

## COPERNICIAN OF THE XX CENTURY (recordings to come)

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The third time he  
requested net, -  
Yandex came with one  
link.

*From the book of fairy  
tales of the XXI  
century*

What you can not catch in the electronic sea of information - from trifles and garbage to rare treasures. So I once came across a site on the Internet that reveals, neither more nor less, the structure of the universe, a unified field theory, and at the same time the schemes of operation of such fabulous devices as a time machine, an agravitor and a teleporter. It is not clear how this information of the future leaked to us, but now the world wide web is so complex and ramified that any miracles are possible there. Maybe artificial intelligence was born there, or networks of different centuries, having worked as inter-temporal antennas, caused information leak from the future through net, or the messenger of the future left it here.

One way or another, the schemes became available and were so simple that the temptation to try them was overwhelming. The main unit of the device, equally capable of shielding the gravitational and space-time field, was assembled in a couple of days from improvised means and parts from the radio market. A trial model with the dimensions of a box and the name "Nevod" successfully passed the tests, first hovering above the floor, then instantly jumping a meter up, and then jumping into the future for three hours and then returning for 30 minutes, following the instructions of the program with precision. When the daze from the first takeoffs of the model, its sudden appearances and disappearance without a trace, instant jumps around the room, we started assembling a more powerful, manned model for long-distance flights.

We are me and a friend, whose name I will not name. I can only say that he is also a radio amateur, passionate about electronics. But on the first intertemporal flight, I had to go alone: the space-time horse was single. We gave this new model the name "Spider" for the eight shielding antennas sticking out like paws, and for the fact that the principle of its operation was brought by the network. The Spider was built on the basis of a motorcycle, although the attachments made it look more like the lander of the Martian Viking.

For the first launch into the distant future, the Spider was towed out of town. Taking a bag of tools and trinkets - coins and badges that could seduce 21st century Aborigines, I set the autopilot for the summer of 2036. Taking off for a kilometer, so as not to collide with buildings and witnesses in the future, he launched the installation. The temporary jump passed instantly, leaving a feeling in the stomach, like from a swing. But the movement had clearly taken place: instead of the sun, the moon was already shining, and the city in the distance was burning even brighter.

The reason for this was revealed three hours later, when, having landed and hiding the "Spider" in the forest, he reached the city. It was flooded with such powerful streams of light that it was impossible to distinguish - day now or night. Such an abundance of energy, like the soaring antigrav transport, spoke of powerful progress. As it turned out, technology took to a new level thanks to a radical revision of physics in 2009.

Everything that we believed in in the 20th century turned out to be fundamentally wrong - the theory of relativity, quantum and nuclear physics, even electrodynamics. They not only did not contribute to progress, but they slowed down, limited it, setting up barriers on the way to space and the microcosm. Everything created by 2036 could have been built in the middle of the 20th century and even earlier. That is why, with only primitive means, we easily assembled the machine of the future.

By 2009, all the phenomena of space and microcosm were re-explained on the basis of classical physics and mechanics. This happened thanks to the Ritz Ballistic Theory (BTR), back in 1908, put forward by the Swiss physicist Walter Ritz. I found his theory on that very site and was struck by the clarity and versatility of the ballistic theory.

In 2036, the Ritz ballistic theory is included in any school textbook - everything is so ingeniously simple there. I bought one such textbook with the proceeds from the sale of a couple of pins. The book is no thicker than a general notebook, but contains five hundred sheets of durable multilayer plastic. I cannot reproduce the wonderful holographic drawings of the book, but I will briefly reveal the essence of the armored personnel carrier. In 1908 Ritz proposed to return the Galilean principle of relativity to physics and optics. He believed that the speed of light beams depends on the speed of the light source that emitted them, just as the movement of a gun, according to the principle of relativity, gives the projectiles an additional speed.

