

Biography of the Earth in the Light of the Laws of Classical Physics

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Abstract—The proposed article is an analytical review of previously published articles in the series "Physics of Gravity", "The Picture of the World by Second Law of Thermodynamics" and others. The article shows the key role of the forces of gravity and the action of the second law of thermodynamics in shaping the picture of the world. In other words, the second law of thermodynamics can be called the law of matter cooling. The action in the compartment of the inverse temperature dependence of the forces of gravity and the second law of thermodynamics is carried out by the processes of separation, condensation, phase transitions, and transformation of matter. On the basis of the proposed concept, along the way, completely new versions of the development of events in the biography of the Earth are put forward. For example, new versions of the origin of planets, the origin of continents and others are being put forward. This article contains a list of articles and videos that are somehow related to the proposed topic. Articles and videos are presented in English and Russian.

Keywords—Gravity, the second law of thermodynamics, electron rotation, inverse temperature dependence, inertia forces, centrifugal forces.

I. INTRODUCTION

AN overview of the articles in the series "Physics of Gravity" and "The picture of the world by the second law of thermodynamics" is offered [1]-[4]. Accordingly, the key points of this article are "The inverse temperature dependence of the forces of gravity" and "The Second Law of Thermodynamics". It is these two phenomena that form the picture of the World (Fig. 1). The article highlights events in the biography of the Earth in the process of cooling matter: the formation of planets, the formation of a primary clot of the Earth's crust, a collision with the future Moon, the formation of mountain systems, the formation of conditions for the existence of life. Accordingly, all processes in the history of the Earth have passed and will continue to pass from high temperatures to low temperatures in time.

II. MAIN PART

A. Formation of Planets

Articles [7] and [11] present the mechanism of planet formation as a hyperprotuberance ejection from the surface of the Sun. The ejection mechanism is shown in Figs. 2 and 3. Hyperprotuberance matter is represented as the source material in the formation of planets. Naturally, in the process of ejection, matter cooled down and changed its aggregate state. The process took place with a decrease in temperature. To form

planets, the source material must initially have a very high temperature. Naturally, this article rejects the dominant version about collisions of solid matter, as a result of which planets were formed.

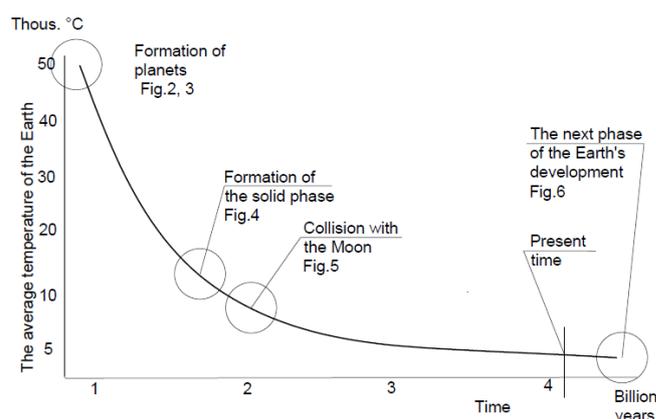


Fig. 1 Earth cooling schedule [2]

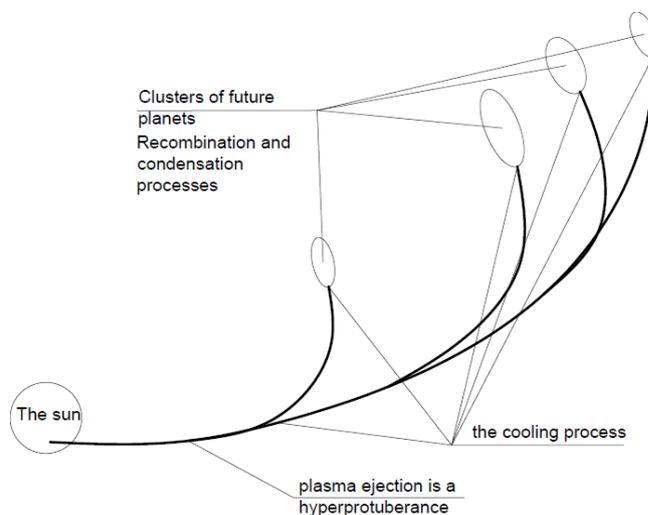


Fig. 2 Formation of planets [2]

