A02

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The Real Measures of the (Flat) Earth

To the Lord of the whole earth.

ZECHARIAH 4:14

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Foreword

The curtain rises.

A children's room. You can hear a soft melody from a music box. Nine-pins and bowls scattered everywhere with colored wooden cubes on the floor. A chubby, roly–poly hippopotamus is lying down in the mess. In the meanwhile, a plastic horse tries moving on its wheels toward a blonde little dancer. It is just a playing moment in Gaia's babyhood.

Suddenly you can hear a voice from outside: «Don't you want to see the spinning top? It's awesome, why don't you come closer? Would you like to play with the top? Come on! Don't be afraid: the top is simply spinning! Can't you see? It is spinning!». As all the little toys gather together, the top falls down and the little horse is crying upset. «Oh, no. It's broken now!»

«But don't worry». The charming little dancer immediately twirls nearby, to reassure him: «No, it's not like this. We'll make it spin again».

So, when beholding the top moving again, the hippopotamus appears absolutely ravished. He keeps on smiling. Then, in a real outburst of joy, he promises: «When I will grow up, I want to become a spinning top!».

Immediately the curtain falls.

This is something that really happens in the course of Gaia's life. In some puzzling way the hippo, one day, keeps on spinning around its tail and nobody dares to reply.

In this same way, the study of the Earth and its orderly cosmos can reserve great surprises, together with tragicomic disillusions. A few thoughtful scientists, in fact, acknowledge that the general understanding about the Earth is poor and approximate. Often the experimental results do not confirm the accepted theories, although these are strongly defended by the scientific community.

So, while introducing the hypothesis that the shape of the Earth and its measures do not match perfectly to the general assumptions, you are not doing a real revolution. You're just opening the doors toward new scientific possibilities.

Too often, generally, people accept what the mainstream science has to say with blind eyes. And many of them feel dizzy in front of any new exploration. This passive blindness has produced confusion, wrong scientific theories, and enormous mistakes. With the consequent waste of time and resources.

The new book, *Dossier 111—The Real Measures of the (flat) Earth*, has just one goal. The book aims to consider, with mindful attention, what mainstream and countercurrent science, sometimes even unconsciously, have understood and perceived regarding the Earth. It will be a way of disassembling and then trying to reassemble the manifold gears of a complex motor. It is a motor that has many and many times been opened, dismantled and remade, but generally in complete secrecy. I hope to express innovative ideas by presenting facts, calculations, and formulas that will prove that the earth is not a globe.

The large majority of books on this topic are connected with the conspiracy theories. They deal with the voluntary hiding of the truth, performed by powerful lobbies. Many authors are often insisting on the fact that a fictitious reality has been propagandized to foolish people. Anyway, this is not a conspiracy theory book. Although it may be clear that there is a precise will of hiding the truth, it is not universally clear who is responsible. Political, economic and propaganda reasons are often not so explicit. Many organizations, generally thought to be the "absolute evil" (like Nasa, United Nations or Masonry), are only actors of a more complex comedy, difficult to describe with preconceived ideas.

Many of us are likely aware of a superior will playing in the backstage, and maneuvering behind the scenes. Anyway, this is not the main theme about which this book is especially concerned. My first goal is, on the contrary, the description of the geometry and measures of the Earth. The standards you will find in this dossier while describing the earth–system will probably appear to many readers somewhat unexpected.

Anyway, I will explain everything on the basis of proofs and details. The book is conceived to be divided into two main units. You will start ponder-

ing a first section, in which I intend to disassembly the global framework. The aim is to prove the Earth is flat and motionless and Newton's gravity laws are old and outdated.

Then, in the second part, I'll introduce the math tools necessary to understand our cosmological reality. You will certainly learn, in a simple way, what are the physical and mathematical reasons that compel the curious learner to introduce the kind of unit measurement you will discover inside.

The reader will find, as well, a chapter in which I'm reintroducing the concept of aether, the mean through which light moves. Reintroducing it will contribute to the destroying of the 20th–century theory of relativity and quantum physics.

I'm sure that, by pondering this book conceptions, you will become more aware and able to understand the true nature of the physical reality we all are living within. However, I already know that some academic will comment adversely this writing, by saying that the main considerations inside are not well organized, unacceptable for the scientific community and both not peer–reviewed nor, maybe, reviewable. These are probably the consequences of one of the methods the student has to follow when examining the cosmologic phenomena. The a priori knowledge (also known as the methodology of the intuition) is often conceived independently of experience and is a deduction from pure reason. When studying the universe, some concept can be considered to be true when supported by strict logic and deep reasoning, which, for their natural inclination, are tending to the truth. More experimental proofs will certainly come later. This can sometimes happen when ideas are thoroughly new and ahead of schedule.

Anyway, in this world, the general scientific community is not always free to unveil what appears to be true or false, but rather what is politically or economically convenient. Science is, unfortunately, under the power of international lobbies that lead the research and its goals, that define its boundaries and the kind of job that has to be done.

Therefore, even though in the worldly establishment there are many earnest scientists and researchers, I can affirm that, sometimes, they don't want to risk losing their job, after being discredited. The author team of this book, *Dossier 111–The Real Measures of the (flat) Earth* is, on the other hand, in the privileged position of being external to the establishment.

When enjoying that position, you can dare to make hypotheses, calculations, and considerations entirely free, without the dramatic risk of ruining your career. For a beginning, we only pay with the lack of acknowledgment.

But we are glad, however, to be a little nearer to the truth.

Introduction

Scientific freedom: pure illusion

> There are still great truths to say, if we had both the courage to state them and the good disposition to accept them. (Freeman Dyson)

Mainstream science today is not headed the same direction of the flat earth. You could suppose a sort of secret conjuration took form in the course of the years, contrived with the aim to cover the evidence. Probably just a handful of influential men, endowed with certain personal charisma, were sufficient to build a framework that can no more be put under discussion. Scientific freedom remains an illusion. Scientists have to stay inside the limits of the established rules and only the braves are daring to challenge that implicit command.

Nowadays, notwithstanding the great advancements performed by technology, men of science are often still at a stop within old theoretical concepts. Due to the intrinsic weakness of human reason, scientific fundamentals remain unproven. Science can provide only evidences; it cannot give absolute proof of its tenets. You can deduce something from observation but, since empirical observations are never conclusive, you can never be certain whether you know the truth or you don't. All this can lead to an open question: is it reasonable to base your beliefs on models of uncertainty to search the truth? When models are no more reliable the time has come to change them.

Bertrand Russell [1] [2] gives a bloody description of a turkey that, in an American nurture, decides to shape its vision of a world scientifically well founded: «The turkey found that, on his first morning at the turkey

farm, he was fed at 9 a.m. Being a good inductivist turkey he did not jump to conclusions. He waited until he collected a large number of observations that he was fed at 9 a.m. and made these observations under a wide range of circumstances… Each day he added another observation statement to his list. Finally he was satisfied that he had collected a number of observation statements to inductively infer that "I am always fed at 9 a.m.". However on the morning of Christmas eve he was not fed but instead had his throat cut ». Notwithstanding, as Jamie Hale puts it: « Scientific knowledge is tentative, and the tentative nature of science is one of its strong points ».

It is in the nature of science that we, ordinary people as well as men of science, search for the truth in the unknown, which is so vast and complex that our predictions will always be constrained by our ignorance of the future.

It is often assumed that science can reveal the truth, but science seems incapable of attaining it. Truth is one of the central subjects, both in science and philosophy. But, surprisingly enough, even if science could lead us to the truth, we would have no way of knowing that it actually is the truth. Why not? Because science cannot provide definitive proof of its tenets. Science provides only evidence. Sometimes the evidence for a scientific theory may seem very strong. But, even in this case, we cannot tell whether future observations and/or experiments will confirm or contradict the theory.

Thus, we can read so often that this or that has been scientifically proven (gravity, relativity, the earth is a globe…) Many people seem willing to admit that details of science remain unproven, but they insist that the fundamentals have been proven. For example, in mainstream biology, Darwinism provides its central conceptual framework, and many think that it has been proven even if evolution still continues to be a simple theory.

The history of science provides many examples of scientific revolutions where a well–established theory had to be modified or replaced by another one in view of new facts that could not be accommodated by the "established" theory. Newtonian physics is one such example. Ptolemy versus Galileo, versus flat Earth hypothesis again, is another. Science allows scientists to explain and predict. In other words, it has explanatory and predictive power. However, much uncertainty remains. Korzyb-

ski and others have pointed out that uncertainty characterizes scientific knowledge in general, and one might add also non–scientific knowledge and everyday life.

> In the Middle Ages people believed that the earth was flat, for which they had at least the evidence of their senses: we believe it to be round, not because as many as one percent of us could give physical reasons for so quaint a belief, but because modern science has convinced us that nothing that is obvious is true, and that everything that is magical, improbable, extraordinary, gigantic, microscopic, heartless, or outrageous is scientific.
>
> I must not, by the way, be taken as implying that the earth is flat, or that all or any of our amazing credulities are delusions or impostures. (George Bernard Shaw [3])

Another historical illustration of the failure of induction in engineering is the unfortunate case of the Challenger disaster. When Challenger disintegrated 73 seconds into its flight, on the morning of 28 January 1986, it represented one of the most shocking events in the history of American spaceflight.

A Presidential Commission was immediately convened to explore what had gone wrong, but with the vast complexity of the space shuttle, and so many interests involved in the investigation, discovering the truth presented an almost impossible challenge. Richard Feynman's appendix to a report paper on the event reads it as a thorough condemnation of inductive inferences in engineering: « The argument that the same risk was flown before without failure is often accepted as an argument for the safety of accepting it again… There are several references to flights that had gone before. The acceptance and success of these flights is taken as evidence of safety… The fact that this danger did not lead to a catastrophe before is no guarantee that it will not the next time, unless it is completely understood ».

Usually ad hoc hypotheses are introduced to save theories, paradigms or world views from contradictory evidence. In other words, to explain away the contradiction. It seems that almost any theory, paradigm, or worldview can be defended through ad hoc hypotheses. However, as more and more contradictions accumulate, eventually the status quo may be given up. But this may take a long time, and may even happen after the death of its defenders.

> The theory of relativity is a mass of error and deceptive ideas violently opposed to the teachings of great men of science of the past and even to common sense… The theory wraps all these errors and fallacies and clothes them in magnificent mathematical garb which fascinates, dazzles and makes people blind to the underlying errors. The theory is like a beggar clothed in purple that ignorant people take for a king. Its exponents are very brilliant men, but they are metaphysicists rather than scientists. Not a single one of the relativity propositions has been proved. (Nikola Tesla [4])

The renowned historian of science Karl Popper [5] described the state of knowledge this way: «Our knowledge can only be finite, while our ignorance must necessarily be infinite». Experimental observations, according to Popper, are never conclusive since we cannot attain experience of what is universal. Universality is an a–priori addition that we cast on reality, a concept not relying first on experience, but originating inside our human intellectual faculties. Truth in science is not always determined from observational facts since there are facts that cannot be detected by human senses, but by logic and reasoning only. Our senses have to fulfill a biological function that does not consist in simply providing sensation, but also in transmitting knowledge. We couldn't manage just with sensations. Observations are not the crucial point, but expectations are. Our expectations are thus biologically important.

Generally, of course, we would like to rely on empirical methods, but this is not always a practicable strategy. However, we say that an assertion is true when it clashes with facts and things appear to be such as the statement has presented them. One of the most important results of modern logic has consisted in recovering this absolute concept of truth. Its full rehabilitation appears to be one of the most important philosophical achievements of the twentieth century.

Alfred Tarski (1902–1983), an American logician and mathematician of Polish and Jewish descent, is famous for his researches about the concept of truth in formal languages. His *correspondence theory* [6] is going back to Aristotle's well known definition of truth (Metaphysics 1011b25): «To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true» — anyway, virtually identical formulations can be found in Plato. Commonly, truth is viewed as the correspondence of language or thought to an in-

dependent reality, which is sometimes called the correspondence theory of truth.

Unfortunately, a clear understanding of the truth behind science is limited to certain areas and phenomena. Popper compares the reaching of a scientific objective truth to a mountain top that is always surrounded by clouds. A man climbing it, can find it hard to reach the summit, and maybe will not be thoroughly aware of having attained the top since he cannot distinguish among the clouds which is the main pick, and which is the secondary one.

We have to make a clear distinction between truth and certainty. All of us normally wish to know the truth and sometimes we succeed in it, even if it happens rarely or even never, that we can be fully sure of grasping it. As Popper puts it, certainty is not the main objective worth of science, but truth is.

On the contrary, most people are convinced that truth is always relative, and that science doesn't draw conclusions about supernatural explanations. Does God exist? Does he intervene in human affairs? They think science cannot answer these questions. For many, the large majority, such questions are matters of personal faith and spirituality. So, I'd like to ask: are these questions really out of the reach of knowledge? Paul wrote to the Romans that «God's invisible qualities are evident in all creation». Jesus said that all the Scriptures are trustworthy (John 17:17).

So, considering the uncertainty of every human truth, for this fundamental reason, I am looking inside the Bible in search for accuracy about the earth, its shape and measures. According to Karl Popper and a large number of ordinary, level–headed people, there are not knowledge sources that are better or worse than others. It does not matter where an idea comes from; what matters is how we deal with it, by attempting to expose its shortcomings. But, of course, and not only from my point of view, the Bible is the best of all sources. As Augustine declares: «God is the author of the Book of nature and the Book of Scriptures» and they match perfectly.

Intuition, imagination, a–priori knowledge (that is to say a knowledge that comes from the power of reasoning based on self–evident, universal insight), are often at the origin of new scientific theories. In science the simple observation is not sufficient, but you need first to know which is your goal, the final result you wish to find. Meaning: you need hypothesis to start. As Popper puts it: « Expectations come first, then observations ».

Human knowledge is conjectural, and observation is never neutral, but mixed up with theory, so that, sometimes, you find it difficult to establish a clear distinction between "facts" and "opinions".

Even when observation is proceeding empirically, the human mind is unconsciously induced to overlap its intellectual layouts and categorizations with the observed reality. You never grasp facts but only opinions and, as a direct consequence, the nature of science is always fallible and conjectural. From this point of view, the empiric base of the objective sciences is never "absolute". Notwithstanding its rich and secular experience, science is not able to furnish clear and exhaustive answers to fundamental questions.

In his best–seller *The Black Swan* [7] the writer Nassim Nicholas Taleb notes that: «Before the discovery of Australia, people in the Old World were convinced that all swans were white, an unassailable belief as it seemed completely confirmed by empirical evidence. The sighting of the first black swan might have been an interesting surprise for a few ornithologists, but that is not where the significance of the story lies. It illustrates a severe limitation to our learning from observations or experience and the fragility of our knowledge. One single observation can invalidate a general statement derived from millennia of confirmatory sightings of millions of white swans. All you need is one single (and, I am told, quite ugly) black bird».

Keeping in mind this point of view, you will often meet black swans in your personal and worldly life, and you will even be eager to controvert Wittgenstein when he rejects the assertion «there will be a final day of Judgment» as a not scientific statement. Every day is time to get match fit for unintended consequences. Just think of two recent unpredictable political situations: the 2016 Brexit vote and U.S. presidential election outcome. Did they teach us anything? One thing certainly: that nobody in the world can foretell the future, and every living being must brace himself for the unexpected.

Some managers of science wish to underline only what is essential for the welfare of the society. Scientific research is not manageable in the usual sense of the word. Countercurrent understandings of the physic realities we live inside ultimately can lead to the development of new concepts.

However, nobody wants to compromise exposing an entirely new and maybe shocking scientific paradigm, go against the mainstream, or hazard reputation expressing new upsetting ideas. It's obvious that scientists may

be afraid their colleagues might blame them, and charge their ideas of not having an evident scientific base. They don't want to risk losing their face inside the scientific community, to be discarded among the academic environments, to lose the eventual sponsorship given to researchers. All these situations do not favor, nor advantage a real scientific progress.

The brilliant visionary imagination necessary to produce any important scientific revolution seems to be running dry, just to leave space to the scanty, ordinary little ideas that appear every day on the markets of the world. The only result is that, by now, science looks like a pitiful form of religion with a series of tenets that cannot be put under discussion. Here also originates the panic fear to state a radically new paradigm, and the dread to be pointed as silly, ignorant, and thus unfit to any important executive position. To work in a scientific environment you need constancy, abnegation, precision, punctuality, and carefulness. But not too much independence, nor originality. It is evident thus, as a nineteen century philosopher cunningly observed, that history must undergo several phases before being able to discard an old social form, and eventually grab it.

The Earth is Motionless

1.1. Coriolis

What is Coriolis acceleration? This is a physical phenomenon [8] [9] occurring to an object moving in a rectilinear way on a rotating surface. Look at the images below: in the first picture the ball is moving over a rectilinear line on a stationary platform. The ball isn't affected by any lateral acceleration, insofar as the platform is motionless. When the platform starts rotating, the ball starts bending its trajectory and the result will prove to be a non rectilinear movement. This side acceleration is known as Coriolis acceleration. It is an outstanding phenomenon that can be useful to prove that the Earth is not moving.

For example, let's consider the ball as starting its linear movement exactly in the center of the circular platform. The platform rotates, let's say, at the speed of 0.1 turn per second, that means 6 rpm i.e. 0,628 rad/sec (1 rpm is about 0,1 radiant per second and you should remember that 2π radians are 360°).
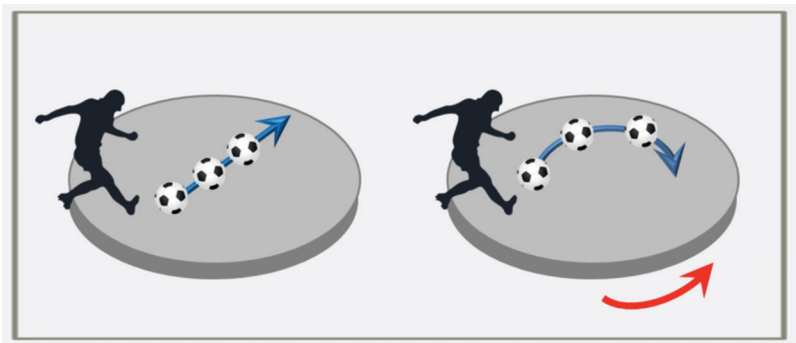
Figure 1.1. Coriolis effect on a platform.
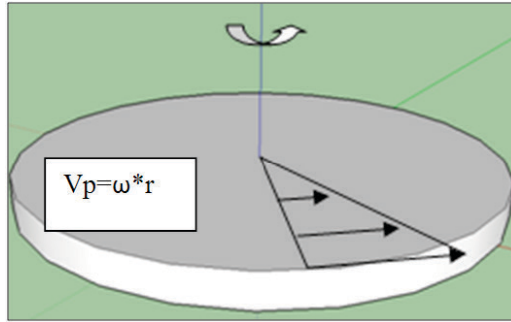
Figure 1.2. Peripheral speed on a disc. It reaches its maximum on the periphery.

The ball is initially in the center of the platform, so it is not dragged anywhere due to the peripheral speed of the platform because, in the center, the speed is actually zero and it increases moving toward the periphery proportionally to the radius, according to the relation:

$$Vp = \omega \cdot r$$

where Vp is the peripheral speed, ω is the angular speed and r is the radius describing the position of the ball on the platform; r can vary from zero in the center to R that is the outer radius. See image 1.2.

Thus, when the ball starts its rectilinear movement from the center to the periphery of the platform, it is affected by that speed, that constantly increases, due to the increasing of the radius. The ball should start to have a lateral acceleration in the sense of rotation, in order to maintain its rectilinear movement. However, this is not possible unless it receives a push from the outside. Thus, it starts to remain laterally backward due to inertia, and the trajectory bends as it is shown in the picture 1.1.

Out of curiosity: the lateral acceleration that the ball should maintain, in order to keep its linear trajectory, could be expressed by this following formula:

$$Ac = 2 \cdot V \cdot \omega$$

where Ac is the Coriolis acceleration, V is the speed of the ball in radial direction and ω is the angular speed.

In this example, the ball is free to move in whatsoever direction. Thus, it stays behind and, when the platform starts its rotation, the ball keeps curving back, as a consequence of its inertia.
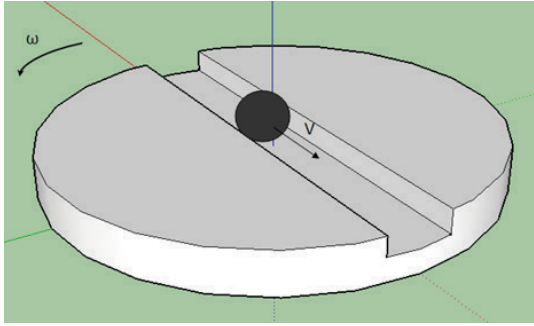
Figure 1.3. The ball constrained between two guides.

But now, consider the case when the ball is laterally guided on the platform, as you can see in the picture 1.3. The ball is forced to follow the platform and move in a rectilinear way toward the edge. The ball, this way, rotates with the same rotation speed ω of the platform.

To maintain this rectilinear movement of the ball on the platform, the guide has to impress the force of Coriolis:

$$Fc = m \cdot a = m \cdot 2 \cdot V \cdot \omega$$

where m is the mass of the ball. This is a real force, not an apparent one. The force of Coriolis is apparent for a fixed reference system, but is a real force if we consider a reference system rotating with the platform. Let's apply now this idea to the globe and, more specifically, to airplanes that fly over the Earth.

An airplane, moving on a pure east–west direction, will not be affected by the Coriolis Effect, because the speed of the globe on fixed latitude doesn't vary. But an airplane, taking off from A (see the figure 1.4), will not arrive at point A' (north–south direction as shown in the picture), unless its trajectory is readjusted by the aid of a suitable Coriolis acceleration, but it will reach point X.

When you make some research surfing the net, you will find that airplanes have some electronic system able to correct the trajectory in a suitable way. But is that actually true? Let's investigate.

Consider now a helicopter able to fly at a maximum speed of 500 km/h and taking off from the North Pole. Consider pictures 1.5 and 1.6.
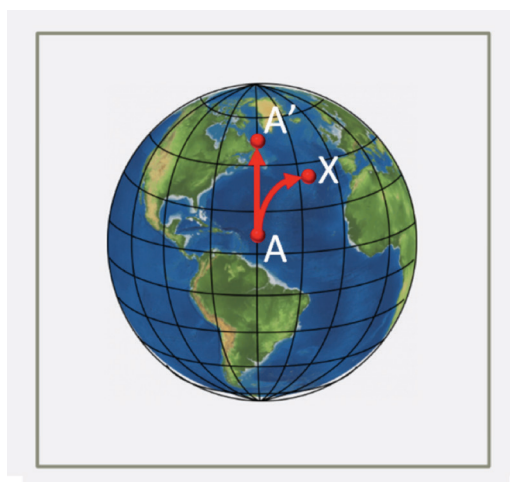
Figure 1.4. Coriolis on the globe.

The Earth wouldn't drag it with its peripheral speed because the pole is on the axis, r=0, so Vp=0 where Vp is the peripheral speed. Let's suppose the helicopter flies in an exclusively South direction and its speed has only one South component of 500 km/h. Now, something dangerous is happening under the airplane.

As it continues to fly southwards the Earth below continues to accelerate due to its rotation in east–west direction as an effect of the increase of the radius, because r increases. When the helicopter arrives at the equator, r=R i.e. 6371 km, it should keep a peripheral speed of about 1700 km/h. Can the airplane correct its trajectory?

Not at all, because, even if it starts to follow the earth along the equator, it can only reach 500 km/h. The fuel is finished, the helicopter tries to land but it will be destroyed in the same instant of its landing.

To the average reader this situation could seem too much theoretical. So let's give him an example taken from the everyday life. Imagine a man lying on his bed and ready to get up. Imagine a treadmill (tapis roulant) moving under the bed at the level of his feet at an amazing speed of 1000 km/hour. Could the man be able to get up and immediately start his activities? Absolutely not. He would be, with no doubt, hurtled away from his bed and splattered somewhere against the wall.

This is a clear demonstration of the fact the earth is not moving around its axis. A rotating earth would have to keep on moving faster at the equa-

tor and slower near the north and south poles. But there is no difference in speed at any point on the earth's surface, whether north of, south of, or at the equator. Therefore the earth is not rotating around its polar axis.
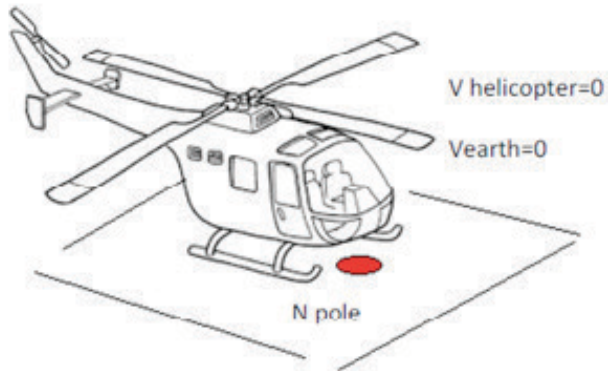
Figure 1.5. The helicopter at the North Pole.
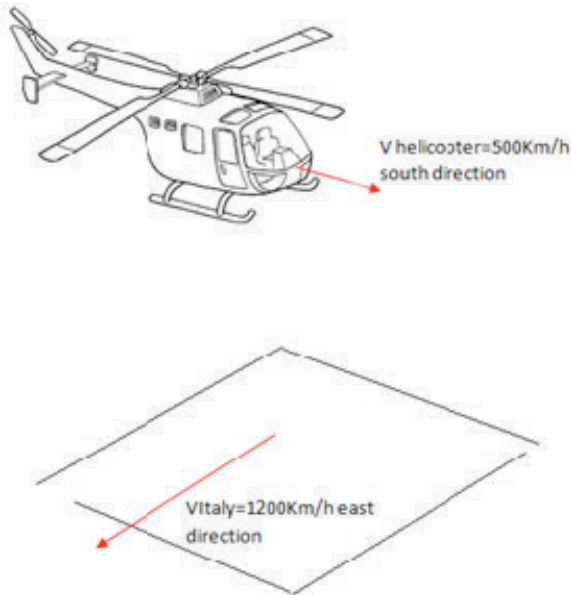
Figure 1.6. The helicopter, when overflying Italy, beholds the Earth moving at the wonderful speed of 1200 km/h.

Objection: the atmosphere is pulled in rotation together with the Earth and acts on the helicopter with a lateral force that nullifies the Coriolis acceleration.

Answer 1: When you try the calculation (see the appendix for the complete calculation of the acceleration acting over the helicopter), you will notice that, for an airplane or helicopter that is flying at an average speed of 500 km/h, the Coriolis acceleration is about 0,0065 m/s². It is a very small acceleration. If you consider a lateral surface, offered to the wind by the helicopter (10 m² for a total mass of 5000 kg), you will reach a needed lateral force of the wind of 33 N, that really does not seem so much. So, you could infer, it would be possible for the atmosphere to produce a sort of lateral and very constant wind forcing the helicopter to move, while avoiding the Coriolis Effect. But is it really like this?

Consider now to have two different helicopters that start together their travel from the North Pole to the equator. These helicopters have the same mass (5000kg) and can develop the same speed of 500 km/h. This means that at a certain time they will have run the same distance. The only difference is the geometry. One is more compact and offers a side surface to the push of the atmosphere of 10 m², while the other offers a side surface of 15 m².

The Coriolis acceleration that the atmosphere should create to maintain the two helicopters with the same peripheral speed of the Earth is given by the formula:

$$A_c = 2\omega V_h$$

where Ac is the Coriolis acceleration ω is the angular speed of the Earth and V_h is the speed of the two helicopters. Since V_h is the same it is clear that it is needed the same acceleration for the two helicopters. The force necessary to develop such an acceleration is given by $F_c = m \cdot A_c$.

Since the mass of the two helicopters is the same the needed force is the same.

The pressure due to the force impressed by the atmosphere on the side of the two helicopters however is different. Since one helicopter is bigger of the other A1>A2 we will have that P1<P2 according to the formula P=F/A.

But the pressure generated by the atmosphere is linked by the relative speed of the atmosphere with the helicopter with the formula below with which we can calculate the necessary speed of the atmosphere.

$$P = \frac{1}{2}\rho V^2 => V = \sqrt{\frac{2P}{\rho}}$$

where ρ is the air density (1,25 kg/m³).

Since P1 and P2 are different we find that two different speeds of the atmosphere V1<V2 are needed. This is not possible because in the same point (where we have both the helicopters) we can have only one single speed of the atmosphere.

This is a clear evidence that the atmosphere doesn't act over the helicopter to pull it with the Earth in rotation.
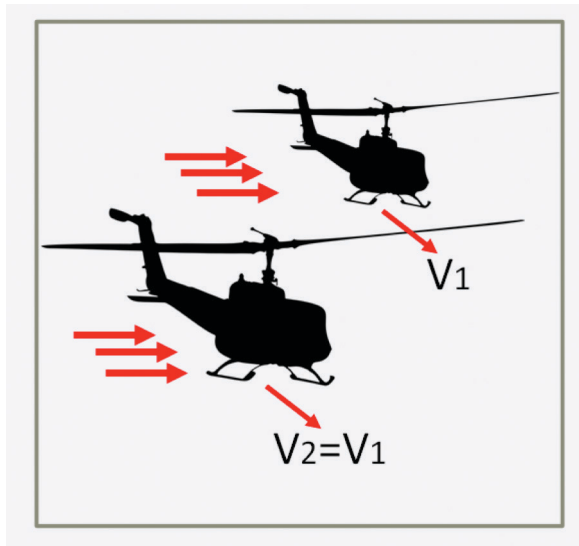
Figure 1.7. The two helicopters example.

Answer 2: if so, let's consider the Foucault pendulum [11]. Its rotating movement during the oscillations is considered to be a proof of the rotation of the Earth. Why, in this case, the atmosphere doesn't act on it, blocking the rotation of the pendulum in connection with the Earth? If you consider the objection to be good in the case of the helicopter, it should be valid for the pendulum as well. This is a clear demonstration that the atmosphere around the earth doesn't exert any influence in order to nullify the Coriolis acceleration.

But what else could be added on the topic? Regarding the Foucault pendulum, I mean. This has always been used as an evidence of the Earth's rotation. It is because, in the course of its oscillation, it doesn't follow the earth's meridian. This would imply that you too, when sitting inside the helicopter, in the case it

stopped for a brief time in the air, you yourself, I mean, should be able to behold the Earth moving beneath your feet. Anyway, this never happens.
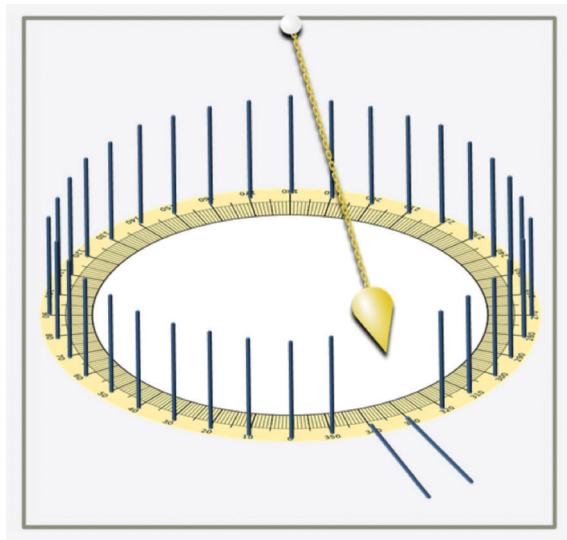
Figure 1.8. Foucault Pendulum.

A lot of experiments have shown that Foucault pendulum works as expected only if launched in a very carefully chosen direction, with a specific initial force. A random launch will not produce the expected rotating movement. The conclusion is that the Foucault pendulum cannot be considered a proof of the Earth's rotation.

To stay on the topic, we could even discuss Guglielmini's experience. He launched many lead balls from a tower 100 m tall in Boulogne. Story tells that, in his experiment, he found that the ball had fallen down with a displacement of 17 cm far from the tower basis, toward est. The explanation is that the tower top, being 100 m high has a peripheral speed of rotation greater than the basis, according to the formula $V=\omega \cdot r$. This experiment underlines, once more, that a body in the air is not pulled by the Earth or the atmosphere but it moves with the peripheral speed of the point from where it has started its motion, in this case the tower's top.

So, if Guglielmini's experience has to be considered valid, also our consideration about the airplane that finds it impossible to follow the Earth should be considered valid.

But, is Guglielmini's experiment true? Let's see.
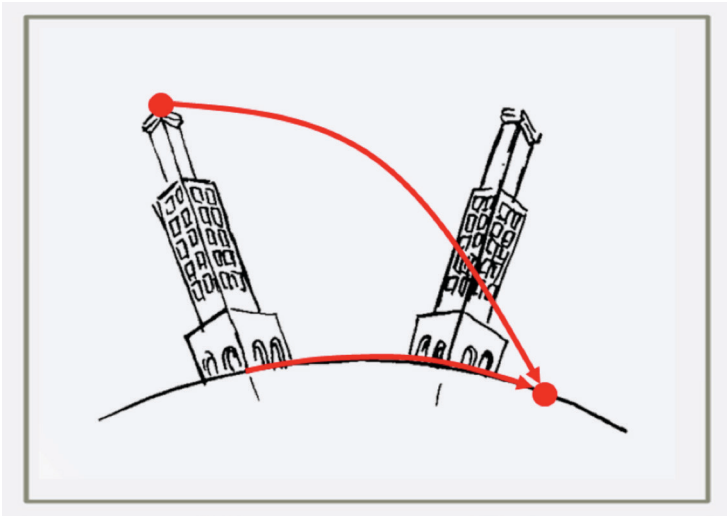
Figure 1.9. Guglielmini's experiment from the Asinelli tower in Boulogne.

The bowl has a peripheral speed that is the peripheral speed of the top of the tower. The bottom of the tower moves at a lower speed because it is nearer to the center of the globe.

There is then a triangular speed profile like that in the picture 1.10. Science states that the bowl falls down with the peripheral speed of the top of the tower andthus it moves eastward during its falling.

As a consequence of this experiment, if a helicopter moves on its vertical and stays stopped, let's say, for one hour on the same place, it should feel the Earth moving under its belly. This should happen because, when the helicopter rises up, it maintains the peripheral speed of the Earth, but at an altitude of, let's say, 2000 meters, it should have a greater speed to keep stationary on the same point. Let's make the calculation by supposing that the helicopter is on an airport situated at the equator. The equator has a peripheral speed of 1670 km/h (1669,3 to be a little more precise) at a radius of 6378 km.

The helicopter flies staying on the vertical at 2000 meters altitude. Let's calculate the speed that the helicopter should have at that altitude, to remain on the vertical.

$Vp = \omega \cdot r$ where Vp is the peripheral speed and ω is the rotation speed expressed in radiants per second.

$$\omega_{earth}=7{,}27\text{E}^{-5} \text{ rad/sec} = 6.94\text{E}^{-4} \text{ rpm}$$

$$\text{Vp}=7{,}27\text{E}^{-5} \cdot (6378000+2000)=464 \text{ m/s} \cdot 3.6= 1670.28 \text{ km/h}$$

$$\Delta=1670.28–1669.3\approx1 \text{ km/h}$$
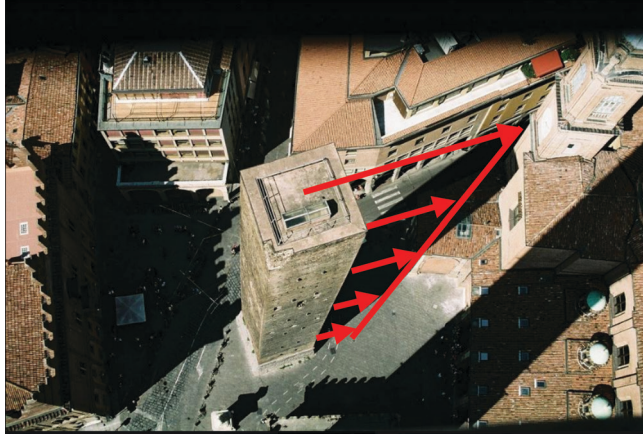
Figure 1.10. Guglielmini's tower.

The difference, as you can immediately notice, is very small: just 1 km/h, but it means that, if the helicopter stays in the same position, at that altitude, for one hour, the Earth will move of 1 km under the helicopter itself. Ask to pilots: this does not happen, in any case. Another proof that the Guglielmini's experience is false and that the Earth doesn't move.

Surfing the net you often happened to notice images of smoke columns getting out from volcanoes and raising up to great altitudes. This is a phenomenon that many people consider to be clear evidence the Earth is not spinning. Many people could get the same impression in relation with high waterfalls: the fact that water falls on a straight line, and doesn't bend, would be a clear consequence of the Earth being stationary and not spinning around its axis.

A waterfall or maybe a smoking volcano are powerful images. But could these phenomena show any clear evidence that the Earth is not spinning? Let's make some consideration.

The first principle of the dynamic states: an object at rest tends to stay at rest and an object in motion tends to stay in motion with the same speed and in the same direction, unless acted upon by an external force.

Since scientists believe that Earth is set in the empty space, no external force is able to act upon the atmosphere nor, consequently, upon the smoke column or the waterfall. But what about the acceleration due to rotation? Since the Earth rotates, the first principle of the dynamic is not totally applicable, due to the accelerations caused by the rotation. Let's thus calculate them.

Consider that an erupting Volcano can generate a very high smoke column. For example in 2014 the Shiveluch Volcano, in Russia, generated a smoke column 10 km high. Consider, to make the calculation easier, that this volcano is, just to give an example, on the equator, that means radius of the Earth 6378 km and peripheral speed (at the base of the column) of 1669,3 km/h (this should be the speed of the rotating Earth at the equator).

When one adds to the radius 10 km, corresponding to the altitude of the column, a peripheral speed of 1671.8 km/h can easily be reached (remember the formula to calculate the peripheral speed).

$$\Delta=1671.8–1669.3=2.5 \ km/h$$

But a 2–3 km/h difference is not very impressive. Consider the fact that the wind speed increases when rising in altitude and that it can reach speeds much more greater than 3 km per hour. Consequently, such a small variation in speed is not really evaluable, and it cannot be taken as a clear evidence of the fact the Earth is not spinning. The same reasoning could be done in the case of a waterfall.

But something different could be said when smoke is moving in a north–south direction. In this case the Coriolis acceleration should act on the column of smoke in a differently sensible way.

The Eyiafjallajokull is the volcano that erupting in 2010 caused no little problems to many European airports. The smoke trajectory was keeping a southward direction due to the powerful blowing of the winds. Moreover, when considering the peripheral speed of the Globe at the Iceland latitude and the one at the Italian level, a difference of at least 200 km/h could be reckoned.

Anyway, the smoke column arrived in Italy blocking the Milan airport, but, as you can remember, under the smokescreen, the Earth in Italy was rotating at the incredible speed of 1200 km/h. (In Island the approximate peripheral speed is 1000 km/h).

Figure 1.11. Winds in the northern hemisphere.

How can a smoke column acquire the needed acceleration, reach a sufficient speed to maintain its shape in its rectilinear direction, arriving thus to cross all Europe without difficulties? Moreover, consider that the Coriolis acceleration would act on the smoke column by bending it toward left, on the opposite direction. This is due to the fact the Earth should rotate towards east and the smoke should remain back at west.

This rectilinear trajectory followed by the smoke, without being affected at all by the Earth rotation, is a clear evidence that the Earth is not spinning around its axis.

The rotation of the Earth should have an influence on the winds too. Think of the trade winds that blow from tropics toward the equator. These winds blow in direction north–south. Remember that the Coriolis Effect can act only on a body moving in this direction. A helicopter that moves only in an east–west direction is not affected by Coriolis. These winds are originated by the hot air warmed by the sun at the equator latitudes. The warmed currents ascend pulling thus air from

the tropics. Science says that these winds blow in an oblique direction due to the Coriolis Effect.

But, when trying to make a research, you will find that these winds blow at an average speed, during the year, of about 18 km/h. Moreover, at the tropics the Earth peripheral speed should be of about 1530 km/h, while at the equator the Earth spins at about 1670 km/h. This means that trade winds should blow at the good speed of about 140 km/h, that is the difference between the two before mentioned speeds.

1.2. The Michelson Experiment [12]
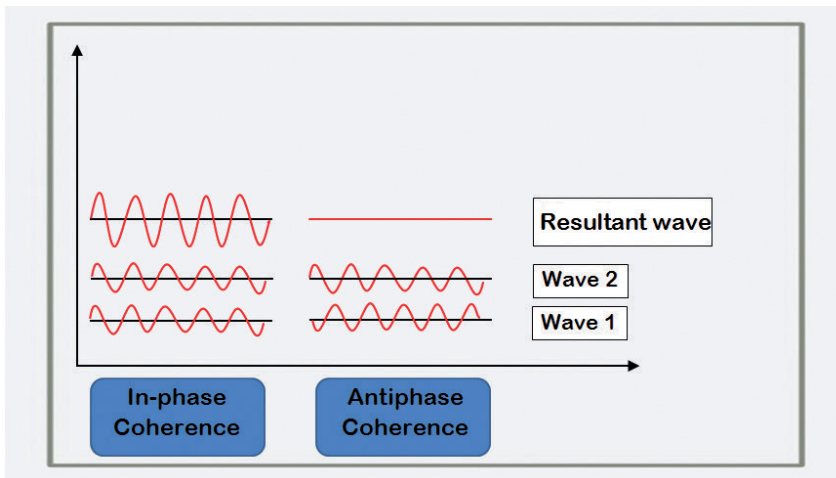
Figure 1.12. Interference.

From Tesla, Maxwell, and many others you all have learned that light moves through a medium called aether. A wave that requires a dense medium to propagate is called "elastic" or "mechanic", because it moves through an elastic or mechanic medium.

Michelson and Morley made an experiment to check if the aether is a real entity. It is a light interference experiment. Interference happens when two waves sum up, forming a resultant wave that can have a greater, lower or the same amplitude.

A wave that moves along the x axis is described by an expression that satisfies the wave equation (D'Alembert equation):

$$\frac{\delta^2 f}{\delta x^2} - \frac{1}{v^2}\frac{\delta^2 f}{\delta t^2} = 0$$

where f is the wave function, v is the speed of the wave. The solution of the equation is the harmonic wave described by the following:

$$f = A\cos\alpha(x,t) = A\cos(kx - \omega t + \varphi_0)$$

where A is the amplitude of the wave, k is the wave factor, ω is the pulsation and φ_0 is the initial phase. Let's consider 2 waves and sum them up (interference): $f = f_1 + f_2$.

$$\begin{cases} f_1 = A_1\cos(\alpha_1) \\ f_2 = A_2\cos(\alpha_2) \end{cases}$$

The interference is called constructive when

$$\alpha_2 - \alpha_1 = 2n\pi$$

In this case the amplitude is:

$$A = \sqrt{A_1^2 + A_2^2 + 2A_1 A_2} = A_{1+}A_2$$

The interference is called destructive when

$$\alpha_2 - \alpha_1 = \pi + 2n\pi$$

In this case the amplitude is:

$$A = \sqrt{A_1^2 + A_2^2 - 2A_1 A_2} = |A_1 - A_2|$$

With specific instruments (for example Fresnel mirrors) it is possible to visualize interference between two coherent waves that manifest with fringes that are illuminated zones alternated with obscure zones.

A ray of light coming out from the source S is partly reflected in the movable mirror M_1 and partly transmitted to the fixed mirror M_2. The return light rays from M_1 and M_2 hit first against the beam splitter and then are cast against the

detector that is the focus of the splitter lens. The detector receives two coherent rays of light that are conveyed from the same source. "Coherent" means that these rays have the same phase. These rays, one from M_1 and another from M_2, interfere or superpose reinforcing or weakening each other, depending on the optical path that comes from the AM_1 and AM_2 distances.
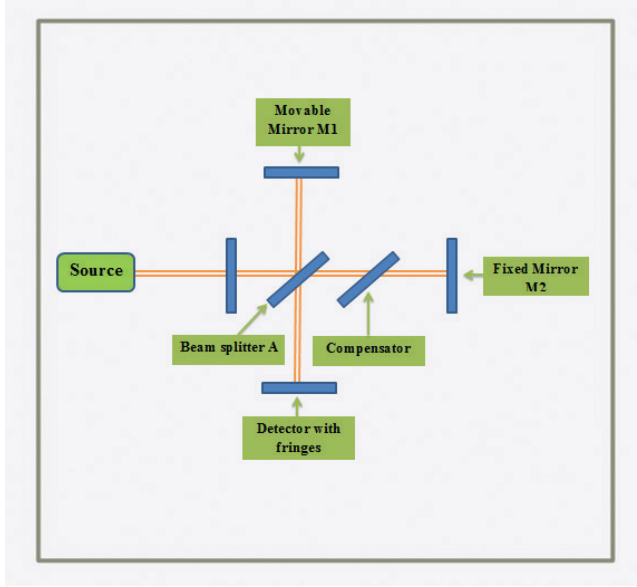
Figure 1.13. Michelson's interferometer.

By suitably changing the distance AM_1, it is possible to produce in O (the detector) interference fringes with a maximum or minimum of intensity. By varying the distance AM_1 of $\lambda/4$ (being λ the wave length of the casted beam of light) you can pass from a minimum to a maximum. A compensating lens is used to produce exactly the same optical path in the two rays.

In 1881 Michelson and Morley made an experiment to examine if, in the same way sound requires an elastic medium (such as air or water or a solid medium) to propagate, similarly light, to spread out, would need a mechanical medium, called aether.

Aether should be present all over in the intermediate space to allow light to reach Earth from the stars. This implies that space is not empty: vacuum is only a vacuum of air but not an absolute vacuum.

Call c the speed of light in the aether. When you move toward the light ray, inside the fixed aether, with a speed v, you shall measure a total speed of light $c+v$. On the other hand, you will measure $c–v$ when you move in the same verse of the light ray. This expression has much to do with the Galilean relativity.

Michelson and Morley thought that this principle could be used to check if the aether does exist. They thought that an interferometer could be used to evaluate the variation of the interference fringe, due to the speed of the Earth.

Their idea was the following: when you put one branch of the interferometer in the direction of the speed of the Earth v and the other branch perpendicular to the first, you will obtain a well precise drawing of interference fringes.

Then, by rotating the interferometer of 90 degrees, you can invert the two interferometer branches. Since the optical path changes, also the fringes should change.

Let's consider the calculation. The two branches of the interferometer, AM_1 and AM_2, have the same length. The AM_2 branch is rotated in the direction of the motion of the laboratory and relatively to the cosmic aether. When we consider the aether as motionless, fixed to the stars, the direction and the entity of the Earth speed v should depend on the hour of the day and on the day of the year.

According to the law $S = v \cdot t$ (where S stays for space, v stays for speed, t stays for time) of the rectilinear uniform motion, the ray of light going from A to M_2 takes a time $t=l/(c–v)$. To return from M_2 to A, it takes a time $t=l/(c+v)$. The total time for the branch AM_2 is

$$t_2 = \frac{l}{c-v} + \frac{l}{c+v} = \frac{2lc}{c^2 - v^2}$$

l is the length of the segment run by light.

Time t_1 of the other branch (AM_1) has a different value. For this case you have to remember that during the time t_1 the Earth keeps moving. Thus the total trajectory of the ray is triangular. While the ray of light moves from A to M_1, the mirror A moves in the direction of the speed

of the Earth. This distance AA' can be calculated taking into account the speed v and the time t_1 necessary for the light to reach M1 and to return to A'.
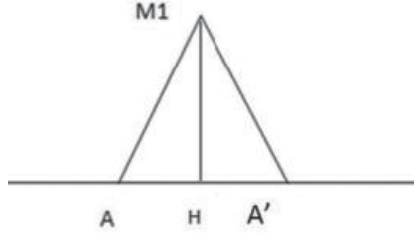
Figure 1.14. Trajectory of the ray in Michelson's interferometer.

So you have AA'=v_{t1}. The ray of light has thus to travel the distance AM$_1$A'=2AM$_1$ with a speed c. The needed time will be:

$$t_1 = \frac{2AM_1}{c} = \frac{2}{c}\sqrt{AH^2 + HM_1^2} = \frac{2}{c}\sqrt{\frac{1}{4}v^2 t_1^2 + l^2}$$

The result will be:

$$t_1 = \frac{2l}{\sqrt{c^2 - v^2}}$$

These two coherent rays superpose in the O point in a way that depends on t_1 and t_2. Then, when you rotate the interferometer in order to range the branch AM$_1$ in the direction of the speed of the laboratory and in respect of the aether, t_1 and t_2 change. So, there should be a difference of phase in the two rays in O with a consequent change of the interference fringes.

Every time this experiment has been repeated, at different hours of the day and on different days of the year, it has always given the same result: no change in the fringes.

Obviously, when the physicians tried to explain this result, no one supposed the Earth to be motionless. So, Einstein solved the problem according to his famous statement, on the basis of which he later on based his theory of relativity. He postulated light moves with equal speed c in all directions and in all different reference systems. Moreover, according to Einstein, this would be the maximum reachable speed:

an unbeatable limit that can't be surpassed. As a consequence scientists stated that the aether, intended as the mechanical mean in which the light moves, can't exist.

Since, however, there are matter particles definitely able to travel faster than light, the only possible explanation for the Michelson Morley experiment is that the Earth doesn't move. *In this case v=0 and you will notice that* t_1 *and* t_2 *become equal:*

$$t_1 = t_2 = \frac{l}{c}$$

(that means no change in the interference fringes). This is the main idea: formulas behind this experiment become incredibly simple if we consider the Earth immovable.

1.3. Stars Aberration

Astronomical [13] aberration is a phenomenon that makes a star, observed through a telescope, to appear in a place slightly different from the expected. Aberration had been observed in 1727 by the English astronomer James Bradley who, in the course of his surveys, noticed that stars seemed to be subject to a slight movement within a period of one sidereal year. He thought that this movement depended on the position of the star inside the celestial sphere. There is a diurnal aberration that is usually considered negligible, caused, as they say, by the rotation of the Earth around its axis. There is an annual aberration as well, that is considered to be the consequence of the motion of the Earth around the sun.

We can explain this phenomenon considering that the light of the star enters the telescope and, since the light speed, though really fast, is limited and not infinite, it takes a short time to reach the eye of the observer. During this short lapse of time the Earth is moving around the sun with an average speed of about 30 km/s that is 1/1000 of the speed of light.

The speed of light, thus, will show to be under the influence of the speed of the Earth, generating the aberration, an apparent change in the position of the star. After six month in fact the speed of the Earth will be in the opposite direction and the star will appear in a slightly different position.
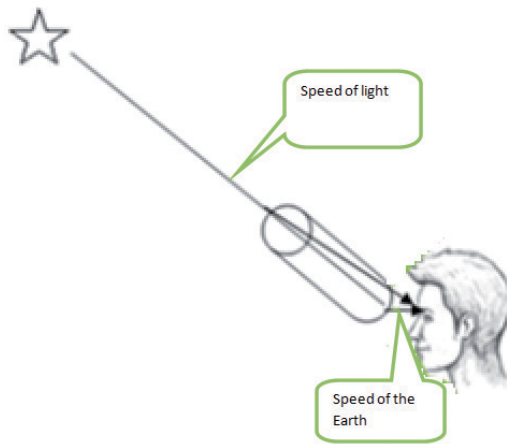
Figure 1.15. Aberration of light.
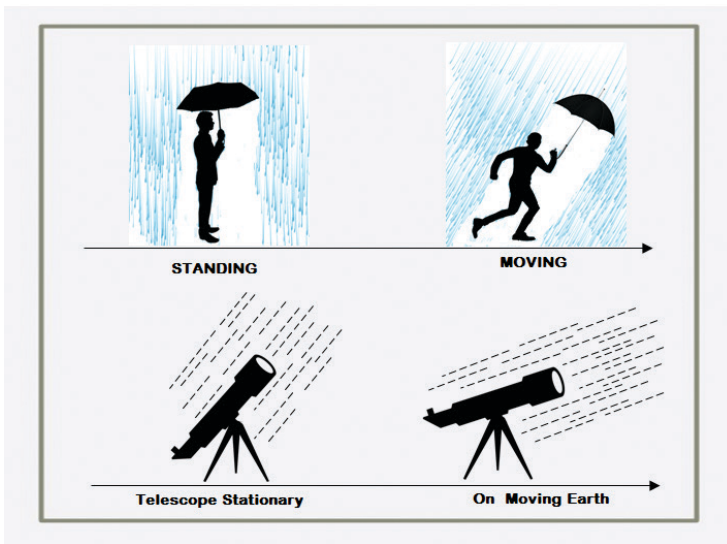
Figure 1.16. The umbrella example.

A star that is perpendicular to the orbital plane of the Earth has an aberrant circular movement inside the periodicity of one year; a star that is seen exactly on the plane of the ecliptic has an apparent rectilinear movement, while in the intermediate positions this movement appears to be elliptical. The maximum aberration value measured during the year is 20,49" that is called annual aberration constant.

A classical example used to describe the aberration is the following: consider a man with an umbrella under the rain. When the man stands still in a place, he sees the rain falling vertical. But, if he starts running, he will see the rain falling diagonally. This simply will be an apparent phenomenon due to the composition of two velocities: the one of the rain falling and the speed of the man running.

This phenomenon is considered one of the first experimental proofs that the Earth moves around the sun and not the contrary. In fact, if the Earth were motionless, we couldn't observe the aberration.

Someone, when postulating the Earth to be flat, speculates that there is an aether wind blowing at a speed of 30 km/s, dragging the light that comes from the stars. It generates, this way, the aberration. I will show through the pages of this book that actually there is a wind of aether on the Earth, but it is much weaker. You could probably remember, in fact, that the Michelson Morley experiment failed in detecting a wind of aether.

Figure 1.17. Our planetary system movement according to mainstream science.

A second different experiment made by Michelson and Gale succeeded in measuring a wind of aether with a speed changing with the latitude. I will postulate this wind keeps the sun and the moon moving on

their trajectory. This same wind is responsible for the diurnal aberration but not for the much greater annual aberration. So, if the aberration is not caused by the aether, how should we explain it?

The basic problem with this phenomenon is the periodicity. Actually, when considering the phenomenon, as we have already noticed, there is a periodical movement presenting a cycle of one year. This means that, in six months, the aberration passes from a minimum to a maximum and this cycle is repeated every year. We have always been taught that the Earth is moving around the sun. This could explain the aberration, but astronomers also believe that the sun moves in the galaxy toward Vega.

The aberration movement thus shouldn't be an ellipse but a spiral. However, aberration has really been measured. So, how can this periodical, mysterious, apparent movement be explained?

Aberration: experimentally measured or simply theoretically calculated?

Aberration angles are very small and it is quite difficult to think that they have been measured avoiding errors due to refraction. Thus the incredible match between measured values and theoretical ones appears astonishing. Let's see the theory. Consider a telescope 1 meter long. The time light takes to run that distance is:

$$t=S/V=0.001[km]/300000[km/sec]=3.33\times10^{-9} \text{ sec}$$

During this time, earth covers the distance:

$$S=30[km/sec]x3.33\times10^{-9}[sec]=1\times10^{-7}[km]$$

So, you have this situation (see also figure 1.18):

The vertical side is the length of the telescope. The horizontal one is the space covered by the Earth in the time the light reaches the observer, α is the aberration angle:

$$\alpha=tg^{-1}(1\times10^{-3}/1\times10^{-7})=0.005°$$

$$0.005°x3600=20".62$$

Exactly the aberration constant. Congratulations! That's really a great exper-
imental precision!
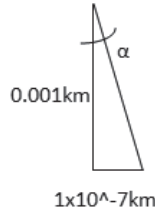
Figure 1.18. Aberration triangle.

It is noteworthy the fact that Bradley himself recognized that this phe-
nomenon was the same for all the stars. At first Bradley thought that it
was caused by the parallax, i.e. an optical error due to the different posi-
tions of the Earth during the year. But, if the modification of the position
is the same for all the stars, this could be caused by the parallax only if
stars were all at the same distance from the Earth, thing considered absurd
by Bradley himself. He reached, thus, the conclusion that the phenome-
non was caused by the limited speed of light.

We really know, considering our flat model of the Earth, that this appar-
ent change in the position of the stars can't be caused by parallax because
the earth is motionless, and the stars, month after month, are at the same
distance (with small differences) from the Earth, so no parallax is possible.

It is important to consider that this phenomenon is cyclic and reaches
the maximum gradient in six months. Could this be explained simply as a
refractive optical phenomenon? Let's see.

A ray of light that, from a star reaches the Earth, passes through the at-
mosphere that owns a little, but anyway sensitive, refractive power. Thus,
if the ray of light is not perfectly perpendicular to the Earth, it is bent with
a small angle called astronomic refraction that can be thus calculated:

$$R = cot\left(h_a + \frac{7.31}{h_a + 4.4}\right)$$

where R is the refraction angle expressed in minutes of degree and h_a
is the height angle of the star. This formula is valid for an atmospheric

pressure of 1010 mbar and a temperature of 10°C. If temperature and pressure are different, the refraction should be multiplied by

$$\frac{P}{1010} \cdot \frac{283}{273 + T}$$

The real height of the star is H=h_a+R, being R the astronomic refraction previously calculated. The maximum value of aberration measured by Bradley is 20",49 that is called annual constant of aberration and corresponds to the major semi axis of the aberration ellipse.

The refraction angle can assume a maximum value of 35',4 on the horizon but it is 3', only 3' already at 17,5°. Notice that this value changes with the temperature (as with temperature the air density also changes) and the temperature changes with the seasons, and… mumble mumble… the maximum climatic difference with seasons is cyclic and recurring every six months.

The value of the refraction angle changes of about 1% for every 3°C in the variation of the temperature. If we consider a temperature variation from summer to winter of 30°C we have a 10% of variation on the refraction angle. That is to say 10% of 3', which is our average refraction angle of 0,3'. This should correspond to the 20" of apparent deviation due to refraction, (when we consider a star at 17° high, that equals quite well the value of aberration).

1.4. Annual Parallax

We could say that the parallax angle of a star is the angle defined by the sun, the star and the Earth [14] (always considering the star perpendicular to the line that unites the Sun and the Earth). π is the angle SÂE in the picture 1.19 (annual parallax angle).

The star considered to be nearer to the Earth is Proxima Centauri that has an official parallax angle of 0.75 seconds of degree. The parallax effect due to the movement of the observer on the Earth orbit around the sun means a periodical movement of the star on the celestial sphere. The ellipse thus projected by this movement on the celestial sphere is called parallax ellipse and has a periodicity of one year.

Warning: once again the "aligned astronomers" don't consider the movement of the sun in the galaxy, but only the rotation of the Earth

around the sun. The parallax thus shouldn't originate an ellipse but a spiral during the year.

How can astronomers determinate the parallax angle? This determination is one of the most difficult but most important key points of sidereal astronomy (sidereal is a term referred to stars).

This issue is so important because, when knowing the parallax of one star, its distance from the Earth can be determined. We can thus understand the efforts of astronomers in their attempts to be absolutely accurate in determining the parallax angles of stars.

The first parallax to be determined was 61 Cygni. It was calculated by Bessel in Konigsberg in 1837–38.
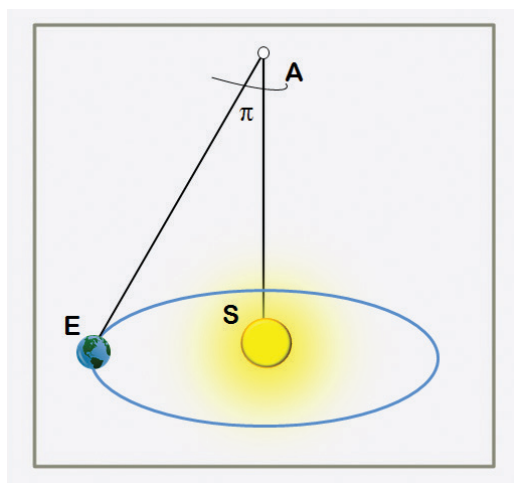
Figure 1.19. Parallax angle.

There is more than one method to determine the parallax. Here you will read about the trigonometric method.

To determine the parallax of a star S, the astronomers chose two stars A and B with parallaxes almost equal to zero because they are very far. A and B must be aligned on a parallel to the ecliptic, one on a side and one on the other side of the star S. During the year A and B will remain fixed in the celestial sphere while S, nearer to the Earth, will move toward A for six months and toward B for the rest of the year. By measuring, during one

year, the amount of these movements, it is possible to determine the parallax. These very small angles were measured by using a heliometer.

Today the preferred method is photography that "allows much precision". The idea is simple: when the star S is at one extreme of the ellipse, one picture is made, another when the star is on the other side of the ellipse, after six month, and another picture of control is made after one year. Pictures are checked and, from the movements of S in respect of all the other stars, the parallax is determined.

Parallax is considered to be a strong evidence of the rotation of the Earth around the sun. If the Earth were motionless this phenomenon wouldn't exist.

A consideration I have to do is that the parallax angle is really small, always smaller than one second of degree.

Consider a circle, divide it in 360°. Then take one single segment and divide it 3600 times. Well, the parallax angle of the nearest star is even smaller.

This angle is even smaller than the aberration angle (you certainly remember it was calculated as 20,49"). But both these angles are smaller of the refraction angle. So, we have three ellipses (the parallax, the aberration and the refraction ellipses) that superpose one over the other. The refraction ellipse, the greater one, is very changeable during the year, depending on temperature and pressure of the air. Also the aberration depends on the air temperature, since light speed depends on the dielectric constant of the mean and, consequently, on temperature.

So, how is it possible to evaluate with a photograph the contribution of the aberration ellipse, and, even more difficult, the contribution of parallax, when it could be sufficient a slight hot current of air at the moment the picture is taken, to change all the results?

The conclusion is that the annual parallax doesn't exist, cannot be measured and absolutely cannot be used to determine distances of the stars or of the planets.

Here below, I present a method to measure not just the height of the sun but also of planets and stars.

Height of the sun

To make a triangulation, we need two observers that, from two distant places on the Earth, can measure the height angle of the sun. With these two angles we can track two lines that define the height of the sun.
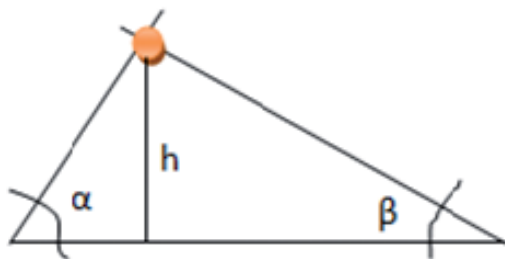
Figure 1.20. Height of the sun.

If you are alone, you can consider that on solstice the sun will be vertical over the Tropic and make thus the triangulation with that point.

Newton's Gravity Doesn't Exist

2.1. Energy Conservation

A body orbiting around a planet is in equilibrium between two forces: the centrifugal force and the gravitational one. [15]

$$F_c = \frac{m_2 \cdot v^2}{r} \; ; F_g = -G\frac{m_1 m_2}{r^2}$$

where F_c is the centrifugal force, F_g is the gravitational force, m_2 is the mass of the orbiting body, m_1 is the mass of the planet, v is the speed of the body while orbiting, r is the distance of the body from the center of the planet, G is the gravitational constant:

$$G = 6.67 x 10^{-11} \frac{Nm^2}{kg^2}$$

Figure 2.1. A satellite orbiting a planet.

The minus sign is because the force is attractive. The orbiting body is characterized by a potential energy called "gravitational", caused by the field in which it is submerged. When speaking about a potential energy, mind immediately runs to Bernoulli's theorem, that states that, for a liquid, the sum of potential, kinetic and pressure energy is constant. You could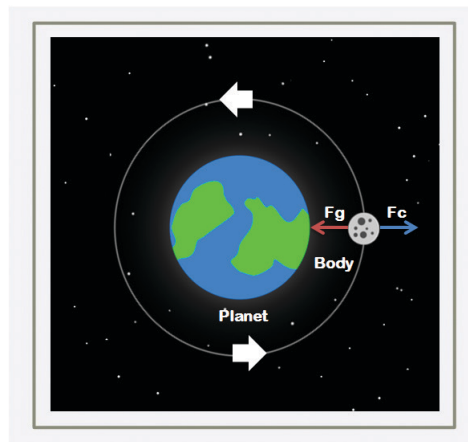 think to the water contained in a basin that is situated on the top of a mountain, water that is forced to pass into a conduct, transforming, due to the altitude, the initial potential in kinetic and pressure energy. It will be later collected into a turbine in order to transform energy into electricity.

Bernoulli's theorem is an application of the principle of conservation of energy. The energy changes in form but its total amount doesn't change. In the case of a forced conduct, the potential energy of the water in altitude is transformed into kinetic energy and into pressure energy.

$U = m \cdot g \cdot h$ is the formula for potential energy while $Ec = \frac{1}{2}mv^2$ is the kinetic energy.

The principle of energy conservation could be, in the same way, applied to a body orbiting in the gravitational field of a planet. In a gravitational field the potential energy is expressed by the general formula:

$$U = -G\frac{m_1 m_2}{r}$$

The expression $U = m \cdot g \cdot h$ (to which we all were used at school) is a particular case of the foregoing more general expression, and can be applied only in the case of h<<R where R is the Earth radius (this means that it is valid only at soil level).

The energy conservation principle for a body in a gravitational field is expressed by the relation:

$$Etot = Ec + U = \frac{1}{2}mv^2 - G\frac{m_1 m_2}{r}$$

The total amount of energy is the sum of kinetic and potential energy.

Thus, according to this relation, a body in free fall in the gravitational field of a planet will convert its potential energy into kinetic energy, but it will maintain constant the sum of the two and produce an increase in speed.

The total amount of energy will remain the same. The opposite could not be possible: please, consider a body that, with a certain starting po-

tential, (but without possessing any kinetic energy) increases its potential even without receiving any external addition of energy. This result will be obtained only by diminishing the kinetic term.

In fact, in order to increase the potential energy, the kinetic has to decrease, but when this energy is already zero… it can't become negative. Thus, in a hydroelectric power plant, water is driven nightlong up on altitude to the eventual lake by spending electric energy that, during the night, has a lower cost. However, the necessity is to spend further energy in order to obtain water again and in a greater quantity of potential energy. It will be used daylong to produce electrical current (to be sold at a higher price). Another example could be relating to a chute on which you can slide downwards without any effort but, when going up the opposite direction, you have *to add* a good amount of energy with respect to the conservation law.

Let's imagine a similar situation with respect to an orbiting body moving in an orbital direction only, and not in any whatsoever radial direction (see figure 2.1). The body, thus, possesses potential energy only, being its speed perpendicular to the radial direction, on which the gravitational force is acting upon, and, incidentally, considering all factors, this datum cannot have any influence on calculation.

Consider now a meteorite that happens to hit the orbiting body in a direction tangential to the orbit, going, in this manner, to increase the speed of the satellite we are taking into consideration (but let us suppose with a very small increase). Wishing to make a comparison with the forced conduct, imagine you were trying to launch a little amount of water from a bucket upward in the conduct just by impressing to the water a small kinetic energy (that won't, anyway, be sufficient to win the gravitational force).

Similarly water rises a little through the conduct but, then, it necessarily falls down again. This will be due to the fact there is not force enough to pull water to the altitude of the lake. In the same way, the new speed acquired by the considered satellite will be v'= v+Δv, where Δv is very small. Since, however, v'>v, the centrifugal force grows a little, according to the relation:

$$Fc' = \frac{m_2 v'^2}{r}$$

The gravitational force, on the other hand, will remain the same. The equilibrium will be lost, when the satellite acquires a force

$$F_{resulting} = F_c' - F_g$$

sufficient to drag it away from the planet. The resulting force will originate a speed in the radial direction, in such a manner that the kinetic energy, moving in the radial direction, would start increasing and the body would start departing from the planet. Since the distance grows, as far as the body is departing from the planet, Fc' decreases in proportion to $1/r$. In the same time the gravity force

$$Fg = -G\frac{m_1 m_2}{r^2}$$

will decrease faster, in proportion to $1/r^2$. The body would accelerate more and more and the kinetic energy would grow very fast, no energy by the exterior being added (or very low energy). At the same time, since the body would be departing from the planet, the potential energy would grow… In the same manner the kinetic energy would increase, and so the total energy.

And here the paradox starts. The body should immediately stop orbiting around the planet and be trapped in another orbit, just because, departing from the original planet, the potential energy would increase, making the kinetic decrease, according to the conservation energy principle. But, however, the centrifugal force, continuing to be higher than the gravitational force, the body should keep departing with a spiral movement from the planet. Actually it would be creating energy from nothing, not respecting even the conservation of mechanical energy.