All the mistakes of the theories of relativity, ether and Maxwellian electrodynamics, forgotten by 2036, stemmed from the fact that they rejected this principle, which Galileo had hardly approved, believing that the movement of a source does not affect the speed of light. Ritz not only rehabilitated the principle of relativity, but also revealed the nature of light, electrical impact, assuming that electrons shoot in all directions with myriads of tiny particles flying at the speed of light. These particles, actually discovered in 2032, were called rheons. The streams of rheons, hitting other electrons, repel them, which is what causes, according to Ritz, the repulsion of the charges. From the mechanical addition of the light speed of rheons with the speed of the electrons that emitted them, it followed the addition of the speed of light, electromagnetic waves with the speed of the source, and then, that the relative motion of charges changes the strength of their electrical interaction. In some cases, its increase is perceived as magnetic, and in others, as a gravitational effect. That is, Ritz already in 1908 constructed a unified field theory, which Einstein did not give, on the basis of which the "Spider" worked.

But most importantly, the book implied the absence of a light barrier for speed, introduced by the theory of relativity. It has long been exceeded in laboratories and on automatic starships. A manned ship was also built, gaining three times the speed of light in a month. At such high speeds, the rarefied space environment is perceived by the ship as very dense, which allows it to push off from it, like a jet plane. Expeditions to all nearby star systems were soon planned.

I was so impatient to find out if people would be able to reach the stars that, without spending a day in 2036, I decided on a second jump ... "Spider" threw me another 70 years ahead, in 2106. This time I got there in the early morning, but, despite the twilight, I did not see the city lights in the distance. My worst fears were dispelled when the morning city greeted me with peaceful, wide-open streets and measured life. People walked slowly on business, and even the air and ground movement was somehow sluggish.

Hastily found an antique store and sold a couple of coins there, to my surprise I received in return from the appraiser robot others - osmium, platinum and gold discs with a hologram and complex

engraving. Incredibly, with the aim of unification, humanity abandoned the barbaric monetary system of bills, returning to solid coins that provide their value from precious metals. This made it easier to work with money, transfer from one monetary system to another, and almost eliminated inflation.

As I found out in the computer science, I missed by two years, landing in 2108. Affected, apparently, is the inaccuracy of the calibration of the time block. I also learned about the reasons for the desolation of the Earth. Humanity has long and confidently escaped into the vastness of space, where now all life is concentrated. Intensive exploration of the distant regions of the Galaxy was in progress, and extragalactic expeditions were being prepared. And people in space were sorely lacking. Billions of worlds were discovered, their number multiplied. And earthlings rushed into space: some of the ancient fear of the meteorite-nuclear threat, others - fearing crowdedness on Earth, others from the romance of distant wanderings, many from scientific considerations, and some in search of a better life, unearthly riches.

As a result, less than a hundredth of the population remained on Earth. Everyone is allowed into space, including the elderly and children. There are no age or health restrictions for flying to most planets. And the demographic explosion and overpopulation of the Earth, which were feared in the XX century, in the conditions of the current shortage of people would be a gift. Inspired by this news, I also decided, without lingering, according to Tsiolkovsky's behest, in the cradle of the mind of Mother Earth, to rush into space in pursuit of light and space.

Soon I was already boarding an interplanetary cruise spacecraft bound for Titan. What was especially striking was the relatively low cost of the flight and the complete absence of customs formalities within the solar system. As if I got on a bus - only a ticket is required from the documents. Space transport is so developed that there were also personal space vehicles. And only spacecrafts that arrived from distant systems were subjected to quarantine and inspection.

The flight lasted a week. During this time, I managed to get to know and talk with the miner Alan, who was returning from vacation on Earth. It turned out that he is also an astronomer, physicist, chemist, geologist and historian. Here, such combinations are not uncommon: the lack of specialists requires each mastering several, sometimes up to ten different professions, which is especially important on long-distance expeditions where real generalists are needed.

So, Alan shared with me his thoughts on the history of the development of physics. For example, he was very surprised how scientists of the 20th century could seriously believe in quantum physics and the theory of relativity, which for a long time plunged science into the darkness of medieval mysticism. But he especially made fun of their ideas about space, comparing them with the naive inventions of the ancient Greeks. The same speculative, mystical explanations, closer to myth than science. And I listened and silently agreed, blushing for my contemporaries. Apparently, my gradual reddening led him to a new thought.