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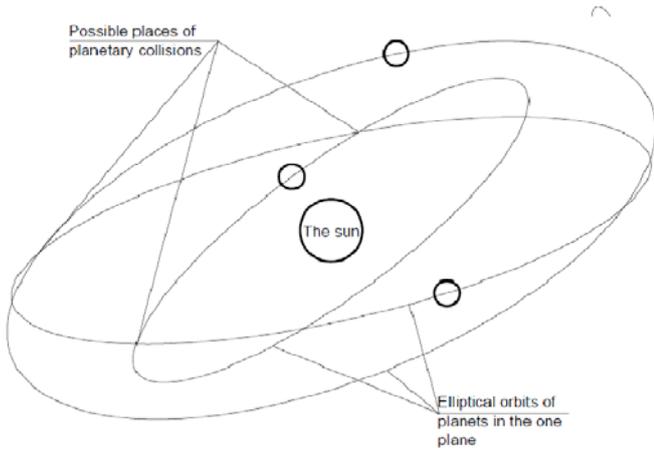


Fig. 3 Primary orbits of planet [11]

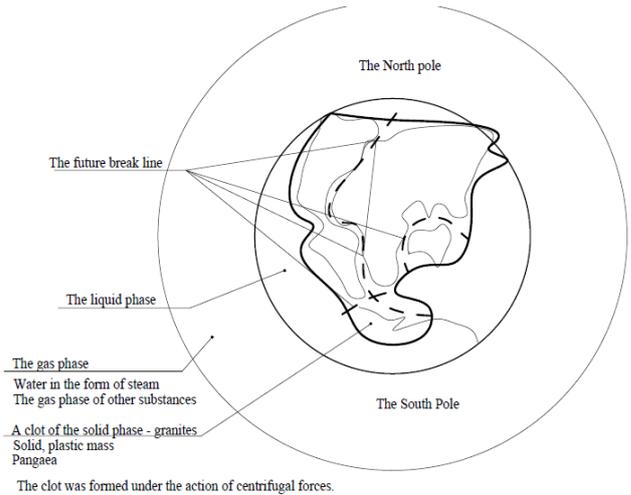


Fig. 4 Formation of the solid phase [2]