Objection: the potential energy doesn't grow but decreases when the satellite departs from the planet. In fact it has to be considered zero at an infinite distance from the planet itself.

Answer: you have to consider the sign of the energy that, in this case, is minus. It is a negative energy that continuously grows till zero. Let's calculate, just to give a practical example, the total energy of a rocket of 10000kg that moves at the speed of 500 m/sec and is departing from the planet at a radius r_1=500 km

and $r_2 = 1000$ km. There is no propulsion: the rocket is departing from the Earth due to a previous thrust and, since it is moving in the void, nothing is slowing its speed:

$$Ec = \frac{1}{2}mV^2 = 1.25E^9 joule$$

The potential energy, considering the mass of the Earth being M=5.97E²⁴ kg, however, is:

at 500 km height:

$$U = \frac{-Gm_1 m_2}{r} = -7.96E^{12} joule$$

at 1000 km height:

$$U = \frac{-Gm_1 m_2}{r} = -3.98E^{12} joule$$

7.96 seems to be greater than 3.98 but it is not due to the minus sign. The total energy will be at 500 km:

$$Etot = Ec + U = -7.958E^{12} joule$$

And at 1000 km:

$Etot = Ec + U = -3.978E^{12} joule$. That is much bigger. The total amount of energy is not conserved.

2.2. Stars Speed

As indicated before, satellite are subject to a double different force, the gravitational force and the centrifugal one. This implies that, the nearer a satellite is orbiting around the earth, the faster it has to move, in order to win the bigger gravitational force. To better describe this idea, we have to introduce the concept of angular moment. This is the product of the impulse of the satellite $I = m \cdot v$, which is depending on the distance R of the satellite from the Earth. On the other hand, I is the impulse, m is the mass of the satellite and v is its speed. As a consequence, $m \cdot v \cdot R$ is the angular moment of the satellite. In harmony with the energy conservation principle and, as a consequence of the Newton's laws of mechanics, the angular moment of a body orbiting around a planet or around a mass center keeps constant.

So, as the angular moment is $L = m \cdot v \cdot R$ and R increases (the satellite moves further away from the Earth) v decreases. When, on the other hand, the satellite moves nearer to the Earth (R decreases) the speed will increase.

The same idea can also be applied to stars that rotate around the galaxy mass center in which they are set. This has been the subject of an interesting study made by Rubin and Ford, two scientists who have observed the speed of the stars that are moving in galaxies. When we consider the stars from the Earth, they appear as fixed in their relative position. Their situation seems to be immutable during the years. Many constellations, for instance the Big Dipper, have been described thousands of years ago and still keep staying in the same place.

Figure 2.2. Lights.

The scientific establishment however claims that stars have a big relative speed even when they always appear to be, night by night, in the same position, while rotating from east to west.

Since, from the average observer point of view, it could seem impossible to calculate the speed of stars that are so far from us and that appear immovable, Vera Rubin and Kent Ford, to overcome the problem, used the Doppler Effect to give a general idea of the speed of the stars.

Doppler Effect [17]

Doppler effect is the change in frequency of a wave, when its source is in motion with respect to the observer. In the picture below the jet is departing from observer B and is approaching to observer A. Observer A will perceive the noise getting deeper while B as more acute.

The reason is that the wave, when the object that emits the light with a certain frequency is approaching, will produce a frequency that, when measured, will be higher (the light will be moved toward blue that means an higher frequency radiation) while, when it is departing, the frequency will be lower and the light color will shift toward red. In that way, by measuring the shift of the frequency of light waves from stars toward red or blue, you can deduce their speed in relation to the Earth.
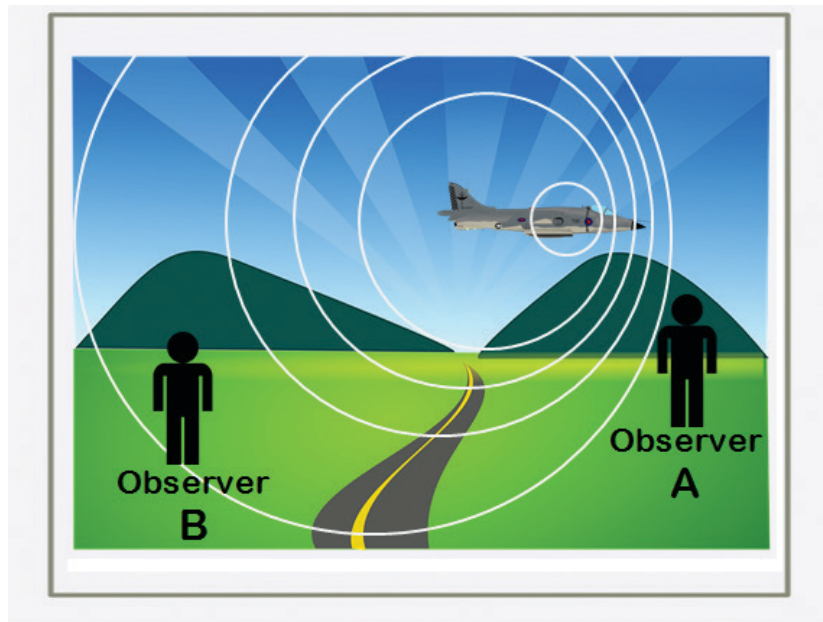
Figure 2.3. Doppler effect.
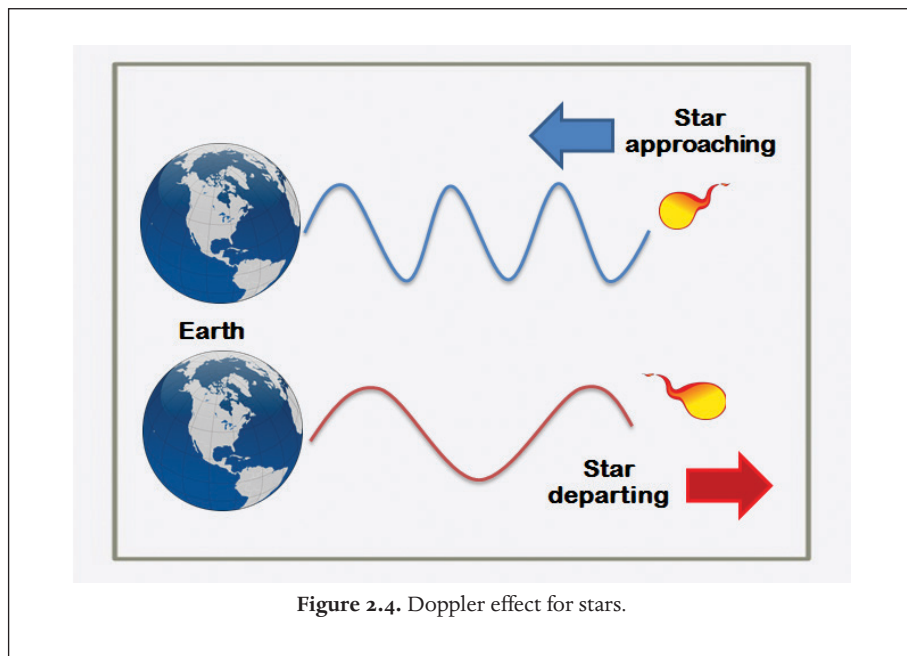
Figure 2.4. Doppler effect for stars.

Rubin and Ford applied the Doppler Effect to evaluate the speed of the stars [16]. Galaxies are made almost exclusively of stars and calculations should have given, as a result, that stars far from the center of the galaxy had a lower speed than stars nearer to the center of it. The results found by Rubin and Ford however didn't match the expectations. The stars far from the galaxy center were moving just as fast as those closer to it. Rubin and Ford went on to examine about sixty spiral galaxies and always found the same situation. They discovered that the light of the stars is the same no matter of the distance.

This result is highlighted in the picture in the next page. The dot line represents the theoretic expectations when considering the gravitational formulas. The continuous line represents the speeds actually measured with the Doppler Effect.

Considering these sort of results, maybe, scientists feared they would finish by proving that the gravitation theory was wrong. To get out of the impasse, Rubin and Ford, in 1974, introduced, beside the visible matter, a new concept, the obscure matter, an entity extending much further than the apparent boundaries of the galaxy and presenting much more mass than the normal matter.
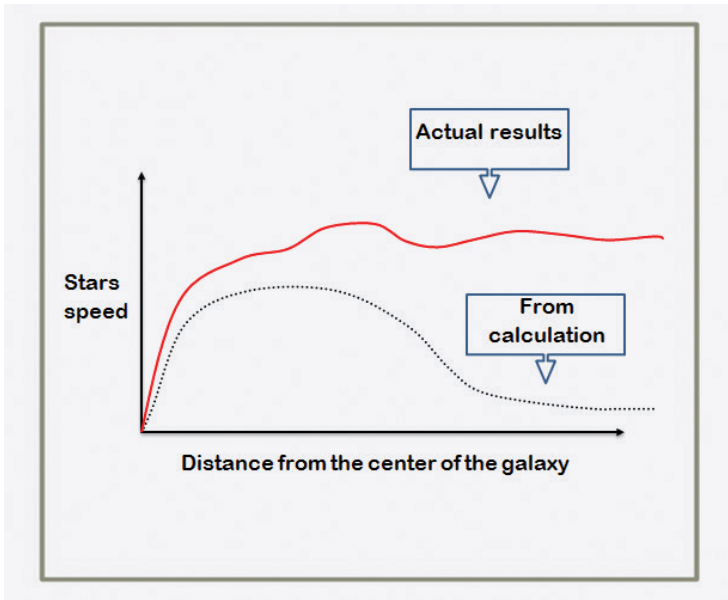
Figure 2.5. Stars speed in the galaxies.

« What you see in a spiral galaxy is not what you get », Robin concluded. The obscure matter was allowing scientists to say that, even when the distance from the center of the mass greatly increases (r in the relation grows up), since M also grows due to the obscure matter, so the speed keeps constant. The speed of the stars should follow this relation, according to the gravitational theory:

$$v = \sqrt{\frac{G * M}{r}}$$

Interesting enough is the fact that, up to now, there is no direct evidence for the existence of the dark matter, as a consequence of the fact that "it can't be seen". Scientists only point to "gravitational proofs". They are convinced, in fact, that the obscure matter does exist because stars move at a speed that is different from that they would expect on the basis of abstract calculations. They assume, thus, that gravitational theory is an undisputable basis from which to start.

But how to judge about this question, if the trouble originates from the same foundation? Could it be that the original trickery stays in the possibility that the basic gravitational formulas are not correct? In the opposite case we should really have direct proofs of the existence of the dark matter, but we have not. These proofs are missing.

But when, on the other hand, we consider stars as moving all together from east to west — from the point of view of an Earth observer —, fixed on a dome that rotates over a stationary Earth, we will probably find an easier explanation of what has been measured with the Doppler effect.

2.3. Newtonian Attraction

The one who has understood the Earth is flat does obviously understand that Newton's gravity force can't exist either.

Let's be clear: a vertical force that acts on all objects does exist but it doesn't follow the universal gravitational formula expressed by Newton.

$$Fg = -G\frac{m_1 m_2}{r^2}$$

Later on, within the pages of this book, I will try to discuss the real mechanism, that generates gravity. There is only a vertical force endowed with electromagnetic nature. The solar system and the universe described by Newton's law, when considering a long period of time, as highlighted by many mathematicians and physicists, is fated to move to chaos.

Mathematician Henry Poincaré discovered that some situation in the universe, when considering a span of time long enough, lead necessarily to a chaotic motion [18].

I wonder, thus, how it could be possible that a colossal initial Big Bang — an explosion that can only originate chaos — could generate our universe instead. On the contrary, I wonder how gravity can generate that astonishing order we perceive all around, able to make life possible everywhere on the earth. And how is it possible that, as a final result, that same universe will fall into chaos again, after million years? Why has gravity been able to generate order only for a period, starting from chaos?

Some people are positive saying that they can easily demonstrate the Newtonian gravity law is reliable on the basis of a simple experiment you can fulfill at home.

First, you need a basin with some water in it. If you put two objects floating on the water and leave them moving freely, after some time they will bond one to the other and stick to the border of the basin.

Maybe you have seen two clips sticking together and floating on the water. They can float on the top due to the surface tension of the liquid and because there is probably a slight oil film on them.

Is this phenomenon really due to gravity? Are the two objects attracting each other due to their mass? No, this phenomenon is due to the surface tension of the water. The water molecules attract one another with a force that is building the structure of the liquid matter. In the middle of the basin, a molecule is completely surrounded by other molecules. On the surface, a molecule is attracted only downward.

This situation is at the origin of an energetic stress differently called surface tension. When we consider a portion of fluid on the surface, it has a greater energy than a portion of fluid in the middle of the basin. The principle of minimum energy is well known. Every system aims to a balance condition. So, it reaches its equilibrium in each situation, demanding less energy.
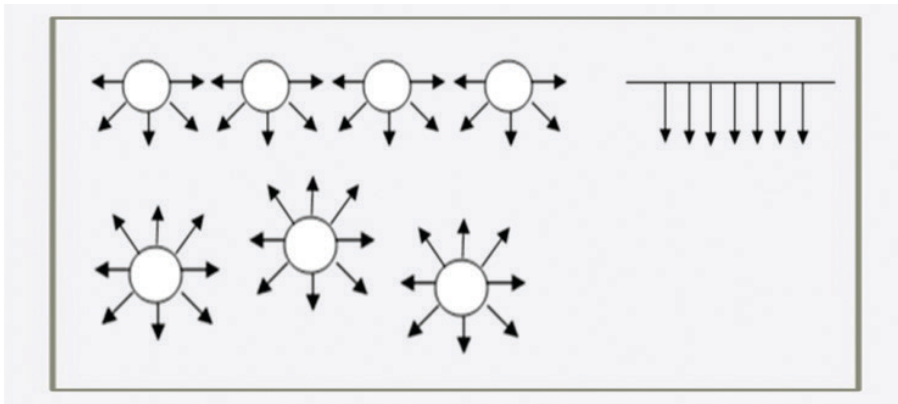
Figure 2.6. Water molecules.
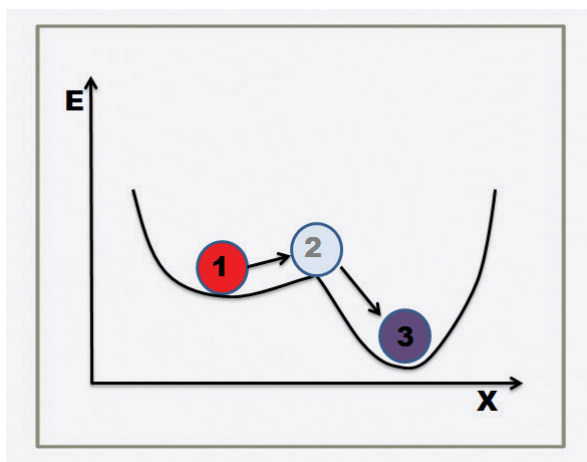
Figure 2.7. Equilibrium and stability.

To minimize the energy stress, a liquid always disposes itself in a geometrical configuration, in order to reduce the surface. You can better grasp the idea by looking at the picture below, showing a few mercury drops.

The geometry that minimizes the external surface is the sphere. When you put an object in a water basin, for example two floating rubber balls, they increase the surface of the fluid amplifying its energetic stress. The system, thus, has to recreate a more stable balanced configuration. The geometrical configuration of objects slicked together is the one that minimizes the stress on the surface of the fluid so that the system will move from an instable configuration to a more stable one.

This phenomenon is even more evident when the objects are deformable, for example, two air bubbles in the fluid. Two air bubbles, submerged in the fluid, present a bigger external surface than a single bubble with the same volume of the two considered ones. The surface tension will act to draw near the two air bubbles and merge them together.

Thus, once again, we have to state that there is only one vertical force depending on the mass of the object but, when we consider different bodies, we notice that, regardless of how big they are and what a big mass they have, they never attract one to the other. [19]

The Earth is Flat

With Coriolis we can prove the Earth is motionless. If this is true, as you can easily understand, all cosmology you know will change. How big is in fact the sun? Is it orbiting around the Earth? How are stars orbiting around the Earth? If the Earth is motionless, how can it be that stars, many times bigger than our sun, can orbit around a motionless Earth?

Moreover, you have already grasped that gravity, as intended by Newton, is wrong because it doesn't respect the principle of conservation of the mechanic energy. Newton's gravity should be the one responsible for the spherical shape of the Earth and of the planets. It should produce a spherical field acting on masses to create spherical amasses.

In the following chapter you will find three more pieces of evidence showing the Earth surface proves to be flat: Eratosthenes experiment, the lack of Earth's curvature and the effect of perspective on our sight.

3.1. Eratosthenes' Experiment [20]

Eratosthenes was a Greek mathematician born in Cyrene (276 B.C.). He was not the first one describing the Earth as a sphere. Plato and Aristotle had done before. Plato wrote that the Creator «made the world in the form of a globe, round as for a lathe, having its extremes in every direction equidistant from the centre, the most perfect and the most like itself of all figures», «one of those balls which have leather coverings in twelve pieces…» (Plato, *Phaedro*, p. 110b; *Timaeus*, p. 33).
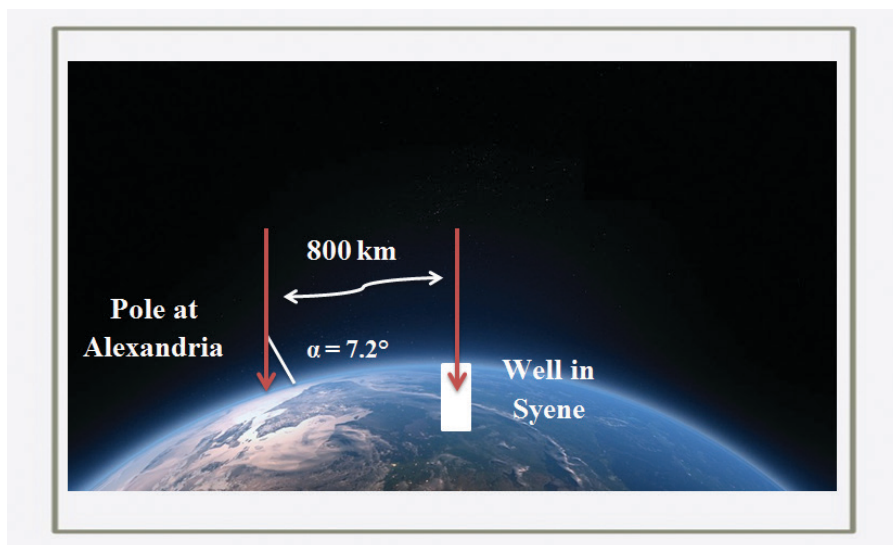
Figure 3.1. Eratosthenes experiment.

Eratosthenes made an amazing experiment: he measured the Earth's circumference. Due to their seeming precision, his results are still considered to be stunning. You shouldn't forget how simple were the instruments used by the Greek.

He posited, with only a slight imprecision, that Alessandria of Egypt and Syene were on the same meridian, Syene being on the tropic, at a distance of 800 km from Alessandria.

At the solstice of the 21st of June, the sun was perfectly perpendicular at Syene, and this could be verified by the aid of a well situated there. When the light of the sun had reached the bottom, the solstice was exactly occurring on Syene. At that very moment, in Alessandria, a pole was projecting a shadow with an angle of 7.2 degrees.

Eratosthenes understood that 7.2° is about 1/50 of 360°, so multiplying 50x 800 km he was able to state that the circumference of the globe was of 40000 km.
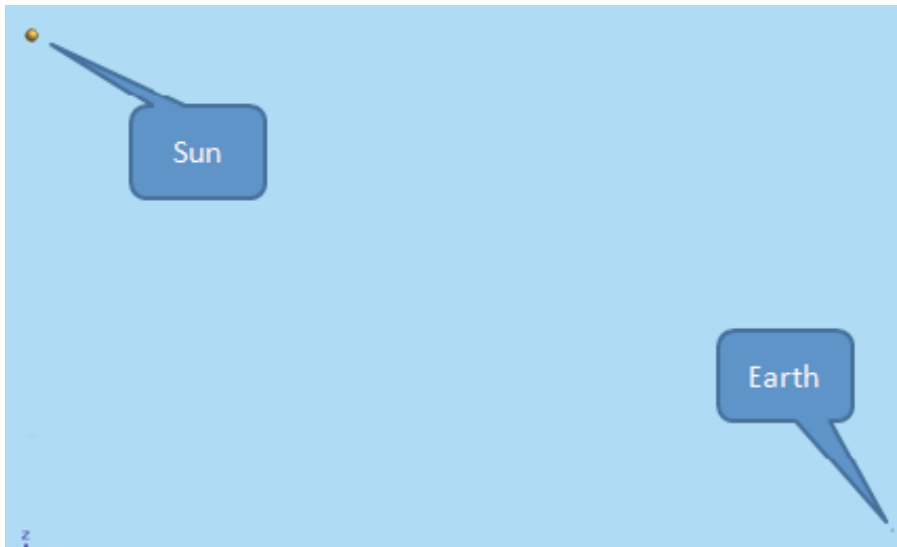
Figure 3.2. Sun in comparison with the Earth.

Ok, so far so good. But here comes the poison arrow. Now, after having observed the deserved minute of silence, in due commemoration, let's proceed into the topic. Eratosthenes made two hypotheses at start:

a) the Earth is a globe, and this is the reason why the sun projects a shadow in Alessandria, with a 7.2° angle;

b) the sun's rays are parallel (see Figure 3.1) because the sun is very far from the Earth.

This second assertion needs further discussion. Science today is stating the sun is 150 million km far away from the Earth. The Sun's diameter is reckoned to be 1391400 km, while the diameter of the Earth is only 12742 km. When drawing the Sun and the Earth in the correct proportions, and respecting the convenient distances, with 3d cad software you can obtain the model in Figure 3.2.

Sun's rays reaching the Earth should really be parallel. So can you explain me the images in Fig. 3.3?

The following images clearly show that the Sun's rays are not parallel but diverging with some quite big angle.

Figure 3.3. Diverging sun rays.

These pictures clearly prove that the Sun can't be so far as official science states. As a consequence, Eratosthenes' hypothesis cannot be valid. If the Sun's rays diverge, it is evident that the mathematician was wrong and the angle of the shadow he had measured had not been generated by

the fact the Earth is a sphere, but directly by the divergent sun rays acting on a flat surface. This is the real situation:
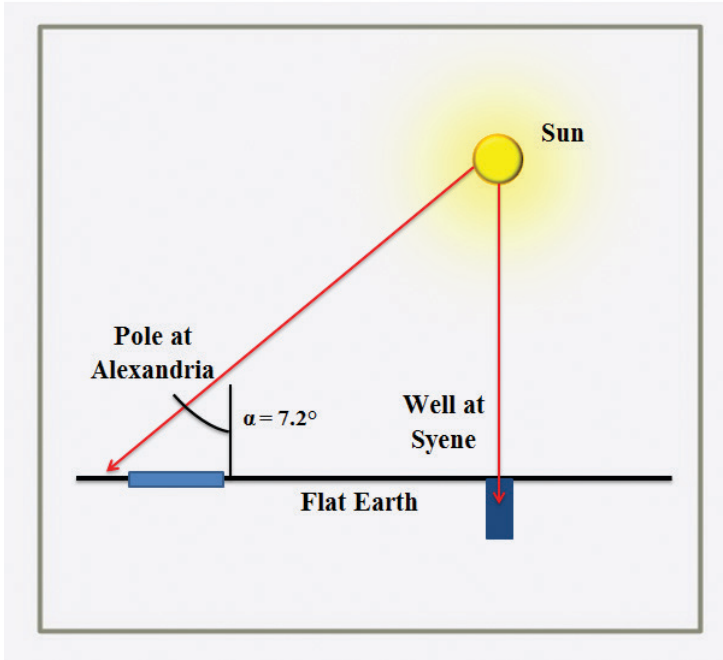
Figure 3.4. The real situation with rays on a flat Earth.

The consequences of the reasoning we have till now presented are quite surprising:

— the Earth is flat;
— the Earth is motionless;
— the sun is not so far;
— the sun is quite small;
— Newton's and Einstein's gravity laws are not reliable.

Objection 1: The sun rays are actually parallel, but we perceive them as diverging due to perspective.

Answer: This is the same notation I can find in Wikipedia at the voice "Crepuscular rays". Let's analyze the situation.

To what extent does the perspective act on our visual field?

While observing Fig. 3.5, I am aware that there are lines that converge to one point, laying on the horizon, while the vertical lines continue to be parallel: perspective doesn't act upon their being in a parallel perspective. From there I can derive a rule: all the lines that lay on a plane perpendicular to the direction of sight are not touched by the perspective; all lines, parallel to the direction of sight, converge on a point, on the horizon.
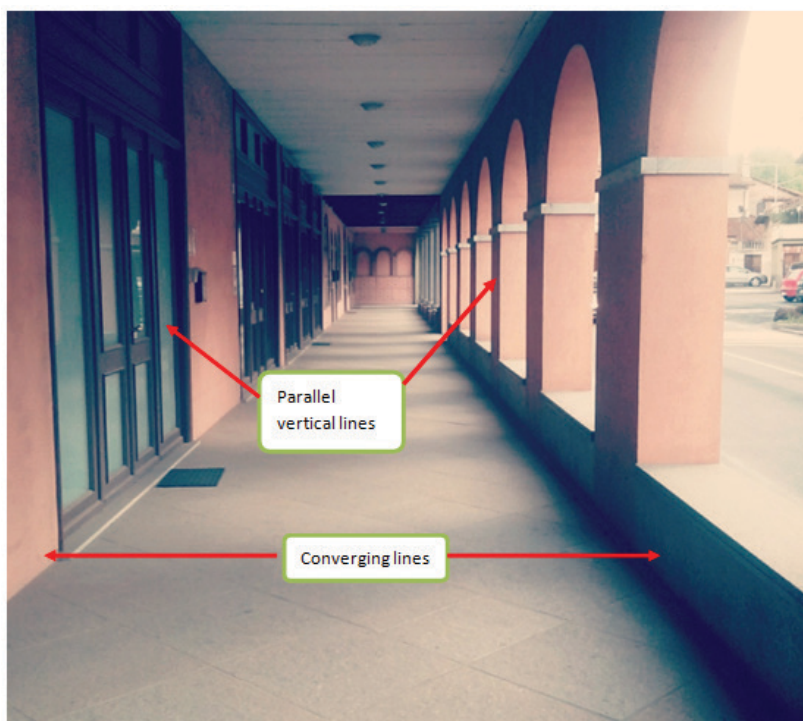
Figure 3.5. Converging lines due to perspective.

Let's similarly consider the multi–point perspective below. In the following photographs there is a three point perspective image.
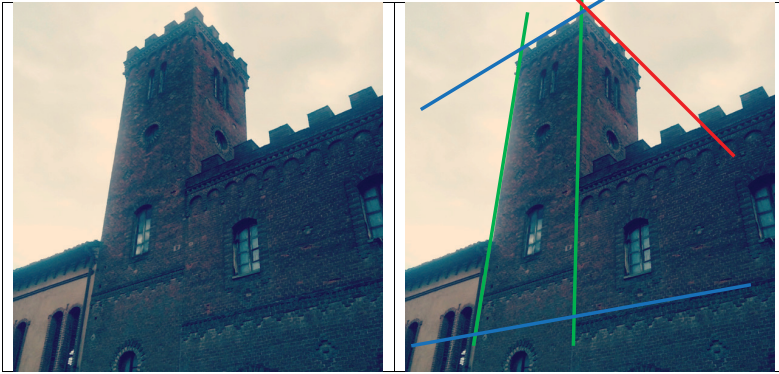
Figure 3.6. Three point perspective images.

The horizontal lines of the two visible walls converge in two different points laying on the horizon, while the vertical lines, no more parallel one to the other, converge to a higher point in the sky. This last vanishing point is a model for an observer that is looking at a tall building or structure directly from below, or from above, (the observer is near to the object observed). Why does this image differ from the previous one? Why do you have to remark there are two different vanishing points? Because the direction of sight is not perpendicular to any of the lines in the picture yet. On the contrary, in the previous model, the observer was standing perpendicular to the structure represented in the photograph.

Now, keeping the above considerations in mind, let's analyze a few among the pictures with divergent sun rays I have presented before. In all these images there is a single converging point for the rays and this is the Sun, their source.

Watching this image, some doubt could arise. The Sun is on the horizon and can be considered as a vanishing point to which the rays converge. It could be a perspective phenomenon.
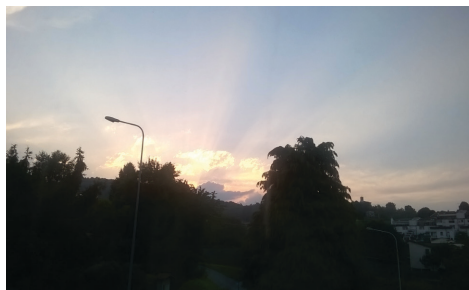
In this image the rays highlighted could be considered converging due to perspective, because they are not perpendicular to the sight direction.

When we consider these two rays, it could seem clear that they lay on the same plane, perpendicular to our sight direction. But being the sun far they are not perpendicular to our sight. They could converge as the rail does due to perspective.

This image seems clearer: almost all rays seem lay on a plane perpendicular to the direction of sight, but are not parallel. The observer is not looking directly from above but is at a certain distance. It is not perspective. Maybe.

But what convinces me is this. If I look a rail of the train, it converges due to perspective. If I turn and I look at the rail in the other direction, the rail converges again due to perspective. If I have the sun in front of me, I see the rays converging toward the sun. If I turn 180° in the other direction, I will not see the rays converging, but diverging because they converge to the sun that is on my back. It is not perspective, it is clear.

Conclusion: the rays diverge because the sun is near to the Earth and not due to perspective reasons.

Objection 2: Divergent Sun rays are appearing with crepuscular rays that pass through the clouds. In these conditions the diffraction is the main reason for the divergence of the rays.

Answer: Wikipedia states: «Diffraction refers to various phenomena that occur when a wave encounters an obstacle or a slit. It is defined as the bending of light around the corners of an obstacle or aperture into the region of geometrical shadow of the obstacle. In classical physics, the diffraction phenomenon is described as the interference of waves according to the Huygens–Fresnel principle. These characteristic behaviors are exhibited when a wave encounters an obstacle or a slit that is comparable in size to its wavelength».

So, the Sun light should diverge when passing through clouds because it encounters slits of the dimension of its wavelength. The wavelength of the visible light is from 390 to 700 nanometers. A nanometer is 10^{-9} meter. Look again at this image:

Figure 3.7. Converging lines. Source: The net.

Is that opening in the clouds less than 700nm? I don't think so; it seems to be several hundreds of meter.

Conclusion: rays diverge not because of diffraction.

Objection 3: sun's rays diverge because the atmosphere acts as a diverging lens.

Answer: the atmosphere of a globular Earth is a globe and acts thus as a convex lens with the light of sun. In Fig. 3.9 you can behold the behavior of a convex lens.
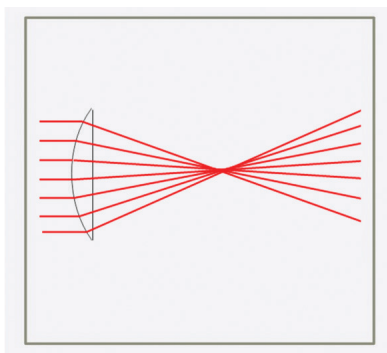
Figure 3.8. Convex lens.

A convex lens is a convergent lens. We should thus see the rays arriving parallel from the sun, converging on the Earth.

Conclusion: the sun rays diverge because the sun is near and creates a local spot of light directly above the clouds and not because the atmosphere acts like a diverging lens.

3.2. The Curvature

Earth's curvature is a topic about which a number of calculations are available: you just need surfing the net and search for everything you want. A quantity of images, posts and videos show full evidence there is no curvature. Despite of that, I want to discuss the topic all the same. In fact, it touches our senses in a very clear manner. I'm going to deal first with computations and then with some example.

In the following calculation I would like to show what is the fall you can expect for a given distance on the surface of the earth. As a start, I have to say that I'm going to show the whole reckoning but, if you are not interested in it, you can simply check the final formula. In fact, this is a very handy topic to prove the Earth is a plane surface.
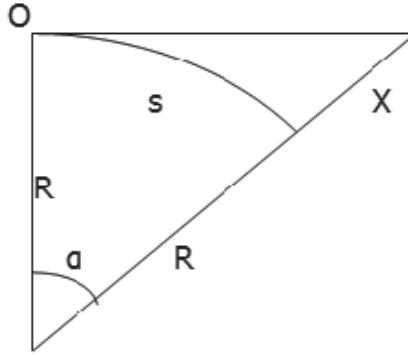
Figure 3.9. Curvature calculation.

S is an arc and it is the given distance on the Earth's surface. R is the Earth radius (6378 km), X is the curvature fall at the s distance, when the observer is on the point O on the Earth's surface.

We can reason as Eratosthenes did: s is a fraction of the circumference of the Earth (40000 km), and, proportionally, α is a fraction of the total angle of 360°. We can thus write this proportion:

$$\frac{s}{40000} = \frac{\alpha}{360°}$$

From the above proportion you find:

$$\alpha = \frac{s}{40000} * 360°$$

Then, from trigonometry, you'll obtain:

$$R + X = \frac{R}{\cos\alpha}$$

$$X = R\left(\frac{1}{\cos\alpha} - 1\right)$$

which is the final formula that calculates the curvature.

Let's consider now the case in which the observer is not on the surface but at the height Y.
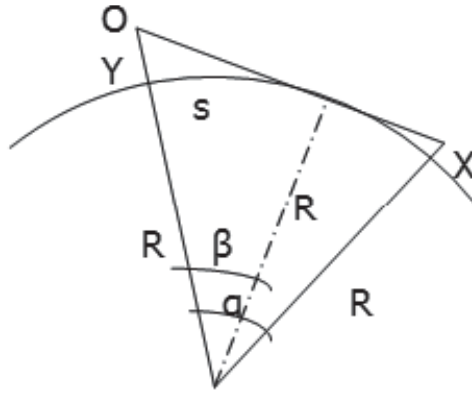
Figure 3.10. Curvature calculation with the observer at a certain height.

In the above image, s is the total distance considered which creates α angle at the center of the Earth. Y is the height of the observer from the Earth's surface. X is the curvature fall at the distance s and it is our unknown datum.

We can write exactly as before:

$$\alpha = \frac{s}{40000} * 360°$$

And then:

$$\beta = \cos^{-1}\left(\frac{R}{R+Y}\right)$$

$$R + X = \frac{R}{\cos(\alpha - \beta)}$$

$$X = R\left(\frac{1}{\cos(\alpha - \beta)} - 1\right)$$

In conclusion, this is the exact formula to calculate the curvature, when considering the observer at a certain height.

Figure 3.11. Corse seen from Menton.

A friend of mine passed me this picture taken at Menton, in France. As you will notice, from there it is possible to look at the Corse Island.

Let's try to use the formula just obtained above. I want to check if the earth's curvature could allow me to look that far.

The total distance from coast to coast, at the closest point, is about 175 km. But, if you prefer considering the highest point inside the Corse Island, you'll have to measure the distance from Menton to the top of Mount Cinto, at 2706 m on the sea level. And, in that case, you'll obtain a distance of about 195 km.

Let's suppose my friend took the picture at an altitude of about 10 meters above the sea level. You can check on the net the altitude on the sea level.

Anyway, I'll fix 10 meters, as an approximation.

So, you can refer to the following formula:

$$\alpha = \frac{s}{40000}360°; \quad \beta = \cos^{-1}\left(\frac{R}{R+X}\right)$$
$$X = R\left(\frac{1}{\cos(\alpha-\beta)}-1\right)$$

Considering a coast 175 km far, we'll obtain:

$$X = 2,109 \text{ km.}$$

This is the fall of the curvature within a distance of 175 km. Thus, it should be clear that, for such a distance, it would not be possible to see anything more than the top of the mountain. But there's something more to highlight. Pay attention, the distance of this mountain from Menton is a

little farther. Let's try to make the calculation for a distance of 195 km and check if it is possible, from Menton, to see at least the top of the mountain.

For a distance of 195 km, we can obtain:

$$X = 2{,}657 \text{ km} = 2657 \text{ m}$$

Unfortunately, the mountain is only 2706 m tall. Maybe, the observer could go a little higher and see, at least, the summit.

So, when we consider the observer as standing at an altitude of 7 meters (that is more realistic) you'll obtain:

$$X = 2{,}710 \text{ km} = 2710 \text{ m}$$

Anyway, in the picture, you can see a good deal of land. How is that possible? It is just possible because the Earth is flat.

Objection 1: refraction of the air is what makes the phenomenon possible, even if the Earth is a globe.

Answer: Ok, let's analyze what is the atmospheric refraction and then try to understand something more.

Refraction is the deviation of a ray of light while passing through the atmosphere and it is due to the variation of density of the air with the height. The air is in fact denser at sea level and rarefies going higher. Refraction makes celestial bodies to appear higher than they are.

However, when we are on the ground level and observe an object on the Earth surface, we are on the same layer of the atmosphere, with very small density variation. It is different from the case when we observe a celestial body, very high in the sky.

So, the situation we are considering can't be a refraction phenomenon, since the light doesn't pass through different density layers of the atmosphere.

Refraction can only bend a little a light beam according to the Snell law $n_1 sin\theta_1 = n_2 sin\theta_2$ where n_1 and n_2 are the refraction indexes and ϑ_1 and ϑ_2 are the incident angles that describe the deviation of the beam of light that from a layer of air with refraction index n_1 passes to a layer with refraction index n_2.
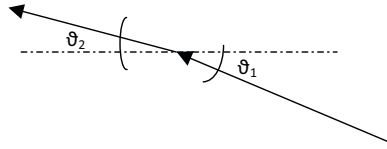
Refraction can't bend a beam of light with an angle so big that the light returns in a lower layer of air. It is impossible thus to bring the light to a far observer on the surface of the globular Earth.

The phenomenon necessary to do this is the reflection and not the refraction. The light, coming for example from the Corsica Island is reflected downward and can be seen by an observer in Mentone. Is this what happens in this case? For sure it is needed total reflection to have a beam of light visible at such distances. To have this phenomenon we need a cold layer of air over the surface of the Earth so to produce an increase of density of the air that reflects light. This is the superior mirage. This is a phenomenon happening in cold countries and not at Mediterranean latitudes. In these cases the reflected object is usually seen high in the sky and not on the Earth surface. This is not what happens in this picture.
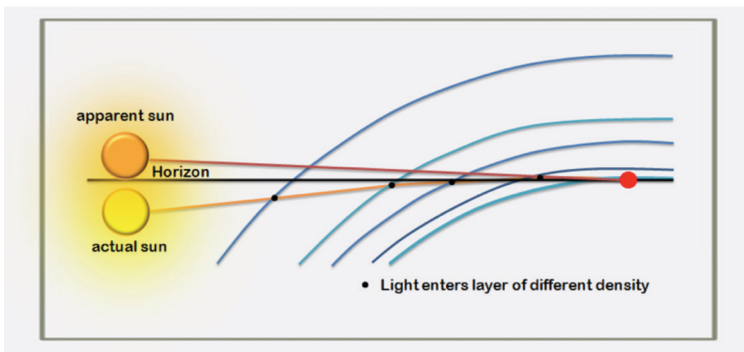
Figure 3.12. Refraction.

Objection 2: The light is bent by the gravitational mass of the Earth according to Einstein's general relativity theory. Hence the Corse is visible due to the fact that the light bends along the curvature of the Earth.

Answer: Einstein postulated that the gravitational field produces a deformation of the space time and, according to his equivalence principle, any physical entity, regardless of mass, equally accelerates in a gravitational field. Einstein made a calculation applied to a light beam grazing the sun and obtained the value of the angle of deviation:

$$\alpha = \frac{2Gm_{Sun}}{c^2 r_{Sun}}(radians) = 0.87\ arcsecond$$

That is a very small angle: 0,00024 degrees. If you want to do the same reckoning for the Earth, you'll obtain an angle:

$$\beta = 0.000287\ arc\ second = 8E^{-8}\ degree$$

which, on a distance of 195 km, produces a variation in the height of 0,27 millimeters. It is finally clear that this phenomenon has nothing to do with relativistic considerations.

However, in relation with Einstein's bending of light, we have to remark that not all scientists agree with his theory. Einstein proved its rightness by measuring the bending of the light of a star, during an eclipse, in 1919. The experiment is still remembered as a complete success. Though, many and many times experiments give good results only in the imagination and theoretical data can differ a lot from reality.

Here are some words to explain this theory:

> Einstein's law of gravitation contains nothing about force. It describes the behavior of objects in a gravitational field — the planets, for example — not in terms of 'attraction' but simply in terms of the paths they follow. To Einstein, gravitation is simply part of inertia; the movement of the stars and the planets arise from their inherent inertia; and the courses they follow are determined by the metric properties of space — or, more properly speaking, the metric properties of the space continuum. (Lincoln Barnett, *The Universe and dr. Einstein*, London, June 1949, page 72)

Einstein concluded his theory by saying that the light bends in the curved space time near a big mass such that of the sun. He suggested that this could be verified with an experiment. It could be made measuring the track of the light of stars near the sun, during an eclipse. That is the only moment when the sun and the stars can be seen together in the sky.

The photo of the star, twinkling from behind the sun, was taken during the eclipse. It had to be compared with pictures taken in other moments. That is to say, when only the stars where visible in the sky, and the deflection of light had to be evident trough a different position of them. The light of the stars should bend inward, because of the space time curvature generated by the big mass of the sun. The theoretical value for that experiment was a bending of 1,75 arcseconds.

The Eclipse expected was that of 29 May 1919 and it was visible from the equatorial regions. A measurement was taken in western Africa, at Principe Island, in the city of Roca Sundy. Even if the weather was not favorable, pictures were taken, and, the result was a bending of 1,64 second arc, very near to the expected result.

I want here to report a consideration made by the Captain of the Indonesian Navy, Gatot Soedarto. In his book *True, general Relativity is wrong* [21], he made the following notation:

> The proving method for hypothesis, as suggested by Einstein as the theory founder, should not be able to be carried out, considering the fact that in scientific exposure in astronomy, the instant observation applies. It means, all calculations to determine the 'true position' and 'the apparent position' of a certain star at the sky is only applicable at a certain time and at a certain place on which such observation is performed. The observation on a star conducted twice from the places, with different geographical positions, will result the different height and azimuth of the star…Therefore the test should not be able to be performed.

Due also to refraction, the star, seen at different times of the day, will be seen in different places in the celestial sphere, making this experiment a complete error, even considering the very small angle measured, much smaller in respect with the refraction angles.

Soedarto continues: «In astronomy, the light deviation is something very common and not caused by gravity field of massive object, but it occurs due to the light refraction».

And he also states that, in that year, another expedition in North East of Brazil returned a measured bending value of light of 0.93 second of arc, no

more so close to the theoretical value. This big difference has been ignored and this second experiment has been forgotten as it had never existed.

These data show that often what is generally accepted as correct, and has been spread as a very well experimented datum and as a valid scientific principle, maybe is not the truth or maybe has not been properly checked. Later on, I will discuss the point that gravitation actually acts on light too, probably bending it. Anyway, with a mechanism really different from the one Einstein postulated. In conclusion, there are not relativistic effects to be considered in our curvature calculations.

3.3. Perspective

There are a few issues connected with perspective over the flat Earth that will be not so easy to understand. Hence, it will be useful to analyze them immediately. One is about the problem connected with ships disappearing within the horizon: they start disappearing from the bottom. As a consequence, somebody could consider this fact as evidence proving the curvature of the globe.

On the contrary, we know that this is a result due to perspective; in fact, you just need to take a binocular. Immediately, you will be able to behold the whole ship again, from bottom to the top. This phenomenon is not due to the Earth curvature but to perspective. How can this situation be explained? Why does perspective hide the ship starting from the bottom?

A second point, linked to perspective as well, is the presence of an apparent south pole in the celestial sphere. As you can see in the following image, it is as if you could behold both the north and the south celestial poles.

An observer, watching the stars trails in the southern hemisphere, would see an apparent South Pole axis around which the stars seem to spin. You know, of course, that the flat Earth has no south pole. Consequently, you will easily understand the fact that this phenomenon is due to perspective.

Figure 3.13. Perspective effects.
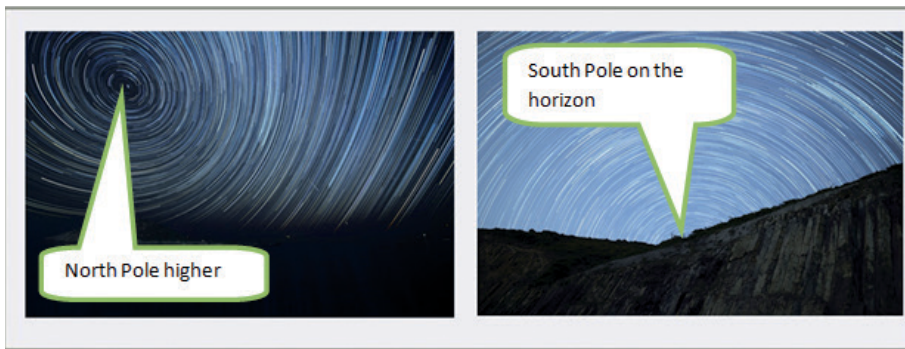
Figure 3.14. Stars trail at North and South Poles.

Let's consider the first point: why a ship disappears over the horizon starting from the bottom. Due to perspective, an object departing from the observer finishes becoming a single point over the horizon. This point is the convergence point of perspective.

The same happens in the case of a ship. Anyway, this is not enough to explain the reasons why the ship begins to disappear from the bottom.

To prove that this fact is due to the curvature, someone could assemble a footage keeping the camera at the floor level while a man is walking along an unending hospital corridor, smooth and shiny. Shoes become smaller and smaller due to perspective but they do not disappear from the bottom. This could appear to be clear evidence that over

the sea water surface a ship disappears due to the fact the Earth is a globe. So they say.

In reality, we have to consider the difference between the real horizon and the perspective one. This is due to the waves, ripples or reliefs that hide the perspective horizon. Even the neatest sea has small waves that form a far real horizon, a little higher than the perspective one.
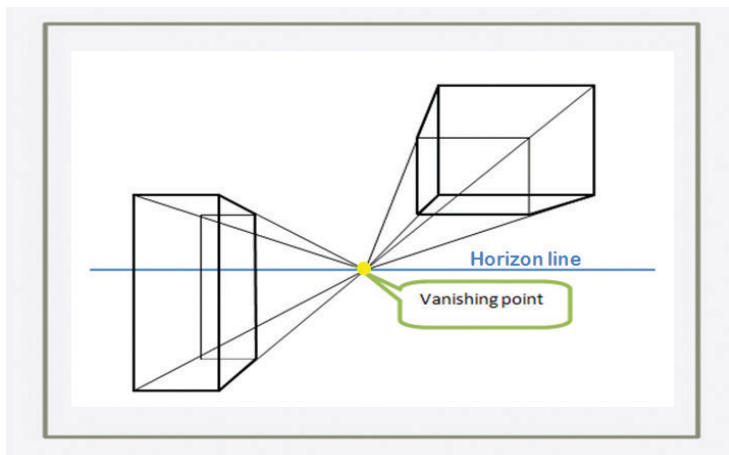
Figure 3.15. Perspective rules.
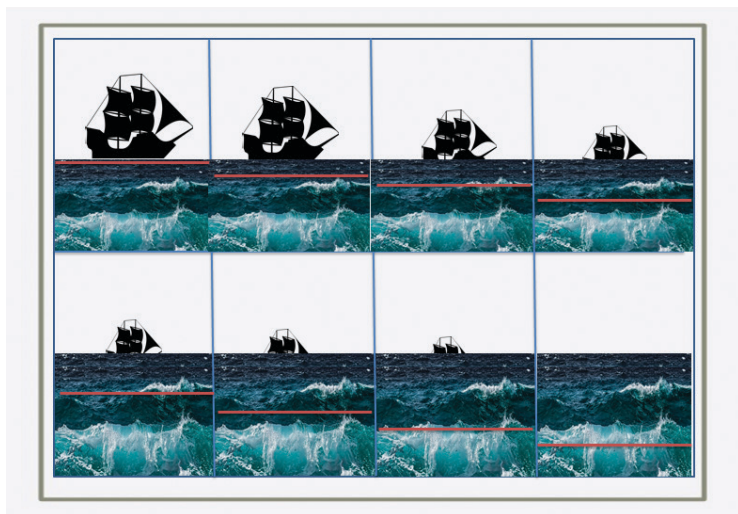
Figure 3.16. Difference between real and perspective (red) horizon.

Only a perfectly smooth plan, like the one of the hospital corridor, admits the sight of the perspective horizon. The difference between the two horizons can be very small, but it always exists. The departing ship is initially big, but slowly it becomes smaller and smaller and its overall changing dimensions become comparable (not too different) with the distance between the two horizons. The ship converges toward the vanishing point on the perspective horizon, but the real horizon starts to hide it more and more. If we try looking at the ship with a binocular, the distance between the two horizons becomes smaller and we can see the ship again.

In Fig. 3.16, the red line is the perspective horizon (lower than the real horizon). As the ship departs, its dimensions become comparable with the distance between the two horizons. So, the real horizon slowly covers the ship that converges toward the perspective horizon. Since the perspective horizon is hidden, the ship arrives to be hidden too.

And now… the second point.

Let's imagine the following situation: an observer is looking at the North Pole and making a time–lapse of the stars trails. Quite immediately, he can clearly perceive that the stars are spinning around the North Pole axis, i.e. around the polar star. However, it would seem that a similar thing is happening over the South Pole.

Figure 3.17. Stars trail.

Anyway, things are different. We will show that over the flat Earth there is a Dome in which all the stars are nested. Stars are hence all rotating with the same angular speed and always at the same height. An observer on the northern hemisphere will see the stars rotating around the North Pole. This observer will not be able to see the lower stars of the dome, but only the higher ones, due to perspective.

The lower stars are hidden by the real horizon of the observer. The real horizon is higher than the perspective one. Since stars are very far from the observer, a lot of them will not be visible.
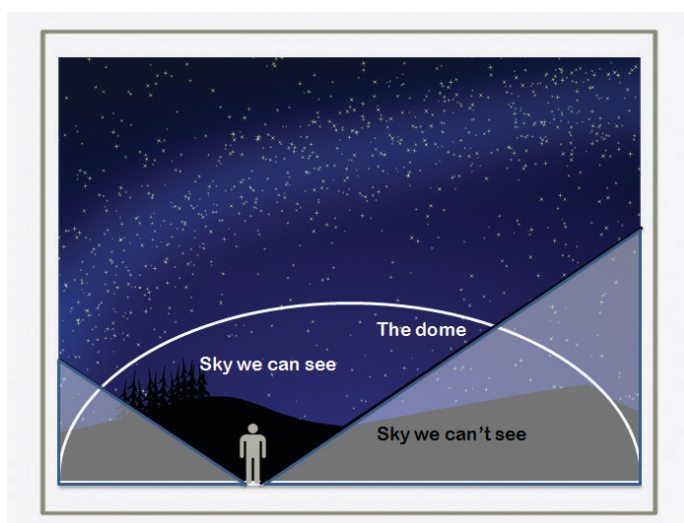
Figure 3.18. What we can see due to perspective.

On the other hand, let's consider an observer on the southern hemisphere, maybe on the Land of Fire in South America. He will see part of the stars, the highest of them, rotating around the North Pole, which appears very low on the horizon (Polaris can be seen just till the equator or only a little more southern, due to the effect of perspective). If our astronomer watches toward the south, he will have the possibility to see a lot of stars rotating around an apparent south pole. These stars are near to him. We are imagining he is placed in a far southern part of the world. In reality, this observer will not see the entire orbit of the stars. He will behold them, as far as they are placed near him. Anyway, by continuing their orbit, they will finish being very far from the observer.
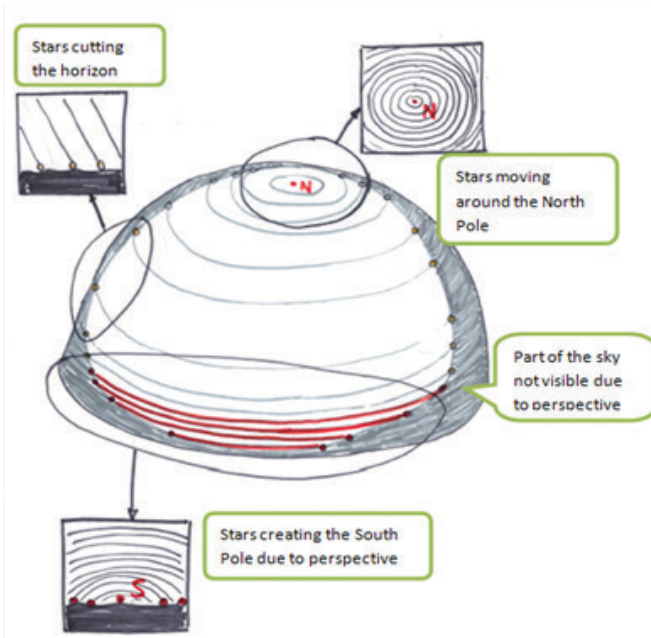
Figure 3.19. Stars trail in the southern part of flat Earth.

In the picture aside, the visual field of the guy is highlighted in the dome. The path of the lower stars he sees are the red ones in the picture. Due to his limited visual field, he can't see the whole orbit, but only the nearest part.
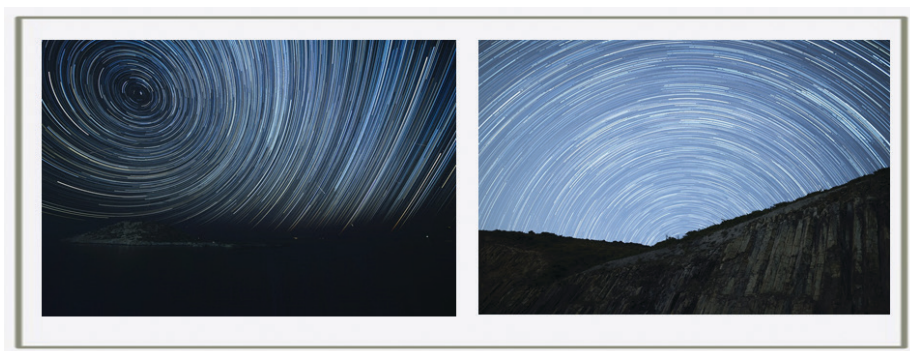
Figure 3.20. North and South Pole.

The lower stars run an orbit in the observer's sky similar to that of the sun: the stars rise, make their travel in a short portion of the sky and

they set. The rise and the set phases are completely due to perspective. When the stars are further from the observer, they are on the vanishing point of the perspective horizon. Then they go higher and again vanish due to perspective. Each of these lower stars is tracing in the sky a curve around a central point situated on the horizon. This ideal point could be seen by an observer appearing like something similar to the North Pole. The difference is that the north pole of the sky is real and can be looked at any height, depending on the position of the observer. The south apparent pole is an apparent point that can be only perceived at the horizon level.

The South Pole does not exist, but it is a perspective phenomenon.

Things You Must Know

4.1. The Real Value of Pi?

Math is the key to understand and describe the universe. The question is: can we consider the opposite situation always true? I mean, is it possible to reproduce in the real world all the ideal abstractions that are possible in the math world?

Think for instance to the irrational numbers. These are numbers that cannot be expressed with fractions. A ratio between two numbers always produces a rational number that has a finite number of digits after the point. Neper's number is irrational. All square roots of non perfect square numbers are irrational and so *Pi* is an irrational number.

Pi is the ratio between the circumference and the diameter of a circle and can be calculated in many different ways.
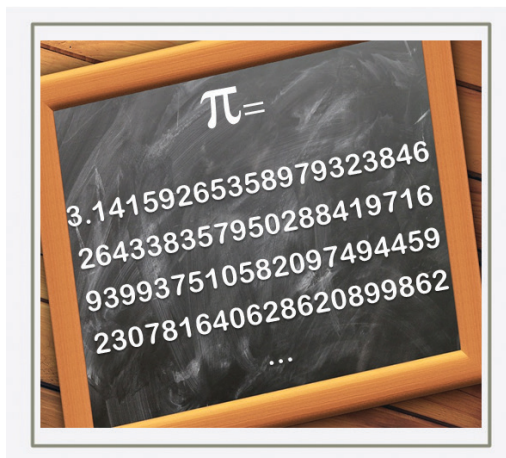
Figure 4.1. *Pi.*

One example is Gregory Leibniz's series:

$$\pi = \frac{4}{1} - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \cdots$$

Another is Nilakantha's series:

$$\pi = 3 + \frac{4}{2 \cdot 3 \cdot 4} - \frac{4}{4 \cdot 5 \cdot 6} + \frac{4}{6 \cdot 7 \cdot 8} - \cdots$$

These series should go to the infinite, but, when we cut them at a certain point we are rationalizing *Pi*, making it explicable and reproducible as a single fraction.

Why an irrational number is not reproducible in the true life? Because all technologies, even the most precise, have a finite precision and cannot replicate a number with infinite digits after the unit. Here you have an image (Fig. 4.2) of the precision that can be reached with standard tool machines.

When we polish a surface, we can attain a precision of 0.01 micrometer. This means that, when we want to produce a piece of steel Pi millimeters long, we will be able to produce a length of 3,14159 mm but then anything more precise.

So, you have to rationalize a number when you want to reproduce it as a real object. To rationalize means cutting it into a finite fraction.

There is a movie: *Pi, Faith in Chaos* by Darren Aronofsky (interesting movie), that ends with number PI expressed as a simple fraction. In the last scene when Jenna, the young Chinese girl, approaches Max in a park, asking math questions, she proposes a problem that will stay unanswered: How much is 748:238? The answer should be a good approximation of PI, but Max smiles and simply sits on the park bench observing the swing of the leaves of the trees. This comes out after an extended and difficult search for the long number that should have had the power to give a final description of the universe. After this "cutting", Max Cohen seems to reach the peace that was missing before.

The idea is that the universe could, maybe, be described with a precision that, step by step runs to the infinite, but there is a main body, a base, maybe the 95% of the total (3/3,1415=0,95), that you have to find first,

just to grasp the comprehension. In the description of the universe you should be satisfied when learning that a good deal of results have already been obtained, when you reach a basic grasp of the main subject.

Figure 4.2. Precision in mechanical machining.

More precise data have to be considered fractals, a repetition of the main body on a smaller scale. Details will be studied in a second moment with the consciousness that nobody will arrive to understand, with an absolute precision, the whole creation: «Only God is perfect» is a noteworthy statement in Aronofsky's film.

Figure 4.3. Reality is irrational and can be described with fractals.

Accordingly, the Bible, in Ecclesiastes 3:11, states: «He has made everything beautiful in its time. He has even put eternity in their heart; yet mankind will never find out the work that the true God has made from start to finish».

There will always be a smaller fractal to study, but till that point you have to rationalize (to cut) in order to find the bigger fractal. The risk, on the opposite, could be not being able to find the correct description, not even for the more visible and bigger parts of the reality you live inside. [22]

In Mechanics, for instance, it is usual to linearise near the working point what is non linear. They do it by using the Taylor series that can be cut when necessary. The non linear function becomes a sort of main linear function plus a negligible part that is an order of magnitude smaller that the main part. The little error made is considered negligible, but also necessary to allow the comprehension of the function in a simpler way.

Table 4.1. Rationalizing pi.

x	y	y/x	error
1	1	1.0000000	2.1415927
1	2	2.0000000	1.1415927
1	3	3.0000000	0.1415927
4	13	3.2500000	0.1084073
5	16	3.2000000	0.0584073
6	19	3.1666667	0.0250740
7	22	3.1428571	0.0012645
57	179	3.1403509	0.0012418
64	201	3.1406250	0.0009677
71	223	3.1408451	0.0007476
78	245	3.1410256	0.0005670
85	267	3.1411765	0.0004162
92	289	3.1413043	0.0002883
99	311	3.1414141	0.0001785
106	333	3.1415094	0.0000832
113	355	3.1415929	0.0000003

So, how can you rationalize *Pi*? On table 4.1. there are some fractions that can be used to express PI and the error we make by using that ratio.

All these fractions are approximations of the real value of *Pi*. Each of these fractions is reproducible with growing difficulty as the error we make decreases.

Time has also to be considered, because any scientific inquiry has necessity to start from the first major fractal, before passing to the minor one and so on.

So, just as a first approximation, to define and describe the major fractals outlining the Earth, the sun, the moon, the stars and all the firmament orbiting over the earth, you should keep in mind this rule: *PI=3, plus other minor fractals*.

4.2. Fractals and Time

The math of fractals is very handy to describe the natural world and the
Earth. The idea is that nature can't be completely explained with num-
bers, so that you can only grasp the surface of it. To better understand the
idea, you can establish a correspondence between the Euclidean and the
fractal geometry. You all are familiar with the Euclidean geometry, which
can easily define, by the aid of coordinates, solid figures such as a cube or
a sphere.

   On the other hand, much problem arises when you want to describe
the shape of a cloud. You probably think that, theoretically speaking,
you could be able to sketch it but, practically, is that true? This will prove
to be difficult due to the gap existing between the Euclidean geometry
and nature. Staying inside the Euclidean field you can perfectly measure
a segment running from the point A to the point B. Every Cad design-
er knows, for instance, that a segment long 10 millimeters, designed in
Cad system, is exactly 10 millimeters there, on the pc screen. But he also
knows that the steel piece that he will obtain from the workshop will
not be exactly 10 millimeters, but, maybe, only 9,97873457… and he will
measure with his caliber 9,98 because that caliber can measure maximum
the centesimal part of the millimeter (and only in the case he has a cen-
tesimal caliber).
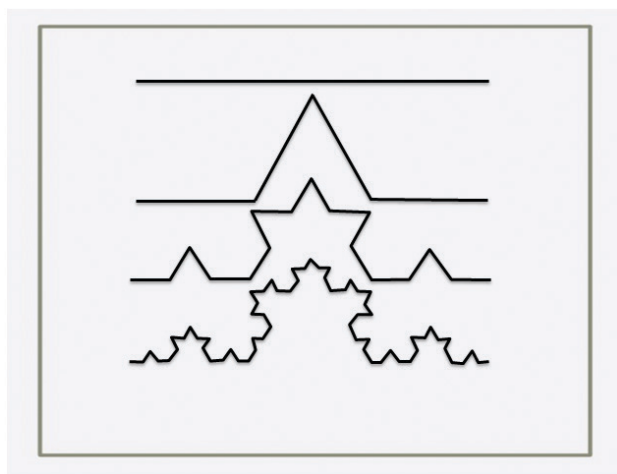
Figure 4.4. Fractals.

Please, look at the picture below:
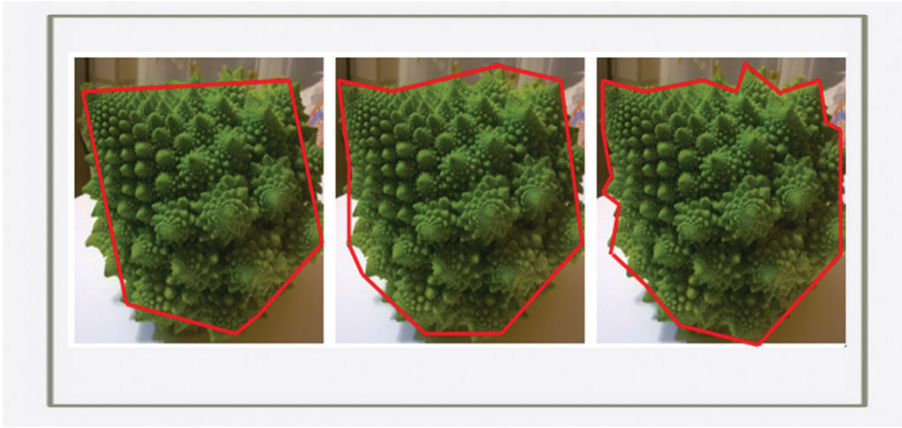
Figure 4.5. Fractal description of reality.

To describe the shape of an object, you can achieve an ever greater precision by using a measure instrument shorter and shorter, but, however, you will never be able to have a perfect description.

This is a quite intriguing difference. Inside the Euclidean geometry field, the only straight line is infinite, while a segment has a finite size. On the other hand, in the fractal geometry a segment is considered to be infinite. In the middle of two points, A and B, there is enough space for infinite points.

There are no limits in getting smaller. Observe picture 4.4, the triadic curve of Kock that illustrates the idea. The first step is a straight segment. The segment is divided in three equal parts. Four of this parts are used to obtain the second step, that by now is long $L=4/3$. This process can be repeated to the infinite, without any limitation. Any segment, no matter the length, can always be further divided. Nature acts in a similar way. It is repeated with similar structures in always smaller scales. You can try to observe it at the smallest possible scale. Then you will reach the atomic scale. So, at those dimensions, diffraction problems will arise. At the end you will not be able to use any light source to observe, so, without the needed technology, you'll have to stop. Maybe, only in the future, you will be able to go further.

Interesting is the fact that also time behaves in a fractal way. Have you ever wondered why Babylonians and Hebrews had a year of 360 days?

They considered the time as a circle, because their clock was the sky and the sky runs, during the year, a 360° circle. They were able to understand that there was a difference of about one degree in connection with the motion of the sun and of the stars for any single day. This means that every day the same star rises 4 minutes later, i.e. one degree.

They added the remaining days of the year with a little additional month. This way to proceed is in agreement with the fractal nature of time.

Consider, for instance, the sidereal year of 365,2564… days. It can be expressed with fractals like this: Y=360+5+0.25+0.00625+… We can also write:

$$Y = 360 + \frac{360}{72} + \frac{360}{1440} + \frac{360}{57600} + \frac{360}{3456000} + \frac{360}{276480000} + \cdots$$

that can also be expressed this way:

$$Y = 360 + \frac{360}{72} + \frac{360}{72 \cdot 20} + \frac{360}{72 \cdot 20 \cdot 40} + \frac{360}{72 \cdot 20 \cdot 40 \cdot 60} + \frac{360}{72 \cdot 20 \cdot 40 \cdot 60 \cdot 80} + \cdots$$

You can deduce, of course, that the number 72 has a strange importance in defining the year duration. I will show later in this chapter another phenomenon in which the number 72 is implied.

The number 72, incredibly enough, can be expressed this way: 72=44.4×1.62.

Incredibly why? Because 1,62 is a pretty good approximation of 1,618, i.e. Phi or the golden number [23]. This is the number that has usually been associated with the description of nature. The approximation is because phi is an irrational too. Hence we can write:

$$72 = 44,4 \times \phi$$

44,4 is a number with repeated digits. I will show that this is important in the description of the Earth and is linked to the Fibonacci and the Demlo numbers. Incidentally, the cubit of the Hebrews was 44,4 centimeters.

So if we call 44,4 cub (from cubit) our Y can be expressed this way:

$$Y = 360 + \frac{360}{cub \cdot \varphi} + \frac{360}{cub \cdot \varphi \cdot 20} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40 \cdot 60} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40 \cdot 60 \cdot 80} + \cdots$$

4.3. φ and the Golden Section [23]

φ is the golden number I have just introduced in my previous chapter. We can state that a line is divided according to the golden section when we can find this proportion:

AB/AC=AC/CB

A ———————————— C ———————————— B
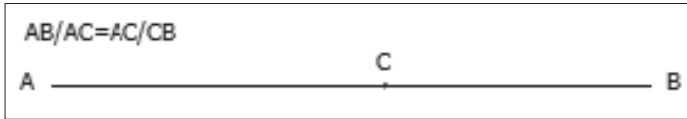
Figure 4.6. Golden proportion.

When these segments respect the above proportion, the ratio AC/CB will correspond to 1,6180339887… Euclid was the first to describe this digit, which is also known as the golden number. φ, like π, is obviously an irrational number. Euclid described this ratio only for geometrical purposes; he probably didn't imagine this number could have important consequences in very different fields. Think for instance to the disposition of the leaves on a tree in botanic or to the description of galaxies in astronomy.

Exactly like π, φ can be expressed as a sum of many elements, a bigger one summed up with many other fractals. One way to express it, is:

$$\phi = 1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{1 + \cdots}}}}$$

Interesting is the fact that, as you can deduce from this equation, φ is obtained from a series of fractions with many repeated 1. I will show in a further chapter that, when describing the Earth, repeated digits appear many and many times.

I have already highlighted the link between φ and the number 72, but, concerning this subject, I want to add something really interesting.

72° is the fifth part of the circle: 360°/72=5 and there is actually a link between φ and the pentagon. Let's draw a pentagon inscribed in a circle.