“Do you know,” he asked, “what they thought about the nature of the reddening of the light of galaxies? It's funny to say: astrophysicists considered the redshift to be a consequence of the Doppler effect from the scattering of galaxies, inflation of the Universe, like a bubble. And they explained this expansion by the even more absurd theory of the Big Bang. Fortunately for us, this inflated soap bubble really exploded in 2009, when Ritz's theory developed rapidly - this is the only worthy concept of the 20th century. Only she explained the redshift elementary, without fictional hypotheses, but as a direct consequence of the rotation of galaxies. Rotational acceleration is the reason for the Ritz effect redshift. As you know, this effect, like Doppler, is due to the movement of the light source, but not its radial velocity, but radial acceleration, and is proportional to the distance. So much for Hubble's Law!

He sketched a drawing showing how acceleration causes the crests of a light wave, which came out at different times at different speeds, to diverge as it travels, stretching the wave like a spring. That is why the longer the path it travels, the redder the light.

- By the way, - he continued, - back in 1930 the Russian astrophysicist Belopolsky expressed a similar idea, but they did not listen to him. But this is how it was possible to calculate the degree of redshift, having obtained the Hubble constant close to the real one. In general, I am amazed at the blindness of scientists of the 20th century: to believe in such a lot of absurdities and at the same time to miss such a brilliant theory as Ritz's, not noticing the Ritz effect, about which all the phenomena of space literally shout - is this not a sign of the decline of science of that era?

As I understood from further conversations with Alan, who truly became a stellar messenger for me, many of the phenomena of space, taken by scientists as real, later turned out to be an illusion, like the same scattering of galaxies. The instruments have shown that there are no neutron, pulsating, X-ray, or explosive stars, there are also no black holes, dark masses and gravillases. And everything taken by astronomers for the manifestation of these strange objects - fluctuations in brightness and spectrum, flares, various distortions and inconsistencies - were just a mirage created by the Ritz effect in rotating double stars. Even the blinking stars - Cepheids, as confirmed by the space expeditions that have visited them, do not actually change their sizes and temperatures. And the fluctuations in their brightness and color are as illusory as the twinkling of simple stars in the night sky of the Earth.

Alan especially lamented the tragic fate of Ritz and his theory, undeservedly forgotten throughout the 20th century. Ritz and Einstein studied together at the Zurich Polytechnic University, talked a lot. But if fate lifted Einstein with his theory of relativity on a pedestal of honor, then merciless fate brought Ritz to his grave at the age of 31, in 1909 - immediately after he published the ballistic theory of 1908. And official science, recognizing Ritz as a heretic, like the church once did - Copernicus, Galileo and Bruno, gave his works anathema and oblivion.

In the course of these conversations, by the end of the journey, I had a firm decision to see the creator of the ballistic theory - Walter Ritz himself. Therefore, upon arrival, I did not stay long on Titan, and after having been on an excursion on the surface of the satellite, having examined the base and admiring the rings of Saturn, I set off on my way back. Moreover, by leaving the "Spider" in the forest, he risked losing it. And now, after half a month, I was back on Earth, blissfully breathing in its native air, and I found the "Spider" in complete safety.

So, the climb in a kilometer, then a jump 200 years ago. And here I am in 1908. This time my appearance in the sky was discovered: it appeared over the field during the harvesting season. Therefore, he set the teleporter 20 kilometers to the south - the maximum jump length of the "Spider" - and after the jump he found himself above a wide lake. And again he was noticed - already by fishermen. It can be seen that our ancestors are more observant of their descendants and more often look at the sky. Therefore, I decided not to go down, but to get long jumps to Germany, where Ritz worked.