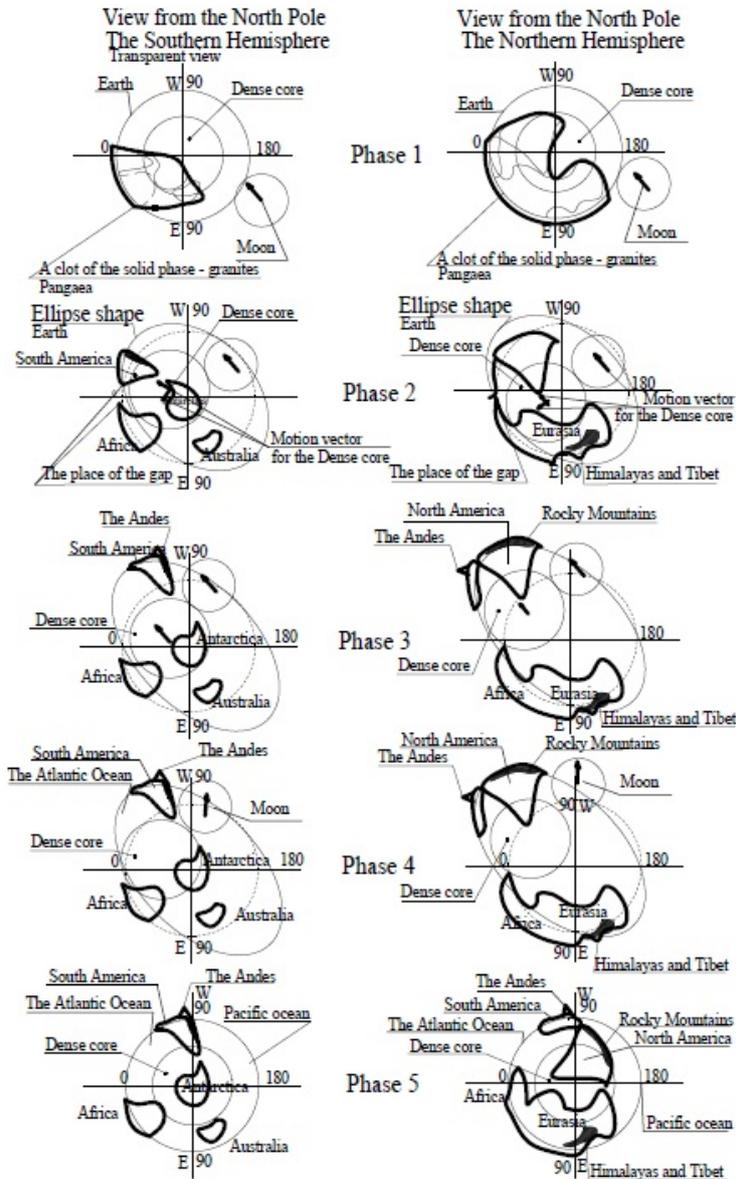


Fig. 5 The collision of the Earth and the future Moon [11]

As the matter of the hyperprotuberance cooled, it condensed into clumps of future planets. The formation of clumps occurred due to the action of the inverse temperature dependence of the gravitational forces and the second law of thermodynamics in the compartment. It is this mechanism that forms galaxies, stars, planets, continents, raindrops in the clouds of the planet's atmosphere. In any case, the initial material in the formation of the planets had a much higher temperature than the boulders. It is quite possible that the star and the planets had a common source material. This article considers a variant of the starting material close to the plasma in its aggregate state.

Clusters of future planets began to rotate around the Sun under the influence of gravitational forces. The initial rotation trajectories had an elliptical shape. The orbits were located almost in the same plane, since all the planets had a common origin. Some orbits had intersections of trajectories, and there was a possibility of planetary collisions. Over time, the elliptical shapes of the trajectories transformed into circular ones (present).

B. Formation of the Primary Clot of the Earth's Crust

The processes of separation and condensation of primary matter have formed the spherical shape of the planets of the Solar system. Naturally, the cooling process continued. The next stage was the processes of separation and condensation on the planet Earth itself. Initially, two phases were formed: liquid and gas. The liquid phase was located in the centre of the planet and had a dense core. The dense core probably had the characteristics of a solid phase. The liquid phase was enveloped by the gas phase – the atmosphere. As it cooled further in the liquid phase, clumps of more refractory matter – future granites – began to form on the surface (Fig. 4). The ejection of the hyper prominence informed the planets of the rotational moment, the planets had rotation around their own axis. The rotation of the planet caused centrifugal forces. Centrifugal forces shifted the granite clumps onto the surface of the liquid phase and grouped them into a common clot. This clot can be called a solid phase.

C. The Collision of the Earth with the Future Moon

It so happened that at the time of the collision of the Earth and the future Moon, a clot of relatively solid matter formed on the surface of the liquid phase of the Earth [11], [16], [17] (Fig. 5). As mentioned above, the orbits of the planets and all celestial bodies at that time had elliptical shapes. Such shapes of orbits did not exclude collisions of planets and celestial bodies. One way or another, two celestial bodies collided. At the time of the collision, the Earth had a dense core, a liquid phase, and a gas phase. The temperature of the Earth probably mattered more than the temperature of the celestial body (the future Moon). It can be argued that the density of the celestial body was commensurate with the dense core of the Earth. The celestial body had a much lower mass, so it cooled down more, had a lower temperature, and a higher density. The collision had 5 phases. In the first phase, the celestial body passed through the liquid phase of the Earth. The clot of the solid-plastic mass on the surface of the liquid phase was still intact. In the second phase, the celestial body collided with the dense core of the