Draw then two diagonals of the pentagon, dividing thus the pentagon into three triangles.
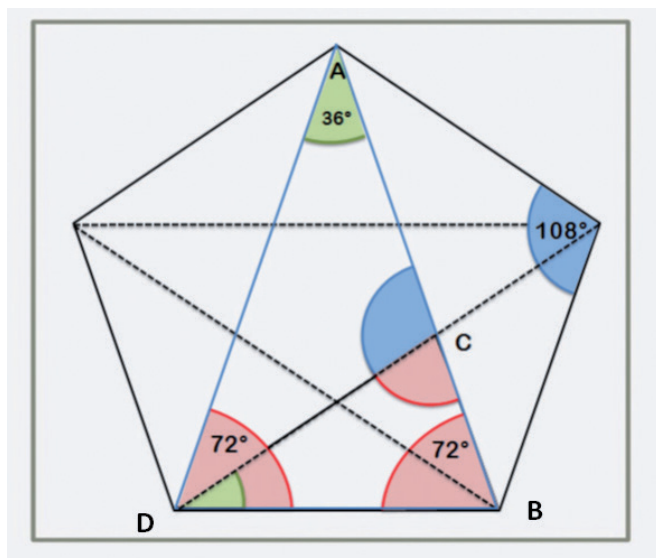
Figure 4.6. The pentacle.

The ratio between the diagonal and the side of the pentagon AB/BD is φ again.

But when you divide the angle of 72° with a segment in two equal parts, you'll find the point C, and, again, you'll have AC/CB=φ.

Astonishing is the fact that φ is in relation with the number 666 too. I can write −2 · sin666=φ. I don't want, of course, to link the golden number with the Beast of Revelation, but again with a number made up of repeated digits: 666.

φ can be rationalized using the Fibonacci series 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987… Consider, in fact, the ratio between contiguous Fibonacci numbers:

$$1/1=1,000000$$
$$2/1=2,000000$$
$$3/2=1,500000$$
$$5/3=1,666000$$
$$8/5=1,600000$$
$$13/8=1,625000$$
$$21/13=1,615385$$

$$34/21 = 1,619048$$
$$55/34 = 1,617647$$
$$89/55 = 1,618182$$
$$144/89 = 1,617978$$
$$233/144 = 1,618056$$
$$377/233 = 1,618026$$
$$610/377 = 1,618037$$
$$987/610 = 1,618033$$

These ratios get nearer and nearer to the golden number and this astonishing phenomenon was discovered by Kepler, the astronomer.

The Fibonacci series has a beautiful property connected with the number 11, again a number with repeated digits. If you sum ten numbers of the series, the result is always perfectly divisible for eleven.

For example

$$1+1+2+3+5+8+13+21+34+55 = 143$$
$$143/11 = 13$$

An evidence of the fact that the Fibonacci series proves to be fit in describing the Earth, lies in botanic and stays in relation with the phyllotaxis arrangement, i.e., the disposition of the leaves. On trees, leaves and branches are arranged to maximize the exposition to the sun. On lime trees, leaves are ordered on two opposite sides, being the coefficient of phyllotaxis ½ that means that, with one turn around the stem there are two leaves or branches. The beech has a coefficient 1/3, the apple 2/5 while there are cases of trees with a coefficient 3/8. All these ratios are made with alternated terms of Fibonacci series.

Fibonacci is the link between the golden number and fractals, both being math instruments that are perfect to describe the nature of reality. Let's consider now the logarithmic spiral. It can be obtained from a series of golden rectangles, one inside the other. They are obtained by subtracting a square to the rectangle, as you can see in the following picture. A golden rectangle has the property that the ratio between the sides is φ. The same spiral can be obtained from a golden triangle, the one with a 72° angle inside.
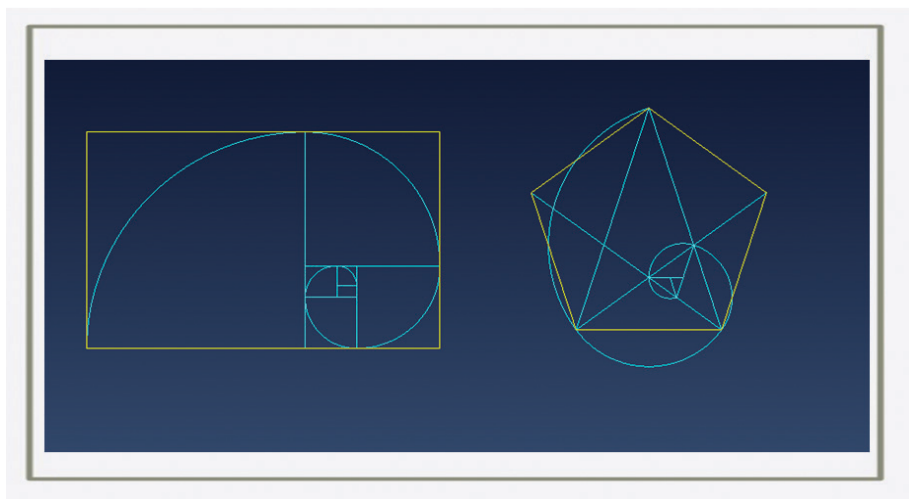
Figure 4.7. The golden spiral.

This spiral has a particular property: while growing it doesn't change in shape. This property is called self similarity, and is the same we can find in fractals: parts of fractals are similar to the total.

That is exactly the property required by a lot of phenomena of natural growth. Think for example to the Nautilus, which builds rooms increasingly greater. While the shell gets greater, the radius increases proportionally. As a result, the general shape remains always the same. It could be said: «Eadem mutato resurgo».

There are many natural shapes that are similar to the logarithmic spiral and many astronomers link the shape of galaxies to the golden spiral.

On the other hand, we could make a consideration on Newton's law of gravity. It states that, by doubling the distance, the attraction force decreases, according to a factor 4. This is because the force diminishes with the square of the distance. Due to this law, in a globular system, planets' orbits around the sun are assumed to have an elliptical shape. But, let's suppose that the attraction force could diminish of a factor 8, instead of 4. So, if, by any chance, the distance doubles, you should imagine a totally different universe. When the gravity decreases according to the cube of the distance, the planets' orbits will consequently become logarithmic spirals. As a consequence, the Earth would collapse or it would depart from the sun. Newton's laws, of course, do not act in harmony with the flat earth maths.

Harmony and proportions are, obviously, the basic elements in music too. It appears well established the fact that the Fibonacci sequence of numbers and the associated "golden ratio" are manifested in many works of art. These numbers also underlie certain musical intervals and compositions. The Fibonacci sequence is evident even in the musical structure of the octave scale. Moreover, the greatest of luthiers, Stradivarius, designed his violins around the golden ratio.

Thus, when approaching art, you can easily find that the theory of proportions has to be considered the rational basis for beauty. And, together with this, math is exalted as the foundation of many different artistic activities and mainly of music.

This aesthetic of the proportions, while uniting grace and beauty, makes me remember of a verse of Job. It refers to Leviathan and it recites:

I will not conceal his parts, nor his power, nor his comely *proportion* (Job 41:12) King James Bible.

Leviathan is, in the book of Job, a poetic representation of the vault of the heavens. On the other hand, Behemoth is a representation of the earth. Their proportions are regulated according to an extremely refined, aesthetical math: numbers of the great joy or repeated units, like 111 or 666; or even irrational numbers, like Pi or ϕ. And, of course, auto–similarity and fractals lay at the cornerstone.

4.4. Demlo Numbers

Some people believe the UN flag is a symbol of the flat earth with the Arctic lands in the centre and the Antarctic oceans all around. It appears as a grid, probably representing parallels and meridians, which are dividing the Earth in 33 sectors. Another special number is 11, of which 33 is a multiple. You probably wonder what it means and what relations have these numbers with the Earth.

33 appears immediately to be a particular number, being a palindrome. Moreover 3×3=9; 33×3=99... another palindrome digit I like is the number 12321. If you sum all digits, you'll obtain 9 again.

Thinking of these numbers it could be easy to establish a link with the cubit of the ancient Hebrews. The cubit value can be understood when you think that the Siloam inscription near Jerusalem shows that the water

gallery built by the king Ezekias was 1200 cubits long. The gallery actually measures 533 m, revealing that a cubit was 44,4 centimeters.

Figure 4.8. The Earth map used in the UN flag.

The Ark of the Covenant in the Bible is described having dimensions 2.5 x 1.5 x 1.5 cubits that are 1110 x 666 x 666 mm. All these numbers are obviously multiples of 111 [24]. A lot of numbers that describe the Earth are actually more understandable when you refer to the Hebrew measuring unit of the cubit and of multiples. Think of the cubit, of multiples of 111 like 666, or maybe of digits like 33 and so on.

Let's consider the particular case of the speed of light. This speed is known to be 299792,458 km/s in the vacuum. When we want to calculate the speed in the air (that is what actually interests us, since we live in the air) we have to use the formula:

$$v = \frac{c}{\sqrt{\varepsilon_r}}$$

where v is the speed of light in the air, c is the speed of light in vacuum, ε_r is the dielectric constant of the air in relation to the vacuum. In relation to the air, the root of ε_r is 1.0003 that gives a speed of light in the air $v=299700$ km/s. When you want to express this speed in cubits per second you obtain an incredible result: $v=675000000$ $cubit/sec$.

299700 is a multiple of 111 too, being $299700 = 2700x111$.

The energy behind this speed is proportional to the square of the speed. (Einstein postulated the formula E=mc²). So, $299700^2 = 89820090000$. This square number is a multiple of the palindrome 12321, in fact we have:

89820090000=7290000x12321

12321 is the square of 111. But when you sum up the digits of 111^2 =12321 you obtain $3^2 = 9$, being 3=1+1+1 and 9=1+2+3+2+1. All these are Demlo numbers.

These are the squares of multi–unit numbers. The first 9 Demlo are palindromes:

1^2= 1;
11^2= 121;
111^2= 12321;
1111^2= 1234321;
11111^2= 123454321;
111111^2= 12345654321;
1111111^2= 1234567654321;
11111111^2= 123456787654321;
111111111^2= 12345678987654321.

The sum of the single digits of these numbers is a square. This is the series of the Demlo squares: 1, 4, 9, 16, 25, 36, 49, 64, and 81. All numbers, when multiplied by a multi–unit number great enough, become a Demlo numbers.

On the globular Earth, to each degree of latitude, it corresponds 111 km. The tilt of Earth axis is 23,4°, that leaves, as a complementary angle, the terrible 66.6°. These numbers have been used to hide the truth in plain sight. Actually Earth dimensions are often multiples of 111 and proportional to Demlo numbers. So, to give an example, the radius of the Earth can be expressed as 19980 km=180x111. Interesting enough is the fact that the earth radius is proportional to 180 (180° is half a circle) while the diameter is *39960 km = 360x111* (360° is an entire circle). The surface is obviously proportional to the square of the radius through the formula $S=\pi \cdot radius^2$. We have:

199802 =39920400 = 32400x12321 Demlo applied!

Let's consider now the trajectory of the Sun. You will discover that it covers a cone trajectory following these data:

Table 4.2. The cone of the sun.

	Radius	Height
Tropic of Cancer	6660	6660
Tropic of Capricorn	13320	3330
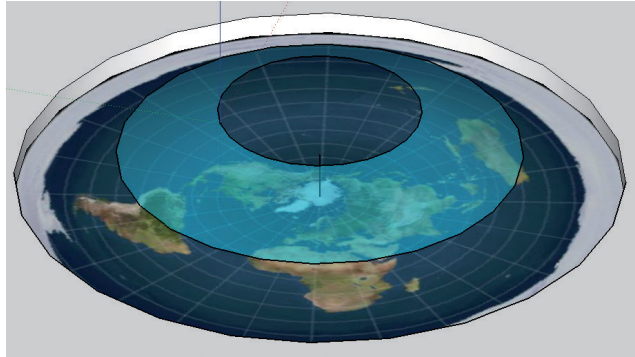
Figure 4.9. The sun's trajectory.

We easily obtain:

6660=60x*111*;
3330=30x*111*;
13320=120x*111*;
6660×6660=44355600=3600x*12321*. *Demlo applied!*
13320×3330=44355600=3600x*12321*.

Does the value 3600 mean anything to you? Aren't these the seconds in one hour?

I'll add for you a short note about the Indian mathematician who studied the Demlo numbers. Kaprekar was an Indian recreational mathematician. He described several classes of natural numbers: the Kaprekar, Harshad and self numbers and he discovered the Kaprekar constant. He also studied the Demlo numbers, named after a train station 30 miles from Bombay, where he had the idea of studying them. These are the numbers 1, 121, 12321… which are the squares of the repunits (repeated units) 1, 11, 111.

4.5. Harshad Numbers

Kaprekar is the Indian mathematician who was able to reveal the existence of a class of numbers called the Demlo numbers. Consequently, I want to introduce another class of digits Kaprekar has later introduced. For a scholar of the flat Earth, these numbers are of great utility because they are in a deep connection with the description of the Earth.

These are the Harshad numbers, also known as the Numbers of the Great Joy. They are positive integer numbers and are divisible for the sum of their digits. To give an example, 81 is a Harshad number because it can be divided by 9, and 9=8+1.

You'll find here a list of the first Harshad numbers:

10, 12, 18, 20, 21, 24, 27, 30, 36, 40, 42, 45, 48, 50, 54, 60, 63, 70, 72, 80, 81, 84, 90, 100, 102, 108, 110,111, 112, 114, 117, 120, 126, 132, 133, 135, 140, 144, 150, 152, 153, 156, 162, 171, 180, 190, 192, 195, 198, 200, 201, 204.

In this list you can find some remarkable numbers which appear in the description of the Earth. They are 12, 24, 36, 60, 72, 111, 144, 180…

An interesting property of the Harshad numbers is that all numbers in the form nnn, i.e. a repdigit number, are Harshad numbers. In fact 111 is divisible for 3=1+1+1; 666 is divisible for 18=6+6+6 and so on.

In the reading of this book, you will quite often meet these numbers. Appropriately they are called Numbers of the Great Joy, definition which well associates with the fact that they are numbers describing God's creation.

4.6. Isotropy and Relativity

Isotropy is uniformity in all orientations. So, in this discussion, you will find a brief inquiry into an old alchemic principle. Our universe shows everywhere uniformity and auto–similarity. So it appears the same from any position. In order to explain this reality, Einstein elaborated and achieved his special relativity theory.

Isotropy is in complete harmony with the definition of the cosmological principle. It is the notion that the spatial distribution of matter in the universe is homogeneous and isotropic. This is a consequence of the fact that you expect the forces to act uniformly throughout the entire uni-

verse. They should, therefore, produce no observable irregularities in the large–scale frame of our cosmos.

Isotropy is derived from the Greek *isos* (ἴσος, "equal") and *tropos* (τρόπος, "way"). We indicate exceptions, or inequalities, by the prefix *an*, hence anisotropy.

Astronomer William Keel explains:

> The cosmological principle is usually stated formally as "Viewed on a sufficiently large scale, the properties of the universe are the same for all observers". This amounts to the strong philosophical statement that the part of the universe which we can see is a fair sample. As a consequence, the same physical laws apply throughout. In essence, this in a sense says that the universe is knowable and is playing fair with scientists.

Anyway, as far as flat earth is concerned, in order that the cosmological principle could be respected, large scales are not necessary. For any phenomenon on the Earth's surface, the distances are small enough that light signals appear instantaneous. This is a consequence of the fact that the flat circle we live on has just a small radius. Thus light is able to cover it 15 times in just one second. This means that a ray of light could run all the earth from the North pole to Antarctica in 4/60 of a second. It also means that a sun ray reaches any point of the tropic of Capricorn in 1/45 of a second. Three times faster. This, actually, nearly equals instantaneity.

After the Mickelson Morley experiment, Einstein himself was forced to take the subject of isotropy into consideration. The results showed that, starting from experiments made on the basis of the speed of light, it was not possible to demonstrate that the Earth rotates.

When deeply considering the topic, since the Earth rotates around its axis and around the sun, the system could not be considered as being isotropic and this as a consequence of its not being inertial. An inertial system is stationary or moving with a uniform rectilinear speed, without rotation, because a rotation means acceleration and inertia. Since the Earth is said to rotate, there could be no isotropic behavior in every direction. In fact, physical laws should behave differently around the globe, whether moving eastward or westward. But isotropy means there are no special directions to the Universe and Mickelson and Morley proved that the previous hypothesis could not be true.

Einstein was then forced to posit that the rotation of the earth is not measurable by any optical means and the aether does not exist. For this reason, he posited that the light speed is of 299792,458 km/s and had to remain the same, independently of the reference system. His special relativity theory was then elaborated. It had to provide a framework for translating physical events and laws into forms appropriate for any inertial frame of reference. That is to say, it had to justify the fact that the isotropy evident everywhere on the earth could not be otherwise explained.

A corollary to the cosmological principle is that the laws of physics are universal. The same physical laws and models that apply here on the Earth also work in distant stars, galaxies, and all parts of the outer Universe — this, of course, would simplify scientific investigations immensely. Note also that it is assumed that physical constants (such as the gravitational constant, the mass of the electron, the speed of light, etc.) are also unchanging from place to place within the Universe, and over time.

« That the sun will not rise tomorrow is no less intelligible a proposition, and implies no more contradiction, than the affirmation, that it will rise. »

This line was written by the philosopher David Hume in *An Enquiry Concerning Human Understanding*, published in 1748.

So, about this late assumption that physical constants will be unchanged even over time, we could discuss at length. For instance, knowing our geo–building is a capacitor and a battery, we also understand the skies are wearing out. So the time factor could immediately be put into doubt. The same could be said for the physical constants in the course of time. Constance in the universe cannot be judged by simple mortal man. Everything could be changed at the right moment.

Now, let's go back to our subject and take into account the fact that our universe has fractal geometries behind.

Fractal cosmology is a set of cosmological theories which state that the distribution of matter in the Universe, or the structure of the universe itself, is a fractal across a wide range of scales. More generally, it relates to the usage or appearance of fractals in the study of the universe and matter. A central issue in this field is the fractal dimension of the universe or of matter distribution within it, when measured at very large or very small scales. (Wikipedia)

Nature, of course, can offer an enormous number of fractal geometry examples. Think, for instance, of the forest trees, the ramifications of lightning, of rivers, the many dendritic patterns in the mammals and human bodies: bronchi, bronchioles, lungs, kidneys, brain neuron dendrites, circulatory systems… So, in this manner, on a larger and a smaller scale, the universe can show an underlying, constantly repeated, self–similarity.

Ancient micro–macrocosmic theories were a powerful theoretical construction able to unify the laws governing the human body with the laws governing the earth and the whole universe. «As above, so below», was the old alchemic principle. It means that what happens in our cosmos, from the very large to the very small, it is always affected by the same laws.

In writing his Timaeus, Plato noticed that the frame of everything within our body is similar to the framework of the earth. Inside of us body fluids flow like rivers, lungs are full of air, our skeleton can be compared to stones, fire to energies emanating from the mind. He considered the universe as a living organism possessing a collective soul, the so–called Anima Mundi.

There is no doubt that, since the modern times' discovery of the atoms, the hypothesis that the living human body and the celestial stars can have the same fundamental structure, has had an astonishing confirmation. The chemical reactions inside our cells are similar to those developing in the above space and in the stars. Everything that happens in the furthermost distant parts of the universe can have a deep influence on the rest of the earth's system, even without any visible, evident energy movement transmission.

Alain Aspect, David Bohm, Karl Pribram's theories concerning the new physic could shake the foundations of the traditional science. From the subatomic particles to the gigantic galaxies, all is in every infinitesimal part similar to the totality of the whole. Alain Aspect and his team found that, in particular conditions, electrons can instantly communicate with the entire universe, independently of the distance. It appears that every single subatomic particle knows what all the others are doing.

However, the distances in space are said to be vast. They are measured in hundreds of millions of light–years. Thus, the time for light to travel from the remotest galaxies is said to be on the order of hundreds of millions of years up to billions of years for the most distant objects.

So, what about the distant stars? The only answer is that our cosmos is tiny enough, so that the speed of light can reach every part of the universe in a fraction of the time. Almost instantaneously. Our firmament has measures that are far lower than the about 300.000 kilometers the light can cover in a second. Many physicists deny the possibility to find major speeds than that of the light. But the Aspect experiment could prove that the ties among the subatomic particles have no local limits and are instantaneous.

David Bohm suggests that every part in the universe system can be informed by the same structures and models. So, as I will discuss later on, according to the principles above introduced, the earth and the dome are made of a series of concentric and similarly spaced rings. Something like the growth rings of a tree. This reminds me of Cantor's theorem with nested intervals.

Here I don't pretend to give a rigorous mathematic explanation inside this theorem. I simply want to give an easy, elementary sample. You should consider an interval as a box, a sort of Matryoshka with a second box inside, a third box inside the second, a forth inside the third and so on. Every box has to be a bit smaller than its container. Now we could go infinitely on, in order to reach the smallest box, a simple point, a single subatomic particle. That point belongs to all the boxes that are nested one in the other. You can, at this point, easily understand that Cantor's set is nonempty. So is the universe we live inside.

The Aether

5.1. The Real Nature of Light

> The more you observe nature, the more you perceive that there is tremendous organization in all things. It is intelligence so great that just by observing natural phenomena I come to the conclusion that a Creator exists. (Carlo Rubbia)

Light: you know from quantum physics that it has a double nature. It is a wave but also a particle. They taught me at school that light is a wave propagating through the void or other physical means and is made up of particles without a mass that are named photons. I'll try to resume here some of the reasons why physicists were reduced to accept such an ambiguity, that is to say, the corpuscular and wave nature of all the electromagnetic phenomena.

Incidentally, I want here to observe first that light is a wave that moves in a mean made of particles (i.e. an elastic, mechanical mean, exactly like air or water), and it does not absolutely behave in the way most physicists believe. They describe light as behaving alternatively as a wave or as a particle, especially when they put it under observation and consequently measure it. I'm referring here to the double–slit experiment which was at the basis of the description of light as particle and wave.

The particle nature of light had been postulated by Newton, and can explain some phenomena, such as the reflection, the photoelectric effect, the Compton Effect and the pair production.
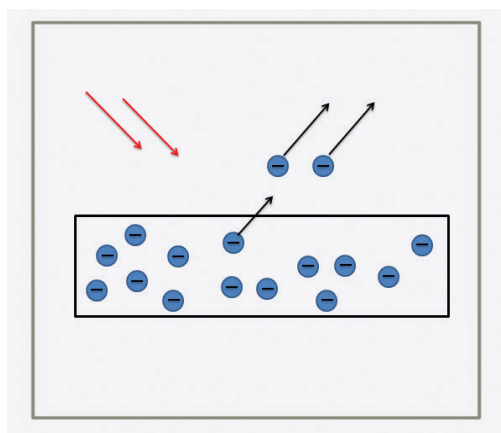
Figure 5.1. Light matter interaction.

Here I'll quote from Wikipedia. The photoelectric effect is the emission of electrons or other free carriers when light shines on a material. Electrons emitted in this manner can be called photo electrons. This phenomenon is commonly studied in electronic physics, as well as in fields of chemistry, for instance quantum chemistry or electrochemistry.

Compton scattering, discovered by Arthur Holly Compton, is the inelastic scattering of a photon by a charged particle, usually an electron. It results in a decrease in energy (increase in wavelength) of the photon (which may be an X–ray or gamma ray photon), called the Compton Effect. Part of the energy of the photon is transferred to the recoiling electron. Inverse Compton scattering occurs, in which a charged particle transfers part of its energy to a photon.

Pair production is the creation of an elementary particle and its antiparticle from a neutral boson. Examples include creating an electron and a positron, a muon and an antimuon, or a proton and an antiproton. Pair production often refers specifically to a photon creating an electron–positron pair near a nucleus. For pair production to occur, the incoming energy of the interaction must be above a threshold of at least the total rest mass energy of the two particles, and the situation must conserve both energy and momentum. However, all other conserved quantum numbers (angular momentum, electric charge, lepton number) of the produced particles must sum to zero — thus the created particles shall have opposite values of each other. For instance, if one particle has electric charge

of +1 the other must have electric charge of −1, or if one particle has strangeness of +1 then another one must have strangeness of −1.

The particle description of light is not good however to describe some other phenomena like refraction, diffraction or interference.

Reflection, refraction, interference are explainable with the wave theory. In these cases the light behaves perfectly as a wave.
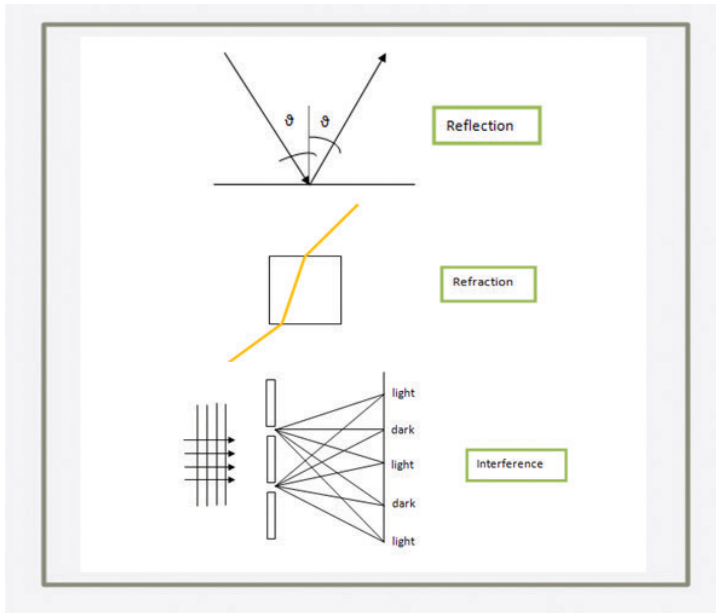
Figure 5.2. Wave behavior.

All these phenomena can be explained only with the wave description of light.

We have already discussed in a previous chapter the fact that the Mickelson Morley experiment could not measure the speed of the Earth in relation with the luminiferous aether. This led Einstein to remove the idea of aether with his special relativity theory. To solve, however, some problems rising in relation with gravity, Einstein was later forced to reintroduce the idea of an empty space endowed with physical properties: the space–time.

And, moreover, Einstein's space–time is deformed by a gravity field. The aether became thus the space–time through which the light moves. This space is consequently a sort of mean through which the light moves

like a mechanical wave. It is endowed with elastic and mechanic properties, allowing the movement of a mechanic wave. (Einstein did not assert that actually the space–time is the aether. His space time is not made of particles because for Einstein particles are photons and this is an inner characteristic of light. However, I need to change this theory by reintroducing the idea of aether made of particles endowed with elastic properties.)

We have now introduced the dual nature of light. Photons are particles that are moving with the speed of light but are wave packages as well. It is a strange nature that physicists have not been able, till now, to describe in a simpler way. But consider how simple can be this situation while introducing the aether.

We said the aether becomes a mechanical mean for the movement of an elastic wave [25], exactly like the air or the water is behaving for the sound waves. Think, for instance, of a surface wave that is moving on a lake after you have hit the water with a stone.

Consider one last example of a wave moving on the surface of the lake. The lake is full of water made up of H_2O molecules that are the particles. When a stone is thrown into the water, it produces an oscillation of these particles due to the laceration produced by the stone. The stress produced in the water induces a wobbling movement in the particles. The wave starts to move horizontally while molecules move with a vertical movement. There is no mass movement, only the wave translates. This water phenomenon has a double nature: particles wobble vertically while the wave moves horizontally.

Science asserts that a light beam is a wave made of photons moving with the speed of light. Each photon is a particle, but also a wave, with its own frequency and wave length. The product between the frequency and the wave length is the speed of propagation:

$$\lambda \cdot \nu = c$$

where λ is the wave length, ν is the frequency and c is the speed of light.

Photons transport a quantity of energy E proportional to frequency:

$$E = \nu \cdot h$$

where h is the Plank Constant $6,6 \cdot 10^{-34}$ J $\cdot$ s.

Let's now think that photons are not simply the beams of light but the single unities that constitute the aether. These particles, that we are go-

ing to call aetherons, can enter into vibration due to the stress provoked by electromagnetic or chemical phenomena. With their wobbling movement they generate an electromagnetic wave. When this wave has the frequency of the visible range, we can see the light. On the other hand, when the frequency is not that range, we cannot perceive it. But this does not mean that the aetheron is ineffective.

Let's suggest a few examples. Many big seeds, like beans, can sprout in the dark. Why? Because their photoreceptors are able to detect the presence of the light even when in the apparent darkness. Similarly, think to the wheat sprouts in winter. They are able to take advantage of light notwithstanding the coverage of the snow. Vegetal roots can detect light even in the underground. Light is everywhere, even when not visible to photoreceptors or to human eyes. Think of the euphorbia pulcherrima, a plant also known as poinsettia, whose brats, in order to assume their elegant redness, need a number of dark hours for a long period. All these are evidence of the fact that light photons and obscure photons are just one unity (aetherons). I can repeat here that the matrix of light is the shadow. The electromagnetic waves are, as a consequence, movements of the aether. Aetherons are the particle side of light; the generated wave is the other side.
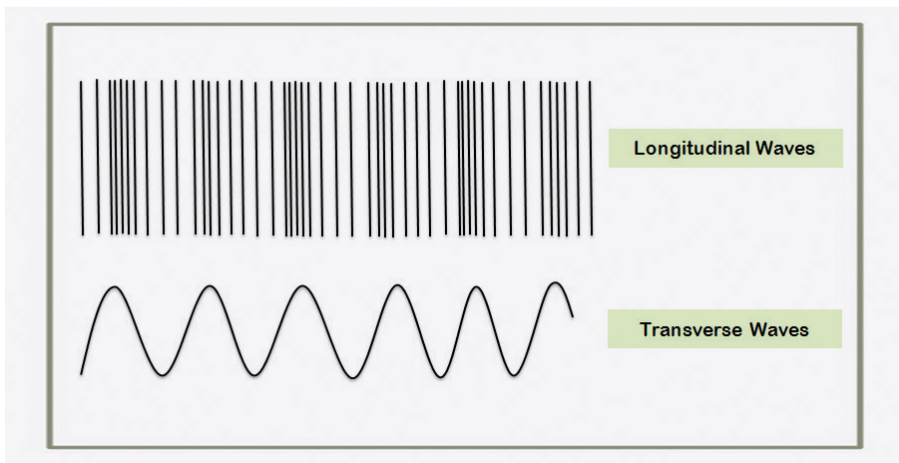
Figure 5.3. Longitudinal and transverse waves.

They are intrinsically connected. All what was difficult to explain becomes simple.

A characteristic of the aether is that it behaves like a solid. We have in fact to consider that electromagnetic waves can be longitudinal or transversal. Longitudinal waves can be transmitted by solids or fluids, but transversal waves can be generated only in a mean presenting a shear modulus. (In materials science, shear modulus or modulus of rigidity is defined as the ratio of shear stress to the shear strain. Wikipedia) Particles shall in fact transmit the motion by friction to the nearer particles. This is not possible in a gas, where particles are far one from the other, but only in solids or dense fluids. We shall conclude that aetherons are very near one to the other and are connected by a super strong physical bonding, able to keep them together like a solid mean. I hope to be able in the future to better explain this last consideration. See in the appendix of this book, the part 2, to read a calculation on how the light moves in the aether.

5.2. Is Quantum Physics Ok?

« Natura abhorret vacuum », this was an ancient saying. Accordingly, in one of my previous paragraphs, I have introduced the aether, made of aetherons. Aether has consequently a discrete nature, being the aetherons the minimum unity that constitute it.

In this chapter I want to discuss the way quantum physics tries to formulate some extensive and complete description of the light phenomena. *Classical physics* states that particles are particles, waves are waves, and the two shall never mix. Particles can be described by their mass m and by their energy E. Waves can be described by their amplitude A and by the addition of the wave factor $k = \frac{2\pi}{\lambda}$. Classical physics is therefore perfectly able to describe an acoustic longitudinal wave propagating in a steel bar or a mechanic transversal wave propagating in the water or in any other mean.

Reality described by the *quantum physics* is different: particles behave like waves and vice versa. This is the fundamental idea that, since the beginning, was at the basis of the quantum physics.

The first one to assert that light has a particle nature was Newton. Huygens, on the other hand, was sustaining that light has a wave nature. One of the greatest ideas of quantum mechanics has been the quantization of

light, i.e., to measure quantities in a discrete way. Let's stop a while on this idea and reason on what I have already mentioned about the aether.

I postulate an aether formed by aetherons that are motionless and unlit. At the very moment when a vibration moves a quantity of aetherons, they begin to oscillate generating a wave, and they light up. In addition, it is the eye that, being specialized to perceive some electromagnetic frequency, can see the light, if the vibration has a frequency in the visible field. The wave propagates as a mechanical entity, without transportation of mass or transportation of aetherons but with transportation of energy. Aetherons only vibrate in their position longitudinally or transversally.

Let's try to see, if possible, on the basis of this new point of view, to explain the different phenomena underlying the particle interpretation and those that underlie the wave interpretation.

This is readily explainable in the aether theory on the basis of the simple propagation of the wave. The wave propagates in the aether and when encountering an obstacle it reflects or refracts or interferes with another wave.

For the whole phenomenon involving the activity of light, which is behaving like a wave, it is easy to find some explanation: the wave is simply propagating in the aether and consequently it reflects, refracts, diffracts and so on. Phenomena in which light behaves as a particle are a little more difficult to explain. These are the photoelectric effect, the Compton Effect, and the Dirac production of pairs. How can you explain these effects? These are simply particle collisions. The aetheron has probably very little mass but has however a momentum that has to be considered as constant in an impact with an electron. So, finally, let's try to explain a few light phenomena according to this new aether theory.

From Wikipedia: «The photoelectric effect is the emission of electrons or other free carriers when light shines on a material». [26]

According to classical electromagnetic theory, this effect can be attributed to the transfer of energy from the light to an electron. From this perspective, an alteration in the intensity of light would induce changes in the kinetic energy of the electrons emitted from the metal. Furthermore, according to this theory, a sufficiently dim light would be expected to show a time lag between the initial shining of its light and the subsequent

emission of an electron. In fact, the experimental results did not correlate with either of the two predictions made by classical theory.

Instead, electrons are dislodged only by the impingement of photons, when those photons reach or exceed a threshold frequency (energy). Below that threshold, no electrons are emitted from the material, regardless of the light intensity or the length of time of exposure to the light (rarely, an electron will escape by absorbing two or more quanta. However, this is extremely rare because by the time it absorbs enough quanta to escape, the electron will probably have emitted the rest of the quanta). To make sense of the fact that light can eject electrons even if its intensity is low, Albert Einstein proposed that a beam of light is not a wave propagating through space, but rather a collection of discrete wave packets (photons), each with energy E=hν. This shed light on Max Planck's previous discovery of the Planck relation (E = hν) linking energy (E) and frequency (ν) as arising from quantization of energy. The factor h is known as the Planck constant.

How can you explain this effect in a different way, according to the newly posited aether theory?

A light wave propagates toward the metallic surface. While in motion, it puts in vibration the surrounding aetherons. When an aetheron, in the nearest metal surface proximity, starts vibrating, it happens to hit a free electron on the surface. If the aetheron has enough energy from the wave ($E = h \cdot v$), it can transfer to the electron the quantum of energy needed to free the electron. If the frequency is low, the energy will not be enough to move the electron, it doesn't matter how great the intensity of light could be. In conclusion, in this case too, we can't say that the light is behaving like a particle: it behaves like always, and the phenomenon is simply an impact of an aetheron with an electron.

Let's try to explain the Compton Effect. This is another of the many so believed particle phenomena that should be explained in a way similar to the one just followed for the photoelectric effect.

In this image, which I have taken from Wikipedia, you can see an emission of X rays (the so called *photon*) moving with the speed of light [27](and represented in the picture as a blue longitudinal wave) while hitting an electron. The electron moves away with a scattering angle derived by the conservation of the total momentum. As a result the so called "photon" is scattered away with less energy (a part of the energy

is transmitted to the electron) and therefore this means a minor frequency. In fact, the *photon* (in the new conceptual framework I would say the *aetheron*), is represented in the picture with a red wave, that is to say, a radiation with a bigger wave length and less energy ($E = h \cdot v$).
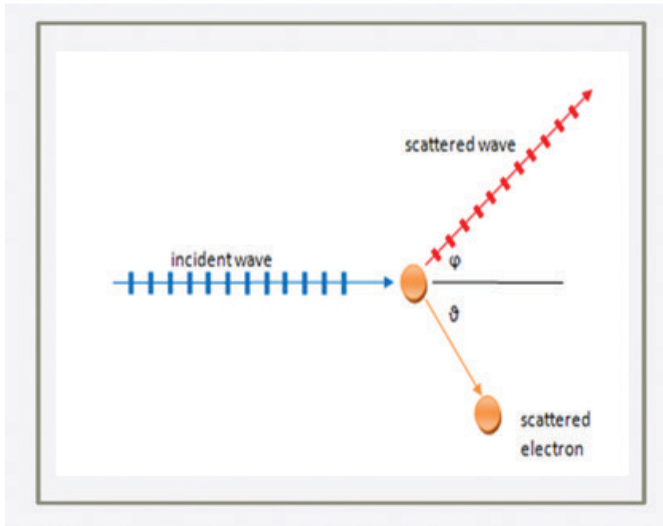
Figure 5.4. Compton effect.

This is the actual situation: the blue wave, and not the particle, is moving toward the electron. The wave is a high energy one and, during its movement, it puts in vibration all the aetherons. When the wave gets into collision with the electron, also the nearest aetheron starts to vibrate and hits the electron with the energy transported by the wave.

The electron moves away with an angle that can be calculated by keeping in mind the conservation of the total momentum and energy. The wave loses part of its energy (given to the electron) and turns thus to the frequency of red. The impact is, therefore, an impact between particles, while the scattering characterizes the wave. Classical physics is actually the only mean able to explain everything. And this is quite surprising!

Pair production is the creation of an elementary particle and its antiparticle from a neutral boson. Examples include creating an electron and a positron, a muon and an antimuon, or a proton and an antiproton. Pair production often refers specifically to a photon creating an electron–positron pair near a nucleus. In order for pair production to occur, the in-

coming energy of the interaction must be above a threshold of at least the total rest mass energy of the two particles, and the situation must conserve both energy and momentum. However, all other conserved quantum numbers (angular momentum, electric charge, lepton number) of the produced particles must sum to zero — thus the created particles shall have opposite values, one in respect of the other. For instance, if one particle has electric charge of +1 the other must have electric charge of −1, or if one particle has strangeness of +1 then another one must have strangeness of −1.

The probability of pair production in photon–matter interactions increases with photon energy and also increases approximately as the square of atomic number of the nearby atom (Wikipedia).
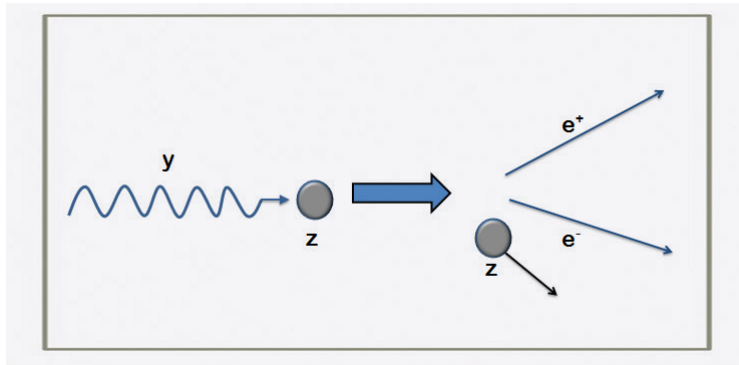
Figure 5.5. Diagram showing the process of electron–positron pair production.

For photons with high photon energy (MeV scale and higher), pair production is the dominant mode of photon interaction with matter. These interactions were first observed in Patrick Blackett's counter–controlled cloud chamber, leading to the 1948 Nobel Prize in Physics. If the photon is near an atomic nucleus, the energy of a photon can be converted into an electron–positron pair: $\gamma \rightarrow e- + e+$.

The photon's energy is converted to particle's mass in accordance with Einstein's equation, $E=mc^2$; where E is energy, m is mass and c is the speed of light. The photon must have higher energy than the sum of the rest mass energies of an electron and positron (2×0.511 MeV $= 1.022$ MeV) for the production to occur. The photon must be near a nucleus, in order to satisfy conservation of momentum, as an electron–positron pair producing in free

space cannot both satisfy conservation of energy and momentum. Because of this, when pair production occurs, the atomic nucleus receives some recoil. The reverse of this process is electron positron annihilation.

In this case, a gamma ray having a very high energy and impacting a nucleus, can have an inelastic behavior, i.e., the total amount of energy doesn't conserve but creates particles with mass that can be electrons and positrons or protons and antiprotons with a higher level of energy or neutrons and antineutrons… The impact of the aetheron can thus produce matter as foreseen by Einstein's equation $E=mc^2$. The wave loses its energy and scatters to minor levels of frequency, often in the field of blue. (Cerenkov effect).

In conclusion quantum physics came into existence because physicists had to find a way to explain the fact that radiations transmit energy in a discrete quantized way. They were forced to postulate that the light is a wave that in some situation behaves like a particle. The problem arose from Einstein's insane idea of removing the aether from science, as a consequence of his special relativity. However, I am making it clear that the entire problem can be solved by reintroducing the aether. Particles of the aether, the aetherons, are the particle receptive side of the light; the wave transmitted through the aether, due to the oscillation of the aetherons, is the wave character of light. This is a totally classical interpretation of the nature of electromagnetic phenomena.

5.3. The Black Body Spectrum

Reintroducing an abandoned concept, the aether, all phenomena involving light become perfectly explainable from an exclusively classical point of view. This way, it becomes very easy to describe all the electromagnetic radiations and, in particular, the nature of light as a wave, with all its power to put in vibration the aetherons. These invisible particles remain at their place, they don't move, but only oscillate, transmitting the wave in all directions.

All the light phenomena become, this way, perfectly explainable by the only aid of classical physics [28]. Light loses its ambiguity that is its double nature of particle and wave. It simply becomes a wave that propagates in particles.

In this chapter I will consider two more points, the black body radiation and the De Broglie consideration about matter being a wave. This is the inverse of what I have considered till now.

Many people think that quantum physics exists because it describes the discrete nature of radiations, the quantization. Moreover, they think it measures quantities in discrete, not continuous units. That's true; this is one of the major ideas of quantum physics. Anyway, this is not so peculiar. It is not what makes the quantum physics one of the scientific branches you cannot do without. Classical physics can describe discrete quantities too. The double nature of light and matter is the only point actually making it impossible, for classical physics, to give a plane description of electromagnetism.
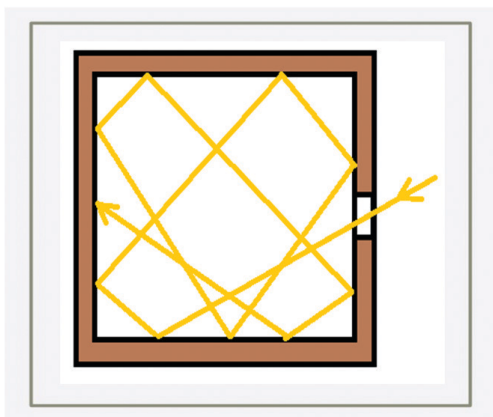
Figure 5.6. Black body.

The idea of quantized energies came to the fore when considering one big point: the black body radiation. Let's try to describe this problem that has challenged the classic physics for many years.

When we heat a body, this begins to glow. Also when it has not started to glow, it irradiates in the infrared field. The glow can be explained considering that, while heating it, the electrons on the surface of the body get thermally excited and emit light.

It has been very hard to explain the radiation spectrum of the light emitted by black bodies. A black body is a piece of material that emits light corresponding to its temperature. When it is cold it absorbs all radiation. To simulate a similar body, we can think to a hollow cavity like that in the following picture.

All the light enters in the hole and is reflected many times, till it gets completely absorbed by the body. By using this model we can study the spectrum of the radiations emitted by the body.

Just for a start, let's consider of the black body spectrum enigmatic diagram. You can see Fig. 5.7.

On the Y axis you have the Energy while on the X axis there is the wavelength. Nobody was able to describe this spectrum in a classical way.
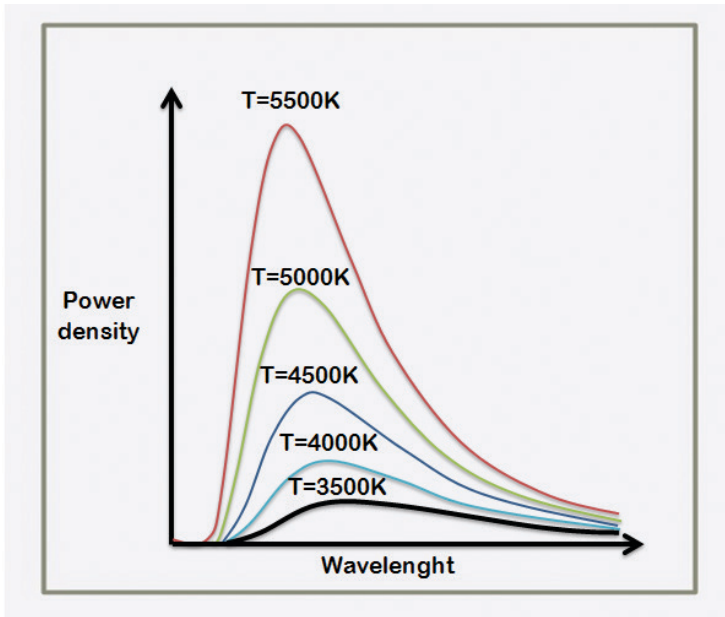
Figure 5.7. Black body spectrum. Source: The net.

The first attempt came up with Wilhelm Wien with a formula that was working well for higher λ but failed for lower frequencies.

A second attempt has been the Rayleigh–Jeans Law that was working well for low frequencies but not for higher frequencies (ultraviolet catastrophe). Then Max Plank came into play.

Max Planck found a radical solution by making the hypothesis that the quantity of energy that light can exchange with matter is not continuous, as previously expressed by classical physics, but discrete. Planck postulated, in fact, that the energy of the light, emitted by the black body cavity, distributes only with multiple integers, according to this relation:

$$E = n \cdot h \cdot v$$

where n=0,1,2,3..., h is the Planck constant and f is the frequency of the radiation.

Planck wrote thus this equation to describe the black body spectrum:

$$u(f,t) = \frac{2\pi h f^5}{c^3 \left(e^{\frac{hf}{kT}} - 1 \right)}$$

His equation is, of course, a perfect description. Planck was saying that electrons, on the surface of the black body, can't start to oscillate at just any level of energy, as classical physics supposed. Electrons can reach only specific quantized levels of energy and this energy is a multiple of $h \cdot v$ where h is $=6,626 \cdot 10^{-34}$ Joule per second.

This has been the first big result of quantum physics. But are you sure this situation can't be explained under the coverage of classical physics?

By now it would be the time to gain a better insight into the ultraviolet catastrophe of the black body. According to our understanding of the aether, the aetherons fill completely the internal cavity of the black body.

Radiations that enter the black body and hit the surface put the surface particles in oscillation. This is a consequence of the fact that energy, by means of a series of impacts, is passed to these particles through the aetherons. According to the different properties of the material constituting the black body, oscillations will be different. In quantum physics oscillations are called phonons. Among the many subjects he considered, Einstein, when analyzing the thermal properties of materials, kept into consideration phonons too.

A phonon is a vibration mode of a crystal. The complex vibration of crystals is decomposed in simple vibrations with a harmonic assessment. These elementary waves are the phonons. In quantum physics a phonon is a quasi–particle useful to describe properties of the material like specific heat, thermal conduction, electrical conduction, and sound propagation. Even phonons are described as having a double nature of wave and particle. We know that this is due to a wave that moves in a mean made of particles. The black body material is made of particles that vibrate around their equilibrium position. Vibrations occur at the passage of the wave generated by an impact with an aetheron. So we have a wave moving in particles and this is the "double nature" of the phonon.

The phonon can transmit sounds and heat in the solid. The sound waves move at low frequencies (one kilohertz) and run long distances. The waves generating heat move at high frequencies (one terahertz) but run short distances.

So in the black body the aether enters in contact with the surface of the material. The aether oscillates and puts in vibration the surface particles of the black body. A real black body absorbs the radiation completely. In the black body we obtained with a cavity, the radiation enters through a little hole and is reflected many times till gets completely absorbed by the body. Thus, in a practical way, this is a good surrogate of a real black body because no radiation is reflected. The surface of the body will completely absorb the energy passing through the aether. Scattering phenomena develop, in which part of the energy will disperse. This is a consequence of the many impacts among the particles.

By increasing the frequency of the incident radiation, the vibration frequency of the phonons also increases. The energy density reaches its maximum at a certain vibrating frequency of the phonons. In this situation all phonons vibrate at the same frequency of the aetherons. They perform their activity in a coherent way and a resonance phenomenon occurs.

If we continue to increase the incident frequency we will not be able to increase the energy density because, due to the scattering, the incident and the resulting radiations will shift going out of phase. A situation of destructive interference arises and the energy falls down.
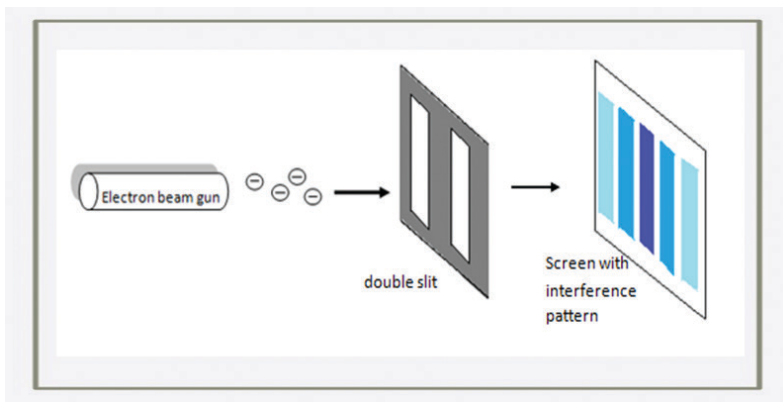
Figure 5.8. Electron beam.

Once again, it can be proved that light, described as a wave and moving through particles, can be simply described in a classical way. The fact that light is considered as discrete is not a problem: the mean in which the light passes is discrete and each aetheron carries on a discrete energy $E = h \cdot v$.

De Broglie suggested, however, that not only light has a particle nature beside the wave one. He said that the whole matter has not just a particle nature but also a wave one. To prove this assertion, researchers made an experiment sending an electron beam through a dual slit apparatus and they saw that particles act like a wave (see figure 5.8).

The central fringe in the picture is heavier because it is the result of the interference. This is the sum of the intensity of the two waves starting from the two slits.

How to explain this phenomenon on the basis of the newly reintroduced aether?

The electron beam passes through the aether, arriving to the slits. The passage of the electrons transfers energy, due to the impact against a number of aetherons. So they start oscillating and generate a wave. The wave generates the interference fringes. Over.

All physics becomes simple with the reintroduction of the aether. [29]

Chapter VI

The Measures of the Earth

6.1. The Sun

I have given a good number of proofs to demonstrate the Earth is flat but, if the Earth is flat and motionless, you wonder how the sun should move upon it to realize what you really see.

To get an idea you have to deal with a little trigonometry.

The best way would be to have a sextant, as the one in the Figure 6.1, and make many measurements of the height of the sun in many days of the year and in many different places of the globe.

Figure 6.1. Sextant.

Table 6.1. Sun's angles in Rome.

Summer solstice	71.5°
Winter solstice	24.7°

To learn to use a sextant and correct the altitude from refraction would be very interesting… if you had time and money for it. But if you have not? You have to make like me and download an application that gives the height of the sun for every place in the world. Let's suppose that we are in Rome. Rome has latitude of 41°54'. You have to consider that in globe geometry each degree of latitude corresponds to a 111 km arc (40000 km / 360°).

Rome is distant 41°54'–23°27'=18°27' (2050 km) from the summer tropic and 41°54'+23°27'=65° 21' (7250 km) from the winter tropic. 41° 54' is the latitude of Rome. 23°27' north or south is the latitude of the tropics.

The software gives these two height angles relative to the sun at the summer and winter solstice in Rome (Tab. 6.1).

Let's now calculate, with these two values, the height of the sun in winter and in summer (Fig. 6.2).

If you consider some other place in the northern hemisphere you will find values from slightly different to very different, due to the original geometry considerations the software is based upon. However, we can have a first impressive idea of the behavior of the sun: it makes a conical spiral between the two tropics.

The value of 6127 km is a little different from the value obtained by Eratosthenes and from the radius of the Earth of 6356 km at the pole or 6378 at the equator.

The difference from our calculation is due to refraction in the ionosphere. The idea is, however, that, on a flat Earth, an experiment in Eratosthenes' style gives, as a result, the sun's height and not the Earth radius.

H=tg71.5°x2050= 6127 km
height of the Sun when on the Cancer tropic

H=tg24.7°x7250= 3334 km
height of the Sun when on the Capricorn tropic
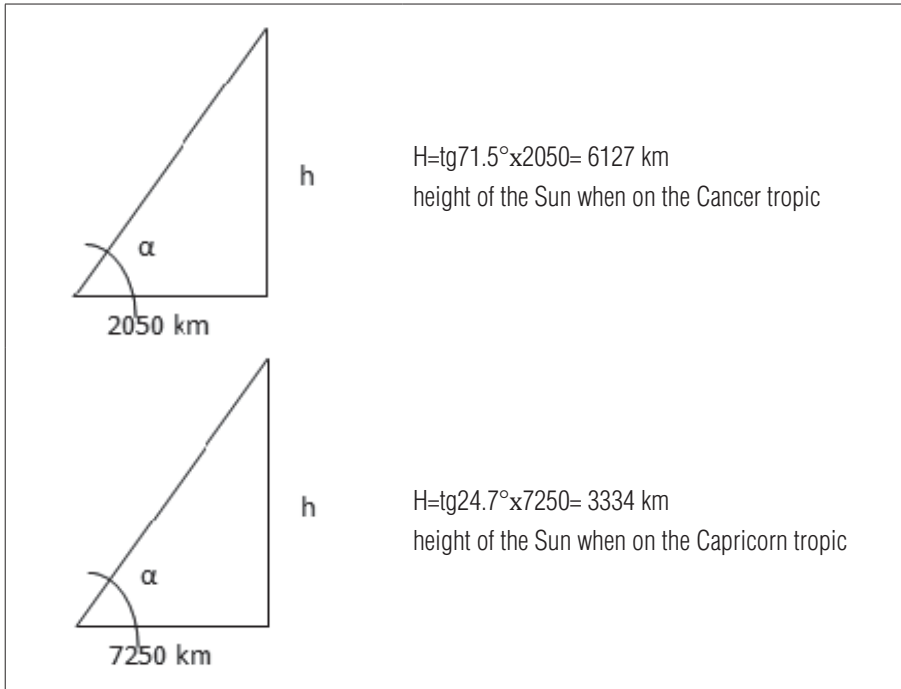
Figure 6.2. Trigonometric calculation.

Day and night alternate, in this model, not because the sun goes on the other side of the Earth, but because it departs so much that it becomes invisible, due to perspective.
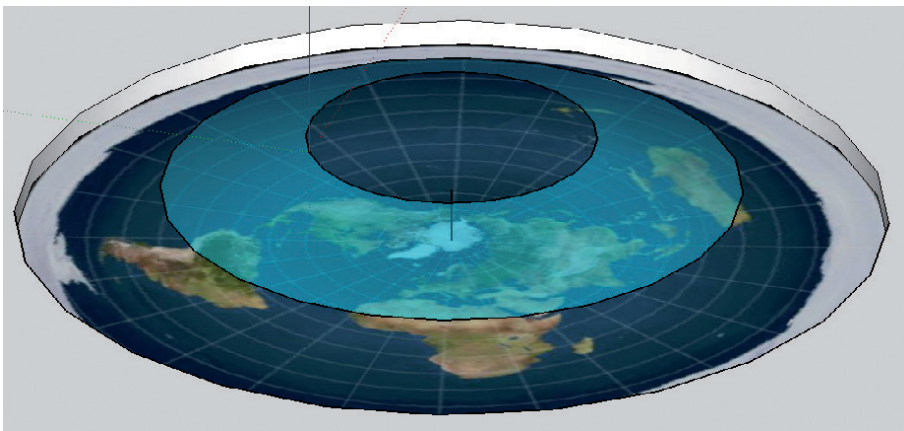
Figure 6.3. The sun trajectory.

Objection: if the sun doesn't set on the other part of the Earth, you should see it also during the night.

Answer: the sun disappears over the horizon due to perspective. It becomes a little smaller as it goes farther and it goes down till it becomes hidden in the horizon.

We have already discussed both, perspective and one–point perspective (see chapter 3). Lines that are not perpendicular to the direction of sight converge to a point on the horizon, as you can behold in the picture 6.5. The lights get smaller and smaller as they are farther, till they completely disappear in the horizon. The sun gets only a little smaller because the atmosphere acts as a lens. When the sun is low on the horizon, a thicker layer of atmosphere is between the observer and the sun that will thus appear bigger.

Figure 6.4. Sunset is a perspective phenomenon.

Figure 6.5. Perspective.

Someone looking at the image 6.5 made me a smart objection: let's say that between two lamps there is a 5 meter distance. We can see about 11–12 lamps because, then, they get blurred. That means a distance of 100 meters. If a lamp is 10 meter high, this means that the light disappears with a distance that is about 20 times its height. Now let's suppose the sun is at 6000 km height, it should disappear at a distance of 6000X20=120000 km. According to our geometric model, this is clearly impossible because the Earth results to be much smaller than that. We can easily answer to this objection considering the perspective rules.

Consider a corridor seen from a person 2 meters tall. He will behold something like this:
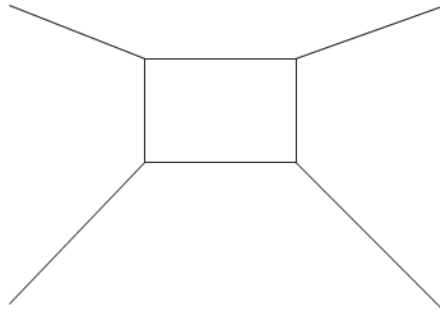
Figure 6.6. Corridor seen by a man.

This is however the same corridor seen by a child one meter tall.

> The ceiling goes down faster
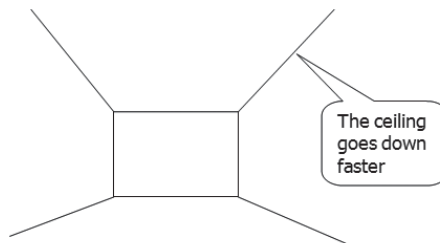
Figure 6.7. Corridor seen by a child.

What we can clearly perceive is that, as far as one thing moving upon us is higher, it gets on the horizon faster, with a greater inclination. The sun is at least 6000 km height: it arrives to the horizon faster and with a greater inclination than a street lamp that is only 5 meters high.

Table 6.2. Sun's trajectory.

	Height [km]	Radius [km]	Circumference [km]
Cancer tropic	6660	6660	39960
Capricorn tropic	3330	13320	79920

Can we establish with a greater precision the height of the sun? Yes, we can build a better model by using the math we have introduced in chapter 4. Watch table 6.2; I will try to explain it.

In chapter 4 I have discussed irrational numbers and fractals. You can't represent nature perfectly as it is but you have always to rationalize, i.e. to cut the description you make. At the same time, you have to cut in the best possible point to obtain, however, a first good description of reality.

Reality can actually be explained by the aid of fractals which show the property to describe parts that are similar to the total.

If you are able to find the description of the first fractal, the bigger one, you are able to have a good description of the whole, because it will contain an infinite number of repetitions of smaller fractals similar to the first. Here is the reason why, for example, in our description, we will cut Pi to the value of 3 and will not use 3.14. For more precise calculations we will have to use a fractal description of pi. See chapter 4.
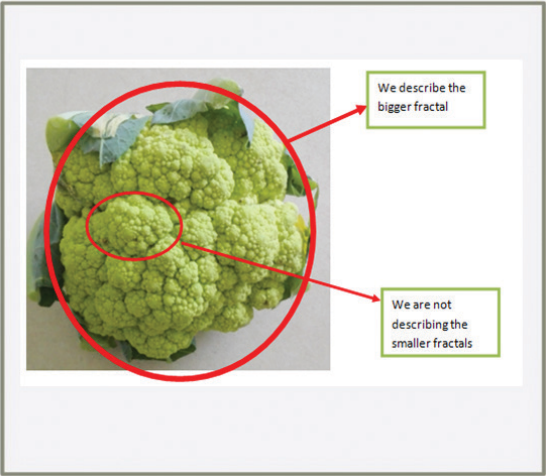
Figure 6.8. We describe the bigger fractal.

Having this in mind, please consider the heights of the sun we have found: 6127 km and 3334 km. These are values that are not describing in the better way the first fractal. Consider, moreover, that the radius of the globe at the poles is considered to be 6356 km and we know that the radius of the globe is the height of the sun over the flat Earth. Let's consider now this series:

$$\text{Suns height} = 6660 - 333 + 33.3 - 3.33 + 0.333\ldots = 6357,\ldots$$

$$= 6660 - \frac{6660}{20} + \frac{6660}{200} - \frac{6660}{2000} + \cdots$$

It seems to be a good fractal description, with a good numerical result. Isn't it?

As a consequence we can describe the height of the sun at the Capricorn tropic with the height 3330 km, that is 6660/2.

I like this description that remembers me the fact that, in the geo–math of the Earth, numbers with repeated digits, in Demlo style, frequently appear.

Someone could ask: why 6660 and not 6666? That is a repeated digit number too. We have learned in chapter 4 that the Demlo numbers, that so well describe many natural phenomena, deal a lot with the repeated 1. The number 111, for instance, is used to describe the globular Earth, since one degree of latitude corresponds to 111 km on the meridian.

You know, however, that the Earth is flat and that the value officially accepted for the radius of the Earth is in reality the height of the sun. So, if you divide 6660 for 111, you'll obtain as a result the integer 60. On the other hand, 6666/111 gives instead 60.54 which does not seem to be perfectly fit to describe the bigger fractal. Moreover, we could even continue discussing this subject to a greater extent, and still find a link with ϕ, the golden number described in chapter 4.

Consider the circumference of the two tropics we have obtained by using 6660 and divide them by 111. See table 6.3.

Table 6.3.

Cancer tropic	39960/111=360
Capricorn tropic	79920/111=720

Notice the beautiful precision of these calculations. You'll obtain that one degree of longitude on the tropic of Cancer corresponds to 111 km, while one degree on the Capricorn tropic is 222 km.

The number 720 we have thus obtained is ten times the number 72 already found when considering ϕ. 72 is the internal angle of the golden triangle, as well as the one of the pentagon, it is the fifth part of the full circle and, moreover, 72=44,4 · ϕ. Our description is a circle, a big circle, with some beautiful math inside.

Objection: If the sun moves following a spiral over the Earth and maintaining its track between the two tropics, it follows a circular path that doesn't correspond to what our eyes can generally observe… Normally, the general experience is believed to consist in the fact that the sun is rising from east and setting to west. But look at the image here below:
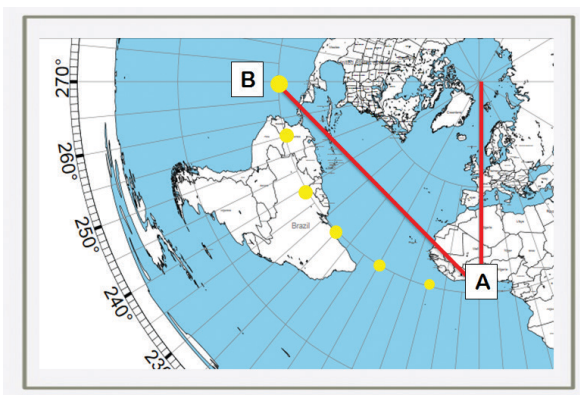
Figure 6.9. Suns trajectory. Source: The net.

A person standing at the point A in Africa can see the sun setting at the point B, that is not at west (i.e. perfectly 90° on the left) but it is at 45°.

Answer: we are told at school that the sun sets at west, that means left if you watch toward north. But have you ever checked this assertion? Does the sun really set perfectly west?

I live in Italy and I can notice a big difference from the setting point of the sun in winter and the one in summer. With a compass I've tried to detect the angle between west–northwest direction and the real direction of the sunset.

On the 21st of June the sun sets at about 300°–310° west–northwest, that means 30–40° more towards north, while on the 21st of December it sets at 230°–240° south southwest that means 30–40 ° more towards south. Uncertainty is due to the instrument and to my imperfect ability with the compass.

The conclusion is that the sun doesn't rise perfectly east and doesn't set perfectly west but, instead, in different places. This is due to the different height and distance on the spiral between the two tropics. Check by yourself.

Objection 2: We know that seasons are due to the tilt of the axis of the Earth of 23,4°. Since the Earth doesn't move, the axis is not tilted, so seasons are not possible.

Answer: Science explains seasons on the basis of the tilt of the Earth, which exposes, with different angles, different zones of the Earth to the sun, as you can observe in Fig. 6.10.

To answer this objection, you have to understand where this 23.4° comes from. We have to think that the globe model is symmetrical around the equator. This means that the sun behaves in the same way on the two tropics, or when in winter on the southern hemisphere.
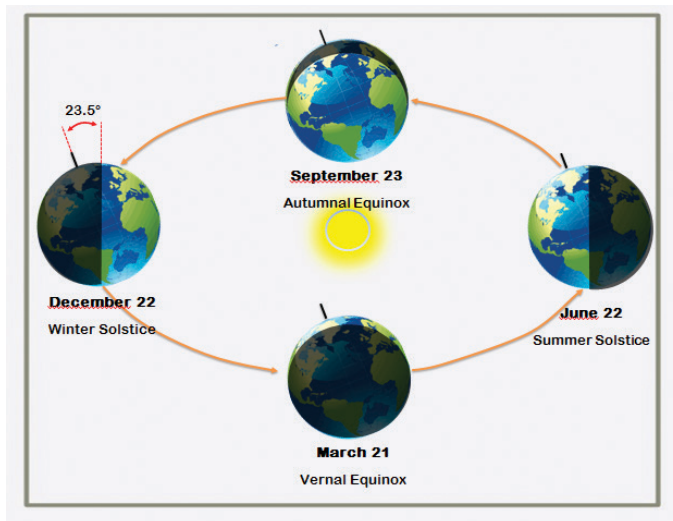
Figure 6.10. Seasons over the globe.

Consider hence a place in the northern hemisphere, let's say Rome, and consider the angles of the sun in that point. Ummmh, we have already registered these data, can you remember? Let's recover them:

Table 6.4.

Summer solstice	71.5°
Winter solstice	24.7°

Since the system has to be symmetric, we can try to find the middle angle that would be the tilt angle of the Earth.

$\alpha=(71.5+24.7)/2=23.4°$ that is exactly what we are looking for.

But consider now the Earth as being flat. The system is no more symmetrical, because the circle has several symmetries but not in respect of the Equator. So there are no similarities between the two tropics: they have different diameters and the sun has different heights. This considered, we can say that the angle of 23.4° loses its meaning in relation with the flat Earth. Seasons are not due to the tilt of the axis of the Earth but to the fact that the sun moves on a spiral track between the two tropics. When the sun is on the tropic of Cancer we have summer in the northern part of the Earth, while, when the sun is on the other tropic, summer is in the southern part. Since in the south the sun has a greater circumference to run, it is quite natural that it is on a lower trajectory: the quantity of heat will be the same even if it has to go faster during the day.

Astonishing to me is the fact that 90°–23.4° gives 66.6°.

6.1.1. *A Cold Core in the Sun*

This is something you never imagined before. After this investigation, you will be certainly surprised.

About the trajectory and dimensions of the sun, I have already discussed. I want now to relate about the thermoelectric reactions occurring inside the core of the sun. Academic science posits that inside the sun you could measure a temperature of about 15 million degrees while on the

surface you will find a heat of 5700°K. The same academic science postulates that the sun is 150 million kilometers far away from the Earth. But, I feel we have the right to say these data are wrong.

There are no doubts: the heat of the sun has been overestimated. Science has determined the surface temperature by the aid of spectroscopy, achieving a rough measurement. But, as far as the nucleus temperatures are involved, you can only get theoretical hypotheses. You certainly know how doubtful this sort of hypotheses are. Science says that in the sun's core a nuclear fusion reaction takes place, similar to that occurring inside the stars.