I should have covered over 5000 km. So, jumping 20 km west-southwest every minute, I spent four hours. Finally, the foothills of the Alps appeared in the distance. I had to climb higher and shorten the step of jumping, so as not to accidentally fly into one of the rocks. Cities flashed below, but which cities were, it was anyone's guess. Above everything is different than on the map from a pocket atlas, and, unfortunately, there are no names below. I had to navigate the rivers. First, he got out to the mouth of the Weser, and jumping along it and its tributary Leine, he finally reached Göttingen, which he was sure of, having arrived after landing in the city.

But I missed the time again: it was the evening of July 6, 1909. It was in this year, July 7, that Ritz would die in the hospital, and we had to hurry to see him. Explaining in bad German, which he had not spoken since school, he was able, with the help of passers-by, to find the hospital. It was not easy to get to the Ritz's rest room. However, posing as Ritz's distant acquaintances, and backing up the words with the golden coin of the future, I was able to get an appointment for an hour.

Upon entering the room, I immediately recognized Walter Ritz from a photograph from a book I had taken with me. His pale, sunken face with eyes shining with intelligence was the face of a martyr.

Ritz coughed and slowly died, and I remembered that he would not live even a day, and knew that I could not save him. The only way I could help was to brighten up his last day, showing that he had not lived his life in vain. That his ideas are correct. That with the Galilean principle of relativity, he returned physics to common sense. That, like Copernicus, he discovered a new cosmos. That, as a true genius, he even without a time machine has overtaken his era for a century: only in 2009 will people see their light, prove the correctness of his ideas and rush to the stars.

All this I, in a hurry, expounded to him in bad German. But Ritz understood everything and even believed. In order to finally dispel doubts, I took out of my bag a textbook of 2036, almost all devoted to Ritz's theory and its applications in space and microcosm. Putting the textbook in Ritz's weak hands, I watched him slowly leaf through it, peering intently at the color, three-dimensional holographic drawings and photographs. He saw his formulas, thoughts, effects printed and verified by experience, saw their development and application. Tears appeared in his eyes, as he realized that he had not worked in vain, sacrificing his life and health, burned like a torch, shining on others.

One page caught his eye for a long time. I looked and was horrified. Ritz found his photo and signature: "Walter Ritz (02.22.1878 - 07.07.1909)". HE UNDERSTOOD: THIS IS THE END. But he was dying happy, like Copernicus, already on his deathbed holding the result of his labors embodied. The visit time was up, and I left not myself. And when he came the next day, Ritz was gone. The textbook was returned to me, along with a note attached to it. In it, Ritz said goodbye, sincerely thanked and begged to take his works for posterity.

A day later, sitting on the waterfront, I studied the unknown Ritz manuscripts. There were his works on the structure of the atom and electron, works on optics and space phenomena, thoughts about gravity, the nature of mass, time, electric and magnetic influences. Ritz knew almost everything he discovered later in 1909. He did everything at once, completely revising physics, but did not have time to finish. After the publication in 1908 of the first works on the armored personnel carrier and the magnetic model of the atom, he had less than a year. As I gained more and more evidence of Ritz's genius, the intention grew in me to return and publish his forgotten works.

But I am writing these lines while still in 1909, because, having returned to the "Spider", I found it barbarously broken. Not a single detail has survived. Looks like someone saw my landing and destroyed a "witch broom" similar to a spider. I'm stuck here anyway. The necessary radio components have not yet been invented. There are not even pure semiconductors. Like a broken trough, I sit next to the "Spider", like a fly, stuck in a web of events woven by time.

I don't have German documents, I'm running out of money, and besides, it seems that those who smashed the Spider and after me visited Ritz, judging by his note, came out to me. The only way out is to send a message about yourself to the future. Therefore, I am writing new copies of this letter and, having sealed them in bottles, I throw them into the Baltic Sea near Kiel. For me, Neptune's mail is the most reliable way of communicating with the future: bottles have been wandering the sea for decades. If all of them are not overfished before, then, I hope, in a hundred years the net of some fisherman will catch one of them, and my message, being printed under the guise of a story, will catch the eye of a friend who will help me out. I am no longer afraid for myself, but for Ritz's manuscripts, which I must convey to posterity. With this I entrust my fate to the old fishermen and the sea.

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