Earth, the core shifted, and the Earth acquired an elliptical shape. The displacement of the nucleus, the displacement of the nucleus struck the clot from the inside. The impact of the core tore the clot into separate parts. The main line of the clot rupture ran between modern Africa and South America. This explains the similarity of the contours of these continents. In the third phase, further movement of the nucleus spread parts of the clot in different directions. The earth continued to extend the ellipse. In the fourth phase, the celestial body began to move away from the Earth. By this time, the celestial body had finally formed an impact crater on the surface of the liquid, plastic phase of the Earth. The beginnings of future mountain systems formed along the edges of the crater: Rocky Mountains, Andes, Tibet, Himalayas, Pamirs, Alps, Caucasus. In the fifth phase, after the collision, the Earth's surface returned to a spherical shape under the influence of gravity and centrifugal forces. The ruptured parts of the clot (Pangea) practically retained their location on the surface of the liquid phase. This position was fixed by the formation of the earth's crust, the formation of basalt layers. The second law of thermodynamics and the forces of gravity with an inverse temperature dependence formed the Earth's crust, promoted the processes of separation and condensation of matter.

D. Formation of Mountain Systems, Basic Geological Processes

Further cooling of the Earth formed the Earth's crust [13]. In the process of cooling, the aggregate states of matter changed. As a result of the collision of the Earth with a celestial body, the beginnings of future continents were formed on the surface of the Earth. These rudiments had granite bases around which and under which a basalt layer began to form. Further cooling of matter increased the area of distribution of this layer from the continents. The build-up of the basalt layer took place gradually. The junctions of this layer marked the boundaries of future tectonic plates of the Earth's crust. Further cooling of matter leads to the processes of matter compression. Compression processes lead to displacements, fractures of tectonic plates.

Currently, the scientific world is dominated by the claim of continental drift [15]. The main argument of this version is the similarity of the contours of South America and Africa. The origin of this similarity is explained in the previous subsection. The growth of some mountain systems is also given as an argument for the version of continental drift. The origin of mountain systems is given in the previous subsection; the growth of mountains is explained by the processes of compression, the consequences of cooling matter. So, displacements of tectonic plates are allowed, continental drift is not allowed.

E. Formation of Conditions for the Existence of Life Forms on Earth

The formation of the Earth's crust was the first condition for the existence of life forms on Earth. The further cooling process developed separation and condensation processes. As a result, water from the atmosphere and the gas phase began to condense

on the surface of the Earth's crust, and conditions were created for primary forms of life [18], [19].

F. Formation of Cycles of Global Warming and Cooling

The physics of the cycles of global warming and cooling is presented in [6], [7], [10], [20], and [21]. In [6], the radiation of the thermal energy of the Sun is assumed to be constant. Climate fluctuations are explained by changes in the optical properties of the atmosphere, changes in the albedo of the atmosphere. The article [2] confirms that in any case, the resulting process is the cooling of the Earth's matter. The warming process on Earth can be considered as the supply of heat from an external source, the radiant energy of the Sun. The scheme is proposed: Heat supply – const. At albedo min –

warming, at albedo max – cooling. At an albedo of min, the radiant energy of the Sun reaches the solid surface of the Earth, at an albedo of max it is reflected from the upper layers of the atmosphere. All these processes absolutely correspond to the Second Law of Thermodynamics.

G. Possible Perspective

As the Earth's matter cools further, the thickness of the Earth's crust increases. The Earth's crust also plays the role of thermal insulation of the Earth (Fig. 6). Accordingly, increasing the thickness of the insulation reduces the heat transfer of the Earth into space. This process prolongs the period of existence on Earth of conditions favourable for organic life in all forms.

