s environment, as well as using water “killed” by such processing for cooking and other household needs by ordinary uninformed people;
- operation of thermal power stations, etc.

space flights powered by “modern” fuel (rockets, aircraft); operation of atomic power stations will be stopped in a natural way due to their inefficiency and uselessness, with their components disposed of.

10. Looking for a planet suitable for life and prepared by senior civilizations for subsequent emigration of Mankind (its best and prepared representatives), preparation of the planet (phase-wise), creation of conditions giving rise to self-reproducible Life, preparation and “cultivation” of planets fit for immigration of less developed civilizations compared to us. Attention should be paid to the following issues:

- New places for emigration: a new galaxy, a new warmer place (nearer to the “Life Torch”) in our Galaxy: in our branch or in the other symmetrical branch. One should not forget that those places are to be prepared by more developed senior civilizations;
- Preparation of a “new Earth” for colonization. Artificial atmosphere, vegetable and animal world, and stages of their development for younger civilizations compared to ours;
- Torus-shaped and spherical (4 dimensions –  $109^{\circ}30'$ ) geometry and navigation tasks for movement around the Galaxy, the Life Belt, the Solar System (routes, distances, time);
- The way space flights within our Galaxy or to a near galaxy (Andromeda Nebula) are realized. Surely not directly, constantly hitting on some invisible “walls” or “falling” into voids.

Within the Galaxy, for instance, one of the two branches (hoses) equidistant to the toroidal surface should be the principal guideline for any flight; galaxy-to-galaxy flights should be guided by a stream channel/Plato-Shikhirin channel in which such galaxies reside.

- Man and formation of a virtual “group” with certain functional features of which the ability to survive is the key feature
  - Development of laws and regulations of a “new Mankind” and a Constitution consistent with such rules.
11. Development of systems to suppress global vortex phenomena, such as tornado, lightning, etc., and natural phenomena control methods.

### **Conclusions**

- At present all conditions are available to start intensive research and development activities aimed at creation of new energy production technologies.
- All reversible natural and man-made structures based on torus technologies and elastic mechanics are implemented using the toroidal movement mechanics. At the same time such structures act as energy sources.
- The author and his colleagues have understood how it all works in Nature and designed a basic set of respective technologies.
- Moreover, we have studied man-made transport vehicles and energy sources developed on the basis of these principles by outstanding practical engineers John Worrell Keely (1827-1898), Nikola Tesla (1856-1943), Thomas Henry Moray, Victor Schauberger (1885-1958), Richard Clem, John R.R. Searl, Wilhelm Reich (1897-1957), Bruce de Palme, Viktor Grebennikov (1928-2001) et al.

The relevance of these innovations was not recognized by Mankind in 19-20 centuries since it enjoyed the boom of “eternal” hydrocarbon and atomic (anti-Nature and killing) fuel and the idea of its exhaustion was not even discussed.

- At present there actually remained no experts in this field, therefore understanding of these technologies and their quick mastering by other specialist groups is difficult, if at all possible.

- Introduction of energy sources, transport vehicles, etc. based on structurization energy will not lead to mass unemployment because their number will gradually increase replacing “conventional” energy sources as well as machines and mechanisms.

With active introduction support, this process will take 7 to 10 years.

Moreover, introduction of these innovations will automatically tear lots of specialists away from servicing the “hydrocarbon-atomic pipe” and give a stimulus to filling vacuum around development of new energy systems, machines and mechanisms, which, incidentally, result in new working places.

For instance, large-scale (natural) introduction of personal computers into all spheres of human activities has not led to unemployment. On the contrary, hundreds of thousands of people have been involved in these processes.

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