Mainstream scientists suppose that a similar ordinary fusion was the one occurring inside the Fat Man, the H Bomb. For many years scientists have been trying to achieve a nuclear reactor, in order to benefit, for peaceful purposes, of the advantages of the nuclear fusion. But, till now, doing that has not been possible. This is due to a number of technical problems that are enormous. The fusion temperatures needed are very high, near 100 million degrees. When you think that the steel is melting at 1538°C, you can understand what sort of a challenge is that. Getting a tank able to contain and resist the nuclear reactions is a real challenge.

In the reaction, nuclei of the light elements like hydrogen get fused together by means of very high temperatures. As a result, from fusion, heavier elements like helium can originate. The resulting elements, however, have a mass that is less than the sum of the masses of the hydrogen nucleus involved. The difference in weight is transformed into energy. There are three isotopes of hydrogen that are the normal hydrogen, deuterium, and tritium. All nuclei of the three elements contain a proton. Deuterium contains also a neutron, while the tritium contains two neutrons. All the three elements have an electron necessary for the compensation of the proton charge.

When a tritium atom reacts with a deuterium one, you can witness to the formation of helium with the release of energy. The two nuclei react only if they achieve to be very close. In these cases, the nuclear forces are stronger than the electrostatic repulsion forces. To achieve such a short distance, the nuclei must be hit with a very high speed. Hence they will possess a greater energy, obtained through the application of very high temperatures and pressures.

To obtain this reaction in the sun, science states every second 594 million tons of hydrogen get transformed into 590 million tons of helium. Howev-

er, official science has proved many times to be wrong. So, I feel we have the right to be suspicious. I mean that there are serious doubts about the official description of the core of the sun and the reactions developing inside.

I recently happened to learn something more about the Dutch astronomer William Herschel. He lived between 1738 and 1822 and in 1781 he discovered Uranus. Moreover, he suggested some hypothesis about nebulae, postulating they are at the origin of the formation of stars. However, sometimes he is criticized for a supposed mistake. He postulated the fact that the core of the sun is cold and that the resulting heat is only a superficial reaction.[30]

Obviously today this is an idea totally unconsidered. But we have to take into account that the sun is very near to the Earth, and this fact is neglected as well. I was wondering what could be the physical principle involved. After some thought, I found it: the Ranque effect [31]. This is an important physical effect totally underestimated today. I can explain it this way. A mass of gas will get colder and colder in the zone nearer to the rotation axis while it will get hotter and hotter in the external part. This will happen independently from the initial conditions of temperature and density. It will be the attended result when a physical cause, putting the gas in motion, interferes with an axial rotation.

The French physicist Georges Ranque discovered this physical principle in 1933. This is the procedure he followed. You can start blowing air radially into a tube and generate a vortex. Then you notice that the air coming out from one extremity of the tube is colder or warmer than the inlet air. So you realize that it is depending on where, in the flux, the outlet air is spilled. It is a consequence of the fact that the air is spilled in the center or in the outer part of the flux. The vortex in the tube seems to operate a dynamical separation between the warmer and the colder molecules of the air. This effect is so effective and macroscopic that it is often used in the industry to create cooling systems for tooling machines and electrical boxes. However, the physical principle at the basis of this phenomenon is not totally understood. We know that the external part of the vortex gets warmer.

The same physical principle can apply to meteorology. Think of the air cooling that develops in the center of vortexes. They form where two different air layers, one over the other, succeed in producing the condensation of water steam. This way they create the hailstone. We can think that in the process of formation of typhoons the Ranque effect has a very important role.

We know from spectroscopy that the sun is a rotating body made of gas. We know that it rotates because there is a red shift of the light arriving from the east edge of the sun that is moving toward us. Comparing this light with the waves arriving from the west side, we know the rotation rate of the sun. To be noticed is the synodic period of this rotation. It corresponds to 27,27 days, which is almost equal to the sidereal period of the moon, 27,32 days. The rotation causes the heating of the surface (but not up to the 5700°K postulated by science), while the core is probably cold. We have thus a sphere with a hot external surface and a cold core.

This difference of temperature between the surface and the core causes another phenomenon. We find in the sun hydrogen and helium that move from the core to the surface, that are at so different temperatures. This generates due to the Seebeck effect a current flux.
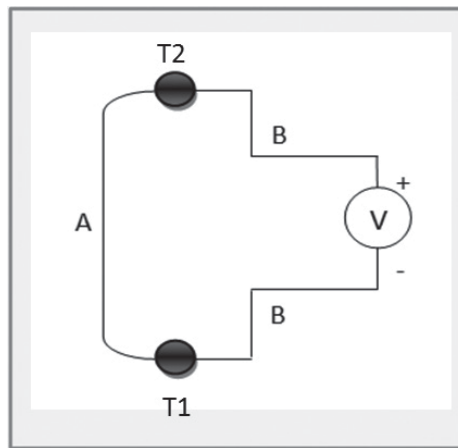
Figure 6.11. Seebeck effect

It has been the Italian Volta to discover first the Seebeck effect. He realized that, when two points, in a circuit, stay at different temperatures — because two different materials stay in contact while forming the circuit — an electric current starts to flow. This is the result of the situation generated by the difference of temperature between T1 and T2. An electric current starts to flow between due to their different temperature situation. We have, similarly, a flux of current that flows between the core and the surface of the sun. This current can be the start

of a series of chemical reactions probably also of nuclear kind. I am thinking of cold fusion reactions.

6.1.2. *Cold Fusion in the Sun*

Fusion is not fission [32]. Fission operates on big atoms, for the precision on those with big atomic numbers. It means they have a lot of protons and neutrons. So they are bombed with particles that divide them and produce energy. On the contrary, fusion works on small atoms, like hydrogen, deuterium, and tritium. Fusion works to unite two nuclei. This way they will have a release of a part of the bonding energy. It is the power that keeps united the nucleons together. Deuterium and tritium are two isotopes of hydrogen. Hydrogen has only one proton. Deuterium has one proton and one neutron; tritium has one proton and two neutrons and is radioactive: it decays within a decay time of 12,5 years, becoming helium3 and emitting electrons. It is not, however, very dangerous to health.

Cold fusion can be obtained with these reactions between two deuterium atoms:

deuterium+deuterium=>helium4 excited, with energy in excess of 24 millions of electronvolts (MeV). The production of one joule of energy requires thus $2,6 \times 10^{11}$ fusions. The excited decays with these reactions:

First: Helium4 excited=> tritium + proton (50% of probability);
Second: Helium4 excited=>helium3 + neutron (50% of probability);
Third: Helium4 excited=>normal helium4 + γ ray (one millionth of probability).

There should be, for each joule of energy produced, hundreds of billions of neutrons and of tritium nuclei.

Currently, researchers think to obtain the fusion by using extremely high temperatures of about 100 million degrees and enormous pressures. Technicians have to use special reactors clad with powerful magnets. This way they will maintain the hot fluid, kept at very high temperatures, far from the walls of the reactor. Failure of doing this way, the walls of the reactor at the contact with the fluid would be immediately destroyed.

This field of research for the nuclear fusion has attracted a lot of funds and resources. Anyway, results till now have not been conclusive. Producing energy enough to pay for the enormous efforts necessary to reach the required 100 million degrees will prove to be a real challenge.

Cold fusion is different. It has been discovered initially by Fleischmann and Pons in 1989 in the USA. It was immediately discredited. The establishment didn't want to see diminished an enormous amount of funds going for hot fusion research. But cold fusion has been confirmed by dozens of independent researching groups all over the world.

The functioning principle is simple and very different from that of the hot fusion. By using electrolysis proceedings, deuterium atoms contained in heavy water are introduced in the crystalline reticulum of a palladium cathode.

Deuterium density in palladium has to be very high. You have to reach a ratio 1:1 of deuterium with palladium because cold fusion is a threshold phenomenon, and doesn't start if this ratio has not been respected.

This is the reason why, in the beginning, a lot of researchers failed in achieving the experiment: the deuterium charging phase is difficult and very long. But researchers didn't understand immediately that they had to reach a so high concentration of deuterium in the palladium. Besides palladium, an ensemble of other materials has been used. Cold fusion effects have been detected when using titanium, hafnium, uranium but also tungsten cathode.

Once deuterium has been charged, fusion occurs because of the tension applied. Electrons of palladium, due to this tension, oscillate all together, doing a coherent movement, that is like electronic plasma. This plasma enters in resonance with the oscillating deuterium atoms. It will produce energy enough to lead two deuterium atoms very close. This way, they will be able to win the Coulomb repelling forces that are consequent to the charge of protons and fuse together. Deuterium atoms are already very near due to the high concentration in the cathode. The resonance gives the last push. This happens with a release of energy that is bigger than the energy used to start the nuclear reactions.
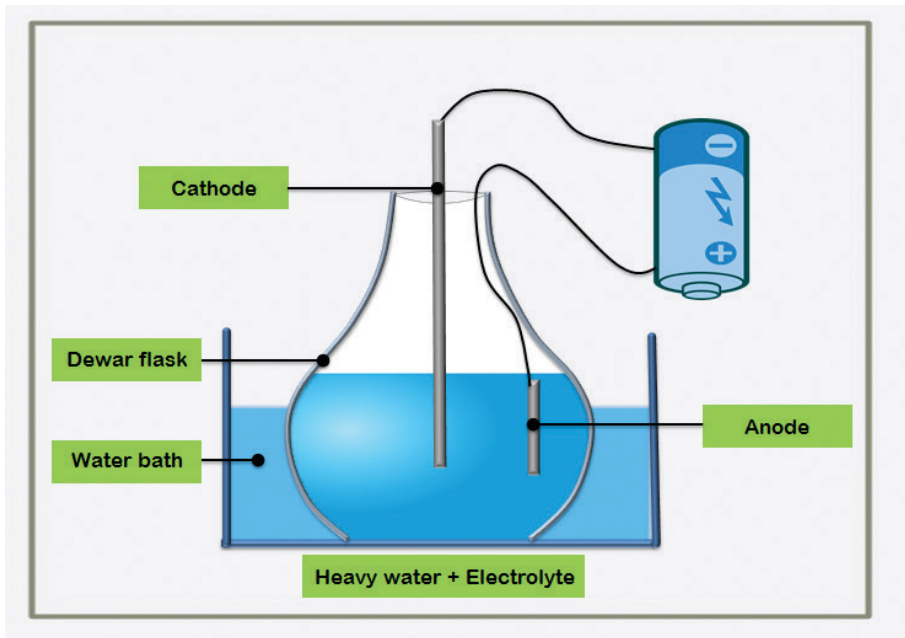
Figure 6.12. Cold fusion equipment.

My hypothesis is that cold fusion reactions are occurring within the sun. Is there palladium in the sun? We have to start some other consideration before to be able to tell. The first consideration to do is that the sun produces not only heat and light but also an enormous magnetic rotating field. It develops in the form of an Archimedes spiral turning around the sun. This is called heliospheric current sheet.

About this current Wikipedia states: The heliospheric current sheet is the surface within the Solar System where the polarity of the Sun's magnetic field changes from north to south. This field extends throughout the Sun's equatorial plane in the heliosphere. The shape of the current sheet results from the influence of the Sun's rotating magnetic field on the plasma in the interplanetary medium (Solar Wind). A small electrical current flows within the sheet, about 10^{-10} A/m². The thickness of the current sheet is about 10,000 km near the orbit of the Earth.

The underlying magnetic field is called the interplanetary magnetic field [35] [36] [37], and the resulting electric current forms part of the heliospheric current circuit. The heliospheric current sheet is also sometimes called the interplanetary current sheet.

This picture shows the Moebius magnetic strip–shaped by the sun in the Van Allen belt that, we will see, generates the moon phases.
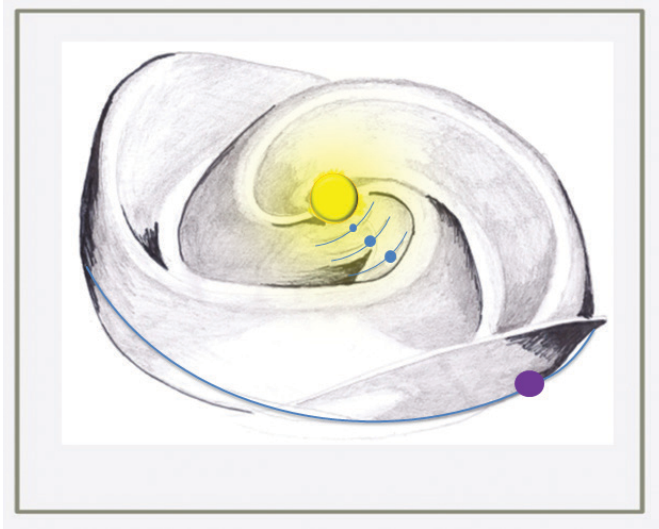
Figure 6.13. Heliospheric current sheet.

We wonder what could be at the origin of this magnetic field around the sun.

Another consideration has to do with the neutrons that get produced by the fusion reactions. What happens to them? The sun is near to the Earth but neutrons do not arrive till here. To solve these problems we need to pinpoint a material able to stay at the basis of the reactions into the sun. It will be found in holmium.

Holmium is a rare earth element like hafnium. At certain high temperatures, holmium oxidizes forming an oxide that becomes orange or fiery red if illuminated with a cold fluorescent light beam. This variation is due to the emission bands of ions of this element that acts like phosphors. It is an element with unusual magnetic properties. It has the highest magnetic momentum existing in nature. Due to its magnetic characteristics, physicists use holmium to produce the highest artificial magnetic fields. Combined with yttrium holmium produces compounds with very high magnetic characteristics. Since it can easily absorb neutrons, technicians use it in nuclear reactors to make control bars for fission reactions.

Holmium can be thus the material responsible for the characteristics of the sun: it can generate a powerful magnetic field and can absorb neutrons. But it is interesting also because its ions act like phosphors. Phosphors are substances that generate the optical phenomenon of phosphorescence after being exposed to light or energetic particles like electrons.

6.1.3. *The Surface Temperature*

We always wonder what the surface temperature of the sun can be. We know the sun is hot, of course. It produces enormous quantities of energy reaching the Earth. Probably cold fusion reactions develop in it. However we wonder whether the sun is really an incandescent body as science states. We understand, by now, the sun is much nearer to the Earth than Science admits.

You know the sun just reaches 3330–6660 km in height. It is definitely not 150 millions km far, as asserted by official science.

How great is the quantity of the solar energy reaching the Earth? As you maybe know, the energy reaching the Earth atmosphere is calculated to be 1367 W/m². This is called the solar constant. That energy reaches the earth through an irradiation process. This happens because the sun is not set inside an airy space. Conduction or convection is thus not possible.

A body can emit radiations at any temperature. But only with very high temperatures the emitted radiations range in the visible field (2–10 thousand Kelvin). So, what is the temperature of a body that can emit radiations hitting the Earth with a total energy of 1367 W/m²?

To answer this question we can use the Stefan–Boltzmann equation $E=\sigma T^4$ where T is the absolute temperature, E is the energy and σ is the Stefan Boltzmann constant $5,67 \cdot 10^{-8}$ W/m²K⁴. The initial hypothesis to formulate is that the energy is irradiated from the sun in a spherical way. I'm not saying that the sun is a sphere but that is a point that irradiates energy in a spherical shape. We have to consider a sphere with a radius correspondent to the average distance of the sun from the Earth i.e. 5000 km.

The power of the sun has to be calculated by multiplying the solar constant for the surface of this sphere.

$$P_{sun} = 1367 \frac{W}{m^2} * 4 * \pi * 5000000^2 = 4.1 * 10^{17}W$$

We have to calculate now the surface of the sun that is emitting this power.

We will see that the sun has radius 33.3 km.

By using, as usual, π=3, we have A_{sun}=6.66 · 10⁹ m² considering it as a disk and calculating the surface as the sum of the two opposite faces.

$$E_{sun} = \frac{4.1 * 10^{17}}{6.66 * 10^9} = 6.1 * 10^7 \frac{W}{m^2}$$

By applying the Stefan Boltzmann equation we could speculate the sun behaves like a black body and we can find an approximation of its temperature.

$$E = \sigma T^4$$

From this equation we find a temperature of 5727 K very near to the temperature asserted by science. Being the sun incandescent the measurement made by science according to the color of a black body must be correct. Moreover, this proves that our assumptions about the height of the sun, the shape and its surface are correct.

6.1.4. *The Sun is a Disk*

Till now nothing has been said about the true shape of the sun. Many people, of course, are convinced the sun is a sphere. But what is the shape of the sun? The sun, once, was reputed to be a disk [34]. Think of the winged solar disk of the ancient Egyptians. Remember that the sphere is a shape consequent to the Newton formula for gravity. We know that this formula is not correct. An inversion of the refraction index in the space immediately under the sun is required. It is necessary if you want everyone all over the Earth to be in the situation of seeing the sun as a disk.

Figure 6.14. The sun disk symbol.

This phenomenon is made possible thanks to the Van Allen belts. The plasma immediately under the sun, due to the magnetic field of the Earth, bends the light. It has been proved that plasma refracts light. This way we have a situation in which different persons in different places on the Earth, in the same moment, can see the disk of the sun.

Look at Fig. 6.15. Two observers are in a different zone of the flat Earth. The observer A is in the northern part of the Earth, while the observer B is nearer to the equator. In the lower atmosphere, a ray of light gets refracted, and the sun appears to be higher than it is. On the contrary, in the space immediately under the sun, plasma acts inversely and the ray of light is deviated, so to be perpendicular to the surface of the disk. This is what happens to an observer A, far from the sun. This way, the sun is always seen as a disk because all rays of light are made perpendicular to its surface by the plasma field.
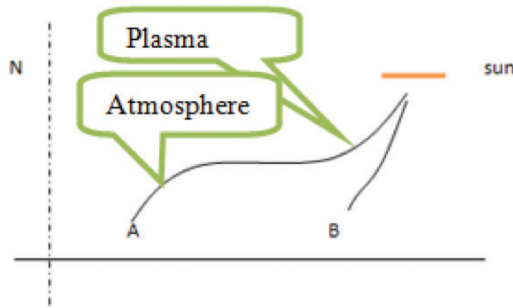
Figure 6.15. Two observers looking to the sun.

Without this double effect of refraction, the sun disk would be seen as an ellipse getting narrower as the sun goes down. The observer B is probably standing under the sun and is observing it when this is high in the sky. In this case the double effect of refraction is not so evident. In fact, the refraction angle is smaller when the sun is higher in the sky. The observer B will see a disk exactly as the observer A.

This refraction effect acts as a lens. It diminishes the perspective effect acting upon the sun as this departs toward the horizon. The sun, as we all know, disappears under the horizon at evening, due to a perspective effect.

This being true, many wonder why the sun doesn't converge to a single point on the horizon, as it usually happens with perspective. Before answering to this objection, I have to specify there is a little shrinking of the sun at the departure. The real horizon is always higher than the perspective horizon due to the asperities of the ground or, maybe, to the waves of the sea. The sun thus disappears before reaching the perspective horizon. Said this, it is clear, however, that the sun doesn't fully follow the perspective rules while departing.

This is caused by a double refraction effect, that becomes more and more evident as the angle of the sun diminishes (the sun goes further). Someone could find it difficult to visualize in his mind the lens effect due to refraction. Try thus to do an experiment. Take a big transparent glass and fill it with water. Now insert a tea spoon in the water, near to you. Then move the spoon to the other side of the glass.
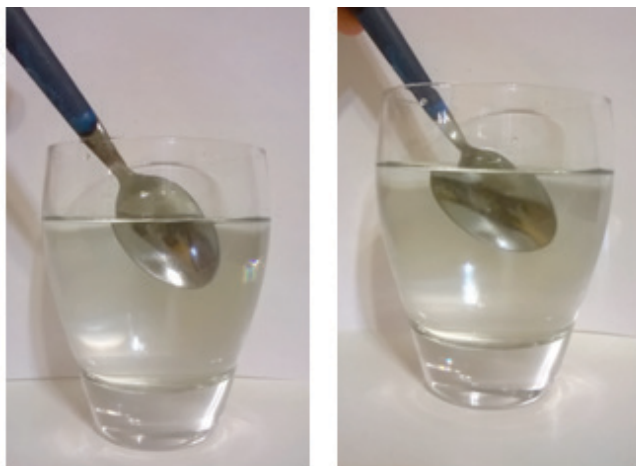
Figure 6.16. Lensing effect due to the refraction.

In the second picture, you can see that a greater thickness of water enlarges the spoon. In the same way when the sun is further, a thicker layer of air and plasma enlarges the sun. This way the sun doesn't become a point departing toward the horizon.

We have thus suggested the sphere is the essential shape for a false heliocentric system and that there are no scientific reasons for not believing the sun is a disk. The disk is in perfect accordance to the shape of the Earth. However, I have now to consider another phenomenon that could generate some doubt: the rotation of the sun about its proper axis.

Thanks to the use of the Doppler Effect, by the observation of the motion of the sun spots and, moreover, by measuring the time necessary to do a single turn, scientists have understood the rotation period of the sun.

They have seen that the sidereal period of rotation is corresponding to 25,38 days while the synodic period is of 27,27 days. The synodic period is measured in respect to the Earth, while the sidereal period is measured in respect to the stars. The difference is due to the fact that the speed of the sun around the north axis is lower than the speed of the stars, with a sliding of about one degree every day. This way, the rotation of the sun seems to be the rotation of a sphere, but could it be, instead, the rotation of a disc around its axis?

We have repeatedly noticed the fact that, by starting from a wrong basis, mainstream science has often made wrong assertions. We could provide a better analysis by using some of the results we have obtained till now through research.
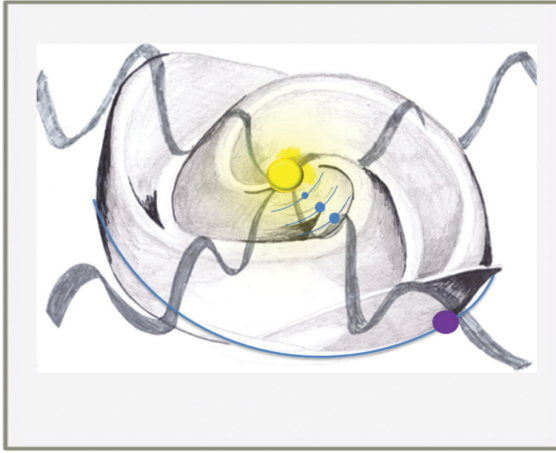
Figure 6.17. The Parker spiral of the sun.

You already know that the sun generates, in his rotation, a solar wind. This assumes the form of a spiral according to the theory of Parker. You can observe the picture.

The solar wind exerts its influence on the movement of all the other celestial bodies. They are pushed by the wind of aether. But they are also affected by the oscillating field generated by the sun. The lunar phases, for example, are generated by the ripples of this spiral. It covers or uncovers the moon in respect of the radiation, thus generating the fluorescence.

So, finally, the link between the synodic period of rotation of the sun (27,27 days), and the sidereal period of the moon (27,32 days) pops out. The sidereal cycle of the moon is the moon going once down and once up along its cone trajectory. We will see the fact that the moon — exactly like the sun — runs a spiral trajectory over a cone placed between the two tropics. It is clear thus that this Parker spiral influences not only the synodic cycle of the moon (its phases) but also the sidereal cycle. This spiral is clearly generated by the rotation of the sun. It appears finally clear that such a spiral could be generated by a sphere rotating around a very specific unchanging axis, but it is even easier to explain it with a rotating disc.

6.1.5. *A Calculation Formula for the Sun Orbits*

You know from before that the sun runs a trajectory that can be sketched in a simplified way as a helix that has a cone shape with the bigger circle

over the Capricorn tropic and the smaller circle over the Cancer tropic. Now we all know the truth, even if the large majority cannot even imagine anything like that. In the following table, we can see the radius and the height of the two extreme circles of the helix.

Table 6.5.

	Radius [km]	Height [km]
Cancer tropic	6660	6660
Capricorn tropic	13320	3330

Interesting is that we can decompose these values in a multiplication of factors like this:

$$6660=6 \text{x} 111 \text{x} 10$$

You find here three factors that will be now briefly analyzed. The same description will be valid also for the moon and the planets.

We can see that the number six is the one that better characterizes the sun orbit. But how can we classify this number? When you consider the position that all planets, sun and moon included, occupy over the flat Earth, you can immediately perceive that six is the order number of the sun. We have in fact this arrangement: moon (9), Mercury (8), Venus (7), Sun (6), Mars (5), Jupiter (4), Saturn (3), Uranus (2), and Neptune (1). Then it's something noteworthy that Pluto was resized down to a dwarf planet. So a rule that you can extract is that the sequence number of the celestial body characterizes some way its trajectory and we will discover many confirmations of this fact when discussing the planets.

The number 111 is the second number you have. I would like to call it the constant one which I will shorten as const1. The number 111 is really important. You know that on earth one latitude degree amounts to 111 km. A degree of longitude on the Cancer tropic amounts to 111 km, while half a degree on the tropic of Capricorn amounts to 111 km. You also know the sun has a life cycle of 11 years 36 days that means 11.1 years. In my opinion, the most interesting thing is that 111 can be obtained with the number 6. It is enough to square the six $6^2=36$ and sum up all the numbers necessary to reach the square: $36+35+34+33+\ldots+1=666$. By dividing this value once

more for 6 we can obtain our const1=111. To make it more elegant, all this process can be written with a single formula in order to generalize:

$$const1 = \frac{\sum_{x=n^2}^{0} x}{n}$$

where n is the cipher I want to call the order number of the celestial body, in this case, six for the sun.

In a calculation relative to the sun, as a middle result, you will obtain the value 666. This number, as we know since the beginning, is intrinsically linked with the measures of the sun and the Earth.

But let's remember how we obtained this number of 6660, which is linked to our 666. We started with Eratosthenes's experience. He wanted to measure the circumference of the globe Earth and its radius: 6378 km. We know that in the flat geometry he measured not the radius of the Earth but the height of the sun. Moreover, we asserted that this height must be expressed with the number 6660 to describe the bigger fractal and to respect the typical, peculiar mathematics we find in all creation.

Let's consider the number 10. We will call it const2. The possible meaning of this number will be explained further in this paragraph, but let's explain now how to calculate it. 6660 is a number that we have obtained in many ways, passing through trigonometry, Demlo numbers, and Fractals. This is the number of the trajectory of the sun and becomes a reference for all other celestial bodies that, as we will learn soon, must have a cone near to that of the sun and very similar to it. 6660 becomes thus our reference point from which to calculate all other cones. From this value we can simply calculate the value 10 with a division: 10=6660/ (111 · 6) that in a more generalized way becomes:

$$const2 = \frac{6660}{\frac{\sum_{x=n^2}^{0} x}{n} * n} = \frac{6660}{\sum_{x=n^2}^{0} x}$$

For the Sun the formula is perfect. For the other celestial bodies, this formula will give a result with decimals. We might approximate the result to an integer value to obtain a coherent description of reality.

6.1.6. *Clouds Behind Sun and Moon*

There Is a phenomenon well known to Flat–Earthers: clouds behind the sun. There are images that are often used to prove that the sun is very near to the Earth and very small.

In my opinion these are fake images. I have in fact exposed up to now important data about the sun. In its lowest orbit, on the Capricorn tropic, it has a height of 3330 kms over the Earth.

About clouds, Wikipedia states « High clouds form at altitudes of 3,000 to 7,600 m (10,000 to 25,000 ft) in the polar regions, 5,000 to 12,200 m (16,500 to 40,000 ft) in the temperate regions and 6,100 to 18,300 m (20,000 to 60,000 ft) in the tropical region ».

Let's make the hypothesis that the picture has been taken exactly at the Tropic of Capricorn. Let's then imagine that clouds where reaching the incredible height of 20000 m that means 20 km… Can you compare 20 km with 3330 km? Of course you can't.

So you have an evidence that these pictures with clouds behind the sun are fake. That the sun is near.

6.1.7. *Gravitation of the Sun*

The solar system, as proved by Poincarè, is not stable on the long period [18]. There is a too fragile balance between gravitational attraction and centrifugal forces, between the sun and the planets. You know, moreover, that Newton's gravity is wrong and doesn't respect the principle of conservation of energy. I wonder, thus, from where the sun takes its stabile trajectory during the millenia.

I can only make hypothesis. I should imagine that the Van Allen belt, immediately under the sun, does strictly participate to the gravitation by transmitting a magnetic field that traps the sun in its position. The sun which is probably made of a mixture of materials: magnetite, calcium, basalt, neodymium, hydrogen, helium… but even holmium, should be kept as the major responsible for those magnetic features. The luminary has its magnetic field and an external positive charge. The earth is negative but the ionosphere is positive, the rotor of the dome is negative while the stator is positive.

Could it be trapped in its trajectory, due to a game of many different magnetic fields, attracting and repelling it, sticking it to a specific position during the years?

6.1.8. *Precession of the Equinoxes*

Earth's precession was historically called precession of the equinoxes. This was because the equinoxes moved westward along the ecliptic relative to the fixed stars. They were also moving in the opposite direction to the motion of the sun, along the ecliptic. Hipparchus is credited with discovering precession. Astronomical observations, attributed to him by Ptolemy, date from 147 BC to 127 BC.

On a globe, the precession is an oscillating movement of the axis of the Earth.

To tackle the issue, on a flat Earth, you have first to consider the speed of the sun. This can be described on the basis of the length of the year. It lasts 365,2564 days. The Hebrews and the Babylonians considered the year as being made up of 360 days. There was then a small part of a week left, to cover the remaining days. This is the reason why a circle is considered to be made up of 360°. The time of the year is thus represented as a circle. The precession is a time circle too.

We have already seen that the time of the year can be described with fractals. We have seen that the sidereal year Y can be expressed by this fractal series:

$$Y = 360 + \frac{360}{cub \cdot \varphi} + \frac{360}{cub \cdot \varphi \cdot 20} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40 \cdot 60} + \frac{360}{cub \cdot \varphi \cdot 20 \cdot 40 \cdot 60 \cdot 80} + \cdots$$

Now we have the duration of the year, but we shouldn't miss the duration of the rotation of the firmament. The difference in the duration of the year and the rotation of the firmament is the precession.

Astronomers say that precession lasts 50",25 per year, that represents the sun delay in connection with the firmament. This is the precession per one year. If you have to calculate the time that one degree of precession needs to run the exact space, you'll obtain:

$$50.25" = 0.0139° \qquad 1/0.0139 = 71,6 \text{ year.}$$

Once more you have to consider that an irrational number is described by the main part of the fractal series.

Many authors consider the precession as lasting 72 years per degree that leads to a total precession cycle of 25920 years (72x360°=25920). It could be, maybe. But let me say that you could either put it somewhat differently. The first consideration I have to make is that 25920 is not a multiple of 111 or 666 or 6660 and this result would appear a little strange, since the precession is strictly linked to the sun. Remember, however, that we are looking for the biggest fractal and not for a 100% accurate result. That precision is not the reality I am looking for, as a consequence of the fact that phenomena have to be grasped in a totally comprehensive manner.

To reach a deeper insight, I have to further consider the nutation. We have noticed, when discussing the spinning top, that nutations are some secondary oscillations of the movement of the summit. It is obvious that there is a need for an integer number of nutations in a precession cycle. But, wait a moment; if the Earth is not moving at all, I wonder what the nutation could be. Studying a little astronomy, you will stumble across a pretty surprising synchronicity. The Earth nutation has the same duration of the retrograde movement of the nodes of the moon.

The nodes represent the intersection of the trajectory of the moon with the ecliptic, the trajectory of the sun. These two points move continuously over the ecliptic in a retrograde verse and, according to astronomers, the entire cycle requires 18,6 years. This movement will produce a change in the inclination of the moon trajectory. In a fractal description of the universe, you know that each year lasts 360 days. Consider also this: 6660days/360 days per year=18,5 years. One nutation cycle lasts, hence, 6660 days.

You are probably aware of the fact that in the formula, — expression of the year —, the number 1440 is included, 144 being a Fibonacci number. 1440 is, in addition, the digit of the number of the minutes of the day: 60x24=1440. I can so write: 1440x18,5=26640 years, that is the precession cycle.

In addition, I could write: 26640/6660= 4; 26640/12=2220 years that is the duration of the precession for one zodiac constellation; 26640/360=74 years per one degree of precession.
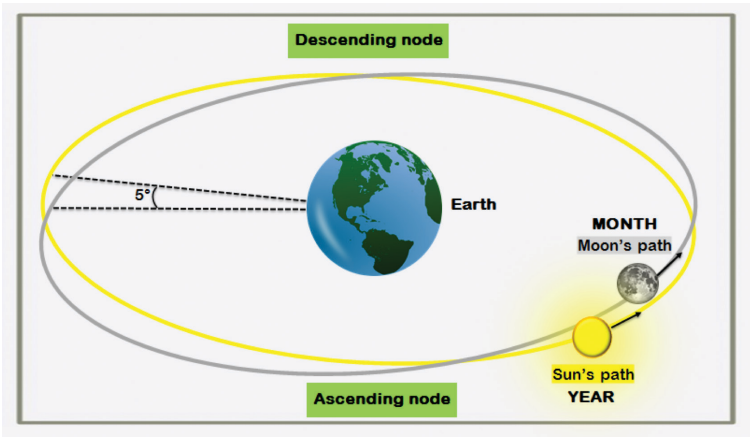
Figure 6.18. Nodes of the moon.

You have thus obtained the following result: the precession movement needs 74 years to cover the space of one degree and, probably, not just 72. Remember the fractal description of the universe, always a big fractal and something more. It is never possible to reach a definitive description. So, to perform a complete 360° cycle of precession, you need 26640 years. This is the whole precession, the main body excluding the smaller fractals. Interesting is the fact that the number of days of 74 years, if we consider the bigger fractal (360 days), is 26640.

6.2. The Moon

When considering the earth as stationary and flat, the sun must be moving on a conic trajectory. In the same way the moon, in its movement in the firmament, has to follow a trajectory developing in the shape of a cone.

When we consider the angles of the moon, we can try the same trigonometric calculation we have done for the sun. The only point at issue is that the motion of the moon is a little more complicated than that of the sun. For instance, the moon speed is slower than that of the sun. It loses, compared to the major luminary, 12° every day.

Let's check from the Sun simulator software some data that will show the moon trajectory develops inside a cone (or more precisely as a spiral laying on a cone). For example, on the 22nd of February 2017 the moon

touched the lowest point of the month. The angle of height of the moon was 29.2°. On the other hand on the 6th of March 2017 the moon was rising to an angle of 67.4° that was the maximum declination for that month (check with your Sun simulator software). This was possible because, on the 22nd of February, the moon was on the lowest orbit of the cone (near the tropic of Capricorn) while, on the 6th of March, it was on the upper orbit (near the tropic of Cancer).

Here below you can find a table with the max and min height of the moon during the year 2017.

Table 6.6. Min height and max height of the moon.

Date	Minimum height	Maximum height
21 march 2017	29°	
3 april 2017		67,4°
18 april 2017	29°	
1 may 2017		67,7°
15 may 2017	28,5°	
28 may 2017		67,6°
11 giu 2017	28,5°	
24 giu 2017		68°
8 july 2017	28,6°	
21 july 2017		67,8°
4 aug 2017	28,5°	
18 aug 2017		67,9°
1 sept 2017	28,5°	
14 sept 2017		67.8°
28 sept 2017	28,4°	
11 ott 2017		67,8°
25 ott 2017	28,2°	
8 nov 2017		68,4°
22 nov 2017	28,1°	
6 dic 2017		68,3°
19 dic 2017	27,8°	

As you can notice, the moon travels on a cone that has the lowest orbit at about 28° (considering the latitude of Rome) and the upper orbit at about 68°.

I can conclude that the moon, in the same extent as the sun, stands on a cone and this cone is completed, up and down, in 27, 32 days, which is the sidereal period of the moon. This is the period that the moon takes to reach two times the same star on the celestial "hemisphere". So, in the time the sun makes a cycle on his cone, the moon repeats its conical trajectory for more than 13 times.

Table 6.7. Height of the Moon for 2004.

Date	Minimum height	Maximum height
6 jan 2004		75,6°
20 jan 2004	20,7°	
2 feb 2004		75,7
16 feb 2004	20,6°	
29 feb 2004		75,6°
15 mar 2004	20,5°	
28 mar 2004		76,1°
11 apr 2004	20,2°	
25 apr 2004		76,1°
8 may 2004	20,2°	
21 may 2004		75,6°
5 june 2004	20,3°	
18 june 2004		76,1°
2 july 2004	20,3°	
26 july 2004		75,9°
29 july 2004	20,3°	
12 aug 2004		76,2°
25 aug 2004	20°	
8 sept 2004		76,5°
22 sept 2004	20,2°	
6 opt 2004		76,5°
19 opt 2004	19,8°	
2 nov 2004		76,7°
15 nov 2004	19,8°	
29 nov 2004		76,5°
12 dec 2004	20,1°	
27 dec 2004		76,4°

The cone of the moon, even if very similar to that of the sun, is not exactly the same. You'll probably have clear in your mind the fact that the angles of the sun at solstices in Rome are 71,5° and 24,7°. These are values that are slightly different from the average values of the moon cone. The slope of the two cones is different: astronomers say that there is an angle of 5° of difference from the ecliptic (the trajectory of the sun) and the trajectory of the moon.

Curious is the fact that this inclination changes in the course of the years. I will add now a table for the year 2004 to clarify this aspect. "See table 6.7".

As you can infer, angles of the moon in 2004 are different from those in 2017. It seems that the cone of the moon changes angle around the cone of the sun. This happens in a cycle of 18,5 years. In the following picture you'll find the cones of the moon, during the year 2004, in comparison with the cone of the sun.
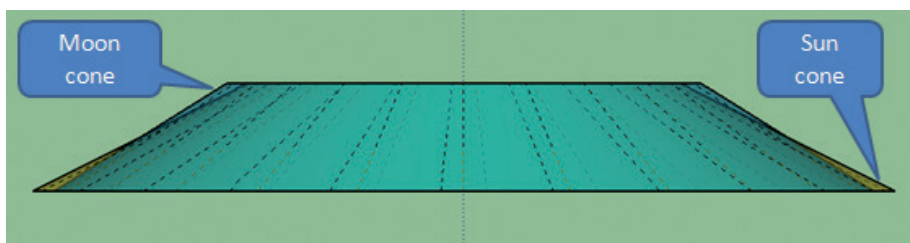
Figure 6.19. Moon and sun cones.

In this second picture, you will find both the cones of the moon that lie one on top of the other. These are the two most external series of trajectories.
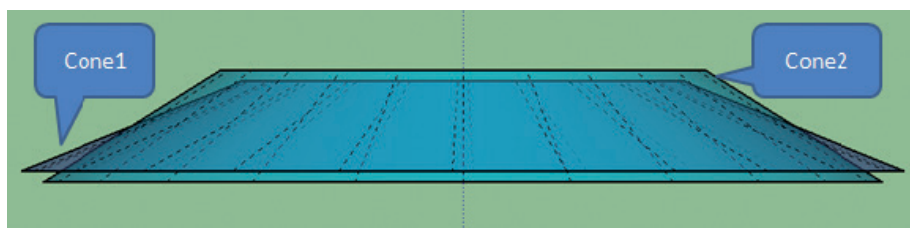
Figure 6.20. Extreme cones of the moon during a nutation period.

Now, let's add a summary.

The sun has a trajectory that covers a complete cone, up and down, in one year. The moon covers a cone in the same way, but it goes up and down in 27,32 days.
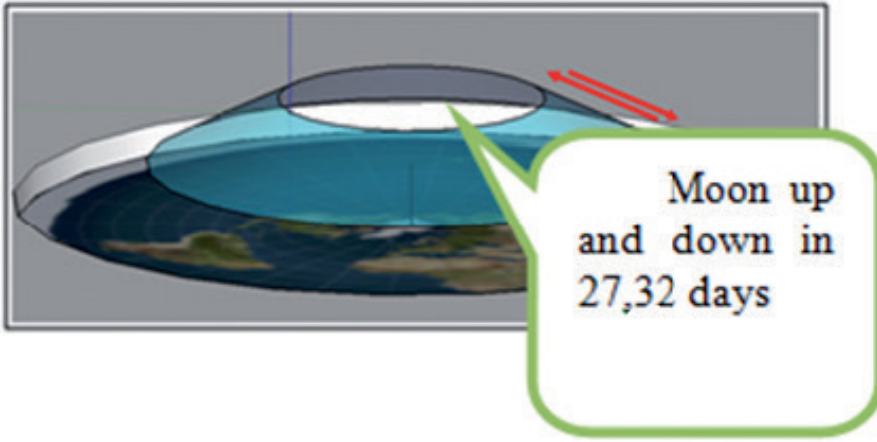
Figure 6.21. *Sidereal cycle of the moon.*

The cone of the moon is slightly tilted in comparison with that of the sun, with an angle of about plus–minus 5°. This angle changes year after year from (about) minus five to plus five in 18,5 years. This movement is called *moon libration in latitude*.

6.2.1. *Orbit Calculations*

The moon has an order number n=9; Remember the sun is n=6. Why 9 for the moon? Think to the sidereal cycle of 27,32 days (9×3 plus fractals) or to the libration in latitude lasting 18,5 years (9×2 plus fractals).

The first constant for the moon will be

$$const1 = \frac{\sum_{x=9^2}^{0} x}{9} = 369$$

The second constant will be:

$$const2 = \frac{6660}{\sum_{x=9^2}^{0} x} = 2.005 \cong 2$$

Table 6.8. Orbit of the moon.

	Radius [km]	Height [km]
Smaller orbit	9x369x2=6642	9x369x2=6642
Bigger orbit	9x369x4=13284	9x369x1=3321

As you can imagine, we have to approximate the value of the second constant. From n=9, const1=369, const2=2 we can now write all data of the cone of the moon in the table 6.8. Since the cone of the moon doesn't pass exactly on the tropics, I will call the two external orbits of the helix smaller orbit (the one near the Cancer tropic) and bigger orbit (the lower but bigger one near the Capricorn tropic).

We can immediately see that the cone of the moon is very near to the cone of the sun, only a little lower. It is clear that this is an approximated description: we describe only the bigger fractal. We know in fact that the cone of the moon is not always the same and oscillate from −5° to +5° around the cone of the sun, intersecting it every 18,5 years.

6.2.2. *Moon Phases*

The moon is behaving as a body moving inside an electromagnetic Moebius strip trajectory. This can certainly be an astonishing explanation of the movements of the moon. Anyway, this will be the only reason able to explain the moon phases and the different illumination of it during these phases. Just observing the strip you will easily understand what I mean: it can hide or show an object moving on its surface.

This Moebius strip is generated by the wind of the sun, the Parker spiral that hides or uncovers the moon. We will see the relation between the light of the sun and that of the moon.

The moon phases over the flat Earth are generated also by the fact that the moon and the sun move on their respective cones with a different speed.

Figure 6.22. Moebius strip.

The sun day lasts 24 hours. During that time, the sun performs a complete turn around the Earth axis. The moon takes 24.83 hours to make the same path. This means that the moon loses each day 12° in respect to the sun and 360° in 29,5 days, that is the synodic cycle of the moon.
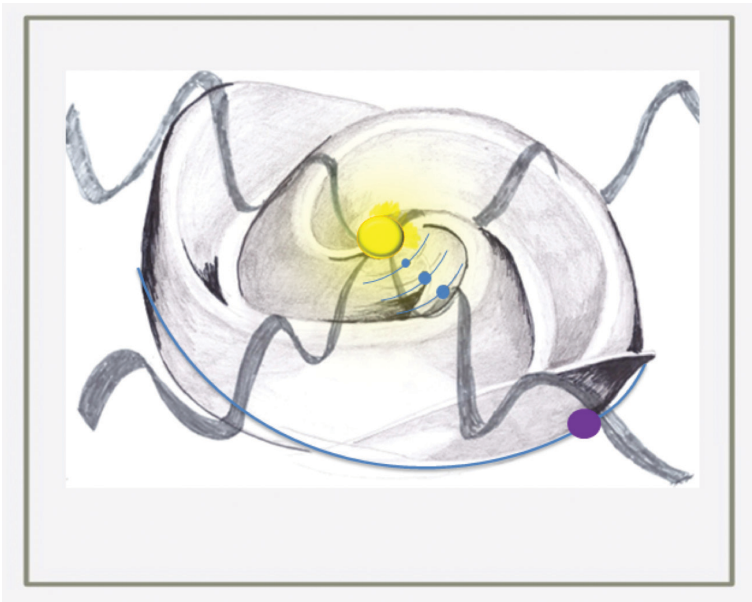
Figure 6.23. The Moebius strip is the Parker spiral.

Due to the fact that sun and moon move one in a synchronic relation to the other, you can enjoy the moon phases, as illustrated in the following figure.
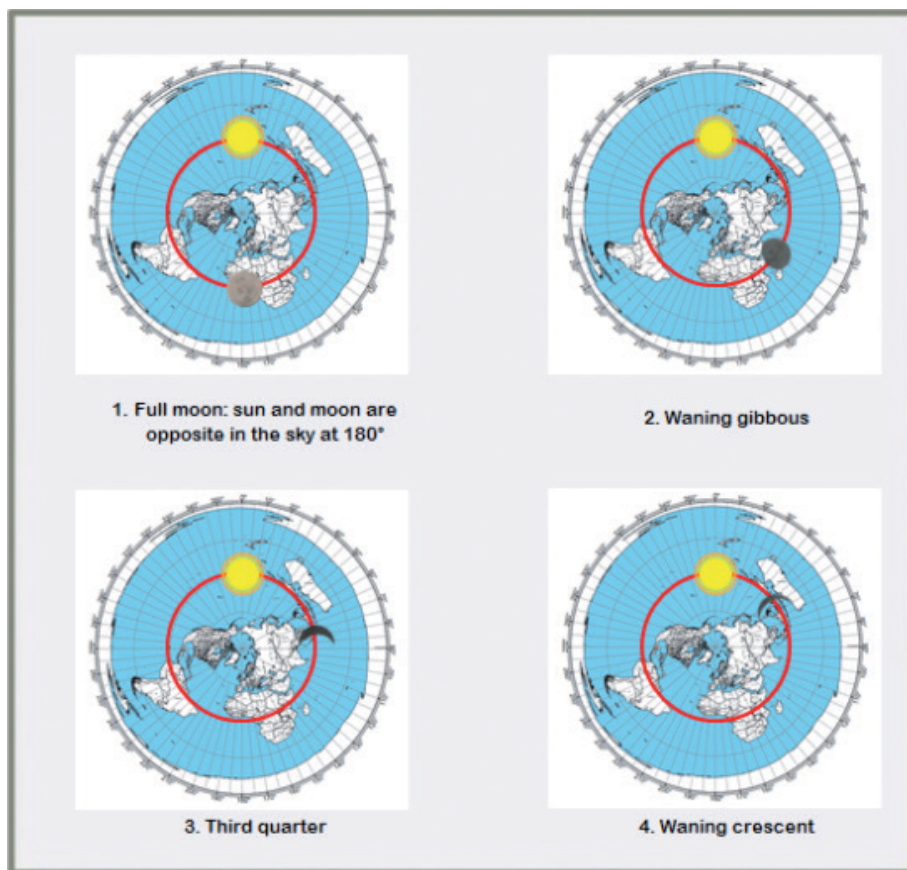
Figure 6.24a. Phases of the moon.
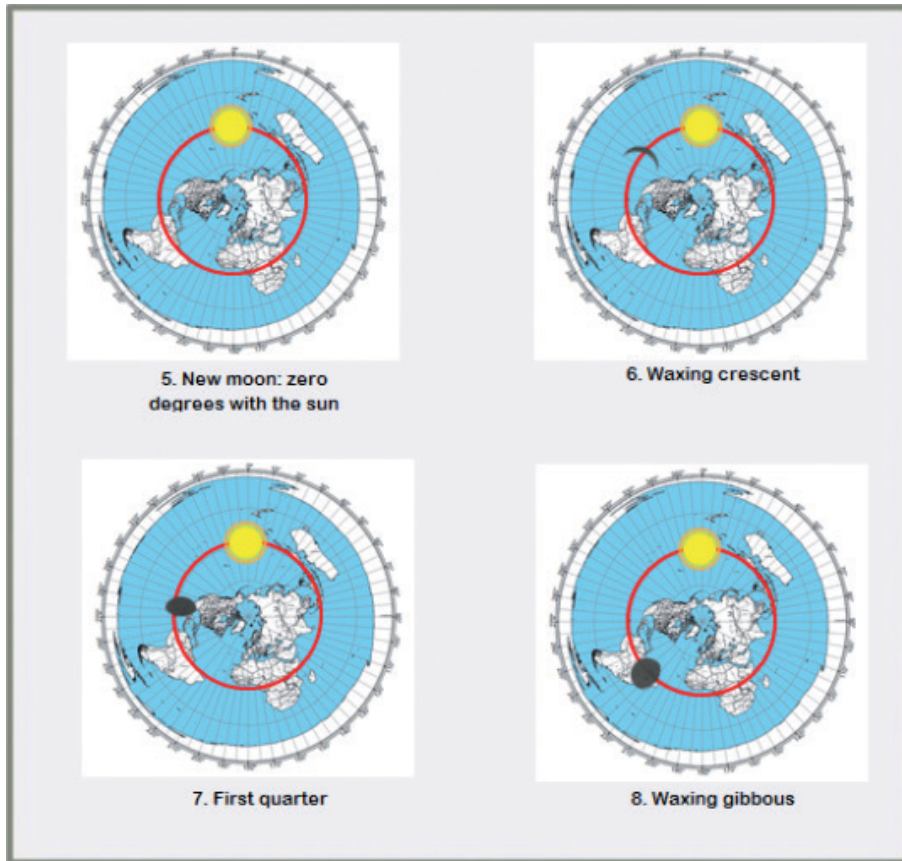
Figure 6.24b. Phases of the moon.

6.2.3. *The moon is a disc*

Near the phase of the new moon you just notice it already looks like a very narrow sickle. Then sometimes it could happen to view that the rest of the lunar disc can be visible although not fully illuminated. As a matter of facts, it turns to a gray color, also known as the Moon's ashen glow. Sometimes English speaking people refer to it as the old Moon in the new Moon's arms. Astronomers often explain this weak luminescence as it was the earth reflecting the light of the sun to the moon. Immediately the moon would reflect this same light again.

So the sickle would be the part of the moon that the sun directly illuminates. I wonder however how this illuminated part could present such precise boundaries with no gradual shading. In fact, it appears just as a sudden change from light to shadow. The question so will be the following: "Is the moon a simple disc and not a sphere?" It is certainly an inquiry to evaluate.

This is actually what you should see, were the moon a sphere: a passage from the highlight, to light and then shadow. Anyway, this is something it doesn't happen. Therefore we can conclude that the moon is a disk. The shape of a sphere would be a must only if the Newtonian gravity were true, but we know it is not.

We will see that, most likely, the moon is self–luminescent. We should remember that at the northern center of the earth there's a polar electromagnetic column exercising a big influence on the moon and all the system. You can detect its activity when observing the amazing beauty of the Northern Lights show.
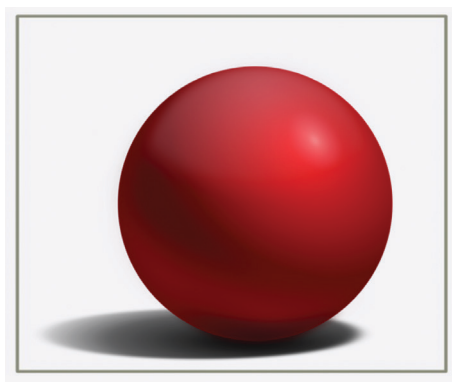
Figure 6.25. Shadows on a sphere.

Objection: How would it be possible for a disc to be seen in the same way by all the observers on the Earth?

Answer: You have to consider that, when the moon is full, all the observers can perceive it as full and in the shape of a circle everywhere. If the moon would be really near to the Earth, all the observers standing near below it would perceive it as a circle. On the other hand, the observers farther away from it should get, due to perspective, the perception of an ellipse more and more mashed, as far as they step away. But you shouldn't forget the extraordinary optical effects the atmosphere is able to generate, thanks to refraction. Due to different density layers, for instance, an observer will see a celestial body in the sky to appear higher than in the reality.

In order to get the same vision of the lunar disc all over the Earth, you should assist to an inversion of the refractive index as we have already seen for the sun.

Thus, you could be involved in the situation you can see in the picture 6.27. What could be the cause of such an inversion? Let's try some hypothesis. The moon is trapped and sustained on its cone by a sort of Klein bottle that actually is the Van Allen belt (that can act between 1000 and 6000 km height). These data are fully in harmony with the original hypothesis, since over the flat Earth circle the moon is moving on a spiralconical–shaped trajectory between about 3300 and 6600 km of height.

Scientists postulate that this belt is generated by plasma trapped within the earth magnetic field. Interesting enough is the fact that the first satellite taking evidence of such plasma was the Russian satellite called Moon 1. In that zone electrons have a particular intense flux with high kinetic energy.
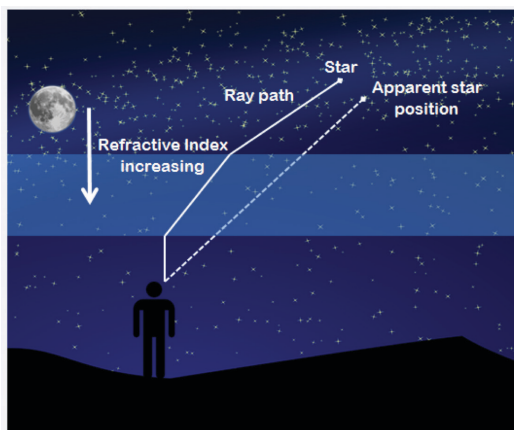
Figure 6.26. Refraction.
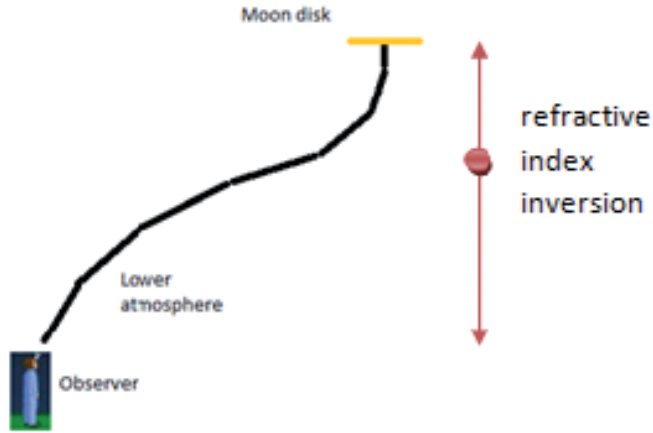
Figure 6.27. Refractive index inversion.

Recent studies have proved that an electromagnetic wave passing through plasma sufficiently ionized, will be clearly influenced, in relation to its transmission, by the free charged particles.

Plasma can change the relative permittivity, which is called the dielectric constant of the mean $[\varepsilon_r]$. You know from optics that the refractive index n obeys to this law:

$$n = \sqrt{\varepsilon_r}$$

So, the supposition that the Van Allen belt plasma could impact the light coming from the moon is absolutely admissible. This way, the lunar disc would appear the same to all observers all over the earth.

So, let's everybody go to the eye doctor: reality can often be completely deceiving. Our universe is full with optical illusions hiding the real working of the machinery.

6.2.4. *Moon Self–Luminescence*

Luminescence in the full moon night is magic. We have seen that the moon moves on a cone very similar to that of the sun, only a little lower. This cone is run in a spiral, from tropic to tropic, within less than 14 days. The sidereal cycle of the moon, which means the running of one time up and down along the cone, lasts 27,32 days. The sun ripples the magnetic fields giving birth to the moon phases. A sort of Moebius strip is at the basis of all the process: the heliospheric current sheet. The same strip periodically covers and uncovers the moon.

This said, you still have to understand the origin of the light of the moon. Science explains the light of the moon as a reflection of the light of the sun. But we describe the sun and the moon like discs. So, we understand that the moon, in many situations, is under the sun, and can't receive its light or reflect it. It is clear that we have the necessity to find a different explanation.

Flat–earthers generally think the moon is self–luminescent, endowed with a light that is different from that of the sun. To understand it we have to elaborate on photoluminescence.
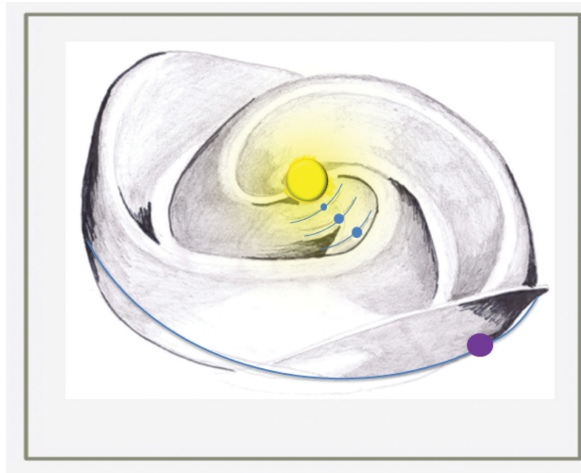
Figure 6.28. The heliospheric current sheet.

Photoluminescence in the ultraviolet–visible field incorporates two similar phenomena: fluorescence and phosphorescence. Molecules have energetic levels determined by the orbitals that keep the molecules to-

gether. A photon can hit the molecule. We know that a photon is a wave propagating through the aether, which is formed by aetherons. The wave generates a vibration in the aether. If one aetheron hits the molecule, it transmits its energy to it and promotes an electron to a superior energetic level. This electron passes to a more external orbital, but it keeps the original spin. An electron is characterized by a spin that is its rotation verse. A couple of electrons that are on the same orbital have a different spin and are called singlet. When the electron goes to the more external orbital, the configuration becomes that of an excited singlet. The excited configuration, however, is not stable because it does not possess the minor possible quantity of energy.
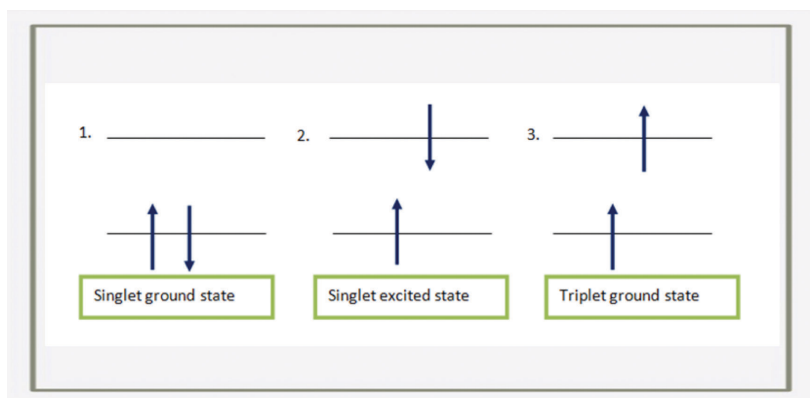
Figure 6.29. Electron excited states.

The electron decays after a very short time. In some case, the energy released by the decaying electron assumes the form of light. The emission of light by an excited singlet is called fluorescence. The probability that decay generates fluorescence is good. The average life of an excited singlet is $10^{-5}-10^{-8}$ seconds. Fluorescence, hence, does not last and ends immediately when the source of ultraviolet light shuts down.

In some case, the excited electron not only changes its energy level but it also changes its spin. This is called a triplet. When the triplet decays and emits light, it is called phosphorescence. It lasts between 10^{-4} and 10^{4} seconds. It survives a little after the shutdown of the energetic source.

The photoluminescence does not always appear. The energy of the excited electron can be released also to the lattice as a relaxation of the vibration. The photoluminescence can be observed only in those cases

when it is a more efficient way to release the energy. Fluorescence is not the same for all fluorescent materials. It can be more or less efficient. This is well described by the quantum yield number φf. It indicates the number of molecules that return to their relaxed state through fluorescent processes.

φf can vary from 1, when each molecule relaxes by emitting light, to 0 when fluorescence does not appear at all. The intensity of fluorescence is then dependent on many other factors: the power of incident radiation, the molar absorptivity and the concentration of the fluorescent species.

We wonder, now, if fluorescence could result in a possibility for the moon. Many flat Earthers are trying to prove that the light of the moon is absolutely independent of that of the sun. They show pictures in which the light of the moon does not appear to be perfectly aligned in the direction of the sun. Despite all these efforts, we can say that it is clear that the light of the moon is always in the direction of the sun. It is thus evident that the vast majority of people just believe into the tenets of the official science.

I am not inclined to accept the official point of view. I think the light of the moon is both self–luminescent and sun–activated. An incident ultraviolet radiation activates fluorescence, or maybe it appears in the visible field with short length waves. Cold fusion reactions in the sun generate great quantities of radiations. Science affirms that 7% of the total radiation of the sun is ultraviolet light. This radiation is the one that activates the fluorescence of the moon. The Parker spiral generated by the sun causes the ripples in the magnetic field. They can allow or deny a passage to the UV rays from the sun and activate the moon luminescence or not.

What is the material giving fluorescence to the moon? When inquiring about materials available in the composition of the moon, science states that there is a percentage of Tungsten greater than on the Earth. Interesting is the fact that tungsten salts but also tungsten anhydride give fluorescence with a blue or yellow color.

Tungsten anhydride behaves like a semiconductor and can enhance its fluorescent characteristics. Thus you will need an activator that, on the moon, could be titanium. This is an element that is considered a good impurity to activate fluorescence.

When inquiring about fluorescence, the temperature will be an important aspect to consider. On the moon, there are no thermal reactions and we can think that temperatures are very low. The luminescence of the moon is thus under the influence of very low temperatures.

Synthetic conclusions:

— the moon's light is due to fluorescence;
— the fluorescence is activated by the Uv rays of the sun;
— the molecules responsible for the luminescence are made of tungsten with titanium impurities.

6.2.5. *Lunar Eclipses*

No Flat Earther, up to now, has been able to explain these phenomena in a satisfactory way; the sun eclipse is easy, but for the moon it is different [38]. Moon eclipses occur when the moon and the sun are in opposition around the North Pole. Moreover, the moon has to be on its nodes. This means that the moon and the sun are at the same height. In addition, for lunar eclipses actually to occur, the moon needs to be full.

We know that, over the North Pole, there's a magnetic column endowed with a strong electromagnetic field. It is an apparently small column which has a radius of no more than a very few kilometers, vertically shaped. It's the place where the magnetic north pole is performing its activity. It crosses vertically all the dome, from the base up to the top.

We can also postulate that usually the light of the sun and of the moon are polarized in two different ways, one on the y axis and the other on z axis. So, as even Wikipedia states, the light of the sun must be partially polarized. In normal situations, the sun light is not influencing the light of the moon.

We know, however, that a magnetic field can change the polarization angle of an electromagnetic wave passing through it. (Faraday Effect) [39]. When the sun and the full moon are on the opposite lateral sides of the magnetic column and stay at the same height, on their nodes, electromagnetic waves arriving from the sun to the moon change their polarization angle [40] and assume the same angle of the light generated by the moon.
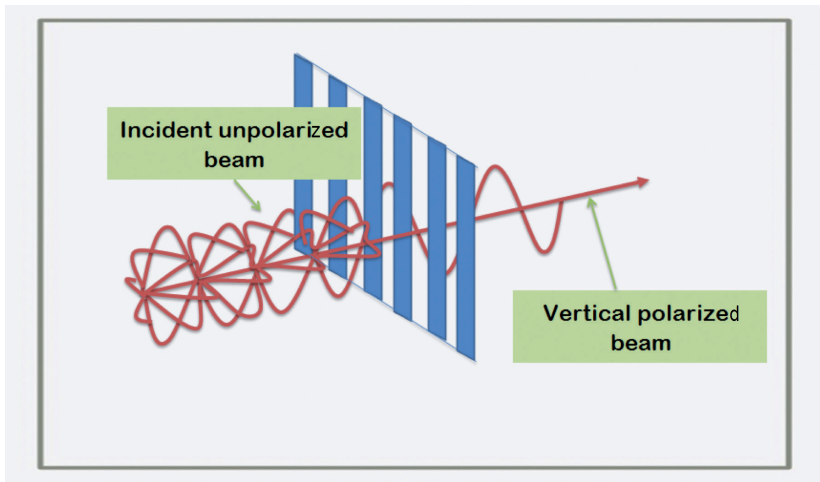
Figure 6.30. Light polarized.

In this case, the light beams interact determining at first a slowdown that lengthens the wave propagation. At this point, you can notice on the face of the moon the red light, which is a distinctive characteristic of the first moments of the eclipse. The light is then completely annulled and we behold the show of the eclipse, total or partial.

6.2.6. *Aristarchus of Samos*

Greek thinkers and philosophers first introduced the so pretended scientific idea of the Earth as a Globe. Eratosthenes succeeded in a simple experiment that, according to him, had the merit of measuring the radius of the Earth. Giving the spherical shape to the earth was the premise to build an infinite universe with a central sun. Later on, it would be possible the introduction of a new speculation, the making up of the evolution theory. Today, the greatest part of mankind put their faith in science and worship the sun as the absolute, veritable giver and sustainer of life.

Aristarchus lent [41] his personal support to the idea the Earth has a rotation movement around its axis, tilted in respect of the orbit plane.

The objection that he had to face was rather challenging. He had to explain why the stars are keeping their relative position during the years as it should happen due to a moving Earth (the reference was to the

lack of some annual parallax). Aristarchus tried to justify his theory by saying the stars are so far that it is not possible to see changes in their relative positions. Many philosophers that had lived centuries before had refused the heliocentric model, but it appears that after Aristarchus the idea could be accepted at least for a while. For example, Pliny the Elder introduced a new concept relative to the retrograde motion of planets. He tried to explain it as an optical illusion generated by the relative position of the Earth and planets around the sun.

Aristarchus is still remembered for two considerations regarding the solar system. They keep on to be reputed as proper; however, you well know they are wrong. He developed his ideas in a text *On the Sizes and Distances of the Sun and Moon*. So, I want to consider such Aristarchus' ideas and explain why they are wrong.

He wanted to calculate the distance of the moon. But, to succeed in doing it, you should possess the right starting bases. The angle subtended by the moon in the sky is about 0,5 degrees, but the problem is that the moon could be either far and big or near and small. Aristarchus figured out the problem by thinking to what usually happens during a moon eclipse. He considered that the Earth is a globe and that the result is that it projects its shadow upon the moon. He didn't know exactly how big and how far the sun is, so its initial hypothesis was that the shadow projected by the Earth is a cylinder with a diameter equal to the earth's diameter. He observed that the projected shadow is bigger than the moon. He understood thus that the Earth is bigger than the moon.

By following the evolution of the shadow cast upon the moon, he was able to make a first estimation of the dimension of the moon. He obtained, with these assumptions, that the moon is about half of the Earth. The modern science says that, even though the proceeding was correct, Aristarchus didn't evaluate correctly the dimensions of the sun, that generate thus a conical and not cylindrical shadow. They say today that the moon is one–fourth of the Earth. We know today that science is wrong and that Aristarchus was starting from some wrong basis. We know that the Earth is not a globe and that the moon runs a trajectory similar to that of the sun, on a spiral shaped around a cone between the two tropics. The moon is near and we know how far it is (an average value of 7000 km can be good). With these values, we know that the moon has a diameter of about 66 km, a lot less than the 3474 km scientists

want to foreshadow. We know that during a moon eclipse the shadow is not due to the Earth. On the contrary, it is due to the effects of the magnetic column of the North Pole. It has a polarizing effect over the light of the sun. Thus, this way the light of the sun can interfere with the light of the moon in a negative way generating the eclipse.

   After calculating the diameter of the moon, Aristarchus tried to obtain the distance of the sun. He concentrated on the moment when the moon enters the first quarter, i.e. exactly when it is possible to see half of the moon in the sky. At that moment, according to him, and to today science, the sun, the earth, and the moon form a right angle.
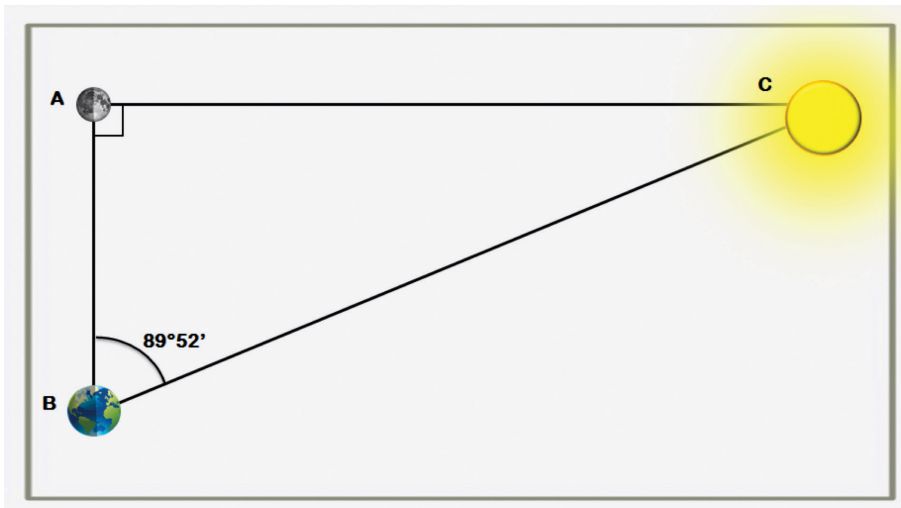
Figure 6.31. Layout of moon, Sun, and Earth studied by Aristarchus.