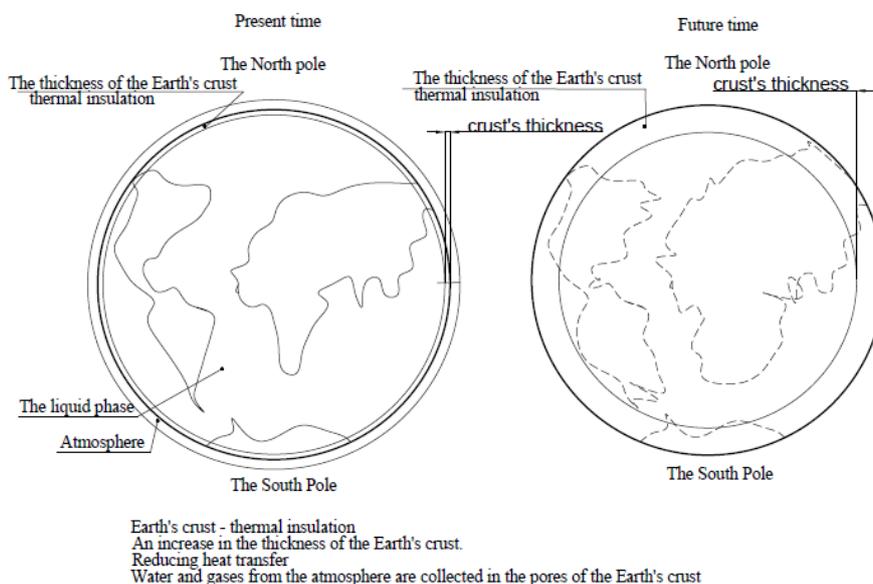


Fig. 6 The next phase of the Earth's development [13]

An increase in the thickness of the earth's crust increases the volume of the earth's crust, respectively, water from the Earth's surface and air from the atmosphere will leave the pores of the Earth's crust.

III. CONCLUSIONS

This article presents a picture of the World based on the action of the second law of thermodynamics and the inverse temperature dependence of the forces of gravity. The action in the compartment of these phenomena formed the existing picture of the World [8], [9], [12], [14], [22], [23].

There are some contradictions with the existing, dominant views on some aspects of the worldview. The article presents views on events in the biography of the Earth1 - the origin of the planets, 2- the formation of continents, 3-the formation of mountain systems, 4- the drift of continents, 5- cycles of global warming and cooling. The article shows that all these phenomena are conceptually connected.

As a conclusion, it can be noted:

- 1) The initial material for the formation of planets was high-temperature matter;

- 2) The continents were formed as a result of the collision of the Earth and a celestial body, the rupture of a common clot of solid-plastic mass on the surface of the liquid phase of the Earth's matter;
- 3) Initially, mountain systems were formed as a result of the collision of the Earth and a celestial body. Mountain systems were formed along the edges of the impact crater from the hard-plastic masses of the primary Earth's crust;
- 4) Continental drift is absolutely excluded. There are no forces in nature that move tectonic plates in any one direction;
- 5) Cycles of global flooding and cooling are caused by changes in the optical properties of the atmosphere. The optical properties of the atmosphere change as a result of thermodynamic processes in the atmosphere [6];
- 6) The forces of gravity, inertia, and centrifugal forces have a common nature. These are reaction forces – the gyroscopic forces of rotation of electrons to an external influence. The external effect for the forces of gravity is the expansion of the Universe.
- 7) It is necessary to categorically separate the concepts of

mass and gravity. Mass is an absolutely scalar quantity. Mass manifests itself in the form of gravity, inertia, and centrifugal force. These forces arise from external influences. If the external influence is balanced, then these forces do not arise.

- 8) Along the way, it can be assumed that oil and fossil hydrocarbons are of mineral origin. The hydrocarbons that reached the surface of the earth's crust were a breeding ground for the beginnings of organic life on Earth.

Naturally, all existing views on these points are denied [5].

Additionally, it is necessary to note one of the main points in the article [1]. The rotation of electrons, in addition to the gyroscopic effect, creates an electromagnetic effect. There is an electromagnetic component to gravitational forces. Accordingly, the forces of gravity have a direct dependence on the masses of objects and an inverse quadratic dependence on the distance between the centres of mass.

One can also make an assumption. There is a gravitational component in the cooling process of matter. There is a gravitational component in the process of compression, an increase in density by matter cools.

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