   The angle moon–earth–sun has to be measured very carefully because a small error can create an enormous error in the evaluation of the correct distance of the sun. At first, Aristarchus measured an angle of 87° degrees when the correct value is of 89,8° (89° 52'). He found a distance quite different from the one today accepted as correct, but his proceeding is still considered as correct.

   We know instead that even in this case the starting bases are wrong. As we know, in fact, the sun and moon are almost at the same distance from the Earth. So, the moon, the sun and the Earth can never arrange to form a right angle among them. We know that the moon is under

the influence of the sun due to a fluorescence process activated by the solar radiations. These radiations are shielded by the solar wind, made of plasma that has the shape of an undulated spiral. The moon is thus in an alternated way disclosed or screened to the sun's radiations thanks to the plasma. The position of the Earth is completely irrelevant in the process of the generation of the phases of the moon.

To conclude, we can say that already the Greeks, with their philosophies, posited the sun in the center of the universe and this idea can be linked, even in the case of Aristarchus, to the worship of the sun. Aristarchus' considerations about the sun and the moon, their distances and dimensions are still accepted as valid today. The influence of the Greek philosophy over the contemporary scientific thought is still evident.

6.3. The Planets

First of all, you have to remember that, when considering the flat earth, the heliocentric model is absolutely not reliable, misleading and completely far from the truth. Thus, just for a change, someone of the readers could imagine the geocentric model as a possible alternative.

6.3.1. The Geocentric Model

As you can deduce from the picture, planets are considered to move on concentric spheres of growing diameters. According to this model, the sun and the moon are directly pictured as orbiting on a flat earth. Probably this pattern, at first view, would be considered acceptable by many "flat–earthers". Anyway, I can easily prove that the model presented in the picture is illogical and scientifically wrong.

As indicated throughout many chapters in this book and proved in many different ways, the sun trajectory is a cone over the Earth and the orbits of this cone can be calculated at the time of the solstices. In order to reach the first approximation, these orbits can be traced by the help of trigonometry.
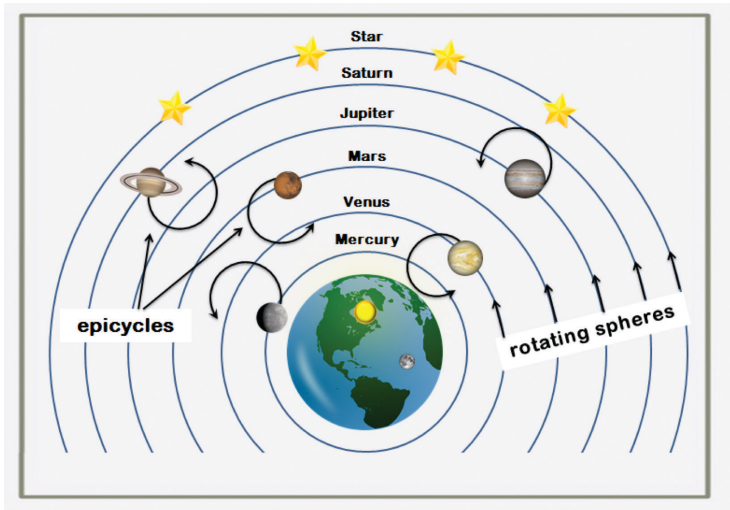
Figure 6.32. Geocentric model.

By using Demlo numbers and the fractals, we have discovered that all numbers linked to the solar disk are multiple of 111. Here are the numbers of the cone of the sun:

Table 6.9. The cone of the sun.

	Radius [km]	Height [km]
Summer solstice	6660	6660
Winter solstice	13320	3330

6.3.2. *The Cone of Planets*

Now, I have to consider a quite astonishing point. Planets are always seen in the celestial hemisphere near the ecliptic. This is the trajectory of the sun in the sky.

Astronomers approach this phenomenon by saying that it happens because each planet follows an orbit moving on the same plane of the ecliptic or presenting a very small angle in respect to it. This situation should immediately appear to the observer as something totally strange. They

will probably say that this phenomenon is due to stability reasons. The Newtonian gravitational theory could never explain such an incredible layout of the planetary system. This is because gravity should enable the planets to rotate in very different orbits.

Now, considering the flat Earth model with the sun moving on a cone over it, how near to the ecliptic can a planet be seen, if it is far from the sun? If it is seen on the ecliptic when the sun is on the top of the cone, the same will be impossible when the sun will be on the bottom of it.

In Fig. 6.33, you can see the situation just described. The observer could actually behold the sun and the planet on the ecliptic only once a year, proving thus this model is not correct. I've represented the sun and the planet as being aligned to simplify the comprehension. The basic model is that the sun and the planet on that day should follow trajectories that are running alongside.
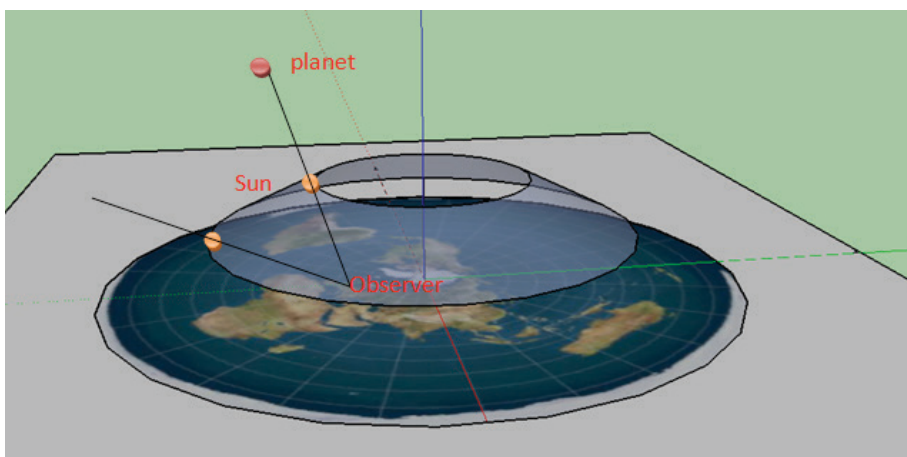
Figure 6.33. Planet far from the sun.

At the sight of this picture, you could think that, simply, the planet trajectory should be a cone that follows the sun during the year and not a sphere moving with a free circular movement around the Earth. Yes, that's true and, at first, it could be perceived as a good idea. But this will be true only up to a certain point and not at all definitely. We have to comprehend how far from the sun the cone of the planet develops. In fact, when we consider a planet on a cone far from the cone of the sun, two observers, A and B, staying in two different points of the Earth,

would not be able to watch contemporarily the sun and the planet on the ecliptic.
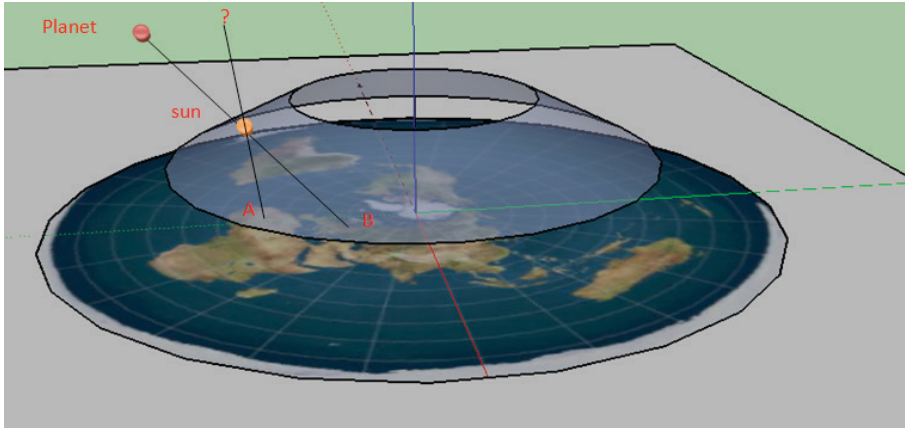
Figure 6.34. Parallax of planets with the planet far from the sun.

It can thus be proved that the cone of a planet has the necessity to follow closely the cone of the sun in order to avoid problems with the parallax. Moreover, this will be necessary to allow the observers to see the planet near the ecliptic from all the places of the Earth.

Here, of course, there's no reference to the astronomical parallax, whose unreality has been proved in a previous chapter, since the Earth is motionless. The parallax I am referring to is simply the different sight that two people, in two different points of the Earth, can have of the planet. The observer B perceives the planet on the ecliptic as it should be, but, when the observer A beholds the ecliptic, he can't find the planet if it is not aligned. It appears thus clear that the planet can't be far from the ecliptic. So, the conical trajectories of the planets have to be very near to the cone of the sun. The movement of the planets, along with their cones, has to follow the motion of the sun in relation to the height, while it can be independent of the sun in longitude.

These cones must then be traced considering the fact that there are internal and external planets. Mercury and Venus are internal, i.e. nearby the Earth, almost inside the cone of the sun. The other planets are external, i.e. further outside the cone of the sun. This phenomenon drives the observer to believe that the cones of the two planets are internal, below the cone of the sun.

When reading these considerations, you should all be aware that things can be much more complicated than they appear. But this is a first step that will allow, in the near future, open–minded astronomers to make further improvements in Earth Science.

6.3.3. *Orbits Calculation Again*

Let's consider the orbit values for each planet. I will report here only the calculations. To better understand formulas see the chapter 6.1 where discussing the sun.

Mercury

Mercury has order number n=8 (think for example that Mercury takes 88 days to do a complete turn around the sun).
   The first constant is:

$$const1 = \frac{\sum_{x=8^2}^{0} x}{8} = 260$$

To find the second constant, we have to consider that Mercury is an internal planet and we have thus to approximate by default:

$$const2 = \frac{6660}{\sum_{x=8^2}^{0} x} = 3.201 \cong 3$$

Table 6.10. We obtain the cone of Mercury:

	Radius [km]	Height [km]
Smaller orbit	8 · 260 · 3 = 6240	8 · 260 · 3 = 6240
Bigger orbit	8 · 260 · 6 = 12480	8 · 260 · 1.5 = 3120

Venus

Venus has order number n=7.

$$const1 = \frac{\sum_{x=7^2}^{0} x}{7} = 175$$

$$const2 = \frac{6660}{\sum_{x=7^2}^{0} x} = 5.437 \cong 5$$

Table 6.11. We obtain the cone of Venus:

	Radius [km]	Height [km]
Smaller orbit	7x175x5=6125	7x175x5=6125
Bigger orbit	7x175x10=12250	7x175x2.5=3062.5

We have to stop a moment to highlight some interesting data. Mercury has order number n=8 while Venus n=7. We have given this order to the planets considering the order given in a classical geocentric model (see the picture). In this system, Mercury is the last planet. But, with the mathematics we are using, Mercury is no more the last one: Venus has a lower cone. Venus results to be, thus, the nearest planet to the Earth, and we can consequently explain its luminosity, while Mercury results to be the nearest to the sun, and this explains its fast movement around the sun, being strongly influenced by the solar wind. Someone could object that the moon is much nearer to the sun and also Mars is very near to the sun. Yes, but if you make a research on the magnetosphere of Mercury, you will find that Mercury has a stable and significant magnetic field while the moon, as well as Mars, have nothing similar. This magnetic field, as I want to prove, strongly interacts with the magnetic field of the sun.
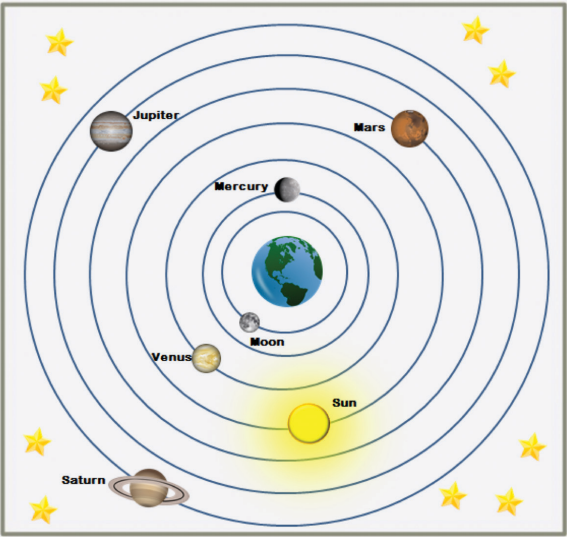
Figure 6.35. Geocentric model. Source: The net.

Mars

Mars has order number n=5.

$$const1 = \frac{\sum_{x=5^2}^{0} x}{5} = 65$$

$$const2 = \frac{6660}{\sum_{x=5^2}^{0} x} = 20.49 \cong 21$$

We have to approximate in excess because Mars is an external planet, so we have to obtain a cone that is higher than that of the sun.

Table 6.12. We obtain the cone of Mars:

	Radius [km]	Height [km]
Smaller orbit	5x65x21=6825	5x65x21=6825
Bigger orbit	5x65x42=13650	5x65x10.5=3412.5

Jupiter

Jupiter has order number n=4.

$$const1 = \frac{\sum_{x=4^2}^{0} x}{4} = 34$$

$$const2 = \frac{6660}{\sum_{x=4^2}^{0} x} = 48.971 \cong 51$$

We have to approximate in excess of 51 to obtain a cone higher than that of Mars.

Table 6.13. We obtain the cone of Jupiter:

	Radius [km]	Height [km]
Smaller orbit	4x34x51=6936	4x34x51=6936
Bigger orbit	4x34x102=13872	4x34x25.5=3468

Saturn

Saturn has order number n=3.

$$const1 = \frac{\sum_{x=3^2}^{0} x}{3} = 15$$

$$const2 = \frac{6660}{\sum_{x=3^2}^{0} x} = 148 \cong 155$$

We have to approximate in excess to 155 to obtain a cone higher than that of Jupiter.

Table 6.14. We obtain the cone of Saturn:

	Radius [km]	Height [km]
Smaller orbit	3x15x155=6975	3x15x155=6975
Bigger orbit	3x15x310=13950	3x15x77.5=3487.5

Uranus and Neptune

For Uranus and Neptune the calculation looses precision, but I want to do it to complete the job. Uranus has order number n=2.

$$const1 = \frac{\sum_{x=2^2}^{0} x}{2} = 5$$

$$const2 = \frac{6660}{\sum_{x=2^2}^{0} x} = 666 \cong 700$$

We have to approximate in excess to 700 to obtain a cone higher than that of Saturn.

Table 6.15. We obtain the cone of Uranus:

	Radius [km]	Height [km]
Smaller orbit	2x5x700=7000	2x5x700=7000
Bigger orbit	2x5x1400=14000	2x5x350=3500

Neptune has order number n=1.

$$const1 = \frac{\sum_{x=1^2}^{0} x}{1} = 1$$

$$const2 = \frac{6660}{\sum_{x=1^2}^{0} x} = 6660 \cong 7025$$

We have to approximate in excess to 7025 to obtain a cone higher than that of Uranus but the choice is completely aleatory.

Table 6.16. We obtain the cone of Neptune:

	Radius [km]	Height [km]
Smaller orbit	1x1x7025=7025	1x1x7025=7025
Bigger orbit	1x1x14050=14050	2x5x3512.5=3512.5

Excluding the last two planets, we can make a summary of what we have found.

Table 6.17. One last summary.

Planet	Radius 1 [Km]	Height1 [Km]	Radius2 [Km]	Height2 [Km]	
Moon	=369x9x2=6642	=369x9x2=6642	=369x9x4=13284	=369x9x1=3321	
Mercury	=260x8x3=6240	=260x8x3=6240	=260x8x6=12480	=260x8x1.5=3120	internal
Venus	=175x7x5=6125	=175x7x5=6125	=175x7x10=12250	=175x7x2.5=3062.5	internal
Sun	=111x6x10=6660	=111x6x10=6660	=111x6x20=13320	=111x6x5=3330	
Mars	=65x5x21=6825	=65x5x21=6825	=65x5x42=13650	=65x5x10.5=3412.5	external
Jupiter	=34x4x51=6936	=34x4x51=6936	=34x4x102=13872	=34x4x25.5=3468	external
Saturn	=15x3x155=6975	=15x3x155=6975	=15x3x310=13950	=15x3x77.5=3487.5	external

6.3.4. *The Titius–Bode Law [42]*

I believe that the highlighted numbers on the table, our const2 numbers are potentially very interesting and from this table, we can try to understand their significance. They represent a series that could remind you of the law of Titius. The Titius–Bode Law is a rough rule that predicts the spacing of the planets in the Solar System. The relationship was first pointed out by Johann Titius in 1766 and was formulated as a mathematical expression by J.E. Bode in 1778. The law relates the mean distances of the planets from the sun to a simple mathematic progression of numbers.
Titius wrote:

> Take notice of the distances of the planets from one another, and recognize that almost all are separated from one another in a proportion which matches their bodily magnitudes. Divide the distance from the Sun to Saturn into 100 parts; then Mercury is separated by four such parts from the Sun, Venus by 4+3=7 such parts, the Earth by 4+6=10, Mars by 4+12=16.
>
> But notice that from Mars to Jupiter there comes a deviation from this so exact progression. From Mars, there follows a space of 4+24=28 such parts, but so far no planet was sighted there. But should the Lord Architect have left that space empty? Not at all. Let us, therefore, assume that this space, without a doubt, belongs to the still undiscovered satellites of Mars, let us also add that perhaps Jupiter still has around itself some smaller ones which have not been sighted yet by any telescope. Next to this for us, still unexplored space there rises Jupiter's sphere of influence at 4+48=52 parts, and that of Saturn at 4+96=100 parts.

And in 1772, in the second edition of his astronomical compendium, Johann Elert Bode wrote:

> This latter point seems, in particular, to follow from the astonishing relation which the known six planets observe in their distances from the Sun. Let the distance from the Sun to Saturn be taken as 100, then Mercury is separated by 4 such parts from the Sun. Venus is 4+3=7. The Earth 4+6=10. Mars 4+12=16. Now comes a gap in this so orderly progression. After Mars there follows a space of 4+24=28 parts, in which no planet has yet been seen. Can one believe that the Founder of the universe had left this space empty? Certainly not. From here we come to the distance of Jupiter by 4+48=52 parts, and finally to that of Saturn by 4+96=100 parts.

Leaving apart these historical notations, when we consider 1 to be the distance of the earth from the sun (in a globular model) the distance of all planets can be described by this series:

$$0,39; \ 0,72; \ 1; \ 1,52; \ 5,20; \ 9,54; \ 19,18; \ 30,06; \ 39,51$$

Titius said that these values can be obtained with some approximation by writing this series of numbers:

$$0; \ 3; \ 6; \ 12; \ 24; \ 48; \ 96; \ 192$$

if you add 4 to each number and divide by 10:

$$0,4; \ 0,7; \ 1; \ 1,6; \ 2,8; \ 5,2; \ 10; \ 19,6$$

Could our red number be the new flat Earth Titius series?

$$2; \ 3; \ 5; \ 10; \ 21; \ 51; \ 155$$

It is certainly a fascinating hypothesis and I hope to reach soon the necessary knowledge and scientific proofs to validate or discard it.

6.3.5. Planets Transits

My goal is to define the trajectory of the sun, the moon, and the planets. I am really curious about their relative distances and their orbit radiuses.

Going on through my research, I believe that there are some confirmation and improvement of the theory.

Somebody could object to this model and, consequently, I just want to check the theory. I only want to know if it is robust enough, or if it falls under intelligent attacks.

A clever objection could be expressed in these terms. The moon is positioned quite near to the sun, at 6642 km at its higher position. It occupies also a higher position in respect of the internal planets. If this is a real situation, why did they never observe a passage of Venus over the moon? Passages over the sun are visible, why not over the moon?

This objection seems to be smart. If Venus orbits under the moon, it can happen, sometime, that Venus passes in front of it. In that case, we should see a little black point passing in front of the moon. But to answer this objection, I'll briefly review the trajectories of the sun, the moon, and Venus.

The sun, as I have often explained, has a conical trajectory within these orbit radiuses: 6660 km–13320 km. The cone is run up and down in 365,25 days.

On the other hand, the moon travels a very similar but rather smaller cone. This cone is run in a much shorter period: up and down in 27,32 days (27,32 days is the sidereal period of the moon). It appears thus evident that the sun and the moon will be for the major part of the time at different heights. Only two times every 27,32 days it happens that the moon passes over the ecliptic (the sun's trajectory). Even more rarely the moon and the sun will be near on the ecliptic. What about Venus?

You have to consider that Venus is an internal or inferior planet. That means that it orbits a cone smaller than that of the sun. Within a heliocentric system, an inferior planet is nearer to the sun in comparison with the earth. Watched from the Earth, Venus never runs too distant from the sun. So the maximum angle from Venus and the sun is of 47°. Venus is a planet, and as all the planets do, it moves on an orbit that is near to the ecliptic. It never averts from the sun ecliptic more than a few degrees.

Maybe you could think that Venus quite often passes in front of the sun. Why? Since Venus is always near to the ecliptic and seems to orbit around the sun. Moreover, it budges with a retrograde movement that keeps it at a maximum distance angle of 47°. That means that it lingers to and fro in similar positions for a time. The first observation of a transit was done by twenty–one Jeremiah Horrocks on 4 December 1639. This transit had been foreseen by Kepler (1571–1630), but only Horrocks (1618–1641) succeeded in observing it.

Table 6.18. Venus transits in front of the sun.

Dates of transit
23 november 1396
25-26 may 1518
23 may 1526
7 december 1631
4 december 1639
6 june 1761
3-4 june 1769
9 december 1874
6 december 1882
8 june 2004
5-6 june 2012

Horrocks was concerned that the weather would be unfavorable for the transit. It was the beginning of December at his location, in Much Hoole. He had determined the latitude of the site to be $53°35'$. He believed the rare planetary conjunction could produce severe weather:

> The chance of a clouded atmosphere caused me much anxiety; for Jupiter and Mercury were in conjunction with the Sun almost at the same time as Venus. This remarkable assemblage of the planets (as if they were desirous of beholding, in common with ourselves, the wonders of the heavens, and of adding to the splendor of the scene), seemed to forebode great severity of the weather. Mercury, whose conjunction with the Sun is invariably attended with storm and tempest, was especially to be feared. In this apprehension I coincide with the opinion of the astrologers because it is confirmed by experience; but in other respects, I cannot help despising their more puerile vanities. (Jeremiah Horrocks, *Venus in sole visa)*

Horrocks had a friend, William Crabtree, another astronomer. They probably never met in person but, from 1636, they corresponded regularly.

Crabtree made his observations too, but had insufficient time to make any measurements. It was cloudy in Broughton, and thus he only saw the transit briefly. According to Horrocks:

> Rapt in contemplation he stood for some time, scarcely trusting his own senses,
> through excess of joy… In a little while, the clouds again obscured the face of the
> Sun, so that he could observe nothing more than that Venus was certainly on the
> disc at the time.

Afterward, he made «so rapid a sketch» of Venus as it had passed across the Sun's disc. It allowed Crabtree to estimate the angular size of Venus to be 1′3″. Horrocks's estimate of 1′12″ was less accurate.

In October 1639, Horrocks had calculated that transits of Venus occur not singly, but in pairs eight years apart. He realized that the second transit would occur in less than four weeks. He wrote to his younger brother and to Crabtree in Broughton, advising them to observe the event on Sunday, 4 December. To quote Horrocks: «I rejoiced exceedingly in the prospect of seeing Venus».

So Horrocks understood that Venus transits happen in couples in 8 years. But attention, Venus transits are between the rare astronomical events. They happen with a scheme that repeats every 243 years, with couples of transits divided by 8 years that repeat in larger periods of 121,5 and 105,5 years.The last but one couple of transit happened in 1874 and 1882. The nearest transit of the current couple happened in 2004 and the following on 6–6–2012. Above I have attached a table with the transits occurred in the last 400 years.

It is so rare to see Venus passing in front of the sun, even if Venus stays constantly near it. Consequently, we can understand why a transit of Venus in front of the moon has never been registered. The motions of Venus and the Moon are completely independent and the moon doesn't remain on the ecliptic. On the contrary, Venus tends to remain very near to the sun and its ecliptic.

6.3.6. *Planets Dimensions*

I want here to discuss another objection that some time has been moved against my theory. I have often described planets as laying on a conical trajectory more or less near to the sun's cone. The objection is that planets orbiting so near one to the other should project a shadow one over the other. This point, for example, should be clearly evident when considering Jupiter and Saturn. Their cones seem to be quite near.

A consideration is concerning the planet dimensions. Are they so big that their shadow could hide the planet behind? How can we calculate planets dimension?

Let's start to calculate the diameter of the sun. Seen from the Earth, the Sun covers an angle of 0,5 degrees. Let's suppose to watch the sun from a distance of 7000 km that seems to be a good average for Europe latitude.

Looking at the picture aside, you can calculate the diameter of the sun that would result respecting the following data: d=61 kms.

$$d = 2 \cdot 7000 \cdot tg\left(\frac{0,5°}{2}\right) = 61.0$$

When you think about the numbers used till now in relation to the sun, the number 6 immediately catches the eye.
.
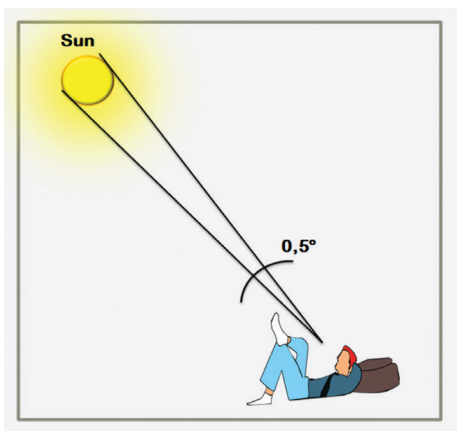
Figure 6.36. Suns diameter calculation

When you think of the numbers considered till now and of the fractal description of reality, I can suppose that sun diameter is maybe 66,6 kms. For the moon, that covers an angle of 0,5° too, the diameter could be 66,4 kms. Remember the constant of the moon: 369x9x2=6642.

Jupiter covers an angle of 40" that means a diameter (for a distance of 7000 kms) of 1,35 kms. Calculating the orbit of Jupiter we found const1=34 and order number 4 from which we obtain d=34 · 4=136. d=1,36 kms. Horrocks would have been ravished for the result. So am I!

By the way, what about you? You can understand that planets are small. How could a planet less than 1,5 km in diameter cast a shadow on another planet hundreds of kilometers far away?

My theory, up to now, seems to resist well. Let's wait some more time to see if it will keep on.

6.4. The Earth

In this chapter, I will try to give a summary of the dimensions of the Earth by using all the information elaborated in the previous pages. The starting point of my research had initially been the determination of the radius of the Earth. The resulting measure is 19980 km that means 111 km · 180° = 19980 km. We can thus write:

Table 6.19. Measures of the Earth.

	Radius [km]	Circumference [km]
Cancer Tropic	6660	39960
Capricorn Tropic	13320	79920
Outer diameter	19980	119880

A big consequence is that there is no symmetry between the southern part of the Earth and the northern one. Southern lands and oceans are in fact compressed, because the equator is not in the middle of the tropics. So they appear pretty stretched, because all circumferences on the outskirts are bigger than near to the center.

Here I would like to show the reader the difference in extension between the surface of the so called globular earth and that of the total area of the flat earth, from the north pole up to the Antarctica.

The surface of the sphere (with a radius of 6371 km and =3,1415) would be of 510.064.365 km² On the other hand, the extension of the flat earth with a radius of 19980 km would correspond to a surface of 1.197.601.200 km², that is much more than the double.

6.4.1. *Polar Coordinates*

In the representation of the flat Earth, we need to generate a set of co-ordinates to replace the globe latitude and longitude. Latitude and longitude create a net all over the globe allowing to define the position of each point of the Earth.

Over a disc, like the one definitely the Earth proves to be, we shall use a set of polar coordinates, i.e. a distance or radius measured from the North Pole and an angle measured from a reference radius, for example the one passing through Greenwich.

The radius r should replace the latitude while the angle ϑ replaces the longitude.
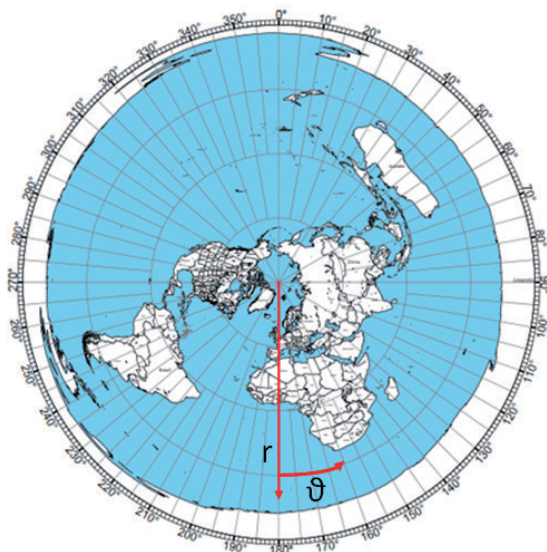
Figure 6.37. Polar coordinates.

In order to transform the latitude, an angle, in a distance, we should remember that a degree of latitude correspond to 111 km on the flat Earth. A meridian is in fact 40000 km long, which, when divided in 360 parts, gives 111 km for each degree of latitude.

This allows obtaining a very good result for nearly all the earth points, provided they are not too near to the pole. This would be a consequence of deformations due to the globular shape. So, the ϑ angle corresponds to the angle of longitude.

We should however add a consideration. Science postulates symmetry between the northern and the southern hemisphere. As a consequence, they will formulate a theoretical calculation of the longitude angle based on such a postulate.

So, let's consider an example. The distance on a globe surface between, let's say, Sydney (longitude 151° EST) and Perth (115° EST), is about 3800 km while on the flat Earth, considering the same latitude, it would be of about 8000 km. It is clear hence that each longitude coordinate for places in the southern hemisphere should be reviewed. It would be enough to travel by car from Sidney to Perth to obtain that the correct distance is 3900 km.

To have an idea of the correction that should be done we can make some calculation using the numbers we have found till now.

On the tropic of Cancer we have that $6660 \cdot \pi \cdot 2360 = 6660 \cdot 3 \cdot 2360 = 111$ km for each degree of longitude, being 6660 the radius of that tropic.

On the tropic of Capricorn we have that $13320 \cdot \pi \cdot 2360 = 6660 \cdot 2 \cdot 3 \cdot 2360 = 222$ km for each degree of longitude.

On circumference of the ices around the Earth we have that $19980 \cdot \pi \cdot 2360 = 6660 \cdot 3 \cdot 3 \cdot 2360 = 333$ km for each degree of longitude.

On the internal circumference of the dome we have that $26640 \cdot \pi \cdot 2360 = 6660 \cdot 4 \cdot 3 \cdot 2360 = 444$ km for each degree of longitude.

On the external circumference of the dome we have that $33300 \cdot \pi \cdot 2360 = 6660 \cdot 5 \cdot 3 \cdot 2360 = 555$ km for each degree of longitude.

Having in mind these distances we understand that at the latitude of Sidney the difference of longitude between Sidney and Perth should be of about $3900/222 = 18°$ and not 36° (151°–115°) as it would be on the surface of a globular earth.

6.4.2. *The Azimuthal Projection*

Greeks were the first to describe the Earth as a globe. Their philosophers started by imagining the sun in the center of the universe. They used the globe as a symbol of the whole cosmos. Since then, kings were represented with the globe in their hands to show their power. The globe was visible together with statues and pictures, an example of which is the Atlante Farnese preserved in Naples.

This is a statue out of the second century, representing the celestial sphere as a globe. By the way, the first preserved terrestrial globe map is the Erdapfel, created by Martin Behaim in 1492. The American continent was not represented, but the Earth was, however, portrayed as a globe. The idea of a spherical Earth became more and more widespread. And, during the age of the great sailors and the oceanic travels, having the Earth represented on maps developed into a must.

This meant that the sphere had to be drawn on flat papers. Mercator is well known for having created one of the most famous of these maps. It is known as the Mercator projection map of 1569. It was a "conformal" map studied for navigation. Conformal means that the projection preserves the angles as on the globe and this is a useful characteristic during the navigation.

A conformal map [43] is characterized by a big deformation of the Earth as the latitude grows. Whatever projection of the Earth on a map induces deformations due to the double curvature of the globe. A cylinder has a single curvature and can be easily projected on a plane, a sphere is different. This is true also for the Mercator projection. A well–known problem of this projection, which is so widespread all over the world, is that it enlarges a lot the northern nations, leaving other zones, like Africa, smaller in size than they are in reality. And, as you can clearly guess, the geographical representation of the world has been used as a sort of propaganda tool for social and political purposes.

As you can easily understand, all flat maps of the Earth present a big original flaw: the globe. Since all geographers and cartographers considered, while performing their job, the Earth as a globe, they portrayed the Earth over the sphere. All subsequent maps are only projections transferred from the globe over a flat plane, or over a single curvature surface like a cone or a cylinder. These can be easily flattened after being projected from the globe.

Since all maps are obtained this way, with a projection, large deformations are transferred in all of them. The Earth is flat. A big misrepresentation is introduced when the earth is regarded as a globe and a second inaccuracy is introduced when the globe is flattened over a map. Often the second trespass makes the first even bigger and it becomes impossible to go back to the reality.
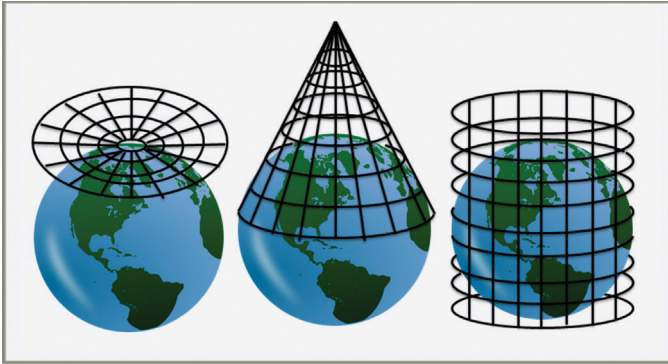
Figure 6.38. Projections of the globe.

Let's try to comment a little the map that is often used to portray the Earth: the azimuthal equidistant projection centered on the North Pole.

It is clear that, among all projections, this is the more suitable one to show the disposition of the lands.
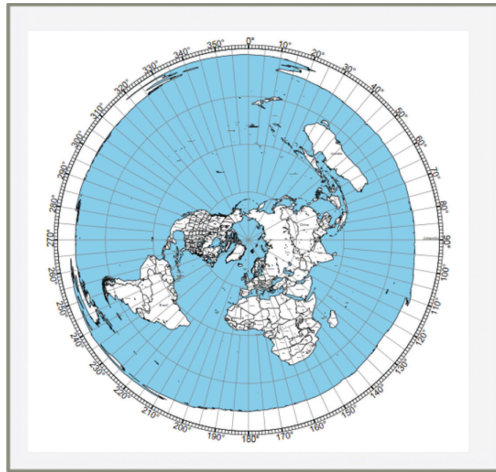
Figure 6.39. The Azimuthal equidistant projection.

The South Pole is all around the Earth, the North Pole is in the center, the angles between meridians are preserved and all distances measured starting from the North Pole are equal to those on the globe. In comparison with the globe, big deformations of the southern part of the Earth are manifest. The South Pole circumference is enormous in comparison with the globe South Pole. This seems to be correct in many flat–earther's

eyes. But, the one who knows a little the real measures of the Earth recognizes that the distances on the southern hemisphere of the globe are not correct. Surprisingly, this map, notwithstanding all its merits, is off target. It is a simple projection from the globe.

Maps can be:

— conformal, if directions from one point are preserved; the angle between two directions in the map is the same in the globe;
— equivalent, if the areas in the map are the same in the globe. The shape will be deformed;
— equidistant, if the distances along some direction are preserved.

The azimuthal equidistant map preserves the angle of meridians (azimuth) but also the distances from the North Pole. This map is drawn by the projecting of all points which develop on a plane tangent on the North Pole of the globe.

We will now consider this projection comparing it with our flat Earth model. In our model, the Cancer tropic is at 6660 km from the North Pole. On the globe, the situation is different and thus on the azimuthal projection, too. On the globe, we have for each degree of latitude 111.1 km. The latitude of the tropic is 23.4° that means 66.6° from the pole. The tropic is thus at 66.6x111.1=7400 km from the North Pole. The difference is of 740 km with a 10% error that is not a small fault. But remember that we have dealt with fractals and the numbers we have found are only the first fractal. Could it be something like this?

6660+666+66.6+6.66+…≈7400 km The error is now almost zero.

The equator on our model is at 11100 km from the pole. On the globe it is at 90°x111.1= 10000 km. The difference is of 1100 km with an 11% error.

But it could be: 11100–1110–111–11.1–1.11≈9967 with a very small error here too.

When considering our model, the Capricorn tropic is at 13320 km from the Pole. On the globe, we have to calculate (90°+23.4°) x111.1= 12600 km. The difference is of 720 km with an error of 5.7%.

But we, probably, have been considering more than only one fractal:

13320–666–66.6–6.66–0.666≈12580 km

6.5. The Dome

Finally, as you imagine, the theme of the dome needs a more in–depth investigation. Up to now, we haven't faced the subject in a really significant way. But it will be better, right now, to go into things a bit deeper.

The dome is one of the strangest things you first meet when approaching the topics of the flat Earth. Probably you wonder if a solid vault, that encloses all the circle of the Earth, can truly exist or if it could be just considered a theoretical derivation from the Bible. True, in the Bible the firmament, or the "expanse" between the waters, is a positive expression.
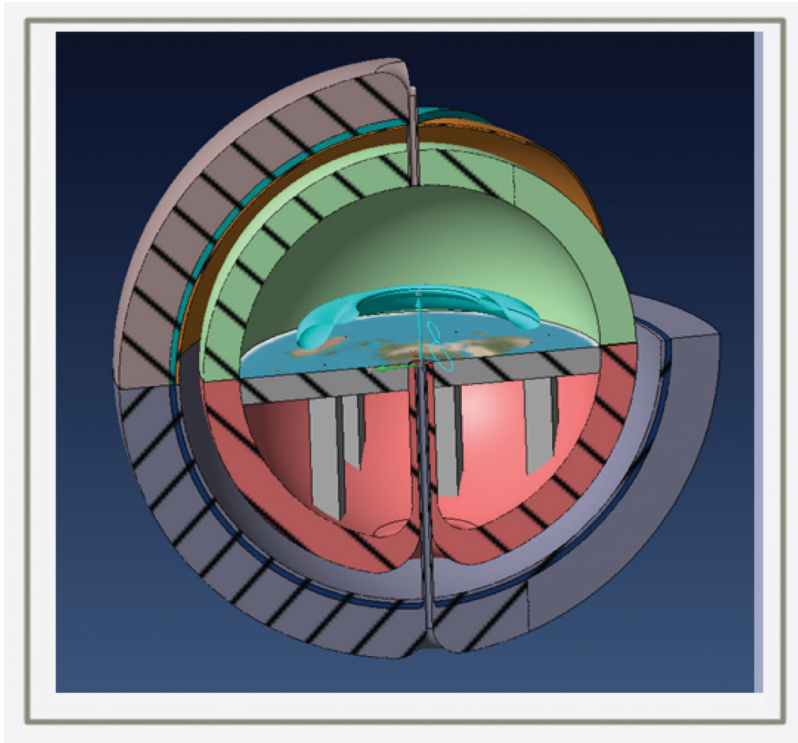
Figure 6.40. A representation of the dome.

6.5.1. *The Atmosphere Under the Dome*

The establishment states there is no dome but only the atmosphere, made up of gases that completely envelope the globe of the Earth. The atmosphere has the pressure of 1 atmosphere at the soil level and it diminishes with the altitude. Going up, the atmosphere gets stratified and you could find different mixtures of gases getting lighter and rarefied.

Science states the atmosphere is kept connected to the Earth by the gravity force. This would be the power able to block its diffusion toward the outer space of the universe and avoid its dispersion, due to the rotation of the Earth. But what do the facts say?

Let's suppose to have a container full of air, at the pressure of 1 atmosphere, in a room in which void was already made. The container will be a representation of the atmosphere; the bottom of the receptacle is the Earth, while the room is the void space of the universe. If you open the receptacle from the ceiling, what do you think it will happen?

Immediately the gas will diffuse in the void room, spreading in all the space available. Can gravity stop the diffusion of the gas? In no case. It is not possible.

What about the stratification of the atmosphere? Lighter gases rise in the upper part of the atmosphere. Let's make a consideration. Imagine having a leak of methane from a pipe. If the leak happens to occur outdoor, the gas will rise upward, diffusing in the superior layer of the atmosphere. But when the leak is occurring indoor, the methane will accumulate in the upper part of the room, near the ceiling. To have stratification, thus, a ceiling is needed.

It is, thus, well known to everybody the fact that stratification of gases is possible only in closed pipes or containers.

So, to conclude, it seems that there should be a ceiling over the flat earth, first to avoid the diffusion of the atmosphere in the vacuum space of the universe and, second, to allow the stratification that characterizes the atmosphere.

Now, you can understand the absolute necessity of the presence of a dome. It's the only way to obtain stratification, with the lighter gases rising to the upper layers under the top. That is one of the clear demonstrations of the existence of a solid top over the flat earth.
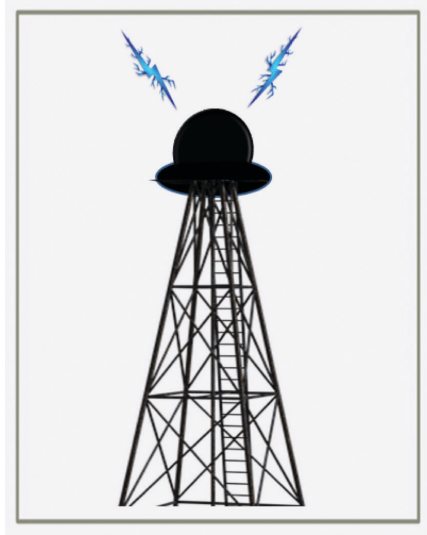
Figure 6.41. Wardencliffe tower.

Now I would like to add some more details about a few characteristics of the celestial vault. Since we do not have the chance to go there and examine it, we just have another possibility left. We have to base our research on reasoning and on the Bible. This way, we can give the Creator the word and let Him explain what he has done.

Tesla made studies and researches about the electric field of the Earth and, indirectly, he can help us understand something more about the Dome. He was comparing the Earth to a big capacitor, a container filled with an enormous quantity of energy stored in aether, a mean through which the light can move. He discovered a new form of energy moving as longitudinal waves similar to the sound waves in the elastic aether. Tesla was thinking of a way for using this energy and designed a power plant able to extract and transmit it, all over the world. It should be understood that the Wardencliffe tower was an important component of his plant. [44]

Many people think that this tower was intended to be a sort of antenna but, in the intention of the inventor, it was a big capacitor. It should be noted that the shape of the active part of this capacitor has the possible shape of the Earthly dome.

You know that, since the Earth is flat, gravity cannot exist. Similarly, you should be aware of two things:

a) the Earth has a magnetic field;

b) it presents electric characteristics creating an alternative gravitational field not responding to Newton's law.

Tesla discovered the Earth is a capacitor and built an enormous tower with a shape reminding that of the dome.

In the letter to the Hebrews at 1:11 we read about the heavens: «They will perish, but you will remain; and just like a garment, they will all wear out». So, when you imagine that our cosmos is a big capacitor, made up of two plates corresponding to the Earth and the Dome, you can realize that these two plates are the electrodes of a battery and, as everyone knows, the electrode, in a battery, wears out.

Here, to recap a bit, you will find a description of the battery taken from Wikipedia.

John Frederic Daniell (12 March 1790 – 13 March 1845) was an English chemist and physicist.

His name is best known for his invention of the Daniell cell, an element of an electric battery much better than voltaic cells.

In the Daniell cell, copper and zinc electrodes are immersed in a solution of copper (II) sulfate and zinc sulfate respectively. At the anode, zinc is oxidized per the following half reaction:

$Zn_{(s)} \rightarrow Zn^{2+}_{(aq)} + 2^{e-}$ . . (Standard electrode potential −0.7618 V)

At the cathode, copper is reduced per the following reaction:

$Cu^{2+}_{(aq)} + 2^{e-} \rightarrow Cu_{(s)}$ . . (Standard electrode potential +0.340 V)

The total reaction being:

$Zn(s) + Cu^{2+}(aq) \rightarrow Zn^{2+}(aq) + Cu(s)$ . . (Open–circuit voltage 1.1018 V)
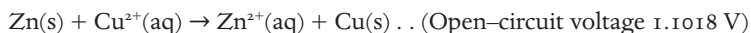
In classroom demonstrations, a form of the Daniell cell, known as two half cells, is often used due to its simplicity. The two half cells each support one half of the reactions described above. A wire and light bulb may connect the two electrodes. Electrons that are "pulled" from the zinc anode travel through the wire, providing an electrical current that illuminates the bulb.

In such a cell, the counterions play an important role. Having a negative charge, the anions build up around the anode to maintain a neutral charge. Conversely, at the cathode, the copper(II) cations discharge to maintain a neutral charge. These two processes accompany the accumulation of copper solid at the cathode and the corrosion of the zinc electrode into the solution as zinc cations.

Since neither half reaction will occur independently of the other, the two half cells must be connected in a way that will allow ions to move freely between them. A porous barrier or ceramic disk may be used to separate the two solutions, while allowing the flow of sulfate ions. When the half cells are placed in two entirely different and separate containers, a salt bridge is often used to connect the two cells. The salt bridge typically contains a high concentration of potassium nitrate (a salt that will not interfere chemically with the reaction in either half–cell). In the above wet–cell during discharge, nitrate anions in the salt bridge move into the zinc half–cell in order to balance the increase in Zn^{2+} ions. At the same time, potassium ions from the salt bridge move into the copper half–cell, in order to replace the Cu^{2+} ions being discharged.

In the Daniell cell, the porous barrier cannot prevent the flow of copper ions into the zinc half–cell. Hence, recharging (reversing the current flow by an external source of EMF) is impossible because, if the zinc electrode is made to become the cathode, copper ions, rather than zinc ions, will be discharged on account of their lower potential.

Figure 6.42. The two half–cell form of the Daniell cell for classroom demonstrations.

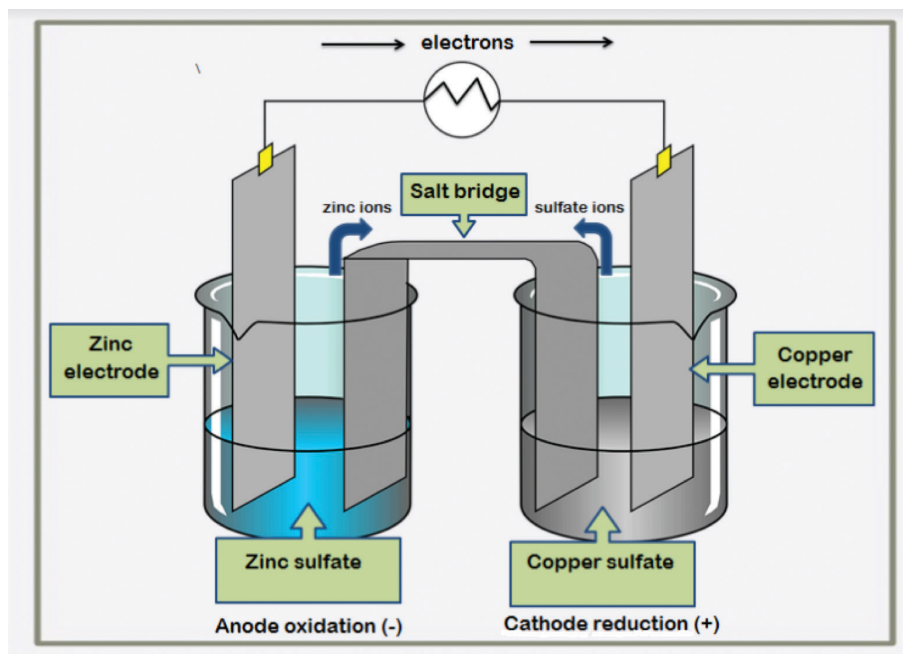So, from the above description, you can realize that the zinc anode wears out and the same should happen to the heavens. Thus, you can suppose that the Earth and the Dome behave as two capacitors plates that are continuously charging, as a battery does. If you try a fast research on the web, you can find that usually a capacitor can't be used as a battery, because the energy stored is not so much and is suddenly discharged. Nevertheless, technology is evolving and some kind of super capacitors, with great quantities of energy stored, seems to be good to be used as a battery. Time and further research will help us to confirm or not these hypotheses.

You can suppose the electrolyte to be formed by the sea water but what are the materials forming the two plates? As far as the earth is concerned, a good material could be iron that is abundant all over the inferior earthly platform. Iron is the more widespread metal on the Earth and constitutes 16% of the mass of it. But you could as well take into consideration silicates or many other abundant materials. Silicon oxide is what attracts me the most. Quartz (SiO_2) is the second most common material in the Earth (12% in volume).

6.5.2. *Graphene*

As far as the dome is concerned, we'll examine something new. Let's consider some of the distinguishing marks that will identify the possible active material necessary for the electrical reaction.

First of all, the Dome should be a sort of mirror. This means that the internal surface of the dome should be formed by a material reflecting the hitting radiations. This is necessary to obtain, for instance, a rainbow. When you want to obtain a rainbow indoor, you need to have a mirror.

It should be an electrically active material even at any very low temperatures (far from the sun). A characteristic of superconductors is that they conduct electricity at any very low temperatures almost without resistance and thus with high efficiency. As a result, our material should be a *superconductor*.

It should also be a *flexible material* at some higher temperatures. In Isaiah 34:4 we read: «All the army of the heavens will rot away, and the heavens will be *rolled up like a scroll*. All their army will wither away, as a withered leaf falls from the vine and a shriveled fig from the fig tree».

For sure these are incredible characteristics when put all together. Anyway, there is a material that can satisfy all of these requests: graphene.

Here's an excerpt of what Wikipedia states about this material.

Graphene is an allotrope of carbon in the form of a two–dimensional, atomic–scale, *hexagonal lattices* in which one atom form each vertex. It is the basic structural element of other allotropes, including graphite, charcoal, carbon nanotubes and fullerenes. It can be considered as an indefinitely large aromatic molecule, the ultimate case of the family of flat polycyclic aromatic hydrocarbons.

Graphene has many unusual properties. It is *about 200 times stronger than the strongest steel*. It efficiently conducts heat and electricity and is nearly *transparent*.

6.5.3. *The Architecture of the Dome*

I want, now, to give an answer to some important question:

— If a division between waters is made possible by the existence of a vault, how can we describe the whole geometric, architectural system of the dome?
— Is the dome rotating? Of course it is, but what enables it to avoid the terrible friction that such a big spinning could transmit to the Earth?

In order to give an answer, we have to consider the geometry of the vault. Under the glassy dome, (green in the picture 6.44), there is a basin. The (red) basin is a solidity able to contain the continents and the waters of all the oceans. Its radius has to be 26640 km long. Its exterior radius has to correspond to 26640 km, but its minor radius is the equivalent to the radius of the earth (19980 km). This is an extension of 6660 km of which the interior layer is made up of iron/silicates for a deepness of 3996 km. The external remaining of 2664 km is just a void air cushion which needs to be left free in order to allow flexibility and absorb the potential movements/pressures developing in the underground.

It is probably made, among other, of iron and silicates. For sure, in the future, we'll have to understand what is the role of this basin in sustaining the magnetic field of the earth. Under the red basin you can behold a lilac inter space (hydrocarbons) and, below, another bigger basin (stone foundations, gravel/sands filtering and absorbing the potential leaks of water from the moving turbines of the lower dome).

I can imagine, thus, that the upper dome is a very similar but inverted hemispheric lower basin. It will be made of different materials and positioned as a shelter above the upper part of the earth. The consequent idea is that of a sphere, made up of two hemispheres, one mainly of silicates/iron below and another one of crystal/glass silicates above. The earth is a plane in the middle. In the same way, you can think of an overturned chalice that grows up from the basin below to retain the bioluminescent amasses inside the upper great waters. Light is collected in a sort of inter–space between the stationary dome made of glass and the mobile.

Thus, for now, I have finally tried to show the only possible logic of the system. Moreover, let's say something about the rotation of the dome. The stars rotate with a speed similar to that of the sun, only about one degree faster each day. While the sun performs a complete round in 24 hours, the dome performs it in 23h 56'. Actually, the dome rotates.

We could consider the dome as the result of two main rings. There is the interior one made up of glass, stationary, forming the internal structure of the dome. Similarly there is one exterior, outside the furthermost extremity of the earth, auto–moving, made of crystal. In the middle gather the star lights, in the great upper waters. The rings are both 6660 km thick, for an overall extension of 13320 km.

The inner wall is fixed to the Earth. It is the structure that seals the Earth, avoiding the upper waters to flood it. To say something more, the second layer is the mobile and it drags the lights along its movement.

So, up to now, I have discussed the dome as being formed of two concentric rings:

a) a stationary inner wall made of glass composites and having a positive charge;
b) a moving exterior wall made up of crystals and silicates, negatively charged.

In the middle of the sandwich, there is an interstice divided in layers: There are 666 km of water, 444 km of amber sealing the waters and, moreover, 2664 km are simply forming an air cushion to avoid friction among the two different main rings. It is an overall extension of water 666 kilometers large, sealed by an amber wall 444 km thick, set in the interior of the circle of the dome.

Just for a confirmation of the righteousness of this reasoning the first chapter of Ezekiel gives a good description of the dome where, in the middle, shines the brightness of amber.

> And I looked, and, behold, a whirlwind came out of the north, a great cloud, and a fire enfolding itself, and brightness was about it and out of the middle thereof as the color of amber, out of the middle of the fire. (American King James Version)

The amazing glowing of amber is certainly visible in the light colors of the stars. We can admire the beauty of the firmament through the filter of an amber screen which seals the anterior walls of the mobile. Amber can assume different colors from blue to red, from orange to yellow, from green to brown. It can also show different degrees of transparency due to various purity degrees. Some of the particular effect stars present to the observer can be explained by the inclusions of different organisms such as ants, spiders, mosquitos, algae, up to crocodiles, sirenians or turtles, maybe, trapped since the beginning inside the fossil resin.

Constellations are points of light that we can perceive as fixed stars mounted in the same position in the firmament, stable across the passing of millenia. Light can reach us through the most transparent amber points of the wall but it can stay hidden forever were amber is completely opaque. And, of course, optics makes all the rest.

6.5.4. *Olbers' Paradox*

H.W.M. Olbers (1758–1840) is famous for an intriguing paradox: Why is the sky dark at night? Assuming that space is infinite and filled with stars, he suggested, the entire sky should be as bright as the surface of the sun. The question had originally been raised by Kepler. One of the explanations sometimes suggested is that our universe is finite both in time and place, and the total amount of matter and energy is far too small to light up the night sky. So, let's investigate.

As a matter of facts, Olbers posited the universe to be unlimited. But when we consider the celestial dome containing the star lights we can contemplate at night, we all know it contains an unlimited number of celestial bodies but is not an unlimited space. Since in our brain, due to
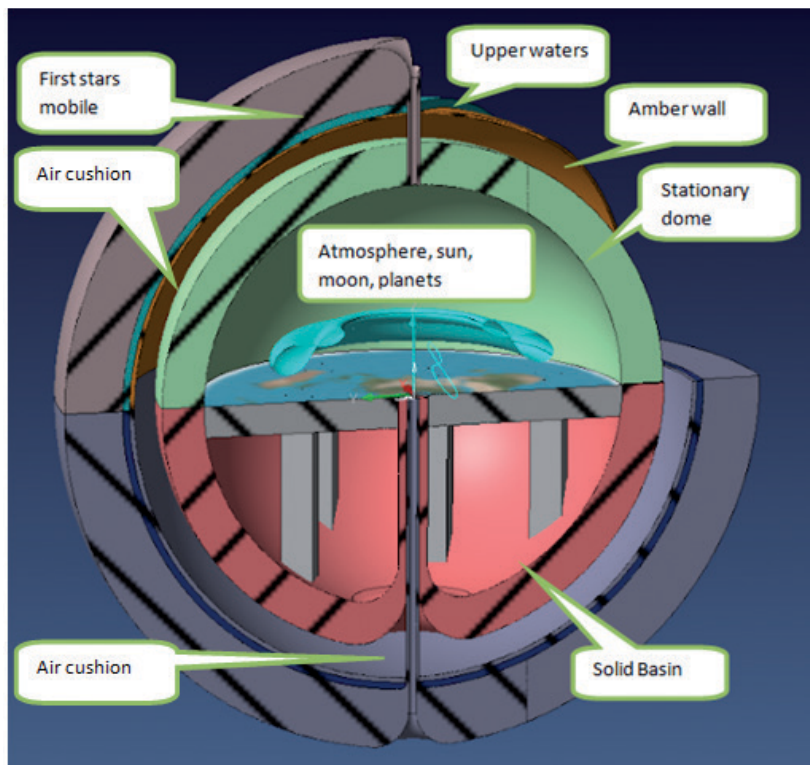
Figure 6.43. Section of the Earth.

the deep circumvolutions of our encephalon, there are more than 80 billion neurons, many people like saying that there are as many neurons in the human brain as stars in the Milky Way. And why not? I dare say, the number of stars can actually be much more.

Many people ask: «Is there any edge to the Universe?» Probably you all, and for many a good reason, imagine the universe to be unlimited. Anyway, of course, it would be better to limit the inquiry to our single cosmos. Just the one we are living inside. So, now I want to focus my attention to the exterior boundaries of the firmament above us. I mean, the different layers of the dome protecting the earth.

Another important function that the different dome layers should perform is light refraction. For instance, think of the role performed in the nocturnal animals' eye by the tapetum lucidum. It allows them to increase six times their sight, in the partial dark of the night. Anyway, the tapetum lucidum couldn't work in the absolute dark nor in the bright

daylight. So the Olbers' paradox solution could be that we see the stars through the amber meshwork of the dome and that they couldn't be seen without the help of the partial dark of the night.

In relation to the architecture of the dome I want to introduce a problem that is related to the observable and measurable height of the stars on the flat Earth. We have seen that the stars are in the rotor, the part of the dome that rotates, being detached from the stator by a layer of vacuum. The distance must therefore be more than 26,000 km above the ground level if we take into account the apex, i.e. the point where the Polar star would be.

Speaking of the Polar star we can ask ourselves how high it is when measured by an observer on the earth's surface. Not being able to trust what science says I made a measurement from my latitude of 45° and I saw that what science says seems to be correct at my latitude: I measured in fact a 45° angle of elevation for the Polar star. In fact, science states that the polar star defines an angle with respect to the observer equal to the latitude in which the observer is located. This is because science supposes that the star is at such a distance that it can be considered infinitely distant. Whoever is at the North Pole (latitude 90° N) will see the polar star at 90°, that is, straight on the head, while those at the equator (latitude 0°) should see it at 0°, i.e. on the horizon. It has been verified that the polar star is visible up to at least ten degrees south of the equator, so what science says is easily contestable. However at my latitudes the polar star is actually at 45° elevation. A place at 45° north latitude is found, on the Flat Earth, about 5000 km away from the North Pole. This means that the Polar star appears at a height of about 5000 km.

What about the height of the other stars? In a very simple way it is enough to observe a star trail to give the answer. The stars all revolve around the Polar that remains visibly in the center from any point on the Earth the observation is made. If the Polar were at a different height than the other stars you could not see in the middle of the trail from anywhere on Earth. Thus the stars appear on a 5000 km radius hemisphere.

But we have seen that instead the stars are on a layer of amber with a radius of at least 26000 km. How can this be explained?

From the study of the architecture of the cathedral we have seen that under the rotor we have a transparent stator. Could the stator behave like

a lens and produce strange optical effects? To give an answer we need to do some instrumental optics analysis. One of the main problems of instrumental optics is to create devices capable of creating an image (real or virtual) of an object. In other words, we try to realize, through the use of refractive surfaces of appropriate shape, the transformation of homocentric ray beams coming from a point source S into homocentric beams coming from a different point source S'. In our case it would be a matter of having a diopter able to take the stars at 26000 km (S sources) and turn them into S' points of light at just 5000 km in height. Is it possible to achieve this with a reflective surface like our stator? Let's see some theory.

Consider a diopter, that is, a system consisting of two transparent, homogeneous, isotropic media, separated by a spherical surface of radius r. Let's put a point light source in the point S that corresponds to our Polar star.
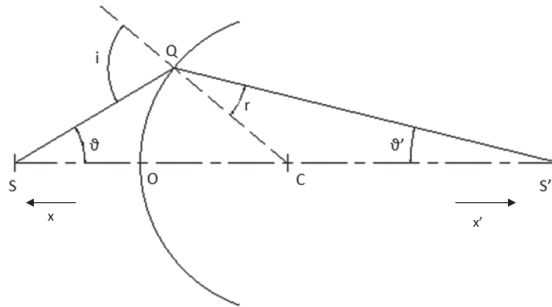
Figure 6.44. The spherical diopter.

We therefore ask whether the spherical diopter with center in C and radius r can transform the source S into another luminous point S 'called image of S. To this end I join the point S with the center C of the diopter and indicate O as the point of intersection with the surface of the diopter. The SC radius is not diverted. Consider another radius that meets the diopter at the point Q and let's apply the law of refraction

$$\frac{\sin i}{\sin r} = n_{12} = \frac{n_2}{n_1}$$

Where the indices n are the refractive indices of the substances separated from the diopter. Of course this is a simplification in which we consider

the stator as infinitely thin. The discussion should then be deepened by considering the fact that the stator is a thick lens with a double refraction. Optical considerations of this kind, which are not difficult, will be made at other times.

The ray SQ is refracted and meets the non–deviated ray SC in the point S that turns out to be the image of S.

This simplification must however take into account the fact that for large angles ϑ the output beam is astigmatic. This means that, as the Q point on the diopter is moved, the outgoing rays would not meet the radius SC always in the same point, thus creating more images S'.

But if we limit ourselves to considering those rays that form a small angle ϑ with the line SO, the astigmatism is reduced and, until a certain point, canceled. In our case, since the stars are less than 3,000 km from the stator–diopter and the observer is much lower, this hypothesis can be considered valid.

The concept to remember is therefore that the stars are lowered by the diopter which shows an image of them at just 5000 km in height. These stars would not be visible per se at a distance of 26,000 km if it weren't for the diopter that puts them within our reach. To make an accurate analysis of the entire problem I suggest studies of geometrical lens optics.

6.5.5. *The Empty Space Layer*

The dome of the earth, which is forming the sky of above, is made up of two main parts, one is the stator and the other the rotor. The underground below of us has the same structure, of which a part is the motionless basin and the other is a shell rotating together with the dome. The motionless part of the underground is the magnetic container. This rocky, motionless part however has to be understood somewhat better. A deeper analysis of the gravity phenomena will help in the description of the entire structure.

The surface we are living upon is nested within a series of concentric spherical shells. They are stationary in their inner part, but rotating in the outside. We can easily perceive the movement of the exterior layers when watching the stars that are moving each night all around the North Pole. The stationary, internal layers are completely hanging in the empty space. So we have to understand how this is possible.

How will it be possible for such an enormously heavy mass to stay suspended in the void, inside an exterior moving shell? What is this space, which is dividing and keeping separate the two main layers of the Earth, made of?

It should be evident that this is a totally empty space. Neither air nor water could be found there because these are substances that would create such a friction able to put even the central part of the Earth in rotation. This space should thus be empty and filled only with a frictionless super fluid, i.e. the aether. But how can the aether keep the Earth floating in this inter–space?

When considering the aether vortex, we were able to realize this generates a non uniform distribution of aetherons in the space. It means that a vertical wind of aether originates to create the gravity force. This apparently anomalous distribution of the aether is due to the spherical shape of the dome. The vortex is spherically shaped and due to this conformation we have the vertical wind.

Similarly, when we consider the inferior part of the sphere, we have another vaulted dome but inverted. This generates in this lower part of the sphere another vertical wind but upward. There are hence two vertical winds, one opposed to the other, and they are able to keep the Earth in its position.

This means moreover that the lower part of the external, rotating sphere is made of a similar semi conductive material, like that of the upper part of the dome. This is necessary to create the eddy current that will put in motion the aether and propagate a vortex in the lower part of the spheres too.

6.6. Stars in the Dome

The dome over the flat earth is a solid structure made of glass and crystals, where stars amass inside, as living jewels. In the book of Job (chapter 41) you can find a poetic description of the heavenly dome. It has the appearances of a fish, a watery monster called Leviathan.

«Who can strip off its outer coat? Who can penetrate its double coat of armor? Who dares open the doors of its mouth, ringed about with fearsome teeth?». Job 41:30–32, *New American Standard Bible*

Job approaches the name of the monster with images of light and darkness, the stars and the rays of dawn. Thus, the biblical monster ap-

pears to signify some kind of an aquatic creature of great proportions and strength. It is a poetic metaphor representing the wreathed dome.

Stars are arranged in an incredibly small space, no more than 666 km all over the hemispheric vault of the sky. So, what are stars made of? There's a verse in Isaiah, chapter 34:4, that can suggest some deep insight. There you can read: « And all the host of heaven will rot away, and the heavens will be rolled up like a scroll. And all their host will wither, as a leaf withering from the vine, and as leaves withering from the fig tree ». New Heart English Bible

6.6.1. *Bioluminescence in the Oceans*

Stars are living critters which can be born, live and die. They are thriving in the water like the many luminescent organisms settled in the deep oceans. Bioluminescence is found in many marine organisms: bacteria, algae, jellyfish, worms, crustaceans, sea–stars, fish, and sharks to name just a few. In many cases, animals take in bacteria or other bioluminescent creatures to gain the ability to light up. For example, the Hawaiian bobtail squid has a special light organ that is colonized by bioluminescent bacteria within hours of its birth.

Just for a start, you all may have seen the sparkle of fireflies on a summer's night. The fireflies produce light through a chemical reaction in their glowing abdomens, a process known as bioluminescence. In the same ways, underground caves and seascapes can also glow and glitter thanks to the light producing abilities of billions of marine organisms. So, of course, bioluminescence is light produced by living organisms and it is extremely common in the seas and occurs in all oceans, at all depths.

Bioluminescence is the production and emission of light by a living organism. Bioluminescence occurs widely in marine vertebrates and invertebrates, as well as in some fungi, microorganisms including many bioluminescent bacteria and terrestrial invertebrates such as fireflies or glowing worms.

In a general sense, the principal chemical reaction in bioluminescence involves some light–emitting molecule and an enzyme, generally called the luciferin and the luciferase, respectively. The most common colored light produced by marine organisms is blue. This is also the color that penetrates furthest through the water.

Bioluminescent organisms live throughout the watery deep, from the surface to the seafloor, from near the coast to the open ocean. In the deep

sea, bioluminescence is extremely common, and because the deep sea is so vast, bioluminescence may be the most common mean of communication all over the cosmos! So, let's imagine stars made up of billions of bioluminescent organisms whose radiations will be subject to all sort of optical phenomena. This will be due to the passage of the light beams through different means of propagation and through many different pressures and temperatures: water, amber, glass with different densities, air and the different layers of the atmosphere, diffraction, and reflection. Moreover, birefringence from the crystal layers behind. And you shouldn't forget the entire vast lightening zone that certainly exists just outside the dome! Think for instance to the many effects you can obtain looking through a kaleidoscope or a taumascope, to the optical effects created by light reflected from crystal gems such as iridescence, labradorescence, adularescence, chatoyancy, asterism, cat's eye effects and so on. [45]

Optical phenomena also occur when light interacts with clouds, water or dust. The results are often spectacular. There are lots of different cosmic optical phenomena. Among the others, one is the twinkling. Stars twinkle while planets do not. This general rule can be explained in terms of reflection and refraction through the waters. Stars are quite far away so that their light reaches Earth's atmosphere as a single point of light, passing through thousands of kilometers of amber, glass, air etc, all means with special mirroring abilities. To the observer, the star's light appears to alternate many times per second, which produces twinkling.

It's really noteworthy the fact that bioluminescent signals are often emitted as short flashes. Their length can vary from hundreds of milliseconds to a few seconds. The Noctiluca Miliaris, a bioluminescent Dinoflagellate, belongs to the so–called phytoplankton. It is an organism that starts twinkling when the sea waves hit it along the seashore. Marine biologists say its ability to emit light (bioluminescence) originates from a mechanical stimulus given by the water waves.

Planets usually do not twinkle because they are closer to the Earth and are not set in the great waters of the dome. They travel through the different layers of the atmosphere and not through amber or glass. The light that reaches Earth from them probably consists of wider beams rather than narrow rays. The refraction or scattering of their light rays does not make the light seem to disappear. At any one moment, enough light rays reach Earth's surface from a planet to give a sense of one continuous beam of light.

Now, we have to focus a bit on the color of the stars, which, according to Plank, Stephen Boltzman and Wien's laws is determined by their temperatures. Spectroscopy is the branch of physics studying the spectra of electromagnetic radiation emitted or absorbed by matter. The spectral analysis permits to know the chemical composition of the body that emits the radiation. Stellar Spectroscopy is thus the study of the spectra of starlight. Astrophysics consider it a very powerful tool that enables them to infer many physical and chemical properties of stars and classify them into a logical sequence.

Star temperatures can be measured by looking at the type of light that the star shines. They are thus grouped into classes by color. In general, astronomers believe that the temperature of a star determines its color, from red to blue–white. They think the change in temperature of a body originates a variation in its light color. As far as the temperature decreases the color changes from shining white to red. Thus red stars should possess lower temperatures.

Hence, how can they explain the huge luminous flow we get from many red stars? Academics try to answer by saying that the phenomenon is the consequence of the red star enormous dimensions. So they call them Red Giants and explain red stars have a massive radiant surface. Even if each square meter of their surface develops less irradiation than the other ones, they appear many thousands time more bright due to their extraordinary dimensions.

Here you can easily detect the hoax. Stars are not hot, burning bodies. They just bear temperatures compatible with life. Otherwise they'll perish. They are not so far from us and their light is just not measurable according to the laws regulating the black body temperatures. They are not certainly fiery, incandescent bodies.

Astronomers say the sun's temperature is about 5700K, because it is an incandescent body. A black body is an ideal body whose light indicates its temperature. This should be valid when a body is actually an incandescent body. Astrophysics, however, overlook the fact that stars are not incandescent bodies. They consider the sun to be one of the stars, hence they think stars are behaving in the same way. As a consequence, they classify stars among the black bodies. However, when a body is not an incandescent one, the light it emits is not consistent with the graphic of the temperature of a black body. Definitely, the black body spectrum is not useful to determine

the star temperatures. Stars are not incandescent bodies but they get their gorgeous light from living organisms and they are not light years far from us.

For instance, LEDs emit light without getting hot. A firefly can emit light even being cold. So, how can we explain the different colors of the stars? Their color can only be due to the many different optical screens we see them through. In a sunny, bright day you can wear glasses with lenses of different colors and your sight of the landscape will change in tonality. In the same way, we behold stars filtered behind differently colored screens, through different means having many different densities.

In conclusion, bioluminescence will never be consistent with the laws which govern the black bodies, because it is not modulated on temperatures.

6.6.2. *Formation of New Stars*

I would just like to underline a rather evident fact: only a number of points in the layer of amber sealing the dome are completely transparent. So they let flow the bioluminescence generated inside the superior waters. In fact the upper waters are swarming with millions of living luminiferous creatures. The layer we have represented as made up of amber is often mixed with many other disparate elements. Amber has not only transparency features but it can seal the upper watery layer so that it prevents waters from invading the cushion which serves as an aether gap between the stator and the rotor. The electric features of this resinous staff are rather interesting. Amber is a resinous insulator which is negatively electrified, quite differently from other glassy insulators that are positively electrified. Since this element is an insulator and not a conductor, within the amber layer no circulating electric current arises inside.

This is something quite strange, as we already know the Earth behaves like a battery. Such an arrangement would demand that the layer of the dome that is in contact with the waters above (which is our electrolyte) should be a conductor or a semi–conductor. This would be necessary to activate the needed chemical reactions to accomplish the wearing out of the dome and the rising of the energy stored between the earth and the dome. Moreover, we have already proved the Earth and the dome are the two plates of a capacitor. A rotating plate develops eddy currents when it gets immersed in a magnetic field like the earthly one. These are the

needed currents necessary to put the aether into rotation and push sun moon and planets in their hourly motion around the Earth. We stated that, for electrical reasons, the materials in the dome should be quartz, silicates and graphene. Silicates are rich in silicon which is a semi conductor. Graphene is a conductor or a superconductor at low temperatures. My initial hypothesis is that amber is, in the same layer, coexisting with quartz, silicates and graphene.

I have to check my hypothesis at the light of some particular astronomic observation. Everything has to harmonize. The aspect that has to be considered here is the formation of a new star. Amber is a layer which, as the dome in its totality, is wearing out. The part that is wearing out is the one made up of silicates which are porous. Graphene sustains electric conduction. As far as this sort of stuff wears out, the porosity of amber gets bigger and slowly a new star appears in the firmament. What does astronomy say about the star formation?

The model that is by now most widely accepted by the scientific community is the so called standard model. They suggests that a new star gets formed from a gravitational collapse of some denser part said nucleus. They suggest that a new star is formed out of a molecular cloud. The subsequent growth of the stellar embryo would be originated out of the collapse generated in that original cloud. Such original cloud would be just due to the growing porosity inside the amber layer. The growing of the stellar embryo is given by the union of a number of pores. The result will be the amazing, gradual revelation of a new light point in the amber receptacle with the emerging of a new light flowing from the upper waters.

As you can perceive, at the end of the reasoning, everything fits. The amber layer is made opaque by the silicate that, while wearing out, will let the light of stars become visible. The problem is that the developing of such a phenomenon is a timer for the earth. But this is something we have already discussed.

6.6.3. *Living Corals in the Cosmic Water*

Inside the Herbig Haro HH46 Nebula, observers found important quantities of water ice. Within the interstellar clouds of the Milky Way, they postulate the presence of water. Astrophysics believe water is abundant even

in other galaxies and in all the universe. They say this is due to the fact that the water components, hydrogen and oxygen, are among the most abundant elements everywhere.

Nebulae have water in their inside. Scientists say they can detect water in celestial bodies like comets, planets, and satellites. They suppose the existence of water on the moon and on Saturn or Jupiter's satellites. Ice water trails are probably significant on Mars, Titan, Europe, Enceladus or Triton. It will be the same even on Uranus, Neptune or Pluto.

The Oort Cloud, for instance, is a compound of predominantly icy planetesimals surrounding the sun. A source (https://space-facts.com/oort-cloud/) says it is a reserve of cometary nuclei that contain ices dating back to the origins of the solar system. Astronomers think that long–period comets have their origin in the Oort Cloud. Comets are awesome. They're made of gas, dust, rock, and *organic materials* smashed together and existing mostly unchanged since the formation of the Solar System.

6.6.4. *The Origin of Water*

There exist numerous hypotheses as to how water may have been created on Earth's surface over the past eras. I found authors suggesting an insightful hypothesis reported by Wikipedia.

> Some terrestrial water may have had a biochemical origin, via redox reactions. In the early 1930s, Cornelis van Niel discovered that sulfide–dependent chemo-autotrophic bacteria (purple sulfur bacteria) fix carbon and synthesize water as a byproduct of a photosynthetic pathway using hydrogen sulfide and carbon dioxide: $CO_2 + 2H_2S \rightarrow CH_2O + H_2O + 2S$
> Few modern organisms use this method of photosynthesis, making their water contribution negligible. But on the hydrogen–sulfide–rich and oxygen–poor early Earth, a small but significant portion of Earth's water may have been synthesized biochemically through this pathway.

I find these hints really interesting because they confirm the fact that the earth system is a living organism basically obtained from living critters and build with their contribution. You might have thought of most of the universe as a freezing, uncaring, gaseous place where inorganic elements rule… But you'd be wrong. Astronomers report that organic compounds

of unexpected complexity exist throughout the universe. The results suggest that complex organic compounds are not the sole domain of life but can be made naturally by stars.

An author says:

> How did they discover these organic compounds? During research, they found a bit of mystery — a set of unidentified infrared emissions in stars, galaxies and even interstellar space. For the last twenty years, this spectral signature has been commonly accepted as being PAHs — polycyclic aromatic hydrocarbon molecules. By utilizing the Infrared Space Observatory and the Spitzer Space Telescope, Chinese scientists Kwok and Zhang have shown there's more there than just a PAH… It's a lot more complex. Through infra–red emissions and spectral studies, the team has shown that a nova event can produce these compounds in a very short period of time. It can happen within weeks.

Not only are the stars producing complex organic materials, but they're pumping them into interstellar space as well. And the idea isn't new. Kwok had proposed stars as compound factories and Earth Measured research supports his vision. «Our work has shown that stars have no problem making complex organic compounds under near–vacuum conditions», says Kwok. «Theoretically, this is impossible, but observationally we can see it happening».

6.6.5. *Coal and Petroleum*

Some of the structures are actually so complex that they resemble coal and petroleum. They are the kinds of organic matter you could generally only associate with living organisms. Organic macromolecules could be detected even in the lower cloud layers of Venus. Actually, stars are not only generating complex organic matter, but they are filling up space with it.

Please, try to imagine the beginning. All around the outer–earthly circle, beyond the actual Antarctic, there were the right conditions for Madreporaria to prosper. Generally, they grow on a solid base submerged under the sea water. They prefer rocky, not sandy bottoms and live in salty, warm, clear waters. Saltiness and temperature are the most important factors. Madreporaria thrives in tropical ocean areas of the Pacific, Indian and the Atlantic.

But now, let' imagine a different environment: the water dome and its original foundations. A strong trellis has to be built in order to create some shelter over the earth. Imagine having a garden to arrange in your backyard. First, you want to fix a few poles to support the vine branches of your lush Virginia creeper. Something similar maybe happened at the beginning. A solid, rocky structure was provided for the heavenly canopy.

6.6.6. *Coral Calcareous Skeletons*

Coral reefs took form in shallow oceans areas by the aid of algae and the calcareous skeletons of certain coelenterates, of which coral polyps are the most important. A coral reef may grow into a permanent coral island becoming the home to a spectacular variety of organisms. It is actually a complex framework of living organisms and blue–green algal mats. The accumulation of carbonate sand and mud provides a habitat for sea grasses, mangroves and a variety of other critters.

Most reef corals are colonial. Initial polyps divide themselves into daughter polyps, and they divide in turn. All held together in one continuous rigid calcareous skeleton. They remain attached to the seafloor and become large and heavy. Under the right conditions, the corals grow profusely side by side, even on and over each other. They build limestone because their skeletons are made of calcium carbonate. Calcareous algae (stony seaweeds), mollusks, echinoderms, and protozoans also contribute to the reef. Some, especially the corals, provide the main structural framework of the growing reef.

The reef becomes true rock by chemical transformation of reef material. The shape of coral reefs is also the result of changes in sea level during the successive geologic eras. As sea level was rising during the times, new reef growth mantled the older landscape.

Charles Darwin concluded in 1842 that oceanic atoll reefs began as reefs fringing a volcanic island. Subsidence of the land fringed was thought to allow the reef to grow upward (and outward over its own fore–reef debris). Maximum growth would occur at the seaward edge. Lagoons would develop between the ascending barrier, or atoll reef and the land or volcanic cone. When the volcanic cone became completely submerged, the atoll lagoon would contain only coral islands.

6.6.7. *The Earth is a Bigger Atoll*

So let's imagine the circle of the earth behaving as a bigger atoll. It was ultimately able to develop in the firmament we can admire either by night or during the hours of daylight. Winds and currents were important in shaping the dome. Seawater was probably supersaturated in calcium carbonate available for the skeleton–forming process.

One of the most significant determinants of reef accumulation is the presence of zooxanthellae in the living tissues of all reef corals. Zooxanthellae represent the vegetative stages of dinoflagellate algae. Their association with reef corals is symbiotic. They greatly aid in the formation of the coral skeleton. A constant supply of food in the form of zooplankton is essential to reef corals, which are carnivorous. The zooplankton supply is dependent on an adequate phytoplankton supply. The phytoplankton, in turn, requires an adequate supply of plant nutrients dissolved in the water.

You could find useful the reading of https://www.britannica.com/science/coral-reef#ref540873 from which I got a lot of interesting data.

6.6.8. *The Dome is a Turbine*

Since the dome is moving, I have to answer some important question: what is the kind of energy that pushes all the machinery? Could a huge turbine have been pushing it since unmemorable times? What is a turbine?

A turbine is a rotary mechanical device that extracts energy from a fast–moving flow of water, gas, air, or any fluid and converts it into useful work. It is a turbo–machine with at least one moving part called a rotor assembly, which is a shaft or drum with bucket–blades attached. Moving fluid acts on the blades so that they move and transmit the rotational energy to the rotor.

Horizontal wheels have a vertical axis, commonly called a tub wheel or Norse mill. The horizontal wheel is essentially a very primitive and inefficient form of the modern turbine. It is usually mounted inside a mill building, below the working floor. A jet of water is directed onto the paddles of the water wheel, causing them to turn; water exits beneath the wheel, generally through the center. This is a simple system, generally used without gearing, so that the vertical axle of the water wheel becomes the drive spindle of the mill.

The earliest water wheels in Calderdale (the historical textile industry district in West Yorkshire England, UK) were undershot wheels which were placed directly in the stream. They were used mainly on rivers such as the Calder with a large quantity of water but without much fall.

The water wheels, built in the late 18th and early 19th century, were usually overshot or occasionally breast shot wheels. Because these wheels are turned by the weight of water, this meant that a relatively small stream could be used to turn some large water wheels.

Water wheels fall into one of two categories, which are defined by the plane of rotation of the wheel: horizontal, i.e., a wheel rotating around a vertical axis, vertical, i.e., a wheel rotating around a horizontal axis.
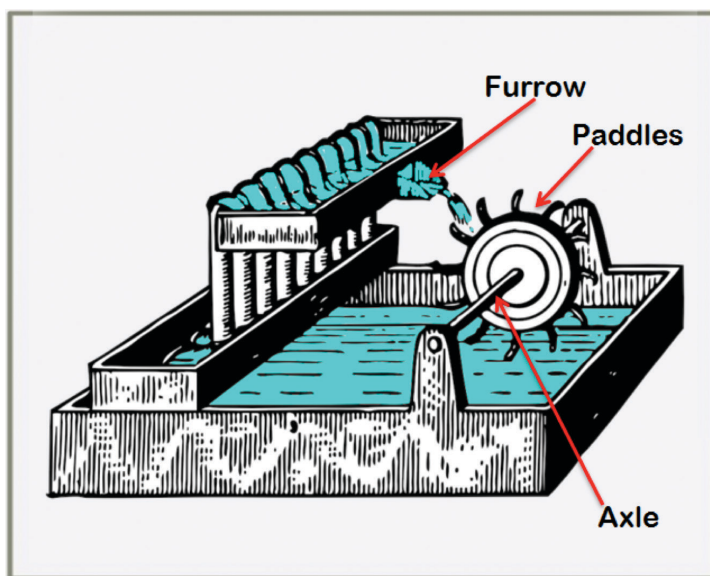
Figure 6.45. Turbine.

The waterwheel concept is used in dams to generate electricity. *Dams* are some of the largest human–made structures on Earth. In fact, the Hoover Dam on the Colorado River in Nevada is 221 meters high, 379 meters long and 14 meters wide at the top. That is pretty big! It has 17 electric generators and provides electricity for about 500,000 homes in Nevada, Arizona, and California. The world's largest hydroelectric power plant — the Itaipú Power Plant on the Paraná River in Brazil — provides energy to two countries (25% of Brazil's electricity and 78% of Paraguay's electricity).

The same concepts that are employed in a waterwheel are used in these gigantic hydroelectric power plants. A waterwheel is a simple *turbine* — a device with buckets, paddles or blades that is rotated by moving water, converting the kinetic energy of water into mechanical movement. Hydroelectric power plants use huge and more complex turbines to generate electricity.

Since the antiquity water wheels were used for irrigation or for mills. Think, for instance, to sakias or norias. In more recent times, Poncelet invented a waterwheel that doubled the efficiency of existing undershot waterwheels through a series of detail improvements. The first Poncelet wheel was constructed in 1838, and the design quickly became common in France. Although the model was a great improvement on existing prototypes, further improvements in turbine design rendered the Poncelet wheel obsolete by the mid–century.

The observations and subsequent modifications of the water wheel by Lester Pelton in the 1890's set off the development of water turbines. Today there are various designs of them, operating in modern hydroelectric dams around the world. The Pelton impulse turbine continues to be used in both large and small–scale hydroelectric projects

So, you could imagine the moving dome of the earth to be constructed as a sort of turbine having many blades attached to its shaft. Water will keep on continuously moving and energizing it.

In Job's description of the dome (chapter 41:30), Leviathan is presented as having sharp scales that plow the ground like a threshing–sledge. It's a possible reference to a moving turbine.

6.6.9. *Squirrel Cage Motor*

In addition to what I have just explained, you should imagine the dome as a sort of magnetic squirrel cage motor. Why? The earth is surrounded by a dome where, inside, are set seven electromagnetic, immaterial columns.

«Wisdom has built her house; she has hewn her seven pillars». Prov 9:1, English Standard Version

One of them will be positioned inside and over the earth north pole, while the others all around on the exact boundaries between the stator, which is the first stationary ring of the dome, and the mobile. Thus, the necessity will be that, over the top of the dome, inside the upper wa-

tery inter–space, there should be a second water turbine chamber, mag-
netically connected to the inferior ones. This central column certainly
plays a great electromagnetic influence on the movement of the sun,
the moon and the planets. This is a point not to be forgotten.

The other six columns should act on the vertexes of the imaginary
hexagon you can behold in Fig. 6.46. They play a basic part in the move-
ment of the dome.

6.6.10. *A Few Technical Notes*

A *squirrel–cage rotor* is the rotating part of the common squirrel cage
induction motor. It consists of a cylinder of steel laminations, with alu-
minum or copper conductors embedded in its surface. In operation, the
non–rotating "stator" winding is connected to an alternating current
power source; the alternating current in the stator produces a rotating
magnetic field. The rotor winding has current induced in it by the stator
field, and produces its own magnetic field. The interaction of the two
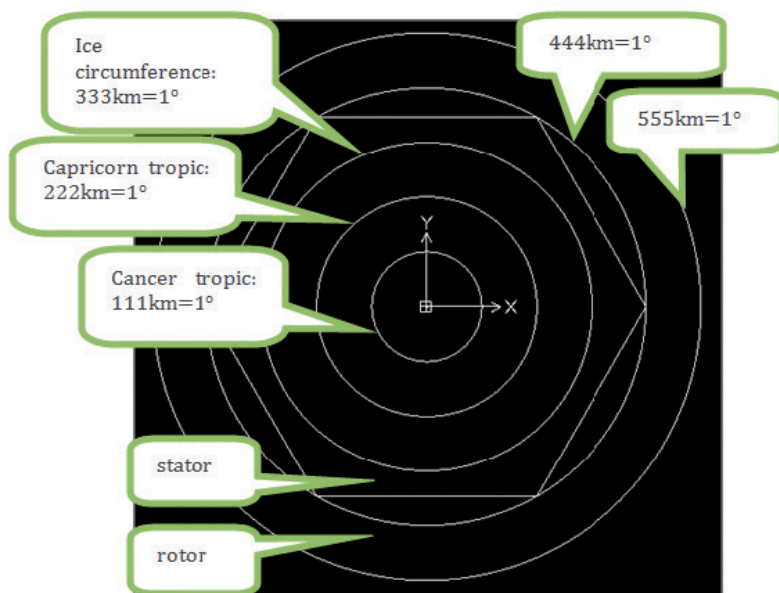sources of the magnetic field produces torque on the rotor.

Figure 6.46. Dimensions of the Earth.

An induction motor is an AC electric motor in which the electric current in the rotor, needed to produce torque, is obtained by electromagnetic induction from the huge magnetic field of the stator winding. An induction motor can, therefore, be made without electrical connections to the rotor. (Wikipedia)

The six magnetic columns around the earth could produce power to feed an elementary six–wire three–phase alternator, with each phase using a separate pair of transmission wires. A rotating magnetic field is a magnetic field that has moving polarities in which its opposite poles rotate about a central point or axis. Ideally, the rotation changes direction at a constant angular rate. This is a key principle in the operation of the alternating–current motor.

Three phase variable reluctance motor–Tesla patent 381,968 filed Oct 12, 1887.

A Unifying Theory

I will try to prove, in this chapter, how the aether is responsible not only for the transportation of light and for all electromagnetic phenomena, but also for gravity. It stays at the basis of the existence of the mass; it pushes the sun, the moon and the planets and is involved in the creation of the magnetic field of the Earth.

7.1. Aether and Gravitation

Aetherons are at the very base of the matter.

The aether is the mean through which the light moves. And, when I use this word, light, I just mean an electromagnetic wave, either visible or invisible. Light has one and only one nature, the wave nature of it. On the contrary, the particle nature belongs to the aether. Aether is made of particles having very little mass. They start vibrating when hit by any disturb moving in the space–time. I want to repeat. This is the way we can define the electromagnetic waves: a disturb moving in the aether in space and time. When aetherons oscillate with a wavelength between 400 and 700 nanometers, then the wave is visible to our eyes. The aetheron that vibrates doesn't move in the space with the wave but only oscillates a certain number of times around its equilibrium position.

To obtain the transmission of a wave you need an elastic mean [45], otherwise, it is not possible to explain the wave nature of the electromagnetic radiation. We need a mean with features of elasticity and inertia. In order to understand, think, please, to a compressed spring. This spring is provided with elasticity. So, when you compress and release it, you can be sure that it will return immediately to its natural

position. But, in order to obtain an oscillation, you have to add a mass, the inertia.

Inertia causes the compressed spring to release its energy, return to its natural position, overcome it and elongate to a max position. Then, finally, it returns oscillating again. In an electromagnetic wave, elasticity is linked to the electric side of radiation, while inertia will be linked to the magnetic side of the wave. Think of a spark lighting up between two plates of a charged capacitor. This release of energy can be compared to the release of a compressed spring. The variation of charge and current is the starting point for the production of a magnetic field in opposition to the variation. This can be compared to the inertia. Elasticity and inertia are peculiar of the mean in which an elastic wave moves. Without elasticity and inertia, it would not be possible to posit the formation of a wave that has to move to and fro. Science has to explain how a wave could propagate if the empty space would not show both these characteristics. You can remember, in fact, that Einstein, when postulating that the space–time undergoes a curve near a mass, resolved to assign to it some notable feature of elasticity.

I'll try to describe a little better the fact the aether possesses elasticity. I'm going to consider the electric field arising from an electrical charge in the space. If you charge a metallic bead in the near space, you create a new state of things, which originates an electric field. An electric field, arising from the presence of a charge in the space, is a static stress of the aether. It produces a different arrangement of the aetherons in the area. Euler explained a field of force in the aether by saying that the aetherons settle according to an arrangement which possesses different densities.
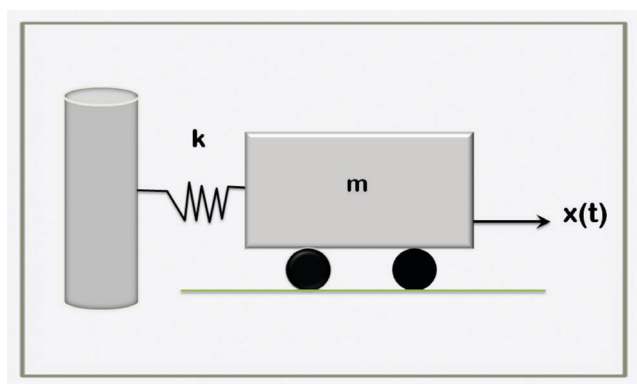

Figure 7.1. Mass–spring system.

However, Paul Laviolette (an aether scholar) introduced a different model [47]. His aim was to describe some different kind of aetherons. He could imagine they were arranged in a different way in the space. With a positive charge Y, aetherons are denser next to the charge, while X aetherons become denser far from the charge. Aetherons can change from X to Y and vice versa, with kinetic reactions depending on the situation. Aetherons can also become, according to Laviolette, G aetherons, which are responsible for the gravity field. I suppose, as both the authors do (Laviolette and Euler), that, in the aether, any force field produces an elastic stress or a form of deformation. This can be the result of a different arrangement of the aetherons, according to different densities, due to their position, further or nearer to the charge.

Gravity is a force field too. It determines a stress in the aether. I want here to repeat that Newton's description of gravity is not reliable. This is due to the fact that it doesn't respect the energy conservation principle. Masses don't attract one to the other. There is no real experimental proof attesting that. The Cavendish torsion balance doesn't prove gravity but is caused by a natural electrostatic attraction [48].

We all know, however, that over the Earth there's a powerful force attracting all masses downward. Since this force is clearly proportional to mass, I will continue to call it "gravity". What is the natural cause of it? I said there is a stress on the aether that produces a strain, i.e. a different disposal of the aetherons. This density variation in space produces the gravity force.

There is, however, a difference between the force field produced by a charge and that produced by the Earth. A charge produces a force field that acts only upon another charge, repelling or attracting it. The gravity field acts in a different way: upon masses. But how? We can make a first hypothesis and, step by step, we will arrive to the correct conclusion. By now, consider that the Earth and the dome, together, constitute the plates of a capacitor. Between these two plates, there is a very high difference of potential. This is what stresses the aether, producing the force field we know to be the gravity field. How can I give evidence for this? By deduction: let's see.

7.1.1. *The Biefeld–Brown Effect*

Thomas Brown discovered that [47], by charging a capacitor with asymmetric plates, with tensions between 25 and 100 Kilovolts (a very high

tension), a repulsive force originated, able to lift the capacitor in the air. It occurred during some experiment on x–rays. Upon void tubes, asymmetric electrodes where mounted, with opposite polarities. At that point, when the electrodes were connected to the high tension electricity, the existence of an electric force came to the fore. Tests revealed the electrogravitic nature of the phenomenon. In 1828, Brown registered the first patent of a lifter. Till some year ago, students considered the lifter as the simple push effect of the ionic wind. In other words, the phenomenon was thought to be the flux of charged particles produced by an electric field with high potential. However, in 2004 NASA admitted that the real explanation could be different.

In March 2003, experimentation conducted by a military research center of Maryland categorically refused the ionic wind explanation. The final report states: « The ionic wind generated by the lifter is at least three times less than the one necessary for the lifting ». The lifter, moreover, works perfectly also in the void. As a conclusion, NASA registered some patent to use the lifter in the space too. Incidentally, up to now, NASA keeps on claiming that, in the space, no air is detectable. Anyway, a research conducted by Honda engineers came to the conclusion that the Biefeld Brown effect is an interaction of magnetic fields on particles of void energy (aetherons). These researchers prove that this effect can't be explained with normal science and that gravity and void energy (aether) are linked one to the other. [49]

Finally, we can conclude that the Lifter produces a non–uniform distribution of aetherons that generates a force field lifting the capacitor. As a result, a greater number of aetherons accumulate near the lower plate of the lifter. The different pressure of the aetherons generates a vertical upward wind of aetherons. So, the resulting push will be sufficient to lift the component. Noteworthy is the fact that the shape of the lifter produced by Brown is the same of the flat Earth with the dome.

The Earth is an asymmetric capacitor. The very high tension on the dome produces a concentration of aetherons which is not uniform, and produces the gravitational force field. There is, thus, a force the aetherons can exercise downward. To obtain this gravitational effect, the tension must be very high. Technicians have measured more than 25Kilovolts, up to 100 kilovolts. All bodies, in such a force field, undergo an upper pressure, greater than the lower pressure, and are subject to a downward force.
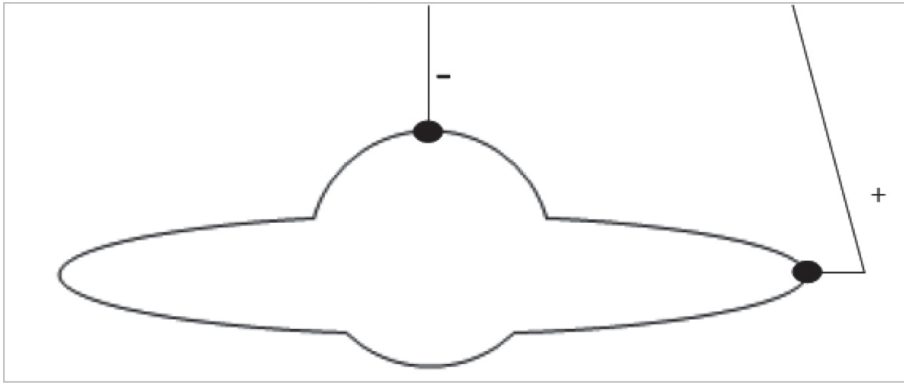
Figure 7.2. The Thomas Brown lifter.

When a lifter is activated, the high tension on an asymmetric capacitor produces a non–uniform distribution of aetherons, with a consequent upward push. To explain this effect I have the necessity to describe the earth as a space gathered inside a curved electrified dome extending over a flat, plane surface, which is the other plate of a big capacitor.

7.1.2. *The Aetheron Boson Nature*

As I already said, aetherons are at the very base of the matter. They start vibrating when hit by any disturb moving in the space–time. So, I was wondering whether they possess a mass or they don't. Let's investigate.

An external electromagnetic stress is at the origin of a non–uniform disposal of the Aether in the space. It can determine an electromagnetic field or, if less intense, a gravitational field. This non–uniform effect produces a sort of aetheron wind, as generated by the gradient of pressure in the mean. The difference in pressure produces acceleration, from the point with higher pressure to the point with lower pressure. And this happens in an effort of equilibrating the system.

According to Newton's law, we get a force produced by the acceleration and acting over a mass in the force field. To describe mathematically the gradient of pressure, we have to determine whether the aetherons have some mass or they have none. In order to get different pressures, we should characterize the aether with density, i.e. with a mass per unit of volume.

The aetheron is responsible for producing fields of force, and, for this very reason, it is a boson too. This will be according to quantum physics. I hope I will prove the aether is taking part in all those processes that are responsible for the production of particles of matter. As we all can easily imagine, the aether permeates all the space and all the minimal interstices of the matter. It is the glue binding together all the molecules.

Light can propagate only in presence of the aether: if light can pass through a transparent solid, it is clear that the aether is filling all the interstices of the matter. Molecules that stick together forming the matter are not physically touching each other. The bonding between molecules is produced by the aether that, in this case, displays all its strength and elasticity. These characteristics make me think that the aetheron can ultimately be the Higgs boson. This is the particle producing the Higgs field, a field that fills all the space and participates in the creation of matter.

I'm nowadays doing much research about the Higgs mechanism that is the condensing process of the Higgs field. The aether is evidently responsible for giving mass to the fermions, i.e. the elementary massive particles. Paul Laviolette considers it responsible for the condensation of a great number of aetherons that are consequently able to produce mass. It is clear that these vortexes of concentrated aether look very similar to the Higgs condensate field in the Higgs mechanism. I don't say that it is the same (purists of quantum physics would immediately attack me) but it looks very similar.

The H boson, that seems to be very similar to the aetheron, has a mass of 125.090.24 GeV/c^2, that means 2,2e^{-25} kg. [50]

GeV/c^2 is a measurement unit deriving from Einstein equation E=mc^2, from which we get the equation m=E/c^2, where E is the energy. GeV is one billion of electron volts. The eV is the increase of energy of one electron that increases its potential of one volt. 1eV is 1.6e^{-19} joule. One GeV is the energy quantity of a proton that is 0.938GeV/c^2 =1,67e^{-27}kg. The Higgs boson has thus the mass of about 130 protons. It has no electrical charge.

We are hence deducing that an aetheron could be the particle corresponding to the Higgs boson. This way, we know it could have a mass. When we consider a small cylinder full of aether, high dz, with dA surface and ρ density of aetherons inside, we can calculate the mass of this cylinder. It will be m=ρdAdz. We know then, according to Newton's law,

that F=m · a. If we want to express the force in terms of pressure (we have a difference in pressure of the aether in z direction), we can write F=dP · dA. If we want to make equal the two expressions, we can write:

$$dPdA=ma => dPdA=\rho dAdza$$

So, from this equation, we find the acceleration of the aether downward, due to the different pressure:

$$a=dP/\rho dz.$$

We know then that this acceleration is about 9,81m/sec².

I want here to conclude this way. We can easily calculate an acceleration by making a hypothesis. We can suppose that a difference of pressure in the aetherons arrangement is due to the big tension between the dome and the Earth.

7.1.3. *A Vertical Wind of Aether*

We wonder if, over the earth, an aether wind does really exist. There are people explaining the failure of the Airy's experiment on account of the presence of a wind of aether. Why? The reason is that this failure cannot be explained by the motion of the Earth, which is immovable. Accordingly, the Michelson Morley experiment failed to reveal a motion of aether on the Earth. As stated by mainstream scientists, such a motion should have had the speed of 30 km/s. It would be the correspondent speed of the revolution of the Earth around the sun, the speed that determines the aberration of light. But, alas, no aether wind could be detected.

On this account, Airy's failure cannot be attributed to the aether wind. Michelson's experiment proved that such a wind does not exist, and the aberration is most a refractive phenomenon. It is commonly accepted the fact that there is not an aether wind over the Earth. Anyway, is that the true reality? Let's consider, once more, the actual meaning of the Michelson Morley experiment. This experiment has been considered the exhaustive proof of the non–existence of the aether. In 1881 Michelson, to verify the state of the aether, decided to measure the speed of light in different directions, by using an interferometer.

Airy's experiment

Let's briefly explain in what the Airy's experiment has consisted. Airy knew that he had to tilt slightly his telescope to see a star. He was convinced this tilt was necessary due to the motion of the Earth. Then he filled his telescope with water. Being now the medium denser, he thought the light could have a lower speed. This could be the basic reason why the star beam should not be able to reach the eye of the observer. He really thought he could expect such a consequence as a result.

He posited that the beam of light would take some infinitesimal fraction of time to reach the eye. In the same moment, he reasoned, the Earth was moving at the speed of 30 km/s. Thus the beam of light would fail to reach the eye of whatsoever observer. As a matter of facts, it should be noted that a light beam goes through some bending in the water with an angle of somewhat entity. Airy repeated many times this experiment, but he could never detect a difference, whether the telescope was filled or not filled with water. He was always in a position to see the star, being the telescope filled with water or not. This would be the evidence, someone could deduce, that there is a wind of aether dragging the light beam in the air and in the water. [57]

The interferometer makes it possible to split a light beam into two parts. Two beams are traveling and following two perpendicular paths. They are later reunited on a screen and form interference figures. By orienting the interferometer in different directions Michelson should have registered a change in the fringes. Michelson, however, didn't register any change coherent with the motion of the Earth around the sun. This has been interpreted as the evidence of the non–existence of the aether. The logic conclusion was that the aether can't have a relative motion in accordance with the Earth. As we all know, there is no relative motion because the Earth doesn't move around the sun at the postulated speed of 30 km/sec.

However, something more must necessarily exist. Analyzing gravity we were able to establish a gravity model based on aether: a non–uniform concentration of aetherons produces a field of force that causes an aether wind downward.
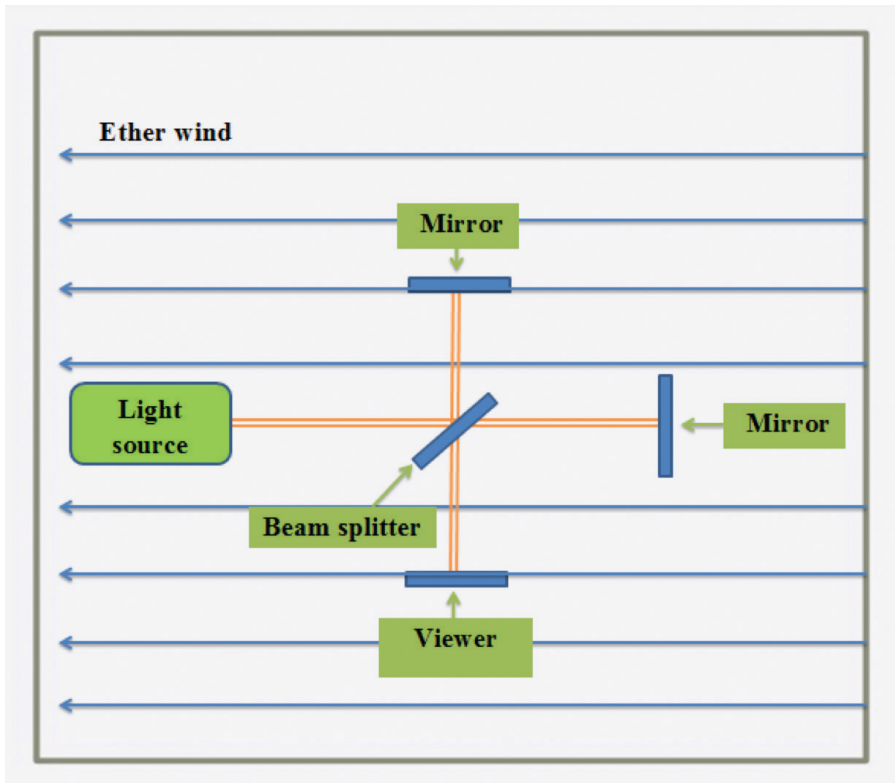
Figure 7.3. The Michelson interferometer.

Here is the problem. The aether wind is blowing on a vertical plane and not on the horizontal one. (Later on I will add and explain the fact that a horizontal wind does exist as well).

The Michelson Morley experiment has correctly revealed that the Earth doesn't rotate around the sun. This is a consequence of the fact that there is no relative motion of the earth with the aether on a horizontal plane. But, on the other hand, an experiment made on a vertical plane could reveal a change in the interference fringes due to the moving aether.

Having made farther researches, I've found that such an experiment has been done. In 2009 the German scientist Martin Grusenick proved experimentally the existence of the aether. Using an interferometer, he clearly revealed the presence of an aether wind vertically oriented with respect to the surface of the Earth. Grusenick contrived an interferometer very similar to that used by Michelson in his own experience. He thought

of putting the plate of the interferometer in rotation around an axis parallel to the Earth. This way the plate, being perpendicular to the Earth surface, would reveal a change in the interference fringes.

Paul Laviolette quoted this experiment as an evidence of the validity of his aetherons theory. My only annotation is that Laviolette believes the Earth is a globe. In his aetheric model, he believes that a particular G aetheron does exist. Laviolette states that there is a continuous formation of G aetherons or gravitons (as they are called in the standard model). They originate from the normal aetherons that fill the space. He postulates that, in the condensed matter, there is a less accentuated formation of G aetherons. This would cause a different concentration of the aetherons and a consequent vertical wind of aether. Gravity is a consequence of such a wind and, as he states, the law is varying with the radius given by Newton.

$$F = -G \frac{M_1 M_2}{r^2}$$

I have to be grateful to Laviolette, Euler, and so many other deep thinkers. They have brilliantly opened the way to the understanding of gravity through the notion of a vertical wind which generates it. I have just to add a small adjustment to their theory. And this is simply because the Earth is flat. We have made the hypothesis that there is a dome over us causing a sensible difference in potential with regards to the lower ground. This could be the cause of an accumulation of aetherons near the dome and the consequent creation of a field of force sustaining a wind of aetherons. This is my explanation of gravity: a vertical wind of aether generated by the electrical stress in the space between dome and Earth. Actually, we will learn that this vertical wind has another starting reason.

Is there a wind of normal aetherons or, as Laviolette posits, of G–aetherons? Further studies will certainly give the answer. Have we finished deepening all the needed understanding of the aether wind? Absolutely not. In reality, many scientists during the nineteenth century did agree in saying that all movements are movements of aether.

What about the sun and the moon? Are they moving on their spiral trajectory due to an aether vortex? All we know till now is that the Michelson Morley experiment has not revealed a horizontal wind. However, we have to notice that this experiment failed to measure a movement of the aether of about 30 km/s on the Earth surface. This is the supposed yearly

speed of the earth around the sun. It is also the motion of the Earth that generates seasons. On a Flat Earth model, seasons generate according to the motion of the sun between the two tropics on a conical spiral trajectory. Between the tropics, we have a distance of 6660 km that the sun runs in one year, up and down.
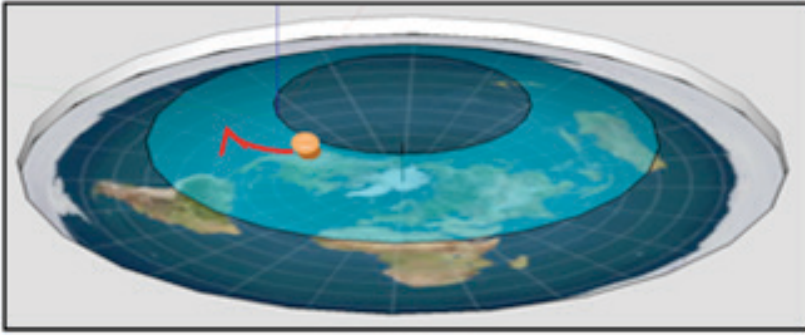
Figure 7.4. The cone of the sun. Source: the net.

The speed of the sun in this direction is thus:

$$\frac{6660 * 2 [km]}{1 [year]} = \frac{6660 * 2 [km]}{8640 [hour]} = 1.54 \, km/h$$

that is a very low speed in comparison with 30 km/s. So we understand why Michelson failed. In the calculation, I considered a 360 days year.

The motion of the sun, however, is not only the yearly one, but the daily one as well. Probably, an aether wind is sustaining the daily speed too. Let's calculate the speed, that obviously changes with the radius. So we can try the calculation considering the equator at 11100 km radius. The circumference is 11100 · 2 · pi= 66600 km where 2pi is six as you already know, since certainly you are reading my book with attention. The sun runs this circumference in 24 hours. So we have a speed of:

$$\frac{66600 [km]}{24 [hours]} = 2775 \, km/h$$

that is already a good speed even if it is much lower than the 30 km/sec mainstream science postulates.

Could an interferometer ever reveal the existence of such a speed? It would mean to reveal an aether wind pushing the sun. I will show in a further chapter that the answer should be yes. And it will be a consideration of the Sagnac effect and the Michelson Gale experiment.

7.2. The Aether Vortex

Gravity is an electromagnetic, aetheric phenomenon caused by a non–uniform concentration of aetherons in the space. This generates a force field and a consequent vertical aether wind that acts on bodies. They all have a mass with an acceleration of $g=9.81$ m/s^2 that produces a force $F=m \cdot g$.

We could wonder if there is another horizontal wind beside the vertical one. To answer, we can consider the Sagnac effect and, in a further paragraph, the Michelson Gale experiment. Only thus, we will succeed in proving the presence of a horizontal wind of aether and we will eventually make it evident how this is the genesis of the analemma of the sun.

With the Michelson Morley experiment, scientists were certain they had reached the clearest verification of the fact that the aether was an outdated, non–scientific concept. The actual experiment had succeeded in showing that there is no aether wind, i.e. no relative motion between earth and aether.

The Earth had long been considered to be in motion around the sun at the speed of 30 km/s. Since no one could dare to put into doubt this postulate, Einstein achieved the goal of solving the puzzle. He was able to close the matter with some very important assertion. These had deep consequences over many developments in the field of physics researches in the course of the twentieth century.

Einstein went to the conclusion the aether does not exist. Moreover, he posited the light speed is always the same, regardless of the reference system adopted. His explanation was that it is not possible to measure the speed of the Earth with optical tools. In his opinion, any gadget such as the interferometer used by Michelson was unable to reach that goal. Through that experiment, Michelson wanted to measure the speed of the Earth in motion around the sun. He set out to solve the puzzle by measuring the speed of the Earth with respect to the aether. The experiment did not reach such a target.

Consequently, Einstein's conclusion was the following: the light speed is always the same no matter the reference system used, and the aether does not exist. This would explain why the speed of the Earth added to the speed of light has not been measured by any experiment. Let's try some further elaboration on Einstein's statement.
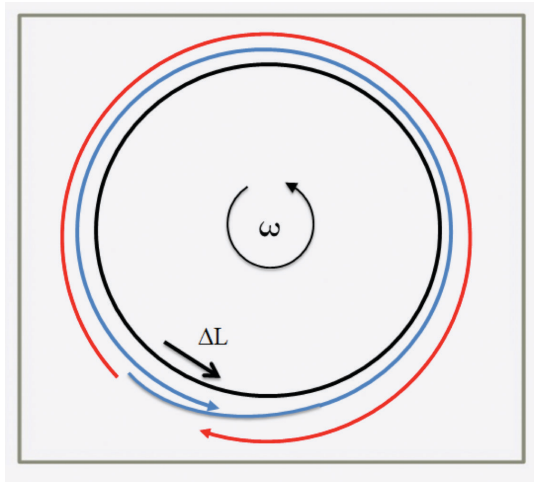

Figure 7.5. The Sagnac Effect.

If I take my torch and lit it up, the speed of the light crossing the passage will be of about 300000 km/sec. But suppose I am on a plane flying at the speed of 1000 km/h. When I lit up my torch, and I measure the speed of light, it will always be of about 300000 km/s. So, if I measure it on a plane or if I measure it flying on a plane or I measure it from the surface of the Earth, I will always obtain the same result. This will be in open disagreement with any logic reasoning. Everybody would reach the conclusion the speed measured from the earth should be 300000 km/s+1000 km/h.

Only being able to demonstrate that the many aforesaid Einstein's statements are unfounded, we could succeed in proving the aether is a matter of fact and the Earth is motionless. Sagnac's experiment is the evidence we are looking for. How to explain the Sagnac effect? It is a physical phenomenon of interference discovered by the French physician Georges Sagnac in 1913. It is an asymmetry of the relative speed of two light beams that run in opposite directions the circumference of a rotating disc. To be noticed is the date of the discovery which is following the publication of the Special Relativity Theory of 1905.

In this experiment, an annular interferometer was used. Figure 7.5 is the schematic image of the interferometer used by Sagnac to split a light beam into two different beams running the platform in two opposite directions. When the two opposite rays arrive again to the starting point they give an interference pattern. [51]

But we can try to reason on a somewhat simplified version. Let's suppose that the platform rotates counterclockwise as in the picture. The blue beam propagates in the same verse of the rotation of the platform. The red beam moves in the opposite direction. ω is the angular speed of the rotating platform. R is the radius of the platform coincident with the circumference run by the two light beams.

While the two rays move, the platform rotates. As a consequence, the two rays match and interfere in a point different from the starting one. They will encounter in a point moved in a counterclockwise direction, like the rotating verse. The two rays are running thus different distances in different times. The blue ray will run an entire circumference plus a fraction of a circle.

This blue ray will take thus a time

$$\Delta t_1 = \frac{2\pi R + R\,\omega\,\Delta t_1}{c}$$

where ωR is the linear speed of the platform on the edge, where the light moves.

In Fig. 7.6. you can see an image of the interferometer.

Similarly, the red ray will run less than a circumference and will take a time

$$\Delta t_2 = \frac{2\pi R + R\,\omega\,\Delta t_2}{c}$$

We can thus obtain:

$$\Delta t_1 = \frac{2\,\pi\,R}{c - R\,\omega}$$

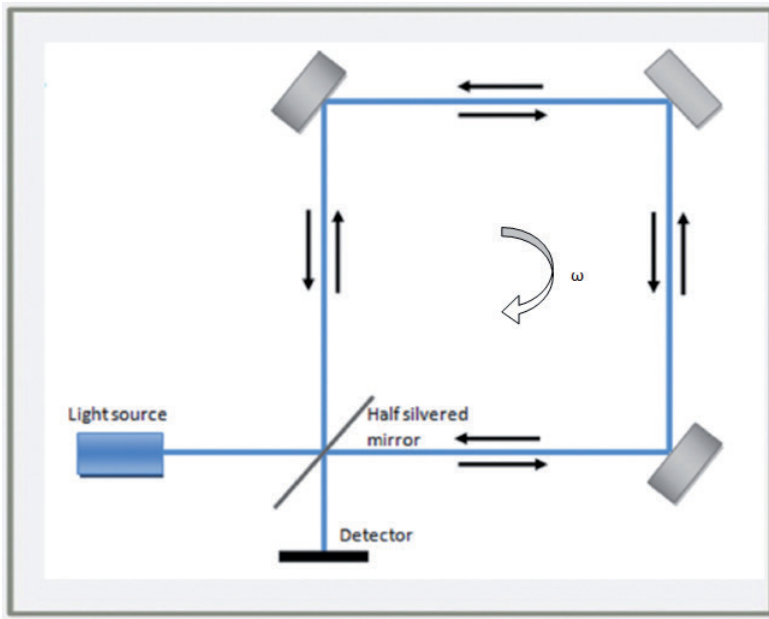$$\Delta t2 = \frac{2\,\pi\,R}{c + \omega R}$$

Figure 7.6. The Sagnac interferometer.

The two rays have thus a total amount of delay:

$$\Delta t = \Delta t_1 - \Delta t_2 = \frac{4\pi R^2 \omega}{c^2 - R^2 \omega^2} \approx \frac{4\pi R^2 \omega}{c^2}$$

since ωR<<c.

Since the Area of the circle is $A = \pi r^2$ we obtain

$$\Delta t = \frac{4 A \omega}{c^2}$$

and the phase delay will be

$$\Delta z = \Delta t \frac{c}{\lambda} = \frac{4 A \omega}{\lambda c}$$

We can notice that, once we have fixed the geometry of the platform (area A), and the type of radiation (wavelength λ), the fringe displacement will only depend on the angular speed of the platform ω.

The two light beams move at the same speed: the speed of light. A ray will run a minor distance because the platform rotates toward it. This is in total disagreement with the special relativity statements. Let's imagine an observer on a fixed reference system not rotating with the platform. In that case, which will be the resulting speed due to the movement of the platform? The light beam moving in the opposite verse of rotation of the platform will have a speed given by the speed of light added to the speed of platform. The amount will be more than the speed of light and this is against Einstein's assertions.

This proves that light follows the normal Galilean relativity. We can say, as a conclusion, it is not scientifically correct to state the speed of light is always the same, regardless of the reference system. This is a surprising deduction and shows that the Michelson Morley experiment should be interpreted another way. Since this discovery was made after Einstein had introduced his theory of the special relativity, no one was bold enough to say a word.

There is no measurable aether wind on Earth because the Earth is motionless. It is not possible to measure the Earth speed of 30 km/s around the sun because the Earth doesn't move around it. However, since we know that the sun moves upon the Earth, we should be able to measure the presence of an Earth wind that determines the daily motion of the sun. The speed is much lower than 30 km/s, but certainly it can be measured some way.

Some year after the Sagnac discovery, Michelson repeated his experiment. This time he intended to measure the motion of the Earth around its axis, and not around the sun. We will consider the results of the Michelson–Gale experiment in the following paragraph.

The Michelson Morley experiment of 1881 has enormous implications. After analyzing it, scientists could have perceived there is not a relative movement between the Earth and the aether. The aim of the experiment was to detect, by the use of an interferometer appositely conceived, a possible movement of the Earth with a speed of 30 km/s around the sun. The experiment failed, not because of the non–existence of the aether, as a number of scientists pointed out, but because the Earth doesn't move around the sun. Proofs of this situation can be established by the fact that there is no Coriolis manifestation on the Earth and because there is no measurable curvature, being the Earth flat.

In 1904, Michelson contrived another experiment to measure, this time, a possible aether movement in the earth by diurnal motion. This

experiment could be carried out in 1925 only. To reach their goal, first technicians had to assemble an enormous interferometer. They set it up according to the Sagnac's model. Their aim was to evaluate the changing in speed at some different latitude over the earth. They knew that, due to the globe rotation around its axis, they had to obtain some cogent evidence of that variation. On the basis of differences in latitude all over the earth, the movement speeds should be diversified. The reason is that on a globular earth in a rotation, the peripheral speeds are manifold, changing with latitude as you can deduce from the picture below.

The speed is the highest at the equator and null at the poles. So when you consider two different latitudes, both in the northern hemisphere, you will remark that the speed of the latitude more southern is greater than the other. An enormous Sagnac interferometer, with a perimeter of 1.9 km had to be assembled. It had to be great enough to detect the changing in speed at two slightly different latitudes. So, it had to reach different spots at some hundred meters of distance one from the other. Even though in only some hundred meters there was not such a big variation in speed, the interferometer was able to detect the changing.

This interferometer was a huge rectangle (see the rectangle in the picture) with two sides positioned along two near parallels. One side should have experienced a smaller speed than the other one.
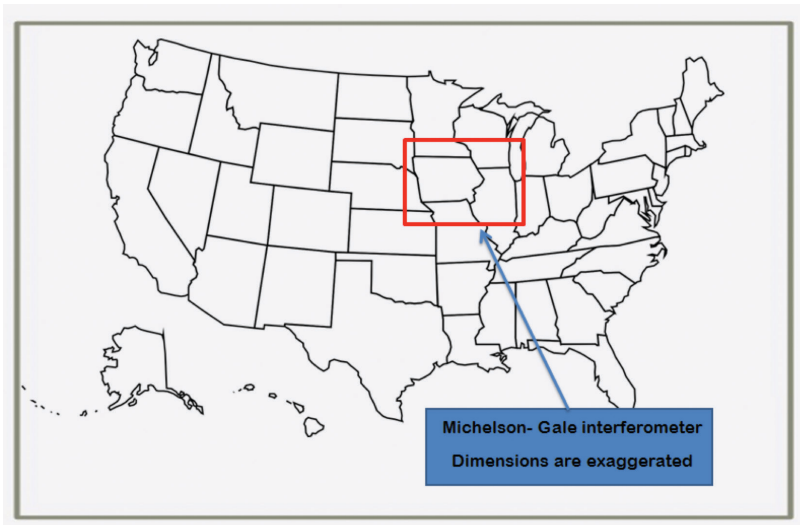
Figure 7.7. A scheme of the Michelson–Gale interferometer.

Like the Michelson Morley interferometer, this one had been contrived in order to interfere light rays originated by the same source, put in rotation into two opposite directions. [52] A side of the rectangle was set northward, while the other was southward. The two rays of light, running the two different sides of the rectangle, should have been affected in a different way by the wind of aether. The scientists performing the experiment admitted, of course, the Earth could possibly be rotating in the aether. This wind, as you can certainly realize, is due not to the movement of the Earth inside the aether, but to the movement of a possible aether upon the Earth. In the images 7.8 I will draw the different paths run by the two light beams.

It is clear that the two rays are affected in a different way by the aether, if it really exists, and this should generate a shift in the interference fringe given by this formula:

$$\Delta = \frac{4A\omega \sin \Phi}{\lambda c}$$

where A is the area of the rectangle, ω is the angular speed, λ is the wavelength, c is the speed of light and φ is the latitude.

This is the Sagnac formula already considered in the previous paragraph. With this experiment, the expected result had been found, proving thus the presence of an aether wind.

How to explain an aether wind on a motionless Earth? Let's try to consider. On a flat earth, the latitude concept is a little different from the globular idea. We can describe it with polar coordinates. A point on the Earth is described by its distance r from the North Pole, and by an angle ϑ. We shall consider this angle counterclockwise starting from the Greenwich meridian, just to give an example. The distance r is analogous to the latitude.

We know the sun moves with a helix trajectory on a cone. In effect when considering the speed of the sun, it will be lower northward if compared with a more southern speed. This is due to the fact that the sun will run bigger circumferences as it moves southward. So, the interferometer detected correctly an aether wind with a speed increasing while moving toward the south. If the Earth is motionless, as you can deduce from the absence of any Coriolis effect on the planet, it is clear that this aether wind is in reality a vortex running over the whole earth, starting from around the North Pole axis.

The first ray

Northern side: Speed of light -lower speed of the Ether

starting point

direction of the ether wind

Southern side: Speed of light +higher speed of the Ether

The second ray

Northern side: Speed of light +lower speed of the Ether

starting point

direction of the ether wind

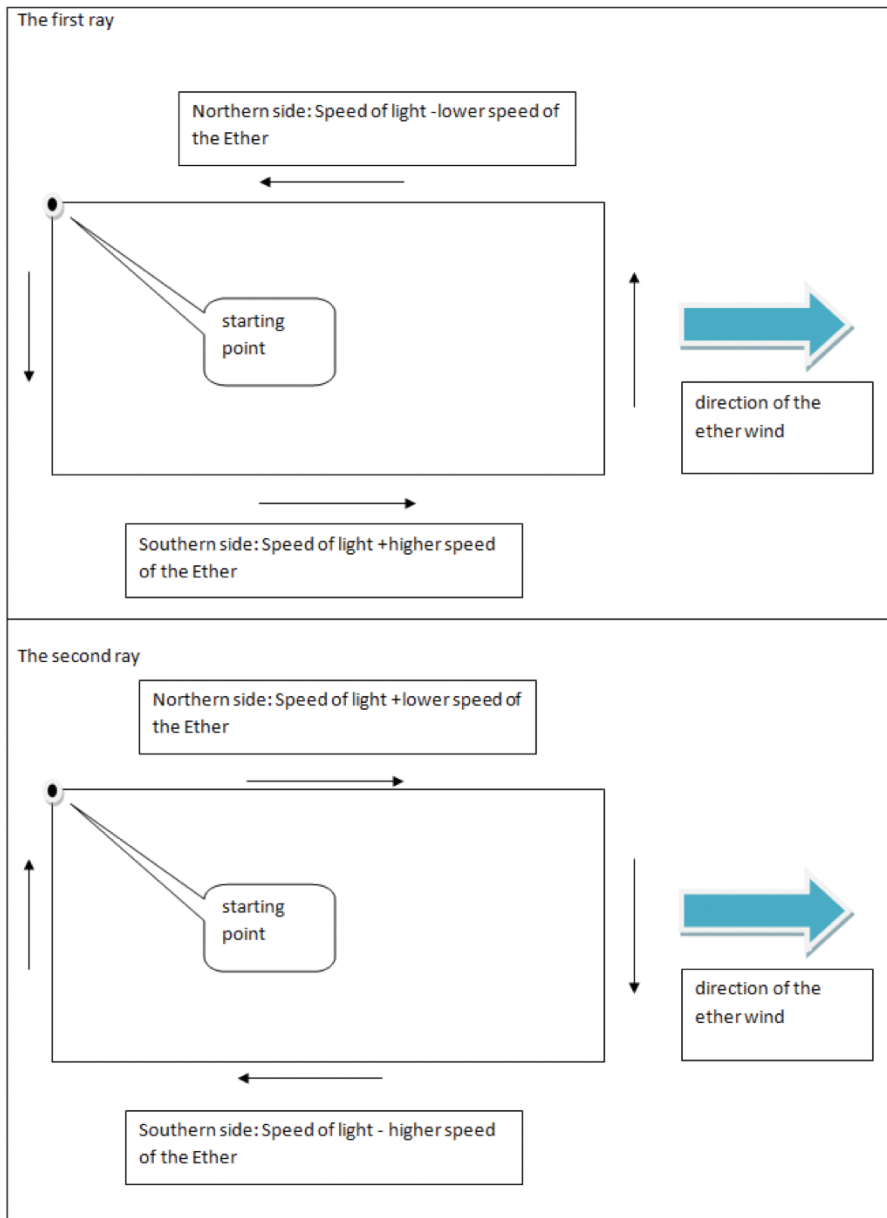Southern side: Speed of light - higher speed of the Ether

Figure 7.8. The Michelson–Gale experiment.

I can conclude this section with some further consideration about the Michelson Gale experiment. A similar interferometer should be used to prove that the Earth is flat. The Michelson Gale experiment has been conducted in the northern hemisphere in 1925. If the Earth were a Globe, the interferometer should behave in an opposite way in the southern hemisphere. There should be a result showing that the highest speed is northward and the lowest southward, because, in that case, you have to move northward to get nearer to the equator.

On a flat earth, the geographical situation is totally different from that on a globe. Parallels, while moving southward, will gradually draw bigger circumferences. As a result, the sun keeps on raising its speed from the Cancer tropic to the Capricon one.

A Sagnac interferometer placed in the southern hemisphere should be able to detect a higher speed in the southern side. Obviously, such an experiment has never been done.

7.2.1. *The Sun Analemma*

Spirals are on the basis of the sun movement. In the last pages I have illustrated how an aether movement could be detected in 1925 by the use of an interferometer. The speed of this vortex is comparable to the diurnal speed of the sun. Such a vortex can influence the speed of light, that will not be perfectly the same in all directions all over the Earth. The difference is, however, so small that it is not detectable in our normal daily activities. The vortex is the cause of the motion of the sun.

Let's briefly resume the trajectory of the sun as we were able to understand it till now. The sun moves on a spiral trajectory over a cone. The cone has the following measures:

Table 7.1. The cone of the sun.

	Radius [km]	Height [km]
21 june	6660	6660
21 december	13320	3330

The vortex is at the origin of any motion along the cone. Can we define an equation for the trajectory of the sun? By analyzing the equation of spirals, we can find an equation able to define a curve fit to describe the path of the sun. In this equation there are two variables: r, i.e. the distance from the North Pole, and ϑ, the angle that we measure in a counterclockwise direction starting from the Greenwich meridian; z will indicate the height. The equation is:

$$\begin{cases} r = 6660 + \left| 88.8 \cdot \vartheta^{\frac{1}{1.618}} \right| \\ z = 9990 - 0.5r \end{cases} \quad with -360\pi \leq \vartheta \leq 360\pi$$

Our readers will immediately recognize some of the numbers of the equation. I should give however a brief explanation.

6660 is the radius of the Tropic of Capricorn. By describing the spiral, it is quite astonishing that the sun trajectory can be described by a spiral with the exponent 1/1.618, 1,618 being the golden number. In fact, many spirals in nature are golden spirals. The constant 88.8 is equal to 111 · 4/5. 111 is a number having a special relationship with the Earth and the sun. 6660, 13320, 9990 are all multiples of 111.

Theta (ϑ) varies from minus 360pi to plus 360pi. They represent the number of turns necessary to make an entire cycle from the Tropic of Cancer to the Tropic of Capricorn, and back to return.

The year is 360 days and Pi is 3. This is because these are irrational values that must be cut to be described. In our model and with our numbers, we chose to cut this way: 360 days for one year and Pi=3. We shall use math this way in order to obtain a very good first approximation. It will be a description of the main fractal of nature. All the other smaller fractals will just be a repetition. A more precise description, made without using fractals, would not be as good as this.

However, it could be necessary to make a more precise calculation. For example, someone could desire to build a more precise model, maybe with the help of the calculator by using software like Matlab or Octave [53]. We have to do this by using fractals.

For example, 6660 km is the first fractal to define the position of the tropic of Cancer. But, if I want to make a more precise calculation using the math till now considered, we have to remember that on the globe the tropic is reckoned to stay at 7400 km from the North Pole.
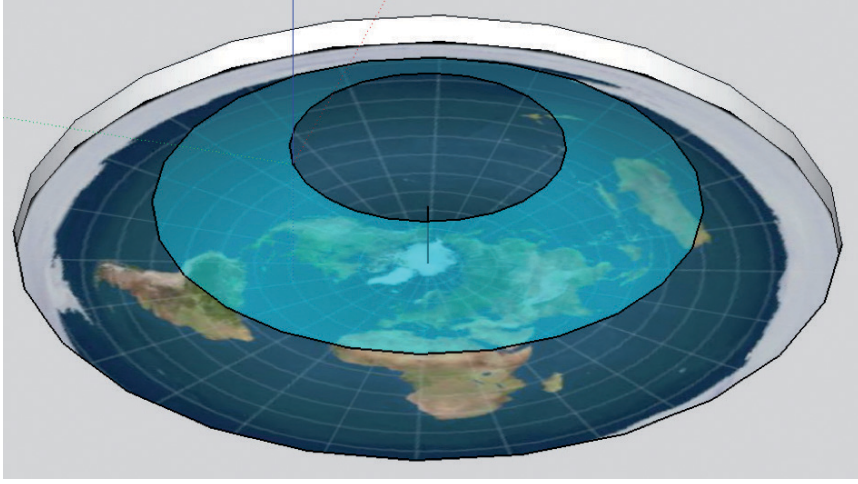
Figure 7.9.

Thus, we will define the smaller fractals this way:

$$r_{cancer}=6660+666+66.6+6.66+0.666+...\approx 7400 \text{ kms}$$

On the globe, the Capricorn tropic is at 12600 km from the North Pole. Consider this series:

$$r_{capricorn}=13320-666-66.6-6.66-0.666-...\approx 12580 \text{ kms}$$

The spiral of the sun can be described by using these numbers. It will become:

$$r = 7400 + \left| 66.6 * \vartheta^{\frac{1}{1.618}} \right| \quad with - 365,25\pi \leq \vartheta \leq 365,25\pi$$

In this equation, it will be clear the role of the number 666 in the description of the trajectory of the sun. The equation can, in fact, be rewritten:

$$r = 6660 + 666 + 66.6 + 6.66 + 0.666 + \cdots + \left| 66.6 * \vartheta^{\frac{1}{1.618}} \right|$$

This equation is still valid and considers not only the main fractal but also some smaller fractal and is incredibly precise by using the math studied till now. Remembering that the constants describing the sun are 111 and 6 and 10 we can write the spiral of the sun this way:

$$r = \frac{111 * 6}{10^{-1}} + \frac{111 * 6}{10^{0}} + \frac{111 * 6}{10^{1}} + \frac{111 * 6}{10^{2}} + \frac{111 * 6}{10^{3}} + \cdots + \left| \frac{111 * 6}{10} * \vartheta^{\frac{1}{1.618}} \right|$$

that means $r = \sum\limits_{n = -1}^{n = \infty} \dfrac{111 * 6}{10^{n}} + \left| \dfrac{111 * 6}{10} * \vartheta^{\frac{1}{\phi}} \right|$.

Below you can see the image of the spiral obtained by using Octave, free software for the numerical simulation.
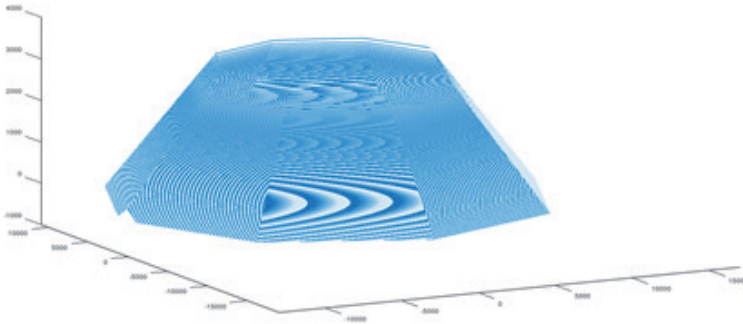
Figure 7.10. The spiral of the sun obtained with Octave.

Anyway, you know that things are not always so easy. Our model of a simple cone is probably not totally correct. The tridimensional magnetic field that traps the sun between the two tropics is a tridimensional surface that, only with a first approximation, is a cone. It is a non–orientable surface, a Klein bottle that traps the sun in a complex movement.

The fact that the movement is complex will be clear when you look at the analemma. It is a figure obtained by a secondary movement of the sun over the cone. This figure is obtained by taking a picture of the sun at the same point always at the same time every day, or maybe every week.

The two extremities of the analemma are the two tropics and the sun reaches these points on 21 of June and 21 of December.

Let's check the motion of the sun after the 21 of June. The sun runs a rather long distance in July. In the graphic, on the first raw, you can see

that it is as if the sun would do a 7 minute day longer than usual (the comparison is made with our clock that considers a medium day of the sun and not its real motion).
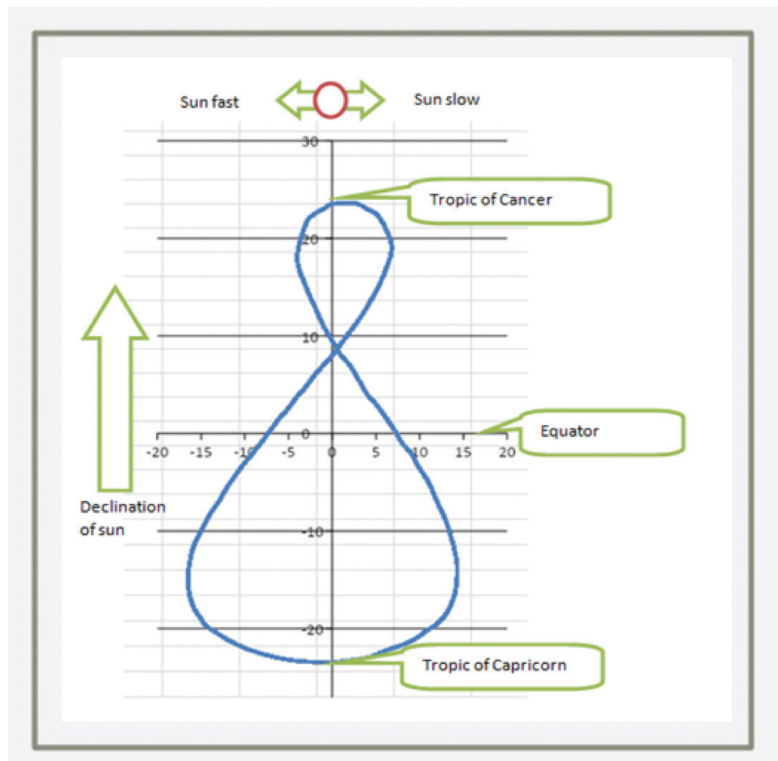

Figure 7.11. The analemma.

The sun begins to slow in August and, at the end of the month, the intersection takes place. In September, October, November, and December the sun moves slower and a medium day in November lasts 17 minutes less. Then, again the sun accelerates. The day achieves to be 14 minutes more, and then on the 15 of April the intersection can take place. In May and June, the real sun is slower than the medium sun. [54]

These movements are caused by the aether that moves slower or faster than the average.

The question is: how is it possible that the aether, in the same zone, for example near the Tropic of Cancer, during some month goes faster and during some other moves slower? The answer is that the cone is not a flat

surface but rather a tridimensional one. In the same way, the analemma is not laying on a flat surface but is a tridimensional curve.

We can conclude that the aether moves at different speeds changing with the height. Remember that the aether is the motor, while the Klein bottle is the magnetic grid that drives the sun in its path.

As you can see in the picture, the analemma does not look like a symmetrical number eight. The upper part is smaller than the lower one. In addition, something interesting should be noticed. This is the fact that, if you count the number of days in the bigger part of the analemma (225), and make the division with the number of days of the smaller one (140), you'll obtain an approximation of the golden number 1,618. You will understand thus, that the math of the analemma is linked to the golden spiral.

This is not strange because the movements of the sun and those of the time are linked to the golden number as already explained throughout this book. The main idea here is, however, there is a vortex of aether over the Earth, responsible for the motion of the sun and of all celestial bodies. This vortex is running with speeds that get higher as you move downward. This non uniform speed is responsible for the analemma of the sun.

7.2.2. *A Single Wind of Aether*

After a long, absorbing research, I can now realize the aether is both responsible for gravity and for the motion of the celestial bodies. Gravity is a result of the extant vertical wind of aether while its vortex, which rotates over the earth around the North Pole center, is the force driving the motion of planets, moon, and sun. You probably wonder if there's any relationship between these two winds, or if they have to be considered as two different realities. To give an answer we have to get deeper into the understanding of both these movements of aether. Regarding the vertical wind, there is not so much to add. A changing of pressure in the aether with the altitude results in the formation of a force field. The outcome will be a vertical movement of aetherons with an acceleration of 9.81 m/sec^2. This acceleration acts on bodies with a mass determining the force that is called gravity.

As far as you want to consider the vortex movement, it will be rather difficult to suggest a correct and clear account of its kinematics. However, we could shed some light on the whole matter starting from the description of the solar analemma.

The analemma is an eight–shaped figure (a non–symmetric lemniscate) that can be traced into an image by taking a picture of the sun periodically, always at the same time of the day. The different position of the sun during the year is a consequence of two basilar reasons. First, it is due to its spiral–shaped motion over a cone lying between the two tropics. The second explanation is connected with the variation of the speed of the sun during the year.

The figure of analemma (see image 7.12) is linked to the equation of time. Master craftsmen follow this equation to obtain sundials. Watches follow a constant speed and show a time that flows in a constant manner. But, since the sun varies its speed during the year, sundials have to take into account this changing of speed. There is a medium sun that moves always at the same speed, (the sun of watches) but the real sun is different. Sundials have to take into account this difference by using the equation of time. This equation shows if that day the sun is in advance or it is late if compared with the medium sun. It can tell the minutes of advance or delay. From the analemma, we can infer that the real sun is slower than the medium sun in part of April, May, and June. It becomes faster during July and August. It slows down in September, October, November, and December but speeds up again in January, February, and March.

I wondered how it can be possible that the sun maintains different speeds in October and February, months of the year in which the sun is at the same point of the cone. Isn't always the same aether vortex to push the sun? Is it changing the speed at different periods of the year? It would be difficult to explain the physical reason for such a strange behavior. I have come to the conclusion that there must be a simpler explanation. The speed of aether changes with the altitude. The more plausible hypothesis is that the speed decreases according to the height. I will show the reasons for this hypothesis. In a first instance, it seems reasonable to say that, if the sun is lower, it has to go faster to give the same amount of energy to the Earth. This could be also in accord with the astronomers' assertion that, if a planet is nearer to the Earth, it goes faster (to win the gravity force, as they say).

In the following picture, I have tried to draw the cone as a rotation of an analemma around the Earth's axis. The analemma is represented in the 3D model tilted at 45° to exaggerate and make clearer the idea. In the reality, the analemma is tilted on the vertical plane of only some degrees. The sun speeds up or slows down but also rises and lowers in its perpetual movement, but in its movement during the year, penetrating periodically different layers of aether

with different speeds. By doing this the sun builds this eight shaped figure: when the sun goes down it accelerates and when it goes up it slows down.

Since the analemma is tilted of some degree in respect of the horizontal plane, it is possible to behold it from the above as well.
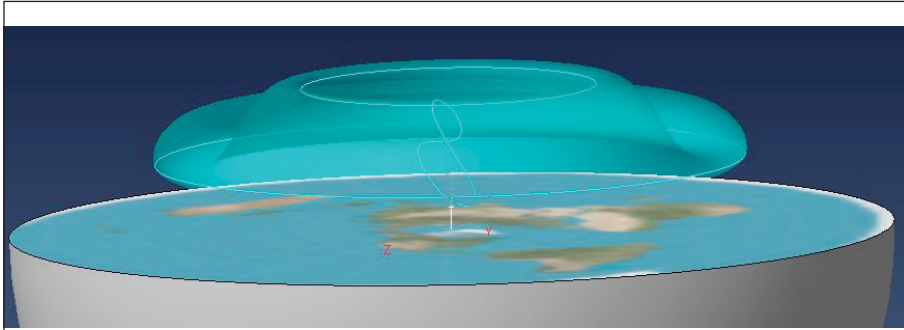
The tilted analemma (tilted of only few degrees in the vertical plane) is revolved around the north pole axis and thus we obtain a more precise cone of the sun. Within this cone lays the spiral run by the sun during the year.
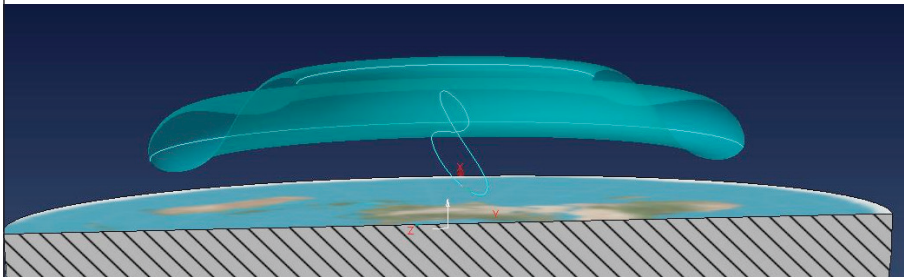
If I make a section along a vertical plane, the non–orientable surface in which the sun is trapped in its trajectory will become more visible. Here the vertical tilt is exaggerated.

Figure 7.12. The cone of the sun with the analemma.

That being said, what will be the relationship between the vortex and the vertical wind of aether? Is there any link? The vertical wind is caused by a gradient in pressure of the aether. Aether undergoes an increase of pressure when it rises in height. The vortex, on the other hand, undergoes a decrease in speed when it rises in height too. Is there a link between speed and pressure?

Yes, we have to apply to the aether vortex the Bernoulli's principle. The Bernoulli principle is the energy conservation principle applied to moving fluids. Aether is a super–fluid. This principle involves many energetic terms, one due to its high fluid speed, one due to its pressure and one due to its height (it takes into account the influence of gravity upon the fluid). The sum of these terms keeps constant during the movement and transformations of the fluid.

Speaking about the aether super–fluid we don't have to consider the height term of Bernoulli's law because the aether isn't affected by gravity, but it generates gravity. The Bernoulli principle applied to the aether vortex has to be written like this:

$$p + \frac{1}{2}\rho v^2 = \ cost$$

with ρ for the aether density, p for pressure and v for the speed of the flux.

It is clear that when the speed diminishes (upward in our vortex) the pressure increases. Even though it might seem counterintuitive to think of a reduced pressure in a faster flux, this is a phenomenon due to the energy conservation principle: to increase the speed you have to spend pressure.

We can thus understand that over the Earth there is a huge aether vortex that diminishes its speed with height.

The decrease of speed generates a gradient in the pressure of aetherons: the pressure, according to Bernoulli's principle, increases with height as the speed decreases. This gradient in pressure generates a force field and a consequent flux of aetherons vertically, downward oriented. This is gravity: a vertical field of force generated by the aether vortex that moves all celestial bodies. We will learn that this changing speed and pressure vortex is responsible also for the analemma of the moon and for the retrograde motion of planets.

This is the unifying theory that puts together the electromagnetic theory, the mean in which the light moves, the gravity force, the

movement of planets, of the sun and of the moon, and this will explain also if the universe is really expanding or not. This vortex that sustains electromagnetism, gravity, nuclear interactions is the theory of everything of the flat Earth, the only admissible Earth.

7.2.4. *How the Aether Vortex is Formed*

There's a vortex of aether that, rotating around the Earth, moves the sun, the moon and the planets. There is also a secondary vertical wind. It is the one constituting the gravity force. Such vortex, however, does not move the dome. This gets clear when you consider the speed of the dome, and you compare it with the speed of the vortex. The speed of the vortex is clear if you consider that it pushes the sun. The dome rotates faster than that speed, one degree per day, without considering the precession of equinoxes, which is equal to one degree every 74 years.

Of course, the rotation of the dome is independent from the vortex of aether. On the other hand, we can take into account the inverse of the hypothesis: the rotation of the dome causes the rotation of the aether. The dome is a big turbine which is put into motion by the upper waters surrounding the exterior of the canopy walls. I'll try to show, in the following chapters, the path the waters follow to put the dome into motion. In the following picture, you can see a possible shape of the external dome–turbine. It's a sort of a wheel surrounding and capping the exterior of the vault. It is moving thanks to the aid of the massive waters.

As you already know, the Earth together with the dome forms a capacitor. So, the earth and dome are the two electrified plates. What could happen to a capacitor when you put in rotation one of the two plates? It is not a common situation in today's technology, but you can however try to understand what I mean. We know that, between the two plates, the magnetic field of the Earth can exert his power. We are now in the necessity to understand what happens to a plate moving inside a magnetic field. This is a field which can be imagined to be constant, but variable due to the rotation of the plate.
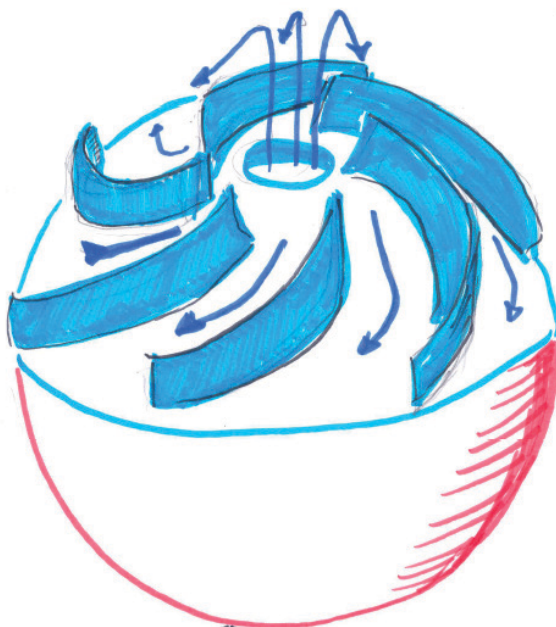
Figure 7.13. A turbine dome shaped. Source: the net.

To understand, we have to consider what the eddy or Foucault currents are. Eddy currents are induced electrical currents in conductive bodies [55]. They are immersing in a variable magnetic field or, as an alternative, they are moving in a constant magnetic field as well. We know that the rotor is not metallic, but, as already indicated in a past chapter (6), the materials forming the dome, such as graphene or quartz, are semiconductors and able to develop internal induced electrical currents. We should have, thus, a dome rotating in an almost constant magnetic field. The relative movement between the dome and the magnetic field generates the circulation of electrons, i.e. electric currents according to the Faraday law.

The Faraday law is a physical law describing the phenomenon of the electromagnetic induction. It originates when the flux of the magnetic field through the surface delimited by an electric circuit is variable in time. This law posits that in that circuit an induced electromotive force arises.
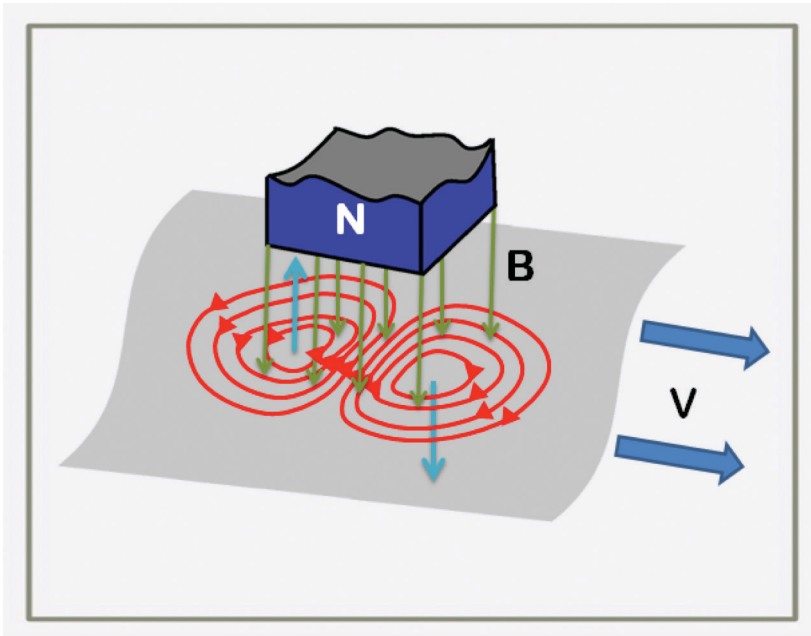
$$FEM = -\frac{d\phi_B}{dt}$$

Figure 7.14. The Eddy currents.

Currents that arise, being variable, generate in turn a new magnetic field that is opposite to the motion of the dome. The eddy currents the dome originates are able, for the Joule effect, to heat the vault. The effect is to prevent the waters moving over the blades of the canopy to freeze. This hypothesis is in harmony with the witnessing of Antarctic explorers. They often claim that after travelling many kilometers toward the extremities of the Antarctic south, it seems as the temperatures, having reached a strong minimum, start to get warmer. Probably, this is due to the fact that the dome is warm.

The effect of the magnetic field generated by the eddy currents is also exploited to make the brakes of trains. Technicians apply to the metallic wheel a fixed magnetic field in order to generate dispersive eddy currents. These currents heat the metal and generate additional friction.

What does the counter magnetic field, generated in the dome, act upon? Just because on something it has to react. This is in order to be able to act like a sort of brake over the dome. For example, when I brake the car, the wheels react on the asphalt. As you already know, a magnetic or electric

field is generated by a not uniform disposal of aether in the space. There is hence a relationship between the aether and the force fields. The gravitational force field is produced by an increasing pressure of aetherons with altitude. Electrical charges in the space can move aetherons and a consequent force field is generated. We can conclude that the magnetic field induced by the eddy currents, since it is a moving as a variable field, will act on aether by forcing its rotation. This rotation pushes to slow down the dome that, however, is put in motion by the water, and can't be stopped. The vortex is thus pulled in its rotation, and follows the dome with a slightly lower speed. The scrolling between dome and aether vortex is clear if we consider the sun's speed: this is lower than the speed of the dome.

One question arises. If the rotation of the vortex gets started from the top by the dome, how does it happen that the speed of this vortex increases at the bottom? It is not an intuitive concept. It would be normal to think that the vortex has its maximum speed where it touches the dome on top, and slows down while departing from it. But something similar happens in the dynamics of tornadoes. Let's see why. Tornadoes originating inside the clouds, swoop down reaching the Earth, and the speed increases on the bottom, near the Earth. This is due to the conservation of angular momentum. This momentum is given by the product of the impulse I=m · v and the radius r. L=m · v · r is the angular momentum where m is the rotating mass, v is its speed and r is the distance from the axis. Due to the conical shape of tornadoes the distance r from the axis is the least at the bottom. Thus, to conserve the momentum, speed has to increase. The classical example to explain this phenomenon is the skater that has to close his arms to turn faster, or open them to turn slower.
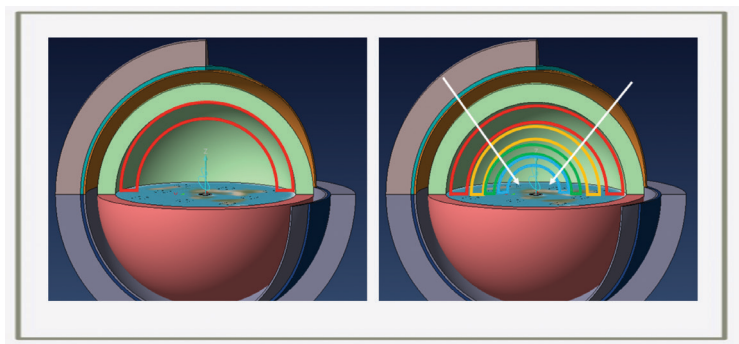
Figure 7.15. The shape of the aether vortex.

The shape is, obviously the reason for the speed increase near the Earth. The vortex of aether is not strictly conical but similar to a cone. If we consider the aether layer adjacent to the dome, it has a very large surface, due to the vault shape of the dome.

As we go down, the radius of the subsequent layers decreases. Momentum conservation requires for the lower/smaller layers a bigger speed. This profile of speed generates, for the Bernoulli's law applied to fluids (aether is a super fluid), a bigger concentration of aetherons in the top. This generates the gravity field.

7.2.5. *The Cycle of the Upper Waters*

Waters are the primary element constituting our cosmos. We are totally immersed in water. Besides there's a vortex of aether that is moving the sun and, this way, it generates gravity. We were able to reach the conclusion that such a vortex does exist thanks to the Michelson Gale experiment.

This proved that the speed of light is different at different latitudes. A vortex of aether has different speeds as it departs from the rotation axis. Near to the pole, it is slower, while it gets faster and faster going southward. This increasing speed explains the different speeds of light due to the changing latitude.

On the other hand, we have proved that such a vortex changes speed with the altitude. Due to the shape of the dome, the vortex is faster near the surface of the Earth and gets slower higher in the sky. Such a behavior is a result of the conservation of the momentum with the height. This characteristic of the vortex creates, as a consequence, the force pulling objects downward: the gravity force. Many flat Earthers say that gravity doesn't exist. Newtonian gravity is clearly wrong, but a vertical force, generated by the action of aether upon all masses does exist and no one could affirm the contrary. The fact that this force is proportional to the mass is clear as well. So, there's no problem in calling this force gravity.

I have to imagine this vortex as generated by the rotation of the dome. Since the dome is made of a semi–conductive material moving in the middle of the magnetic field of the Earth, eddy currents arise. They generate an induced counter magnetic field. This way, they put in rotation the aether which forms such a vortex. It is similar to a rotating magnetic field. So, it behaves like the rotating magnetic field of an asynchronous electrical motor.

To obtain such a vortex, the dome has to rotate. It behaves like a turbine that a continuous flux of waters puts into a rotation. Water passes among the external blades of the rotor, causing it to rotate. The waters slip down along the walls of the dome, acting on the blades and pushing the heavenly vault. Then waters infiltrate below the earth. So, they pass through cavities — the fountains of the deep as mentioned in the Bible — filling all the spaces under the Earth. This way it enters into a cycle that keeps on pushing the dome and the sun and the moon, and so on.

To obtain such a cycle, you need the water to rise again over the dome. In order to get this effect, you need the Earth to have a hole in the middle. A hole is also needed in the upper part of the dome. Interesting is that, in many representations of the flat Earth, they show a hole in the dome, called the gate of heaven.

The water passes hence through the Earth. Then it is lifted up till the upper dome (maybe in the form of vapor) and is poured down again along the external dome. We know that the basin containing the Earth is solid. Thus, we can make the hypothesis that it has a central solid hollow cylinder that, like a pipe, ascends to the Earth surface. Through this tube, the water goes up, and is pushed upward to the surface and continues ascending up to the dome, in a continuous cycle.
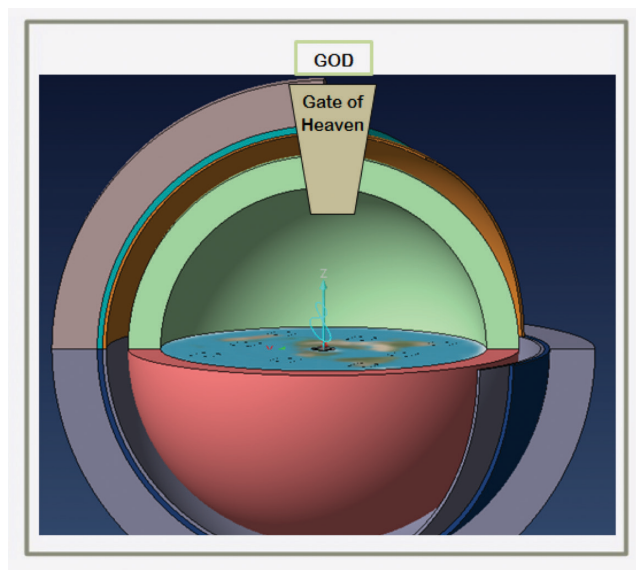

Figure 7.16. The gate on the dome.

When the water reaches the exterior part of the dome it doesn't freeze because of the eddy currents circulating on it. The eddy currents warm the dome and keep the temperatures over the 0°C. But what is the motor that originates this cycle, raising the water upward along the dome, and keeping this cycle going on for thousands of years? It is the Aether vortex itself and I'll show how this is possible. The aether vortex is caused by the rotation of the dome. Then, you will certainly ask, how is it possible that the aether lifts the water that causes the dome to rotate?
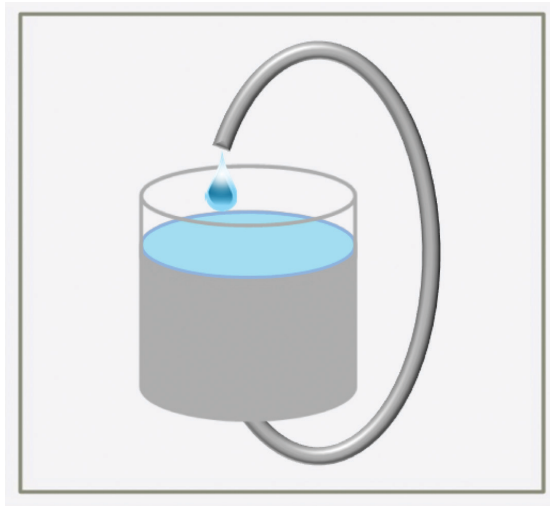

Figure 7.17. Boyle's flask.

We are speaking of a perpetual cycle. The dome rotates and so it pushes the aether; the aether rotates and pushes the waters that act on the dome. The only problem is the starting. It has been necessary an initial big push to the dome, but then the cycle is self–sustaining. Being the aether a super–fluid, it doesn't feel the effect of friction. So, it can keep rotating and lifting the water. It is somewhat like the engine of your car. It works thanks to the combustion of the fuel in the cylinders. However, to start the cycle, you need an electric motor supplied by the battery.

All this water cycle is like a Boyle's flask just working. Wikipedia states that «Boyle's self–flowing flask, a perpetual motion machine, appears to fill itself through siphon action ("hydrostatic perpetual motion") and involves the "hydrostatic paradox". This is not possible in reality; a siphon requires its "output" to be lower than the "input"».

Boyle's flask does not use the aether. The aether is the key to produce a never–ending cycle. Moreover, in nature, it is not uncommon to find perpetual cycles. You can think of the cycle of water. We always have water forming clouds, then the rain fills the rivers and you can build power plants that use this cycle. If a natural self–sustaining cycle of water already exists, we can think that an even bigger, never–ending cycle is not impossible.

Our knowledge in this perpetual mechanics is very limited, but we are allowed to consider it as a real mechanic. It could even be reproducible in a smaller scale to produce free energy.

However, in order to explain how the aether vortex can lift the water, we have to consider again the analogy with a tornado. The air in a tornado turns very fast and destroys everything it will encounter within its path. Anyway, the eye of the tornado is different. The eye of the tornado behaves manifesting antigravity effects. Many times people have seen very heavy and large objects fluctuating in the center of a tornado.

We could think that these objects have been lifted by a very powerful wind. But, if this was true, these objects should have been moved for a quite long distance and then thrown down with some consequent big damage. But there have been witnesses of some big object simply lifted and moved away with little damage. Dr Joody Wood has fully analyzed the phenomenon in her book *Where did the towers go?*.

It seems that this antigravitational effect is caused by the separation of charges generated within the tornado. This separation of charges moves the aetherons and causes an aether wind acting against the gravity force.

Our vortex of aether behaves the same way. It has a center or eye that behaves differently from the rest of the vortex. This antigravitational effect sucks the water from the bottom. Water reaches up to the dome passing through the North Pole. But the North Pole has been explored a lot of times and no one has left a specific reference of a hole in the Earth.

As you certainly can imagine, the North Pole explorations have been in the hands of only a few people that could have hidden a lot. There is news of a big hole filmed by NASA in the North Pole. This led to the foundation of the theory of the Hollow Earth, but this is only another attempt to deceive. We will show in the future some more about the hypothesis concerning the above–reported facts.

7.2.6. *The Bending of Light*

I think that the fact of having recovered an old dismissed concept, the one about the existence of a vortex of aether acting upon the Earth, will prove to be an intuition of the utmost relevance. This is a powerful concept, able to give a reason for a number of phenomena in connection with the Earth, such as gravity and the motion of the celestial bodies. Explaining the flat Earth mechanism would be an impossible challenge without understanding how gravity works.

It is only admitting this reality, I mean the existence of a vortex of aether, that you can reach a thorough comprehension of the origin of the gravity force and how this force can act. Proofs of the existence of the vortex are the effects that it produces. Empirically, you can have some evidence of it when you correctly evaluate the results of the Michelson Gale demonstration. The experiment proved that the light speed is different at different latitudes. This is due to the fact that light moves in the aether. This is the mean supporting the movement of the light.

Light is nothing else than a vibration of aetherons. The vortex while vibrating around the North Pole axis changes its peripheral speed. This is consistent with the linear law $Vp = \omega \cdot r$, where ω is the rotational speed, i.e. about one turn per day. It gives a reason for the variation of the speed with the different latitudes: light is pulled by the aether. The aether is in a rotation, with speeds that are increasing with the radius. This way the light will behave the same way. It increases its speed with the radius. From this fact we can develop another interesting concept: light is affected by the movements of the aether and the aether pulls the light. It is something similar to Einstein's idea that the light bends in the ripples of the space–time.

By now, we have understood that the aether moves to perform two main actions. The vortex is rotating around the North Pole and the vertical wind generates gravity. On the other hand, I'm rather skeptical about the idea that gravitational masses are able to bend the space–time and hence the light. You already know that masses do not have an inherent influence over gravity; otherwise, the Earth would be spherical, as a consequence of the gravitational influence.

We can conclude that a horizontal ray of light will be bent downward but also curved westward by the aether. In this sense, light follows a parabolic path on a vertical plane. It is like the trajectory of a projectile that

bends downward due to gravity. At the same time, it tends to move in a circular way around the North Pole.

Einstein's equation to calculate the bending of light due to the gravitational mass of the sun is:

$$\alpha = \frac{2Gm_{sun}}{c^2 r_{sun}}$$

He made the calculation and checked it with a famous experiment during the eclipse of 1929.

I think this equation cannot be accepted because it is grounded in a totally wrong assumption. It depends on the Newtonian concept of gravity. If we want to calculate the bending of a light beam in the gravitational, aethereal field of the Earth, we must consider the equations of the parabolic motion of a projectile. This is a composition of two movements along the horizontal x–axis and the vertical y–axis. The equation will be the following:

$$\begin{cases} x = x_0 + v_{0x}t \\ y = -\frac{1}{2}gt^2 + v_{0y}t + y_0 \end{cases} \qquad \begin{aligned} v_{0x} &= v_0\cos\alpha \\ v_{0y} &= v_0\sin\alpha \end{aligned}$$

where x_0 and y_0 are the coordinates of the starting point of the light beam. V_{0x} and V_{0y} are the starting speed in x and y–direction. The equations don't take into account the fact that the light also bends westward, due to the vortex around the North Pole.

In chapter 3, I made a calculation of the earth's curvature between Menton in France and the Corse. Up to mount Cinto in Corsica there is a distance of 195 km. So, from Menton, it shouldn't be possible to see the mountain. In fact, the total curvature is of 2700 m, exactly like the height of the mountains. But, rather unexpectedly, it is possible to see a great deal of land from Menton and not just the peak of the mountain.

Someone could say that this is a phenomenon due to the bending of light. A consequence of gravity. We have already made the calculation by the aid of the Einstein's formula. So, we saw that the influence of the gravitational mass of the Earth would be too small to bend the light to a sufficient extent to win the curvature of the globe. Now, let's make the calculation with the new parabolic formulas.

When considering that a ray of light is projected toward Menton from the top of the mountain, we would find:

$$Y_0 = 2700 \text{ m};$$
$$X_0 = 0;$$
$$V_{0x} = c = 299792458 \text{ m/sec};$$
$$V_{0y} = 0.$$

We obtain that the light bends downward due to the vertical wind of aether $\Delta y = 2.07 \times 10^{-6}$ mm. This is a microscopic length, absolutely negligible in the curvature calculation.

I will consider now another bending action over the light. There is a vortex that bends a ray of light westward. This action of the vortex over the light is important to explain some optical phenomena. On short distances, this is a completely negligible phenomenon, but over big distances you can appreciate it better. We can thus explain why on a flat Earth we can see the sun rising from east and setting west.

On a disk, we should see the sun rising at the northeast and setting southwest. In the image below, an observer A should see the sun setting $45°$ northwest. Anyway, this doesn't happen and the sun sets more or less westward everywhere on the Earth.
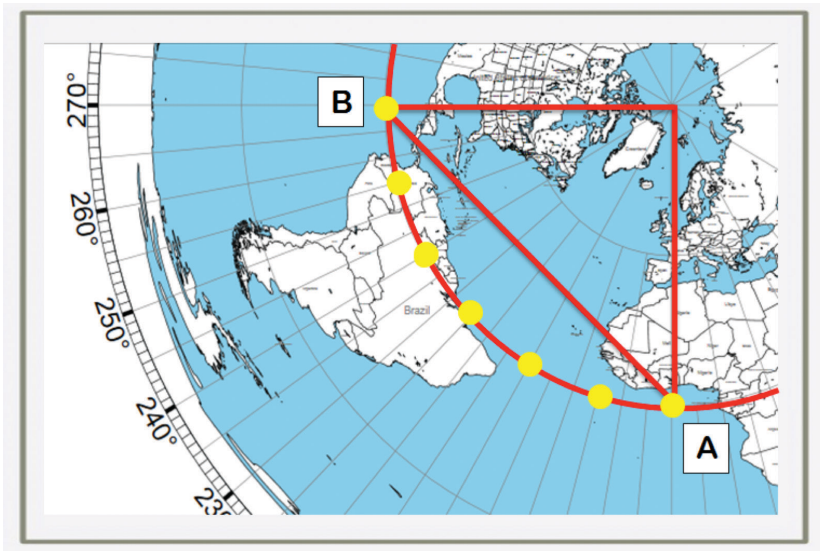

Figure 7.18. The sun setting west.

This is due, in a very small measure, also to the fact that light is bent and pulled by the vortex in a circular path around the North Pole. An observer will thus see the sun setting along a trajectory tangent to the vortex.

This is a pretty good answer to those that use this argument against the flat Earth model.

7.3. The Earth's Magnetic Field

7.3.1. *Unreachable Deepness*

After an extensive search about the Earth and its celestial vault, the stars, the sun, and the moon, time is coming to inquire about the inner parts of the deepness we are living upon, the earth's underground. I've delayed as much as possible to face this subject. It seemed to me rather hard to describe what we cannot see and measure. When I had to express about the dome or the sun, things were different. They are observable entities and you can describe their motion with exact formulas over the flat earth.

On the other hand, the deepest hole made into the ground, up to now, was made in Russia and it went deep 12 km. This hole couldn't give much information because it was just an exploration into the crust, the most superficial layer of the earth that can extend from 50 to 150 km deep.

As a start, I had to consider what the official science has to say about the core of the Earth. So, I studied Geology and Geophysics in order to find reliable data. I found there are a lot of hypotheses but not so many experimental facts. [58]

Anyway, to reach the correct conclusions about the Earth I have to take into account only experimental facts. So, first of all, I'll start by considering the set of data I sketched in my basic model. I think this is capital to understand how the Earth is made in its interior. In addition, this will be a starting point to better understand the cycle of the water. Thanks to this cycle we derive the rotation of the dome and, consequently, the motion of all celestial bodies.

Besides, understanding how the magnetic field of the Earth originates will be essential. This magnetic field is absolutely pivotal because it generates the eddy currents of the dome. They are responsible for

the vortex of aether that moves the celestial bodies and gives rise to the gravity force.

As a start, I would like to try speaking about the results seismology has reached. These are results that you can keep as valid due to the fact they are experimentally obtained. Seismology studies how seismic waves propagate in the inside of the Earth. This study makes it possible to understand the physical properties of the materials inside which the waves propagate. When an earthquake occurs, some wave moves only on the surface of the Earth, but others move inside. We can divide these waves into two groups: the P (primary) waves, the faster and the S, or secondary waves that move slower.

The P waves are pressure, longitudinal waves similar to the sound waves. They can move both through solid or liquid means. On the other hand, the S waves are transversal and can move only through solids. This is because they need a kind of material able to resist shear stresses.

The passage of both wave types in all the thickness of the mantle proves that this is solid. With depth, however, temperature increases. All miners well know this fact. In the underground the temperature increases of one degree for every hundred meters. The mantle remains however solid for a great depth, due to the increase in pressure that matches the increase in temperature.

But, if the mantle is solid, why does liquid lava exit out of rifts and volcanoes? In points where the Earth cracks or opens there is a sudden release of pressure. This proves to be a factor making it impossible to compensate for the increase of temperature with depth. So lava forms only under the crust in a small zone where it cracks, but generally, the asthenosphere, the superior layer of the mantle, is solid.

Under the mantle, the S waves find it impossible to cross. They are blocked. This can prompt us to say that there is a liquid layer under the solid mantle. Science states that this layer, called external core, is formed by iron and nickel. But how can they prove this? I believe that to derive these data only from the propagation speed of the P wave could appear just a little hasty.

Moreover, they were able to reach this conclusion by making gravitational calculations. According to these calculations they claim they established the Earth density. So, starting from this set of data they pretend to affirm the core of the Earth is made for the major part of iron. [59]

We know, however, that Newtonian gravitation is wrong and all data calculated with Newton's formula can't be correct. So, the only point we can actually accept is that there is a liquid layer under the mantle and that this is a low viscosity liquid.

A further deviation, due to refraction of the P waves, shows another layer that scientists call the inner core. It is the solid center of the globular Earth. We can infer from this that there is a solid layer under the liquid one.

The precise speed and direction of the waves through the mantle depend on the physical properties of the material they move through. Where the material tends to be liquid the waves slow down. This way scientists can imagine the asthenosphere as a plastic layer, solid but not completely hard.

If you ask me, I'm especially interested in the external core, the liquid layer because there we can find the origin of the magnetic field. To clarify a little let's see something more about this field.
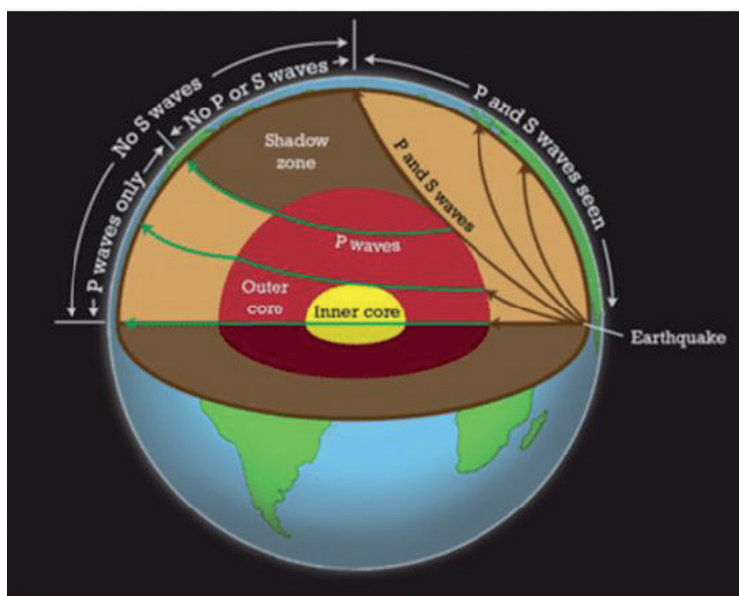

Figure 7.19. Seismography of the Earth. Source: The net.

Wikipedia states [60]: Earth's magnetic field, also known as the geomagnetic field, is the magnetic field that extends from the Earth's interior out into space, where it meets the solar wind, a stream of charged particles emanating from the Sun. Its magnitude at the Earth's surface ranges from 25 to 65 microteslas (0.25 to 0.65 gauss). Approximately, it is the field of a magnetic dipole currently tilted at an angle of about 11 degrees with respect to Earth's rotational axis, as if there were a bar magnet placed at that angle at the center of the Earth. The North geomagnetic pole, located near Greenland in the northern hemisphere, is actually the south pole of the Earth's magnetic field, and the South geomagnetic pole is the North Pole. The magnetic field is generated by electric currents due to the motion of convection currents of molten iron in the Earth's outer core driven by heat escaping from the core, a natural process called a geodynamo.

While the North and South magnetic poles are usually located near the geographic poles, they can wander widely over geological time scales, but sufficiently slowly for ordinary compasses to remain useful for navigation. However, at irregular intervals averaging several hundred thousand years, the Earth's field reverses and the North and South Magnetic Poles relatively abruptly switch places. These reversals of the geomagnetic poles leave a record in rocks that are of value to paleomagnetists in calculating geomagnetic fields in the past. Such information, in turn, is helpful in studying the motions of continents and ocean floors in the process of plate tectonics.

The magnetosphere is the region above the ionosphere that is defined by the extent of the Earth's magnetic field in space. It extends several tens of thousands of kilometers into space, protecting the Earth from the charged particles of the solar wind and cosmic rays that would otherwise strip away the upper atmosphere, including the ozone layer that protects the Earth from harmful ultraviolet radiation.

The Earth and most of the planets in the Solar System, as well as the Sun and other stars, all generate magnetic fields through the motion of electrically conducting fluids. The Earth's field originates in its core. This is a region of iron alloys extending to about 3400 km (the radius of the Earth is 6370 km). It is divided into a solid inner core, with a radius of 1220 km, and a liquid outer core.
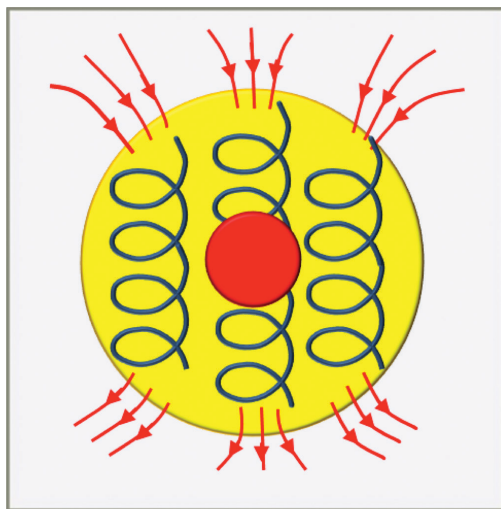
Figure 7.20. The dynamo effect in the core.

The motion of the liquid in the outer core is driven by heat flow from the inner core, which is about 6,000 K (5,730 °C; 10,340 °F), to the core–mantle boundary, which is about 3,800 K (3,530 °C; 6,380 °F).[49] The heat is generated by potential energy released by heavier materials sinking toward the core (planetary differentiation, the iron catastrophe) as well as by the decay of radioactive elements in the interior. The pattern of flow is organized by the rotation of the Earth and the presence of the solid inner core.

The mechanism by which the Earth generates a magnetic field is known as a dynamo. The magnetic field is generated by a feedback loop: current loops generate magnetic fields (Ampère's circuital law); a changing magnetic field generates an electric field (Faraday's law), and the electric and magnetic fields exert a force on the charges that are flowing in currents (the Lorentz force). These effects can be combined in a partial differential equation for the magnetic field called the *magnetic induction equation*.

$$\frac{\partial \mathbf{B}}{\partial t} = \eta \nabla^2 \mathbf{B} + \nabla \times (u \times \mathbf{B})$$

where u is the velocity of the fluid; B is the magnetic B–field; and $\eta = 1/\sigma\mu$ is the magnetic diffusivity, which is inversely proportional to the product of the electri-

cal conductivity σ and the permeability μ. The term $\partial B/\partial t$ is the time derivative of the field; ∇^2 is the Laplace operator and $\nabla\times$ is the curl operator.

The first term on the right–hand side of the induction equation is a diffusion term. In a stationary fluid, the magnetic field declines and any concentrations of field spread out. If the Earth's dynamo shut off, the dipole part would disappear in a few tens of thousands of years.

In a perfect conductor there would be no diffusion. By Lenz's law, any change in the magnetic field would be immediately opposed by currents, so the flux through a given volume of fluid could not change. As the fluid moved, the magnetic field would go with it. The theorem describing this effect is called the *frozen–in–field theorem*. Even in a fluid with a finite conductivity, the new field is generated by stretching field lines as the fluid moves in ways that deform it. This process could go on generating new field indefinitely, were it not that as the magnetic field increases in strength, it resists fluid motion.

The motion of the fluid is sustained by convection, motion driven by buoyancy. The temperature increases towards the center of the Earth and the higher temperature of the fluid lower down makes it buoyant. This buoyancy is enhanced by chemical separation. As the core cools, some of the molten iron solidifies and is plated to the inner core. In the process, lighter elements are left behind in the fluid, making it lighter. This is called *compositional convection*. A Coriolis Effect, caused by the overall planetary rotation, tends to organize the flow into rolls aligned along the north–south polar axis.

A dynamo can amplify a magnetic field, but it needs a "seed" field to get it started. For the Earth, this could have been an external magnetic field. Early in its history, the Sun went through a T–Tauri phase in which the solar wind would have had magnetic field orders of magnitude larger than the present solar wind. However, much of the field may have been screened out by the Earth's mantle. An alternative source is currents in the core–mantle boundary driven by chemical reactions or variations in thermal or electric conductivity. Such effects may still provide a small bias that is part of the boundary conditions for the geodynamo.

The average magnetic field in the Earth's outer core proves to be 25 gausses, 50 times stronger than the field at the surface. (Wikipedia).

Gauss made the hypothesis that the magnetic field could be generated by a permanent magnet positioned in the middle of the Earth. Anyway, this appears to be impossible due to the high temperatures reached in the depths of the Earth. Magnets have in fact a limit in the working temperature called Curie temperature. After this temperature is overcome the magnet is no more active. So the dynamo effect about which you have just read above has to be considered the more valid alternative.

Is this dynamo effect a valid theory consistent with the Earth's model I have developed till now? I have some doubt. For example, I cannot agree with the hypothesis that the composition of the external core would be made of iron and nickel. The inner core is, in my opinion, the external solid basin that extends in a long column or tunnel under the North Pole. It's from there that a magnetic column gets its origin.

Thus, I'd like to conclude that this basin is made up of Iron in the form of its oxide Fe_3O_4, i.e. magnetite. But what about temperatures? I agree about the fact that in the mantle, temperatures get very high, but in the lower layers, something different probably happens.

7.3.2. *Waters at the Origin of the Magnetic Field*

Writing this last chapter — the one about the Earth's deepness — I have just started a rather difficult mission. I'll have to describe something I cannot see. Anyway, that's true, seismography can partially help. This is a science describing the Earth as made up of many layers. Accordingly, there is a solid mantle, then the liquid external nucleus and a solid internal nucleus. What about the magnetic earthly field? A dynamo effect due to the movement of the fluid of the external nucleus is supposed to be the cause of it.

However, doubts could arise and I want to expose them in this chapter. Convection is a consequence of the movement inside the fluid element that is getting warmer due to an external source of energy. While it is getting warmer its density diminishes. Consequently, the fluid moves upward living room for the cooler fluid that is heavier.

It would be possible to observe convective movements in a pot full of boiling water. In a pot, however, the pressure doesn't change from the top to the bottom or it changes very little. You certainly know the formula.
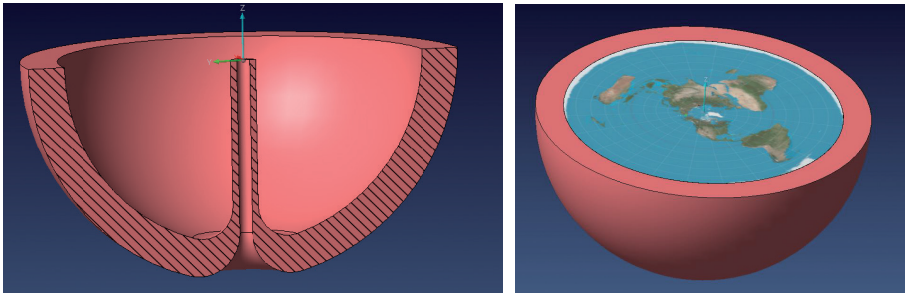
Figure 7.21. The magnetite basin.

In water pressure increases of one atmosphere in a linear way every ten meters. So, how can the pressure undergo any variation in ten centimeters of water boiling in a pot?

When we consider the Earth, things are different. There are many kilometers of a fluid material moving due to convection. Pressure arises to such a degree that the nucleus gets to be solid. Incidentally, I'm just using the word "nucleus" in the same way the term is generally applied to the globe. Anyway, the language should change, so it is only a tentative to make me understand for now.

Is it possible, in this case, with such pressures that are getting grater and greater going deeper, that a convectional movement could develop? Could this way the cooler fluid, being heavier and going downward, come across greater pressures?

Another hypothesis mainstream science tries to introduce to justify the movement of the inner fluid is the rotation of the Earth. About this, as I believe, there is nothing left to say. The Earth is not spinning.

As you probably agree, the Earth is not a globe, it doesn't move and up to now, we don't know how the magnetic field originates. We postulate there are many layers and one of them is liquid.

The last layer, the lowest one, solid, is the solid iron basin that contains the flat Earth deepness.

There's a dome over the Earth, made up of a stator and a superior rotor. In the rotor, one layer is made of water in which bioluminescent beings swarm everywhere. These beings emit lights that can pass through the amber covered holes and can be seen from the earth's surface. Such are the stars that rotate because they are set in the rotor.
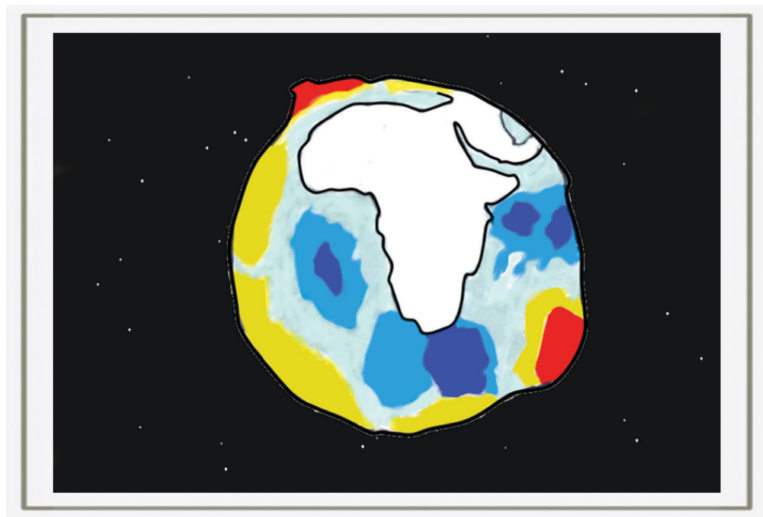
Figure 7.22. Tidal waves.

We can just speculate how this watery layer communicates with the water contained in the depth of the Earth. Here the dead bioluminescent beings end up settling and slowly decomposing to form the petroleum stocks contained in the Earth deepness. We postulate the liquid in the mantle as well as in the layer they call "external nucleus" is, in reality, salted sea water.

We wonder which is the part water could play in the formation of the magnetic field of the Earth. Interesting is a recent scientific discovery made by ESA, the European space agency. They intend to prove how the water of the oceans contributes, even just for a very small part, to the magnetic field of the Earth. It seems, according to ESA, that the ions of the salted water of the seas can produce a weak secondary magnetic field. Water streams set the salty ions in movement and this way a dynamo effect arises in the waters. Consequently, the eddy currents form a magnetic field. The project SWARM has been studying this field since 2013. They say that magnetometers have been installed on "three satellites". They have seen that the moon moves the water with big tidal waves influencing, this way, the magnetic field produced in the water. [61]

Actually, it is a phenomenon we have already discussed when describing the eddy currents. They arise in the dome due to the presence of the magnetic field of the Earth. The dome is in fact composed of conductive or semi conductive material. Since it moves submerged in the magnetic

field of the earth, parasites or eddy currents arise in the dome with a circular path. These circuits, moving in a magnetic field, generate a secondary induced magnetic field responsible for the rotation of the aether and subsequently of the sun, moon, and planets.

The same thing happens with the salted water. In itself, water is not conductive. Distilled water is an insulator. Things change when salt is mixed in the water. Salt divides in ions and this way water becomes conductive. This is because electricity is transported by ions. We have thus a good conductor submerged in a preexistent magnetic field: the one created by the magnetite basin. Basin is iron made and in particular Fe_3O_4, i.e. magnetite. Gauss, in the past, made the hypothesis of the presence of a permanent magnet in the Earth. This hypothesis had to be discarded because of the Curie temperature. Over a temperature of 500–600°C a magnet loses its magnetic properties.

But… think a moment. The magnetite basin is surrounded by water. There are waters on the surface of the earth and waters up and down. So, there is the great mass of the interior water in the earth deepness which is in communication with the upper star water and also with the oceans. And that enhances the magnetic field of the basin of the earth. Moreover, we shouldn't forget the external waters passing under the basin. They just go up through the exterior walls of the Earth to move the dome. Temperatures rise not so high, even though temperatures and pressures get higher with depth inside the crust and in the mantle. Things are however different for the lower layers. Anyway, it is clear that the magnetite can be active and it is not nullified by the temperature.

But to produce this enhancement of the magnetic field in the water, a motion is needed. It is, in fact, necessary that waters move over the basin to create the eddy currents. How is this motion realized? We will consider this in the following paragraph.

7.3.3. *Tides and the Magnetic Field*

By writing this paragraph, I want to refine the pattern I gave to my starting hypothesis. I mean the magnetic field of the Earth generated by the subterranean waters. I want to get further in the understanding of how the core of the earth engenders this magnetic field.

My starting model is a ferromagnetic tub keeping inside the waters and the whole Earth. This basin is a chamber with a huge central tube

that engenders the central magnetic column over the North Pole. This basin can only be magnetic. It should be made of magnetite, an iron oxide Fe_3O_4. Magnetite is present in large quantities over the Earth's surface in basaltic and volcanic rocks. A lot of magnetite is brought on the surface by volcanic eruptions in the middle of the deep oceanic rifts. These rocks show important traces of magnetite. It constitutes a great evidence helping geologists in the study of paleomagnetism, i.e. to understand how the magnetic field has changed during millennia.

The magnetic basin is able to produce an initial, permanent magnetic flux. Then the waters in the middle of the Earth, due to the dynamo effect, increase the force of the field. This effect is made possible thanks to the salts dissolved in the water. Only distilled water is not conductive, but salty water is. Since the waters move in the basin, eddy currents arise and generate an induced magnetic force.

However, these are only fringes. There is still a great deal to understand and search for. Especially in order to find how the motion of the water within the basin is set off. All the billions of bioluminescent beings, the stars that are in the heavenly superior waters, continually keep on releasing their waste which deposits in the underground. The upper waters are in communication with the oceans and, consequently, with the waters inside the Earth's deepness. The petroleum deep strata deposited under the oceans are nothing else than those putrefying dead bodies. Stars are lights released by living beings. They undergo all the many processes connected with the cycles of life and death. They cast out waste products which, during the geological times, have accumulated under the Earth's surface.

In the middle oceanic rifts, there are huge water sources, cold or warm. I wonder how this movement from the above to the deepness can develop. It is likely linked to the motion set off at the origin of the magnetic field. I think this is more than a possibility. It is probably a consequence of the tidal movement. I think a further consideration of how the tides work will be soon necessary. It is something I never considered before.

The simplified model science gives is rather interesting. They maintain the moon gravitational influence is at the basis of the tides. The sun has a role, too. But they claim its gravitational influence is much less important, due to the big distance. Moreover, they add that the centrifugal force of the double system earth–moon adds to the action of the moon. This sys-

tem rotates around its center of mass and produces a tide opposite to that the moon gravitation engenders.

Many details should be added like the variety of the atmospheric conditions of pressure or the geographic conformation of the coast. Obviously, there are many objections to the presented model. The Newtonian gravitational attraction between bodies does not exist. The moon keeps on along its trajectory, trapped by the magnetic belts over the Earth. It is pushed by the aether vortex spinning over the Earth. It is the same vortex which is causing the vertical force that we call gravity. Consequently, I cannot absolutely accept the centrifugal explanation. This is a force mainstream science claims to be acting inside this system, the earth–moon system. I refuse it, positively, since the Earth is motionless while the moon rotates over it.
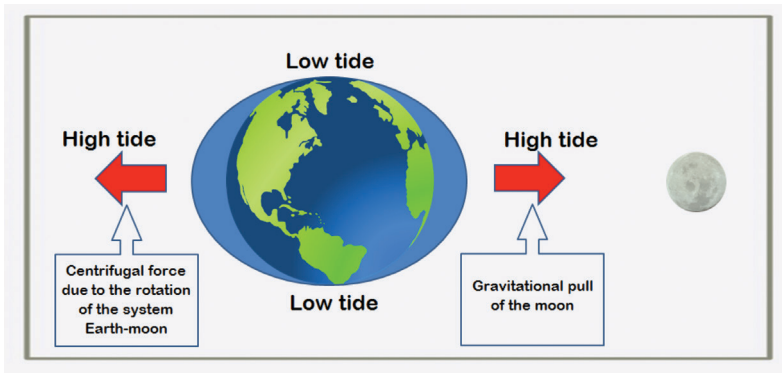

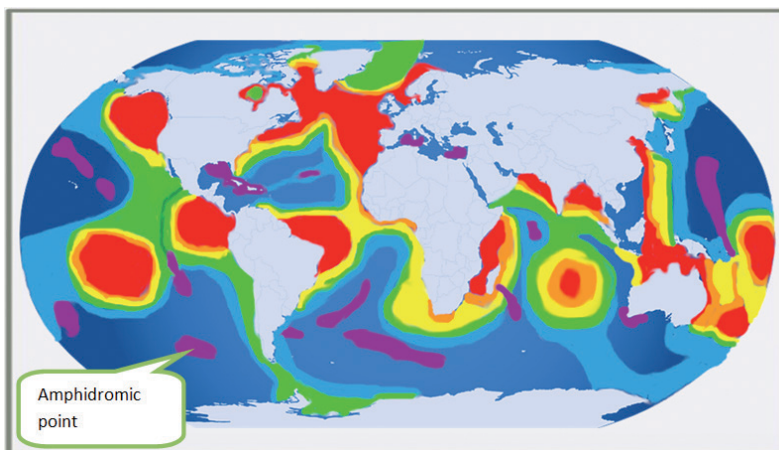**Figure 7.23.** Tidal waves.

Figure 7.24. Tidal waves amplitude and amphidromic points.

As visible in the image 7.24, all the areas near the coasts can experiment with higher tides. Closed seas, like the Mediterranean Sea, do not experiment tides in their major way. In the center of the ocean tides are usually lower than those nearer to the coasts. Tides are big waves not visible in areas far from the coast.

They rise up when getting nearer to the land. There are points where tides are almost absent, this is pretty evident in the picture above.

These zero tide points are a sort of nodes within the waters and are called amphidromic points. You can notice a correspondence between the nodes and the points in violet of the image. In these points, tides have no amplitude. You can easily notice that there is a pretty large number of these nodes all over the Earth. There are major nodes and minor ones, like those in the Mediterranean Sea.

When looking at an animation, you will see that the higher or the lower tides rotate around these nodes. Many of the available simplified models and pictures will appear somewhat weird. They often depict major tides concentrating in opposite places of the Earth. On the contrary, we actually know there are high and low tide points everywhere. All around the world, there are amphidromic points and around all of them, a higher and a lower tide keeps rotating. So, I wonder if the moon could have such an influence on the tides.

In many places on the earth, tides appear twice a day with a cycle of 12 hours 25 minutes. The moon takes 24 hours 50 minutes to make a single turn over the Earth. Moreover, tides have a maximum when the moon and the sun are aligned and the moon is full or new. There is instead a minimum when the moon is at 90 degrees with the sun.

Since the moon phases have an influence on tides, you should remember there is a cycle of 29,5 days that is the synodic cycle of the moon. Within this cycle, we have the diurnal cycle of 12,5 hours. The relation moon–sun–tides is commonly admitted. The system sun–moon is probably able to act magnetically over the salted waters. Salty water is conductive, as we know, and it is interacting powerfully within any magnetic field. The motion of tides is rather evident.

A similar movement is affecting the waters contained in the core of the Earth. They have a much greater mass than that of the oceans. Quite interestingly, a recent inquiry made by a team of French scientists reaches the following conclusions:

In particular, the cyclic deformation of the mantle of the earth, as a consequence of the gravitational effects of the sun and moon, engenders powerful currents within the external nucleus. They are sufficient to engender the earthly magnetic field. Essentially, the moon exerts its influence not just on tides we can see, but even on liquid iron tides inside the mantle of the earth. Centre National de la Recherche Scientifique (CNRS) / Université Blaise Pascal de Clermont–Ferrand. The article about the scientific work was edited on the 30/3/2016 on Earth and Planetary Science Letters. (http://www.flyorbitnews.com/2016/04/04/la-luna-influisce-anche-sul-le-maree-di-ferro-fuso-che-generano-il-campo-magnetico-terrestre/)

It is clear, thus, the role of the moon and the sun in creating the movement of the inner waters necessary to activate the dynamo effect of the geomagnetic field.

7.3.4. *The Pillars of the Earth*

By now, we have to face a new theme: the mantle of the earth. So, we can just suppose the existence of hidden pillars necessary to sustain it. Till now I have discussed the liquid layer. In a globe reference system, this is referred to as the external nucleus. In a flat Earth model, I guess this layer to be full of salted water. The flat earth container is a solid basin made of magnetite. It generates a permanent magnetic field that is the basis of the total magnetic field of the Earth. Being the so–called "external nucleus" a flat layer filled with water, the temperature of the basin stays under the Curie value. The Curie temperature would invalidate the magnetic field of the Earth, which is so important in the structure of our cosmos.

The influence of the mantle in establishing the shape of the magnetic field of the Earth is powerful. I'll start by considering what mainstream science has to say about the mantle. Wikipedia states that the mantle is one of the concentric casings of the Earth. I'd like to suggest that it is not a casing but a layer staying upon the big abyss of waters. It is a solid layer with very high viscosity standing between the crust and the nucleus. The mantle, states Wikipedia, has a width of about 2890 km. They receive this datum from seismography.

Rocks inside the mantle are full of iron and magnesium. Its upper limit, where the mantle touches the crust, is 10 to 35 km deep from the surface. This limit is called Mohorovicic discontinuity, shortened Moho.

The lower limit, the frontier with the nucleus, is called Gutemberg discontinuity.

In my flat Earth model measures are always well chosen, not random. Till now I always suggested a scheme in which the measuring unit 111 km is constantly repeated. Please consider the mantle. According to seismography, there should be a layer 2890 km deep set under a crust less than 100 km thick. You could easily imagine that the mantle should be 3330 km thick, but the crust 33 km. We have to remember that reality can be described by the aid of fractals. The first major fractal values carry a general idea of reality. A more precise value, when not expressed in a fractal, does not describe so exactly the nature of reality. The fractal series that can describe the mantle could be:

$$3330-330-33.0-3.30-0.33\approx2960 \text{ km}.$$

Then seismography keeps on further dividing the mantle into two different parts. This is due to the different propagation speeds of the waves through it. There is a superior mantle 700 km thick through which waves move slowly. Then there is a lower mantle more than 2000 km thick, through which waves move faster. Waves move much slower on the surface. This is evidence proving that the mantle is much more plastic in its upper part.

Consider the following curiosity, for it could confirm a fractal description of the mantle. Let's take the total thickness indicated above: 2960 km from the surface to the Gutemberg discontinuity. The first part of the mantle considered is 700 km thick. Now, consider this calculation:

$$2960-700=2260$$

$$2260/700=3.228 =2 \cdot \phi$$

where ϕ is the golden section number. This proves to be an evidence for the validity of the fractal hypothesis.

The upper mantle, immediately under the crust, is the lithospheric mantle and together with the crust makes the lithosphere. A little deeper there is the asthenosphere, a lower viscosity layer. Here we have a partial fusion of the mantle where pressures are lower due to surface cracks. The asthenosphere, being subject to continuous mechanical stress, generally behaves in a plastic manner. This plasticity enables the relative motion of the tectonic plates. The asthenosphere makes it possible the horizontal but also the vertical movements of the continental plates.

Mantle is different from the crust, due to its mechanical and chemical characteristics. Mantle rocks shallower than about 410 km (250 mi) depth, according to Wikipedia, consists mostly of olivine, pyroxenes, spinel–structure minerals, and garnet. Between about 400 km (250 mi) and 650 km (400 mi) depth, olivine is not stable and is replaced by high–pressure polymorphs with approximately the same composition: one polymorph is wadsleyite (also called beta–spinel type), and the other is ringwoodite (a mineral with the gamma–spinel structure).

About 650 km (400 mi) below, all of the minerals of the upper mantle begin to become unstable. The most abundant mineral there is the silver perovskite followed by the magnesium/iron oxide ferropericlase. The changes in mineralogy at about 400 and 650 km (250 and 400 mi) yield distinctive signatures in seismic records of the Earth's interior, and like the moho, are readily detected using seismic waves.

Scientists postulate that the presence of iron in the mantle is in average 5,8%. This is an evidence that the mantle doesn't play an active role in the formation of the magnetic field of the Earth.

There are, however, many other considerations of structural order to make. Under the mantle, we have the deep extension of the abyss: an enormous camera filled with waters, responsible for the magnetic field. This camera extends from one side to the other of the Earth with only a column in the center. It constitutes the tunnel through which all the waters (from the ocean above and from the abyss below) are set in communication and keep moving the dome turbine flow. The mantle is about 3000 km thick and is not made of reinforced concrete. It is only rocks, very resistant to compression but not to traction or bending. A shell like this would not resist a long time if not sustained by pillars.
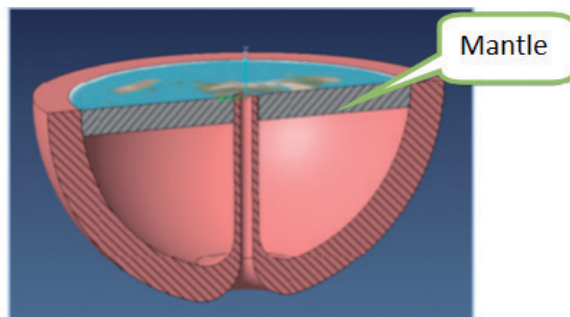

Figure 7.25. The mantle of the Earth.

Is there any evidence for the existence of these pillars? You can guess there is when examining the shape of the magnetic field.

You can guess the presence of pillars when considering the image of the whole magnetic field. It is red where it is stronger and blue where it is weaker. There is a very large blue zone having a center in the south Atlantic. They call it South Atlantic magnetic anomaly. Such a blue zone, as you can see, wraps the entire planet at the southern latitudes. Below this blue zone, there are eight pillars equally distributed under the mantle. They sustain the mantle but block all around those areas the movement of the waters. This movement is responsible for the magnetic field.
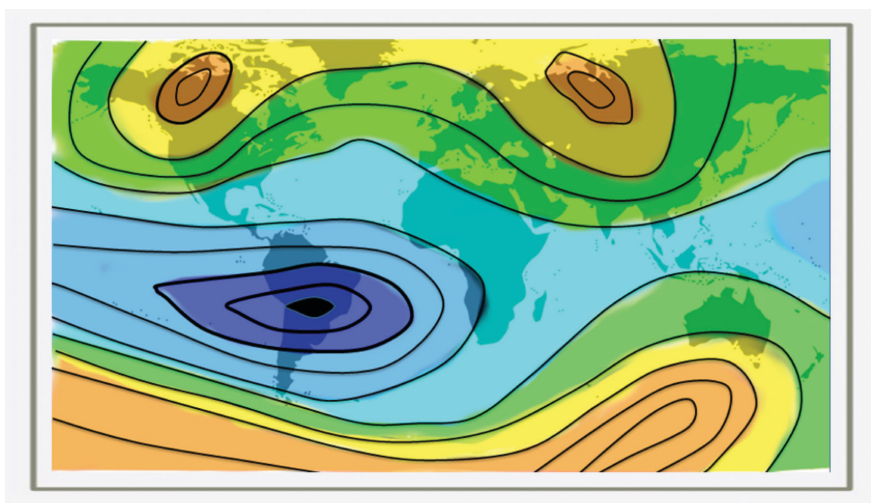
Figure 7.26. Earth's magnetic field.

7.3.5. *South Atlantic Anomaly [63]*

When evaluating the Earth magnetic field, immediately the South Atlantic Anomaly becomes clear.

Wikipedia describes it this way: The South Atlantic Anomaly (SAA) is an area where the Earth's inner Van Allen radiation belt comes closest to the Earth's surface, dipping down to an altitude of 200 kilometers (120 mi). This leads to an increased flux of energetic particles in this region and exposes orbiting satellites to higher–than–usual levels of radiation.

The effect is caused by the non–concentricity of the Earth and its magnetic dipole. The SAA is the near–Earth region where the Earth's magnetic field is weakest relative to an idealized Earth–centered dipole field.

The Van Allen radiation belts are symmetrical about the Earth's magnetic axis, which is tilted with respect to the Earth's rotational axis by an angle of approximately 11°. The intersection between the magnetic and rotation axes of the Earth is located not at the Earth's center, but some 450 to 500 km (280 to 310 mi) away. Because of this asymmetry, the inner Van Allen belt is closest to the Earth's surface over the South Atlantic Ocean where it dips down to 200 km (120 mi) high, and farthest from the Earth's surface over the North Pacific Ocean.

If Earth's magnetism is represented by a bar magnet of small size but strong intensity (*magnetic dipole*), the SAA variation can be illustrated by placing the magnet, not on the level of the Equator, but at some small distance North shifted more or less in the direction of Singapore. As a result, over northern South America and the South Atlantic, near Singapore's antipodal point, the magnetic field is relatively weak, resulting in a lower repulsion to trapped particles of the radiation belts there, and as a result, these particles reach deeper into the upper atmosphere than they otherwise would.

The shape of the SAA changes over time. Since its initial discovery in 1958, the southern limits of the SAA have remained roughly constant while a long–term expansion has been measured to the northwest, the north, the northeast, and the east. Additionally, the shape and particle density of the SAA varies on a diurnal basis, with greatest particle density corresponding roughly to local noon. At an altitude of approximately 500 km (310 mi), the SAA spans from −50° to 0° geographic latitude and from −90° to +40° longitude. The highest intensity portion of the SAA drifts to the west at a speed of about 0.3° per year and is noticeable in the references listed below. The drift rate of the SAA is very close to the rotation differential between the Earth's core and its surface, estimated to be between 0.3° and 0.5° per year.

Current literature suggests that a slow weakening of the geomagnetic field is one of several causes for the changes in the borders of the SAA since its discovery. As the geomagnetic field continues to weaken, the inner Van Allen belt gets closer to the Earth, with a commensurate enlargement of the SAA at some given altitude.

This anomaly involves the bigger part of the South Atlantic, South America, Africa, and the Antarctic.

We know that the Earth magnetic field develops in the water of the abyss, in the earth's core. The moon and the sun, with their magnetic interaction, move the inner salted waters engendering a dynamo effect. This is created due to a previous permanent magnetic field in the magnetite basin. In a very large zone of the Earth, this field weakens greatly.

Figure 7.27. Earth's pillars position.
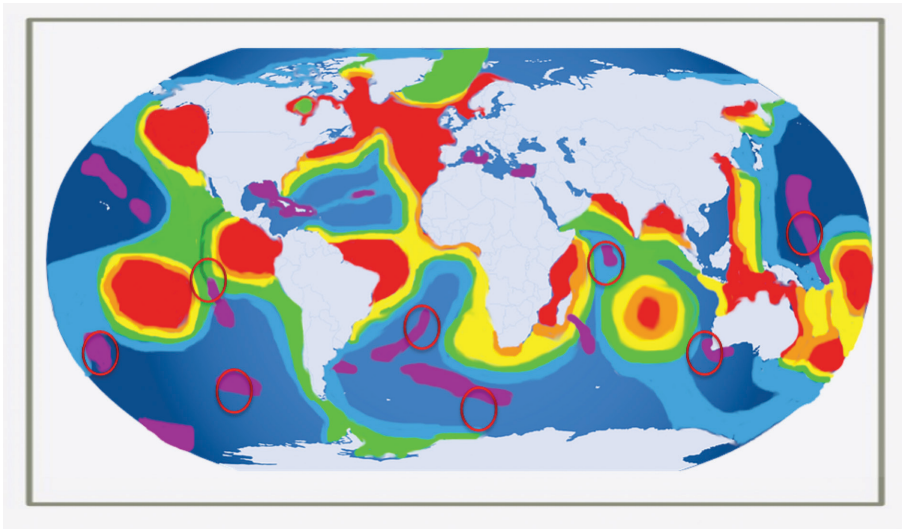
Figure 7.28. Earth's pillars position and amphidromic points.

I already connected this situation to the presence of pillars that sustain the mantle and the crust layers over the abyssal waters. It is not a single column. It would not be enough. Not all the columns have the same size. Anyway, under the mantle, we could postulate the presence of some eight major columns. These pillars connect the upper mantle with the lower basin. Unlike the basin, the material of the pillars is not magnetite, but they are rock made with a composition similar to that of the mantle. If they were magnetite made, there would be an increase in the magnetic field. However, a diminishing is what we have.

Here you have a picture with the possible position of the eight bigger pillars. Likely there is a number of smaller ones.

As you can notice, a pillar comes to be exactly in the center of the Atlantic anomaly. I need to understand better the relationship between the pillars and the magnetic field. So, we have to further analyze the connection between the surface tidal movements and the magnetic field. This connection (between the pillars and the magnetic field) is clear: where pillars stand, the magnetic field weakens. The magnetic field originates from the dynamo effect, hence from the motion of the abyssal waters. The motion is a consequence of the magnetic interaction of the moon and of the sun. This magnetic effect is obviously acting on the waters of the surface oceans.

We described the ocean's tides as rotating around nodal points called amphidromic points. But what are these points? What happens there? Please, try a fast comparison between the map of the magnetic field and that of tides. You will easily perceive how every amphidromic point is coincident with the pillars position.

Pillars thus affect the tides and not only the abyssal points. The magnetic interaction of waters with moon and sun starts up the movement of waters. The wave has limited amplitude and thus the movement is limited to the circular zone around the pillar. The magnetic field of the tides generated in the abyssal basin acts on the upper waters of the oceans. Surface tides thus rotate around a nodal point due to the presence of a pillar under the mantle. Everywhere, when you remark an amphidromic point, there is a pillar underground, big or small.

To make a summary, there is a bigger magnetic field in correspondence of the points where the magnetite basin rises near the surface. I mean in the north and south poles, and all along the south circumference.

In correspondence of the eight bigger pillars, the magnetic field weakens. The presence of a big or small pillar under the mantel becomes perceivable where there are amphidromic points. In these points, the possible presence of magnetite on the surface will cause a deviation of the field. Hence, the compass will not indicate north anymore. These anomalies are quite common in a number of places of the Earth, such as the Bermuda triangle.

7.3.6. *How do Winds Move Over a Flat Earth*

By reading this paragraph you will learn something more about the movement of the winds. The study of this subject will help us to understand some new important detail about the Earth. An important point I want to underline is the Coriolis acceleration. Globalists assume that the direction of the prevalent winds around the planet is due to the rotation of the Earth around its axis. On a flat earth, things work differently. Just to start, we can examine the interaction between the pattern the directions of the winds form over the Earth and the shape of the magnetic field, since there seems to exist some important relationship.
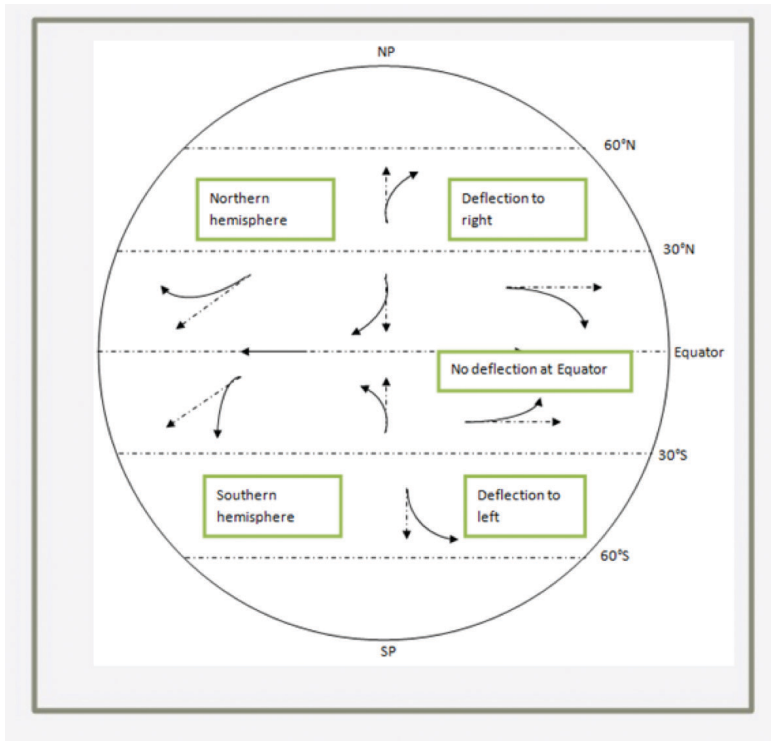
Figure 7.29. Coriolis Effect over wind on a globe.

From the map above, you will notice that winds blow rotating right-ward in the northern hemisphere and leftward in the southern hemi-sphere. Science claims this is due to the Coriolis acceleration. On the other hand, it is more than evident that the Coriolis acceleration is not effective over the Earth. If the direction of winds were due to this force, winds should blow much faster than they do.

In order to prove that the direction of the winds is not related to Cor-iolis, we have to consider the way winds get formed. A wind assumes its form when there is a non–uniform distribution of the atmospheric pres-sure in the nearby areas. The formation of high and low–pressure zones produces the need to equilibrate the situation.

So, the system moves from a situation of higher energy to a lower one. To achieve this result winds arise. It is like a power plant: waters flow from a higher to a lower level. In the same way, winds blow from a high–pres-sure point to a low pressure one.
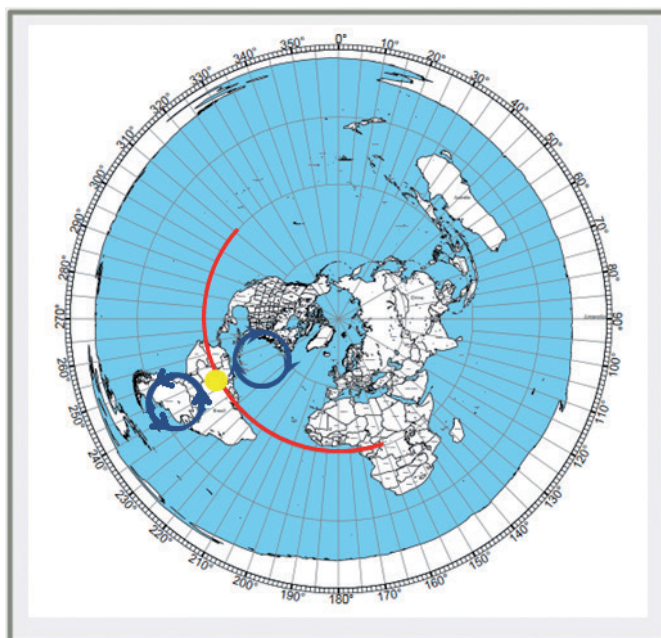
Figure 7.30. Influence of the sun.

The low–pressure atmospheric system is called cyclone while the high–pressure system is called anticyclone. In the cyclonic system air is warm and, due to the diminished density, it rises up. This way, there is a pressure relief that, hence, is caused by the higher temperatures. In an anticyclone system, the temperature is lower. Air density is higher and thus it moves downward in the direction of the surface of the Earth. A wind moves from an anticyclone point and converges to the center of the cyclone. Winds can have different speed, duration, and direction. Their strength depends on the pressure gradient driving them. If the pressure drops from the higher pressure point to the lower pressure point, the wind will be strong and vice–versa.

Science states that the direction of the prevalent winds over Earth is determined by the Earth's rotation. With different latitudes, the Earth rotates at different speeds due to the different distance from the spinning axis. This generates the Coriolis acceleration for all objects moving with a component directed toward the north or the south. It means that winds will rotate over the earth according to Coriolis, i.e. due to the rotation of the earth.

A wind entering into a cyclone will assume a clockwise pattern in the northern hemisphere and anticlockwise in the southern hemisphere. Vice

versa, it will occur the other way round for the anticyclones. Since we are used to watching satellite images of cyclones, it could seem that Coriolis is a force really acting and manifesting on Earth in the formation of the winds. The direction of the Trade winds, western and polar winds, would seem to confirm that the rotation of the Earth plays a significant role in the circulation pattern of the winds.

The fact that cyclones are rotating clockwise in the northern hemisphere and anticlockwise in the southern one is a well–established rule and anomalies rarely happen.

We can say, however, this is not necessarily proving the presence of the Coriolis acceleration but rather the presence of some force that acts pulling the air in a rotation. What might this force be?

Think of the way winds form. Low–pressure systems arise due to higher temperatures. Higher temperatures are due to the sun. In a very general way, we can state that winds blow where the sun is more insistent in warming temperatures. Good examples are trade winds. Trade winds blow from tropics to the equator where a warmer zone produces a low–pressure band. Winds arriving at the equator rise up into the higher atmosphere. [64]

So, the sun could be the engine that pulls winds all over the Earth. And how does the sun move over the Earth? It moves clockwise along a spiral between the tropics. In its motion it pulls and heats large masses of air, thus producing the winds. In the northern hemisphere, the sun movement produces a clockwise rotation, while in the southern hemisphere an anticlockwise movement.

This means that the direction of winds is determined by the sun and by its warming action and not by the rotation of the Earth.

Another point that I want to highlight is that there is probably an influence on winds produced by the magnetic field of the Earth. Look at the two images 7.31.

They show high and low–pressure spots over the Earth in January and July. These maps resemble the tidal maps we have considered till now. We noticed how the amphidromic points (points where tide variation is zero) are linked to the magnetic field of the Earth. If you look at the map of the pressure atmospheric systems, it appears that there is a link with the magnetic field as well.

Average sea level pressure (January)
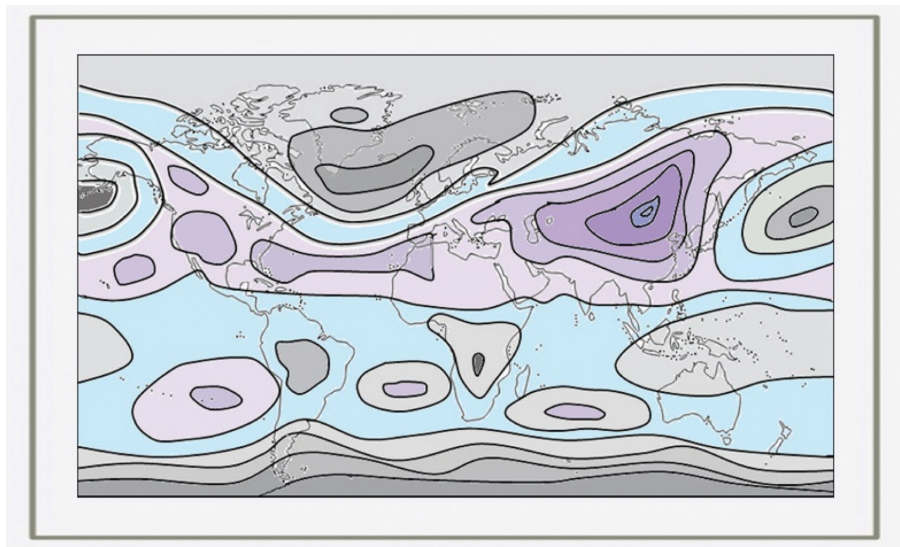
Average sea level pressure (July)
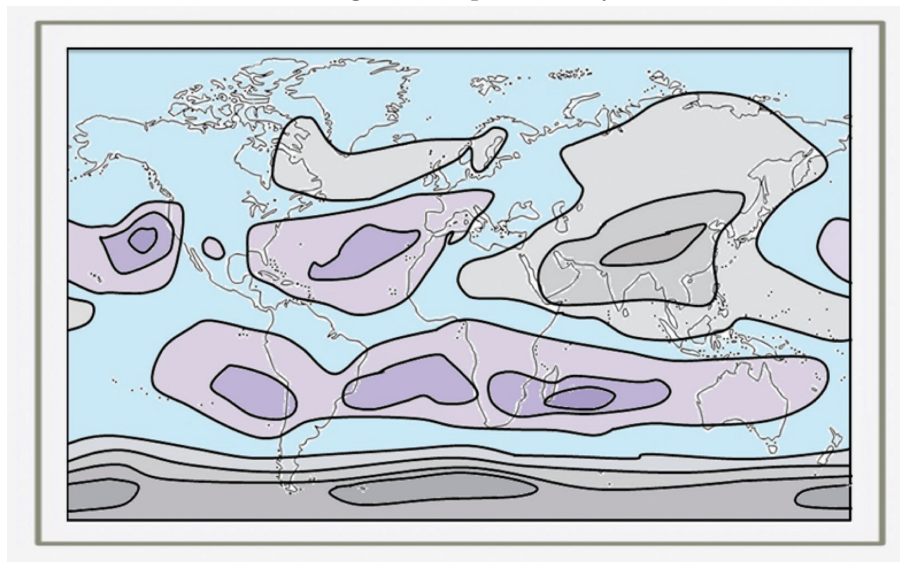
Figure 7.31. High and low pressure points.

Look to the High–pressure point near Brazil, occurring in January and July. They are coincident with the South Atlantic Anomaly, aren't they? Winds are thus circulating around points where the magnetic field of the Earth is weak. This is due to the presence of pillars under the mantle of the Earth.

It seems to be pretty clear that the magnetic field of the Earth, along with the action of the sun and of the moon, have a great influence over the circulation pattern of waters and winds. This is another confirmation that this flat Earth model is effective.

7.3.7. *Northern Lights*

Interaction between solar wind and the force lines of the magnetic field of the Earth creates the northern lights.

The lines of force rise up from the North Pole in the shape of a column and bend southward like a crown over the circumference of the ferromagnetic basin. The sun is trapped in the Van Allen belts moving up and down between a height of 3330–6660 km, and from there it emits plasma–winds of electrons, protons and energetic radiations.

The Van Allen belts shield the plasma but, due to the column shape of the magnetic field, in the polar zones plasma can lower in height between ranges of 100–500 km.

These electrical particles of the solar wind hit the atoms of the atmosphere, oxygen, nitrogen, and other gases. Consequently the atoms become energetically charged. When the electrons return to their position, they release energy in the form of electromagnetic luminous radiation. The color can vary according to the energy, i.e. frequency. When this is higher, the color will move toward blue, but when it is less energetic, it will tend toward red.

7.4. The Not Expanding Universe

In 1929 an American astronomer, Edwin Hubble (1889–1953), announced that almost all galaxies seem to step far away. He posited that the universe is expanding and that galaxies are departing one from the other. Hubble could postulate this phenomenon after examining the red shift of the radiation emitted from the galaxies.

The red shift is due to the Doppler Effect. According to this event, a light wave coming from a moving object that is departing from the observer, tends to lengthen its wavelength. This means that the frequency band will get longer toward the wavelength of the red light. Red light has a wavelength longer than the blue light. [65]
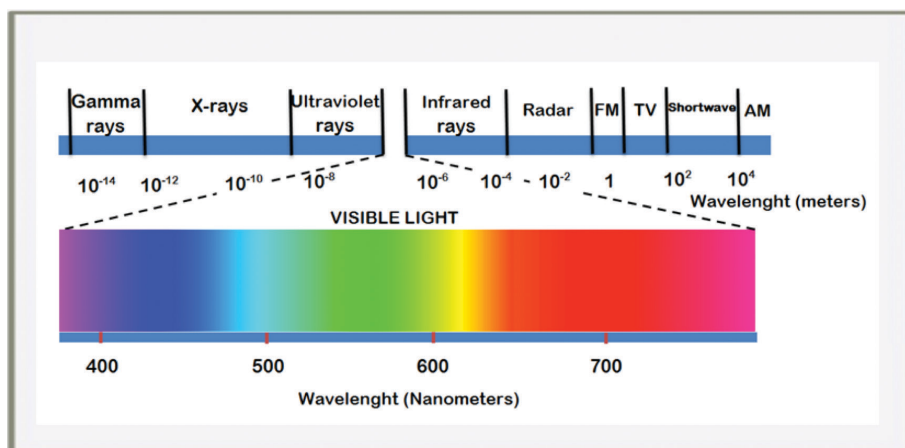
Figure 7.32. The electromagnetic spectrum.

This red shift seems to get greater for further galaxies. As a result, galaxies that are staying further are those moving faster in this departing movement. The speed of departing (or receding) of a galaxy is mathematically expressed with the formula V=H+d where V is the departing speed of the galaxy in the sight direction, d is the distance of the galaxy from the Earth and H is a constant called *Hubble constant*. Scholars believe that this constant values 65 km/sec for each Mega parsec of distance (one Mega parsec is a 3.26×10^6 light year). This means that a galaxy distant one Mega parsec from the Earth is stepping away at a speed of 65 km/sec. The Hubble constant is giving the expansion rate of the universe.

This way it should be possible to deduce the distance of a far galaxy with a certain approximation. It would be enough to measure the speed of the galaxy as a result of the Doppler shift. By taking the light spectrum of a far celestial object, like a galaxy, astronomers can detect a shift of the spectral rows and from this they might succeed in determining its speed, departing in respect of us. Knowing this speed and applying the Hubble formula they can calculate the distance of the galaxy.

In a different reference system, I mean the flat Earth universe, we should be fully aware that space is limited in its dimensions. Everything is kept inside the vault of a dome containing all the stars and galaxies. As you certainly can remember, they are nothing else than populations of bioluminescent beings. The radius of this vault, in which all stars are

set, is of about 26000 km and from this datum we can understand that talking of Mega parsec is totally crazy.

However, even thus, to state that stars can be more or less far from a certain observer, can be admissible. This is clear if we consider that the dome is a hemisphere and stars can be seen from different points of it. If the declination changes (the declination is the angle that defines the height of the star from the celestial equator), the height in respect of the observer undergoes a change.

How to explain this sort of phenomenon? I'm referring to the red shift that actually has been detected and measured. How could stars, fixed on a dome, expand departing one from the other? Probably the phenomenon is real but it was not correctly understood. This is due to the wrong basis upon which science is rooted. Now, we should finally seize the possibility to correct the errors.

We have already defined that there is a vortex of aether over the Earth. It reaches a decreasing speed going higher. This generates a distribution of pressure of aetherons that increases in altitude. There is thus a field of force that moves aetherons vertically with an acceleration of 9,81 m/sec².
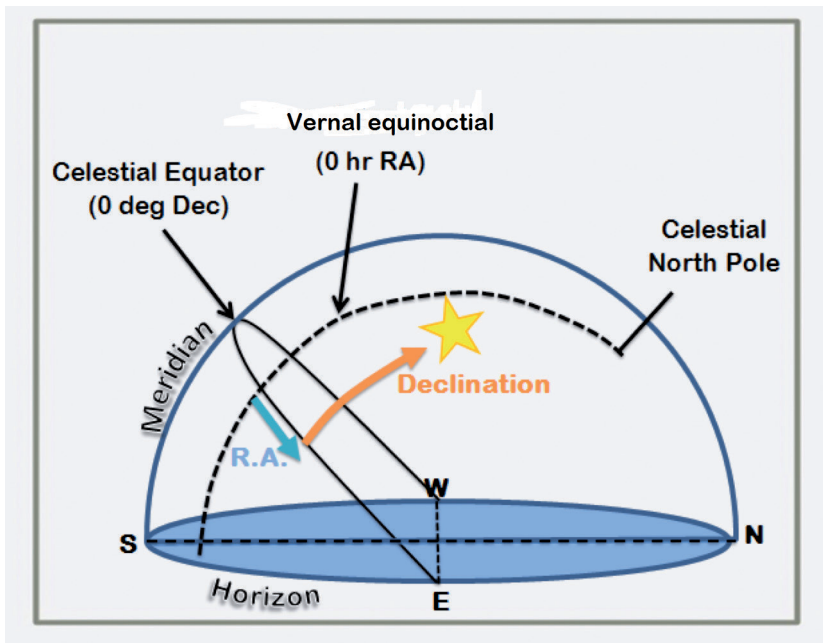

Figure 7.33. The declination.

The aether is the mean through which the light moves. Light is a wave that puts in movement aetherons. Since light is a transversal or Hertzian wave, the aetherons do not move with the wave but oscillate around their medium position. It is clear that, if aetherons have a further downward movement with an accelerated stream, this will influence the movement of light by stretching it.

Think for example of a swimming pool. You have just thrown a stone into the water. This generates a series of waves propagating as a circle around the point where the stone entered the water. But what if a side of the pool is suddenly opened? The water accelerates to exit and, when you throw your stone, the wave will assume a very different shape propagating in the direction of the stream.

We know that the speed of a wave in an elastic mean is $v=\lambda/T$, where v is the propagation speed of the wave, λ is the wavelength and T is the time between two wave crests. The wave thus runs a distance equal to the wavelength during each period T.

Let's give an example. The light that leaves a star has a length wave of 500nm. The light has a speed of 299792.458 km/sec. The star has a distance from the observer equal to 26000 km, in this case. The aetherons transport the light with a vertical acceleration of 9.81 m/sec². Let's apply the formula for the accelerated movement:

$$S = V_0 t + \frac{1}{2} * a * t^2$$

We find that the light reaches the observer in 0,867 seconds. V_0 is the initial speed of light, a is the acceleration of 9,81 m/sec², S is the distance of the star (we have supposed for this example 26000 km).

You will find that, due to this acceleration, there is a total variation of the speed of $\Delta V=0.850$ m/s. This means that the speed of light increases of 0,850 m/sec, i.e., it overcomes the Einstein's speed limit that, as we know, it is not a reliable theory.

From the relation $V_0=\lambda_0/T$, we find that the period is

$$T=1.6678\times10^{-15} \text{ seconds}$$

By keeping in mind this period, we should obtain that, due to the acceleration, the wavelength of the light reaching the observer will be

500,0000014176475 nm. This value is a little greater than the starting 500nm. So, there is a slight elongation of the light toward red. The gravitational stream of the aetherons lengthens the light wave a bit. Red is the end of the visible spectrum with the longer wavelength, while blue is the shorter one.

Moreover, the air of the atmosphere in the nearest 50–100 km slows a little the light speed and accentuates even more the red shift effect due to the atmosphere scattering.

To conclude, we can say again that the universe is not expanding and the red shift is due to the vertical aether wind that generates gravity. In this, I can agree with Einstein. Gravity bends the light but there is no curvature in space–time, only a huge aether vortex. This vortex produces a non–uniform distribution of aetherons. A vertical movement of accelerated aetherons arises, which stretches the light.

7.5. Mass Interaction

The mean engendering gravity can be searched in the aether. This is a powerful vortex pushing all planets, the same which engenders gravity. It produces a mighty force working inside the whole flat earth cosmos. There's a vortex prompting a circular motion which, in turn, generates a secondary vertical wind. Consequently, new questions arise.

How can this vortex act on planets, sun, and moon but not on the bodies that stand lower on the surface of the Earth?

Which is the difference between the circular wind of aether and the vertical one?

The vertical wind acts on masses toward the surface of the Earth creating a vertical force downward, while the vortex doesn't act with any force. Let's try to answer the first question. Why does the aether vortex not act on bodies over the Earth's surface?

Vortex manifestations are clear all over the surface of the earth. This is a well–established fact you should recognize among the results of the Michelson Gale experiment. This experiment revealed a difference in the speed of light at different latitudes. It proved the presence of a vortex already on the surface of the Earth level.

The fact that the aether proves effective only at some definite altitude is because of the pressure. As I have already postulated, it is acting different-

ly at different heights. In order to reach such a conclusion we have applied the Bernoulli equation:

$$p + \frac{1}{2} * \rho * v^2 = cost$$

By applying the formula above, you evidently don't consider the height term. This is due to the fact the aether is not influenced by gravity but engenders it.

If, in this equation, I express pressure as a function of the speed, I will obtain:

$$p(v) = cost - \frac{1}{2} * \rho * v^2$$

If we speculate a linear decrease of the speed with height (that is absolutely not so obvious, but we can assume it for a first approximation) we find a parabolic trend of the pressure with height as you can see in the following graph.
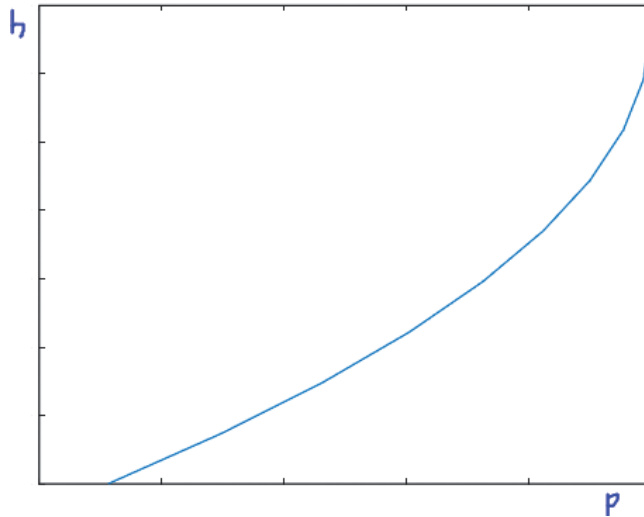
Figure 7.34. The relation between height and pressure in the aether vortex.

The low pressure at the soil level is very different from the high pressure in altitude. This higher pressure will determine the different behavior of the aether in relation with altitude.

But, what could we say about the second question? We were just wondering about the differences in behavior among the vertical wind and the manifestations of the vortex of aether on the surface of the flat Earth. Which is the difference between the circular wind of aether and the vertical one?

The vertical wind acts on bodies on the Earth's surface with clear and evident effects. On the other hand, the vortex does not exert any apparent action. The difference between the two movements is in the acceleration produced on masses. The vortex is a low–pressure, circular motion upon the surface level of the Earth. It transports a very low energy. On the contrary, the pressure profile which engenders the vertical flux gives rise to a lot of energy. It can be transmitted to bodies.

A definite parabolic profile of pressure will form the basis for the production of a great amount of energy. This is at the origin of the effects this vertical wind produces on masses. I can't exclude, however, Paul Laviolette's claim. He postulates that special aetherons, called G–aetherons, produce gravity. They would develop from normal aetherons with kinetic transformations. These G–aetherons form special interactions with the atoms constituting mass. I didn't perform any experiment on this regard. Anyway I would like to draw some attention to the subject. Tesla conducted a lot of observations on radiant electricity and aether current. Let's see if we can find some analysis on how aether acts on matter.

I've found a good description of Tesla's experiments on the first chapter of the book *Secrets of cold war technology* by Gerry Vassilatos [66]. I will here report some idea. For a more complete analysis, I suggest you, if interested, to read the book. At that time scientists were trying to find experimentally an evidence of the existence of electromagnetic waves. Maxwell had just foreseen them theoretically. Hertz was claiming that he himself had succeeded in generating and detecting transversal electromagnetic waves. Tesla tried to repeat the experiments and accidentally he came across a strange phenomenon. Thanks to this event, Tesla developed a method to obtain longitudinal electromagnetic waves rather than transversal.
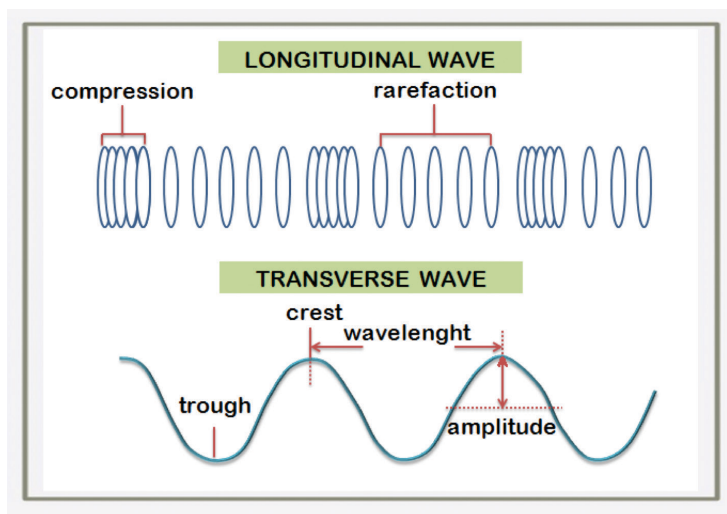
Figure 7.35. Longitudinal and transversal waves.

We could consider gravity as a result generated by longitudinal waves of aether. Having these waves a definite energy and frequency, they act on masses by engendering a force. Scientists claim they have proved the existence of gravitational waves. They consider them as ripples in the space–time continuum. But, if they ever exist, they are aether longitudinal waves.

Tesla was able to generate longitudinal waves in the aether by using a battery of very powerful capacitors. Incidentally, as you probably remember, the Earth and its Dome constitute a gigantic capacitor. Tesla went on charging this battery with a high voltage dynamo and suddenly discharged it through short copper bus bars. The explosive bursts thus generated were determining some strange phenomenon.

The shock waves produced were rather penetrating and running over Tesla's head even if he was hidden under thick glass walls. This condition manifested itself only if the voltage of the capacitors was suddenly discharged in the copper bars. All around these bars, for a very short time, a crown of static charge was forming. In longer bars, this effect was showing a barrier of blue spikes that were diffusing in the nearer space. Let me add a personal notation. This detail reminded me of the Cerenkov Effect. Blue light arises when particles move with superluminal speed in the mean in which they are. This blue light is probably due to the electrons

being ejected at very high speed. Longitudinal waves are always faster than the transversal ones. So, they go faster than the speed of light. Maybe this is the cause of this blue colour, generated as a consequence of the Cerenkov Effect in the aether.

According to Vassilatos, the cause at the origin of this anomalous effect was the perturbation of the vacuum energy (aether) due to some electric shock particularly fast. The effect thus produced depends on the speed and on the power of the impact, exactly like a slap on the water surface. Swifter is the hit on the surface, the greater will be the resistance met. Beyond a certain speed, the water assumes the consistency of a solid and develops a resistance similar to that of a brick of concrete. A similar principle is valid also for electrons. A very fast flux of electrons meeting the strong resistance of the copper bar is suddenly stopped for a fraction of second. The high pressure exerted by the flux of electrons generates turbulence on the aether, that reacts with a super–charge of pulsating current in the bar.

The super–charge would be obtained from an agglomeration of electrons alongside a correspondent convergence of aetherons. With the production of a stress in the aether, its charge propagates in the space. By some changing in the voltage, the effects obtained by Tesla were different. He built an experimental device rather simple. It was made up of some high voltage dynamo connected to two powerful capacitors.

Discharges could be repeated at a very high frequency, generating thus a series of shocks in the aether. This was the process putting Tesla in the position to create the longitudinal pulsating wave in the aether. The frequency of the discharges could be manually regulated by using a spark gap. The most surprising to Tesla was the power unleashed by the impulse current thus generated.

Tesla noted his observations. Sometimes the conductor cable was too thin in proportion to the electrons quantity required to pass through. The high surface density of charge which was suddenly generated, just as quickly dissipated, generating thus electrical sound waves (elastic longitudinal waves) which were propagating in the aether. These waves were especially numerous every time the capacitors over the short metallic bars would release fast discharges. The effect of these waves was perceived by the experimenter like painful stings at a distance of more than two meters.

Just positioning a glass dish near the capacitor, it was possible to hear the rhythmic sound produced by the impact of the air. This action of the discharges over the air was even more evident when approaching a metallic bar to a container filled with insulating oil. In the fluid nearer to the bar, electrified by the discharges of pulsed energy, a cavity of 5 centimeters originated, due to the pressure of the air. Such is the effect of the aether on the air.

Tesla continued his experiments with radiant energy and succeeded in the production of incredibly fast discharges. The effects were detectable now at 20 meters of distance. Tesla discovered that swift impulses lasting less than 0.1 milliseconds were producing the following effects:

— vaporization of the cables;
— creation of shock waves that were hitting objects, moving them or making them vibrate;
— cooling of the temperature of the air;
— artificial luminosity.

Tesla was hence able to perturb the aether so to release a quantity of energy. It was bigger than the energy necessary to start the effect. This means that it is possible to extract from the aether more energy than the one necessary to obtain it. This is free energy.

Tesla was able to regulate all parameters of his device in order to make the discharge painless to the human touch, even when using a big power. He discovered that the aether current does not produce short circuits and does not obey to the Ohm law. The metallic bars of the devices constitute a sort of energetic filter whose density is proportional to the speed of the discharges. In this situation, the only particles able to pass are the aetherons while the filter stops the electrons. Tesla's machine was hence making a separation between the different components of the electrical current. Aetherons, differently from electrons, prove to be extremely mobile and able to pass through, permeating the matter.

Tesla was of the opinion that vortexes of aether form matter itself and subatomic particles are perturbations that normally develop in the aether.

Another experiment performed by Tesla, that can reveal the interaction between aether and matter, is described in the Electrical Experiment-

er in 1919. He explained the effect of a lamp connected to a plate solenoid supplied for induction by an external device able to generate impulse current. An extremity of the solenoid is grounded while the other extremity supplies the lamp. This circuit produces these effects:

— the light of the lamp can attract a metallic plate;
— the hand of the experimenter feels a repulsive pressure coming from the lamp. [67]
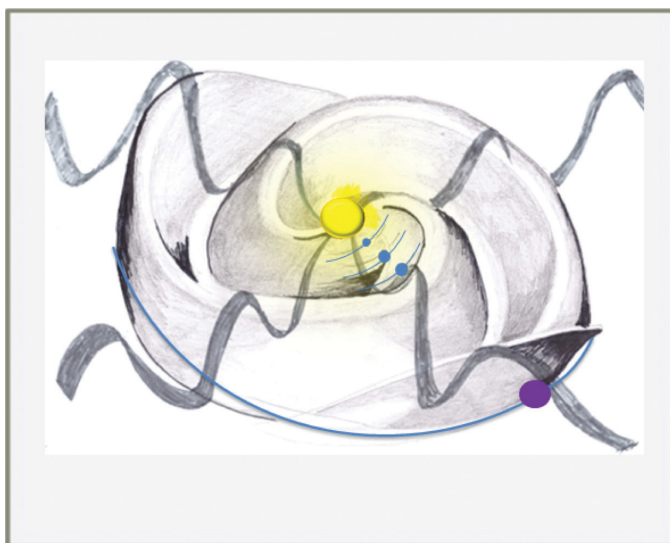

7.6. The Solar Wind

Wind of the sun: why? The aether vortex is a model authorizing the description of how the celestial bodies move and how gravity can be generated. This vortex originates along with the rotation of the dome. The dome rotates due to the dynamic action of the abyssal and upper water, set everywhere around and within the earth basin. In fact, a celestial ocean is placed in the inter–space inserted between the two main parts which are forming the dome, the inner fixed walls, and the outer moving ones. So, the dome is a turbine moved by the waters. A powerful vortex, as a consequence of the rotation of the celestial dome, moves the sun, the moon and the planets. However, it doesn't move the stars that are inside the upper waters. The sun, which this vortex moves, makes a turn over the Earth's surface every 24 hours. It goes in the direction north–south for such a small distance, which allows the running of the interval between the two tropics in six months.

Now, I want to prove this model is correct. So I will give evidence of the fact the vortex is the motor moving the sun and all other celestial bodies. In order to reach my goal, I have to show that the moon and planets maintain a speed that is equal or similar to that of the sun. Why? It's because all the heavenly bodies should respect the speed of the aether vortex pushing them. You will understand that things are not so simple. The orbits of the moon and of planets are complicated and further research is required to describe them. Let's start with the moon.

7.6.1. *The Motion of the Moon*

The moon rotates a little slower than the sun. It remains behind of 12°
every day in respect of it, that means about 48 minutes. We know that the
trajectories of the sun and the moon follow conical spirals that are very
similar one to the other. The linear space run by the moon is hence not
too different from that run by the sun, the consequence being that the
moon appears to be slower. We have to consider, however, that the moon
is much faster in running its cone up and down. While the sun runs its
cone in one year, the moon runs it in something more than 27 days. The
moon appears in this to be more than 13 times faster. Now, you just need
to make a simple calculation summing up, as a vector sum, the speed of
the moon in these two directions. You will see that the speed of the moon
is not so far from that of the sun. Moreover, you have to consider that the
speed of the moon is not constant. The moon, just as the sun does, traces
an analemma along its path. If you take a picture every day for 27 days
(taking into account the delay of 48 minutes each day), you will obtain an
eight–picture that is the moon analemma.

   The lunar analemma has the same reasons for the solar analemma: the
aether vortex gets faster as you go down. When the moon goes down, it will
accelerate and vice versa. By moving up and down the moon traces an eight.

Figure 7.36. The wind of sun.

Another consideration to take into account when facing this subject is the presence of another vortex, besides the one of the aether. I'm referring to the solar wind that takes the shape of the Parker spiral. The solar wind is formed by charged particles or plasma that is expelled away from the sun. This wind has two components, a faster one that can travel at the speed of 800 km/sec, and a slower one that moves at 400 km/sec. These two components alternate in a pulsating way.

Scientists have discovered that the surface of the photosphere (the part of the sun where the visible light is generated) pulsates with a frequency of about one shot every five minutes. In addition to this alternation, we have to sum up the rotation of the sun around its proper axis. The solar magnetic field is, with this rotation, wrapped around the sun itself. As a consequence it will form a toroid that departs from the sun with the plasma, forming thus the Parker spiral. This spiral is magnetic and rich with plasma so that it is very reactive to all magnetic stresses. The spiral has a strong influence on the aether cosmic vortex, and for a certain distance around the sun, it changes the characteristics of the aether. It can thus influence the motion of the moon and planets when they are nearer to the sun.

7.6.2. *A Brief Summary of the Planets*

Let's recall something about the planets. They can be divided into internal and external. Mercury and Venus are internal, i.e. are lower than the sun; Mars, Jupiter, Saturn, Uranus, and Neptune are external, that means they are higher than the sun.

Seen from the Earth, planets run circular trajectories every night from east to west, very similar to the trajectories of the sun and of the moon. Each planet has a different speed, and all have a moment during the year when they stop, run back on their trajectory for a while, and restart their direct path. This is called a retrograde movement. Mercury and Venus have some characteristic apart. They never depart too much from the sun. The maximum elongation of Mercury is of 18° to 28°, while for Venus it is of 45° to 47°. The interval is due to the fact that they orbit around the sun with a trajectory not circular but elliptic. (The ellipse is a conic function).

This description of the motion of planets shows clearly that the vortex of aether alone is not the only motor pushing them. To understand the problem a little better, let's analyze the synodic and the sidereal peri-

od of the planets. The sidereal period (according to Science) is the time the planet takes to do its turn around the sun. The synodic period, as seen by an observer on the Earth, is instead the time required for a planet to return exactly to the same position of its departure in the sky.

Said this, we immediately understand that, if planets were pushed exclusively by the aether vortex, we should have for all planets a synodic period of 365 days. Turning around the north axis with the aether vortex, a turn every day like the sun, up and down on the cone between the two tropics, they would present themselves in the same point after one year. Things, however, are more problematic. Let's see Tab. 7.2.

By looking at the values below we can immediately perceive there is a difference between the planets nearer to the sun and also with a strong magnetic field deviate largely from the rule of the 365 days, while the others seem to adhere quite well to the rule, with only a small delay. Mercury appears to be very fast (from there the name of the winged god) while Venus and Mars appear to be slower.

Table 7.2. Sidereal and synodic periods of planets.

	Sidereal period [years]	Synodic period [days]
Mercury	0.241	115.9
Venus	0.615	583.9
Mars	1.881	780.0
Jupiter	11.87	398.9
Saturn	29.45	378.1
Uranus	84.07	369.7
Neptune	164.9	367.5

The conclusion I can easily express is that we have a quite clear confirmation of the presence of the aether vortex acting on the planets.

We have, moreover, a confirmation of the influence of the sun, that is bigger and more powerful, on the planets that are nearer to it. Mercu-

ry and Venus are so near to the sun that they appear to be trapped in its magnetic field, and continuously rotate around it. All planets have a retrograde motion. It begins when the relative position between the planet and the sun implies the fact that the Parker Spiral is acting on the contrary of the aether vortex. The delay in the course of the year is small for the more external planets. This is due to the fact that the spiral can also act in the positive direction, accelerating thus the motion of the planet.

7.7. Electromagnetic Force

With this chapter about the electrons, I will consciously move on to a theme which was not, till now, correctly dealt with. It will be certainly a difficult subject to touch, but once it will be opened, it promises to achieve many great results.

As a consequence of the reintroduction of such an old concept as the aether, a super–fluid that is filling all the space, I'll have to review the fundamentals of the physics and chemistry, I mean the atom. This is due to the fact that normally physicists and chemists do not consider the aether as the basic element in their analysis. Moreover and in addition, we'll have to make a thorough revision of electromagnetism as well. The idea is to arrive to define the relation between the aether, the electric field, the magnetic field, the strong and the weak nuclear forces.

An electric field entails a change of the space characteristics due to a non–uniform distribution of aetherons in the space. This generates a wind of aether, that is to say, a movement of aetherons in the space that consequently will change its basic features, giving birth to an electric field. The same will happen for a gravitational field: it is a vertical wind of aetherons.

Within the limits of this research, this is not the first time I have to mention the Higgs boson. It is that particle that participates in generating mass. We have already set a comparison between the aetheron and the Higgs boson while opening the hypothesis that the aether is responsible for the creation of matter. The hypothesis I want to consider is that an accumulation of aetherons in a specific point, with a specific energy and concentration, generates an atom that is a different entity from the atom suggested by the scientific establishment. In order to check the validity of

this hypothesis, we have to reconsider many of the scientific fundamentals at the light of the existence of the aether.

The first point we want to focus on is that the atom is formed by a positive and a negative charge. The positive sign + is the nucleus while the negative sign — is formed by the electrons that, in the planetary–shaped atomic model, rotate around the nucleus. What are these charges? What can be a charge immersed in the aether?

LaViolette, a scholar of aether, has made the hypothesis of a double kind of aether. He could imagine an X and a Y aetheron with different plus and minus charges. Although this can really be a possibility, in my research I never felt the need to introduce an aether made by two different particles. So, I would like to continue this way. Up to now, I described the aether as made of neutral particles that have the possibility to move in the space. They can only vibrate around their position as it turns up when a ray of light passes by. The same happens when the particles can move in a force field such as an electric field, a gravity field, or inside the aether vortex that sets into motion the celestial bodies.

Since aetherons can move, they can accumulate in a specific place creating points where there is an abundance of aetherons, and other points where there is a rarefaction of them. To make an analogy, you can think of the high and low–pressure systems (cyclone and anticyclone) that are responsible for the formation of winds. The idea is the following. This super–fluid aether that fills space and matter can create two different kinds of charge. There will be a positive charge when there is an abundance of aetherons with respect to the average distribution of them. On the other hand, there will be a negative charge where there are fewer aetherons than the average.

Positive and negative charges are always attracting because a system with a non–uniform distribution of aetherons is in a high energy state. It is far from equilibrium, and it tries to equilibrate moving the aetherons. It is like a pressure container in a room in which the void was made. If the container is opened, the filling air will immediately move to occupy the entire space now available.

When a negative and a positive charge approach, the system will again be neutral, in a low level of energy, and aetherons will cease to move.

In a body with a certain mass, aetherons form the atoms. Atoms are packets filled with aetherons that form the positive and the negative

charge of the atom. Atom is thus inherently neutral. Bodies are neutral in normal situations because atoms are neutral. But bodies can lose their surface electrons or maybe the atoms can oscillate around their position, partially losing their neutral situation.

In insulating, non conducting materials, atoms can only oscillate behaving like a dipole that orientates according to the external field of force. In a conductive metal, on the other hand, "electrons" are free to move in the whole material, like a fluid in which all atoms share their electrons. Scientists admit that the negative charges have the possibility to move while they consider the positive charges as static.

The classic experiment allowing you to understand is the one of a comb. Once you rub it, it loses some surface electron and charges positively. If you, then, approach the comb to a piece of paper, this is attracted and lifted by the comb. Paper is not conductive: its atoms can only move a little orientating with their negative charge toward the comb. This is because the atoms of the paper are attracted by the positive charge of the surface of the comb. This way the paper is attracted and lifted due to an electrostatic attraction.

But how could an aether made atom lose an electron? What is an electron if the entire atom is filled with aether, just with different concentrations? These are questions we have to answer.

The atom is a packet of aetherons. Anyway, inside this packet, the aetherons concentrate mostly in the nucleus. It acquires, this way, a positive charge. The aetherons contained in the atom all around the nucleus arrange in layers according to a concentric spherical shape. These concentric layers have a number of aetherons that is lower than in the nucleus, and lower than the average concentration of the whole atom. This originates a stress between the external part of the atom and the internal part of it. So, the need arises to release aetherons to reach an equilibrium. The atom would naturally collapse in this situation, reaching the balance by an internal shuffling of the aetherons. But something happens that gives stability to the structure.

The atom is not simply a mere packet of aetherons, but it has its internal energy giving it stability. How will this be possible? It will achieve such results by putting in vibration the external layer of aetherons that concentrate circularly all around. The external spheres have to oscillate of a circular oscillation. In reality, the shape of the wave could be dif-

ferent, and not a sphere as we will apprehend in the future. This means that all aetherons oscillate around their position, transmitting the wave to the next aetheron.

According to its inner energy, the wave can assume different shapes. This is the electron: a sound wave around an agglomeration of aetherons. This sound wave engenders the stability of the atom and constitutes the electron. By giving it stability, it also gives neutrality. The atom is not, however, a uniform amalgam of aetherons. On the contrary, it is a non–uniform and continuously stressed double–faced packet. It has a nucleus enveloped by one or more sound waves that move through spheres of aetherons. From the outside the atom is neutral. Anyway, the continuous movement of the electrons can, at any moment reveal an eventful hidden internal life inside the atom. To have an idea of the appearance of the atom, we can think of the figures generated by sound in cymatics.

When an atom loses an electron, this means that one of the waves has stopped oscillating. In this case, the nucleus is no longer hidden, and the atom becomes positively charged. So, we will discover a positive ion that will be able to acquire its neutrality again. This will be possible only in the case it can recover back the lost aetherons. It will allow the wave to restart oscillating.

So when we rub the comb, it loses some electron and the relative atoms remain positively charged. Consequently, in the paper, the atoms move their waves deforming their structure toward the positive comb ions. With this geometry, the comb can attract the paper piece and lift it.

This model seems to give a first rough explanation of the Heisenberg's uncertainty principle. According to this principle, it is not possible to measure at once, together with the speed, the position of the electron. This is due to the fact that the electron is a sound wave that moves through the aetherons. When I measure the speed, I'm evaluating a characteristic of the wave. If I measure the position, I'm evaluating a characteristic of the particle, i.e. of a single aetheron. But there are plenty of aetherons to build the sphere around the nucleus. The uncertainty seems, this way, due to a wrong understanding of the electron conformation. An aether explanation seems to clarify the idea.

Till now, I have introduced a new atomic model. Its main characteristic is that the atom is completely made of aether. The electron is a

spherical wave that moves around the nucleus, and is made of oscillating aetherons arranged all around the nucleus. I was assuming that the nucleus, or the positive charge inside the atom, owes its positive charge to an abundance of aetherons (in respect of the average quantity inside the atoms). On the other hand, I posited the electron, the negative side of the atom, owes its charge to a scarcity of aetherons in respect to the average.

We will try to verify if the hypotheses made are correct. To give an answer, I have to define what the cause of the atom is. How does this non–uniform distribution of aetherons have an origin? Why? In the past, a number of physicists grouped to describe the atoms as made of aether. Many of them sketched the atoms as made of vortexes of aether. Tesla, Lord Kelvin, the same Thompson, the discoverer of the electron, were describing the atom as made by a toroidal vortex of aether. [68]

This hypothesis had followers for about 30 years, up to the end of the 19th century. However, it was not accepted in Germany where physics were in expectation for Einstein's theories. After the Michelson Morley experiment, the idea of aether fell into disuse and science began to refuse its same existence.

However, so far, I have spoken many time of the existence of a cosmic vortex that moves all celestial bodies and generates gravity.

So, I would like to establish an analogy with the vortex that constitutes the atom. The vortex is an entity able to create a different concentration of aetherons. Think of the cyclone and the anti cyclone. One creates a low pressure system, while the other creates a high pressure system. The total system generates the wind.

We want to make some more consideration to better understand what the atom is. So, we will try to find evidence of the hypothesis we have made. Is the positive charge the result of an abundance of aetherons while the electron of a scarcity of them?

It seems clear that this description of the atom is very different from the one given by the scientific apparatus. The currently accepted description of the atom is, however, based on a series of experimental results that we simply can't ignore. We will evaluate some of them to see if they can be set into harmony at the light of the new model.

The discovery of the electron as a particle with mass got developed thanks to a series of experiments. They were performed during the nine-

teenth century on the basis of the electric conduction through rarefied gases. Crookes was one of the scientists implied in those experiments. He was using a device made with a glass tube with two electrodes welded at the extremities of it. These electrodes were supplied from a continuous current generator with a potential of 10000V [69].

At the interior of the tube, air was replaced with any known gas. Then Crookes made the void in the tube with a void pump. The scientist noticed that, under 0,4 atmospheres of absolute pressure, a diffuse luminosity between the two electrodes generated. Going down till 10^{-6} atmospheres, the luminosity interested the whole gas. In this situation, the glass in front of the cathode emitted a weak luminescence due to fluorescence.

At the time, scientists were thinking that radiations were produced by the cathode. Today, science says that these rays are formed by electrons that move from the cathode to the anode, making the surface they hit fluorescent.

Scientists were able to behold that the electrons projected a shadow, proving hence that they were moving in a rectilinear way.
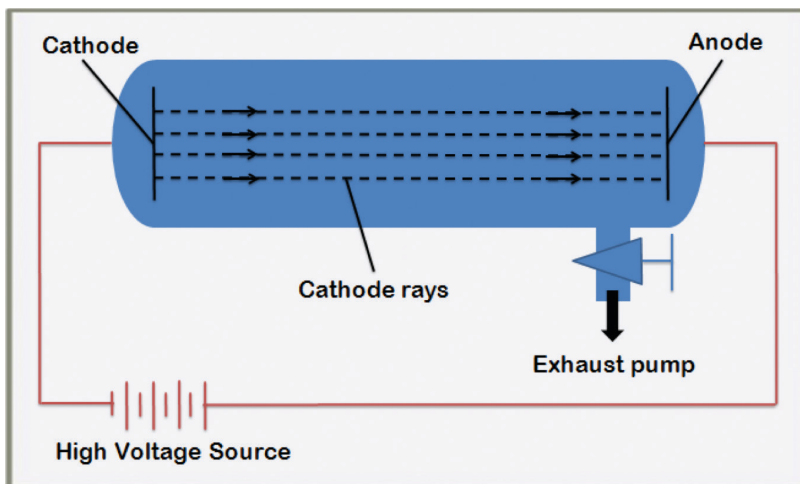
Figure 7.37. Crookes tube.
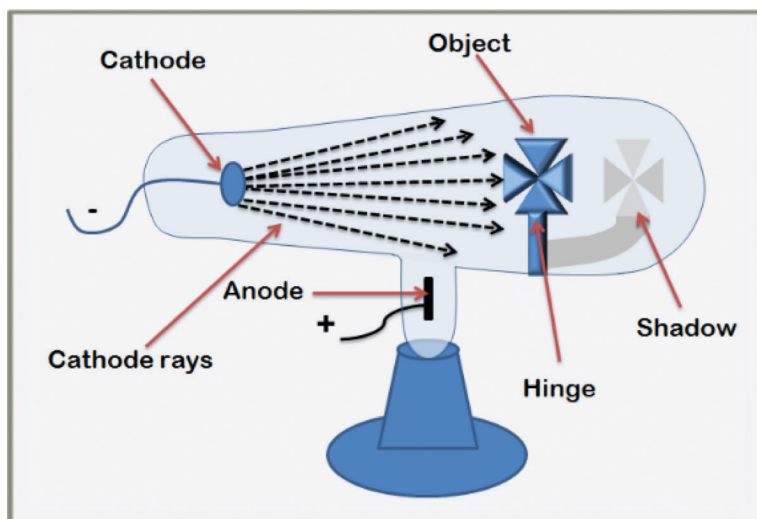
Figure 7.38. Cathodic rays move in a rectilinear way.

In 1895, Perrin saw that an electroscope hit by the cathodic radiation was negatively electrified. This was the evidence of the negative charge of the electrons. Other experiments, led on the cathode rays, proved the rays are particles. This is because they are able to put into the rotation a small turbine mounted between the electrodes.
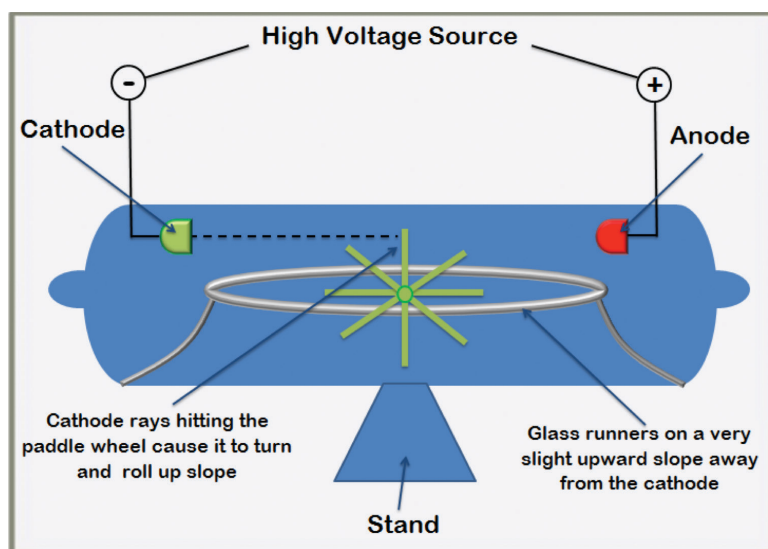

Figure 7.39. Cathodic rays have a mass.

So, we have to keep into consideration all these initial experiments. On the other hand, there is an emerging new model rooted in the notion that the aether is an actual reality and it is at the base of the structure of all the physical matter. How could we explain these experiments at the light of this new model?

Empirically we can say that, between two electrodes with a big difference of potential, the aether arranges in a non–uniform way. We could thus suppose that, by applying an electrical tension to the electrodes, the aetherons begin to move toward the cathode in order to establish the new non–uniform distribution in the space. When this tension is applied, a wind of aether arises.

The aetherons move and hit in their movement the gas particles. While hitting them, a part of the energy of the aetheron is transferred to the gas particle. So, it gives back the energy in the form of luminous radiation (fluorescent effect).

The wind of aetherons between the electrodes acts with a small force over the turbine, that starts moving. This proves that a particle wind arises. The idea is that these particles are not electrons but aetherons. The fact that aetherons are able to generate a force becomes clear when we consider the gravity force generated by a wind of aetherons. These aetherons forming the gravity wind act with a force over bodies having a mass. The same happens with the wind of aetherons that arises in the tube of Crookes.

As I started to consider this subject, from the very beginning, I kept on speaking of charges as entities originated by scarcity or abundance of aetherons. This different concentration (if compared with the average distribution of aetherons in the space) is maintained by vortexes. This is the force that, while spinning, can expel or attract the aetherons from or toward the center generating a wind.

There is not just a single vortex in the atom. The proton is formed by an abundance of aetherons. Hence, a vortex is needed to maintain this abundance. The same is for the electron.

The vortexes are two and will rotate in a different manner. These two vortexes will attract, overlap and unite to form an atom made of the positive and negative charges. The atom is formed by many overlapping vortexes.

There is a clear motion of particles, from the negative cathode toward the positive anode. The evidence comes from the fact that you can see fluorescence in the part of the tube opposite to the cathode, due to the cathodic rays [70]. What happens in the tube?

Due to the difference of potential created by the battery, the negative charges existing in the circuit accumulate in the cathode plate. On the other hand, all positive ions accumulate in the anode plate. When the negative and positive charges reach their respective plates, they stop there. This happens because they can't move in the air gap.

However, the charges create an electric field in this gap, i.e. an aetheron wind. This is due to the fact that, from one side, charges expel aetherons, while, on the other side, they attract aetherons. We know that this wind flows from the cathode to the anode but also from the scarcity to the abundance. The aim is to maintain both the scarcity and the abundance.

We can thus confirm that the electron is in the scarcity side, while the positive ions are in the abundance side. Only this way we have a motion of particles from the cathode toward the anode. Similarly, we can notice the fluorescence on the other side of the cathode. The fluorescence is due to aetherons hitting the fluorescent substances in the tube. This way, they will move the electrons on a new energy level that, when returning to their position, release the energy they had received before.

Someone could wonder how simple, neutral aetherons moving in the tube deviate if a magnetic field is approached to the tube. The answer is simple. That's true, a single aetheron cannot create a field, but the idea is that it stays under the field influence. We will see that a magnetic field generates an aetheron wind with constant speed. Like a drop is affected by the flow of a river, an aetheron is affected by the magnetic field engendered by a magnet set in the neighborhood.

Atom means overlapping vortexes of aether. This statement will have many surprising consequences. The vortex movement produces a non–uniform concentration of aetherons in the space. Any abundance of aetherons produces a positive charge, while scarcity engenders a negative charge. The two vortexes producing scarcity or abundance can overlap forming thus the atom.

At first, at least, I have to be remindful of another theory. The idea is from Paul LaViolette, an aether physicist that was able to introduce an alternative model. His aim was to describe some other kind of aetherons. He could imagine they were arranged in a particular way in the space. With a positive charge Y, aetherons are denser next to the charge, while X aetherons become denser far from the charge. Aetherons can change from X to Y and vice versa, with kinetic reactions depending on the situation.

Aetherons can also become, according to LaViolette, G aetherons, which are responsible for the gravity field. He supposes that, in the aether, any force field produces elastic stress or a form of deformation. This can be the result of a different arrangement of the aetherons. It will happen according to different densities, due to their position, further or nearer to the charge.

This is an idea quite similar to the one I want to develop. What we have proved is that normal aetherons produce gravity. It engenders a vertical wind due to the cosmic aether vortex. In my opinion, there are no G aetherons. I tend to avoid the concept of the existence of an X and a Y aetheron. However, I have to admit, my ideas are still in evolution.

If we speak of a negative charge we are not really intending, in the new model, a negative particle. On the contrary, we mean a number of particles bound together. They constitute a point where there is scarcity of them if compared with the average distribution.

The energy that collects and keeps united this abundance of aetherons (if we speak about the positive charge) needs to attract them toward the center of the charge. It is a sort of anticyclone that constitutes the high–pressure system, and that drives the air toward the center and then downward. Incredibly enough, the electric field is the basic matter of fluid dynamics. *Quantum hydrodynamics* is the discipline that studies all this [71]. The negative charge is the cyclone, a vortex that pushes away the air to produce a low–pressure area, i.e. a zone of a scarcity of aetherons.
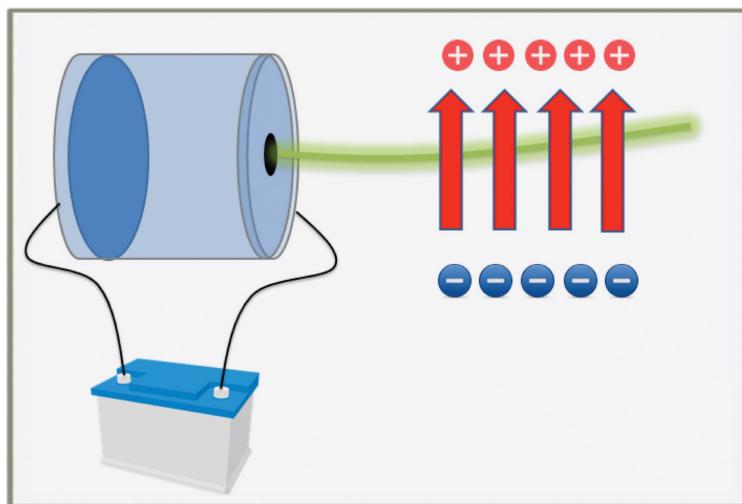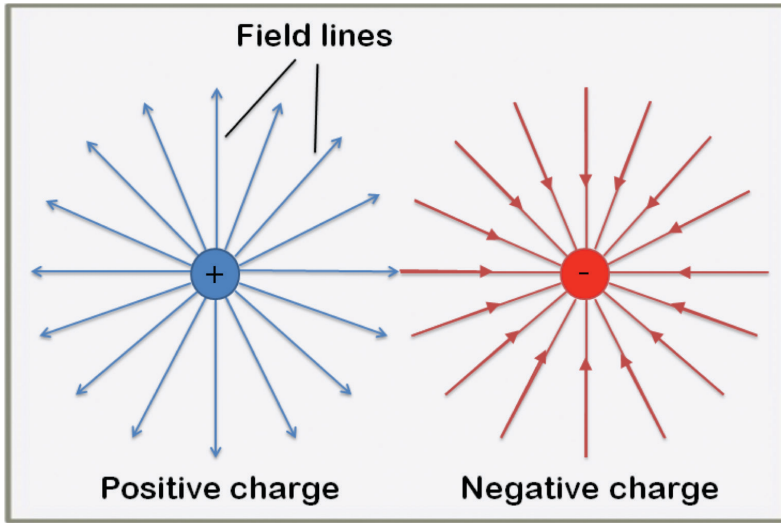

Figure 7.40. Cathodic rays have a mass.

Figure 7.41. Field lines of charges.

A negative and a positive charge will attract each other. The measuring unit for the charge is the Coulomb. One Coulomb is the electric charge moved in one–second trough a conductor by a current of one Ampere. Current is nothing else than a movement of aetherons caused by a difference of potential, i.e. by an electric field.

One Coulomb is about 6.15×10^{18} times the charge of one electron. It is an enormous value [72]. To exist, a charge has to be produced by a vortex, an oscillating movement of electrons developing by accumulated energy. Without the vortex, a casual accumulation or scarcity of aetherons will immediately disperse in the average distribution of aetherons to reconstitute the equilibrium. The influence that the vortex exerts in the near space is called the electric field. This field is a change in the state of things of the space that, being filled with aether, has characteristics of elasticity and inertia. Einstein was defining this elastic deformation like the curvature of the space–time.

The attractive or repulsive force that a charge exerts over another charge is given by the well–known formula:

$$F = \frac{1}{4\pi\varepsilon_0} \frac{qQ}{r^2}$$

where ε_0 is a characteristic of the empty space, i.e. of the aether. It is called dielectric constant or permittivity of the void. This constant quantifies the

propensity of the aether to deform under the influence of an electric field. The value of the permittivity for the aether is: $\varepsilon_0 = 8.85 x 10^{-12} \frac{C}{Nm^2}$.

This is the lower value. It is a little higher for the air, 80 times greater for water and, however, higher for any other material.

The formula for the force expresses the idea that the force diminishes with the distance between the two charges. For this reason, you can see the squared radius at the denominator. This thing is easy to understand. Think for example of two magnets. These are not two charges, but they are something not too different. The magnetic effect of one magnet over the other diminishes with the distance. It becomes much stronger as the magnets get nearer.

To explain better the concept of the squared radius, again we can think of the cyclone–anticyclone analogy. When the cyclone and the anticyclone are very near, the pressure gradient is bigger. This means that there is a big difference of pressure in a little distance. The consequent wind will be as strong as a tornado. If the high and low–pressure points are further, the wind will be much weaker.

This above–given formula appears to be well describing the effect of an electric field. Many have been deceived so that they started to imagine and describe the gravity effect in the same way. They say that two bodies endowed with a mass exert an attractive force one upon the other. They feel it appropriate to highlight the analogy between these two formulas:

$$F = \frac{1}{4\pi\varepsilon_0}\frac{qQ}{r^2} \qquad F_e = -G\frac{M_1 M_2}{r_2}$$

We can take into the account the possible analogy: the two bodies are the two charges. The generated force is proportionally inverse to the squared radius. However, while the first formula is reasonably correct, the second one should be excluded. If this second formula were true, the Earth would be a globe. We have by now a lot of proofs that this is not the reality.

The first formula describes the force exerted by an electrical field. But what about a magnetic field? I will try an answer in my next chapter. Moreover, we'll have to understand how, in our model, an atom combines with the other atoms.

The idea I'm trying to introduce is that of an electric field intended as a deformation of the aether. Many thinkers tried to give a unifying explanation for all the existing things. It is the idea that everything physical is made of the

same basic substance. The concept holds up well under modern science. Plato introduced Chora as a principle endowed with receptacle like properties. Aristotle did the same with his Hyle, indefinite matter that receives a form and definiteness. These are concepts which have much to do with energy or matter–energy.

In the same way, I would like to associate the electric field to a similar conception: the magnetic field B(r). This is a function of the distance and deformation or stress induced in the aether. It is possible to visualize the field strength lines of this deformation by putting some iron powder between two magnets on a table. You will see the powder to get arranged according to the magnetic field lines.

You could wonder what is the relation or maybe the difference between the electric and the magnetic fields. If they are both deformations of the aether, what could be the difference between the two? Electrical charges generate an electric field, while magnets generate a magnetic field.
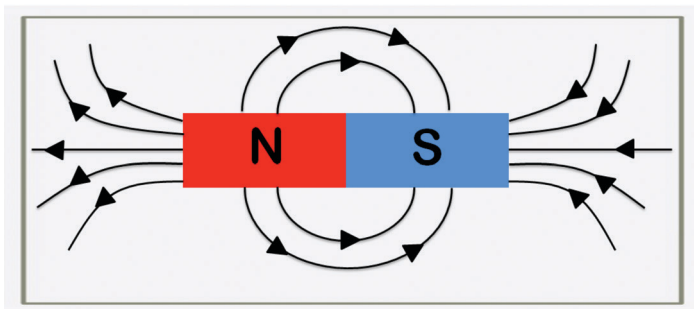
Figure 7.42. Field lines of a magnetic field.

Øersted noticed that a magnetic needle posited near electric current deviates. An electric current (that is the result of charges in motion) generates a magnetic field. And this can be observed in addition to the electric one. Both, an electric and a magnetic field, can be the result of an electric charge. To generate a magnetic field, the charge has to move. If motionless, it generates only an electrical field and a magnetic needle is not affected in this case.

How can we explain this difference while remaining within the boundaries of a simple, aethereal model? A lot of people tried to do this. They were dreaming to be able to explain gravity, the movement of celestial bodies, motion, electromagnetism, the atom and optical phenomena, all of them within the limits of just a single model. Anassagora, Descartes, Lord Kelvin,

Huyghens, Fresnel, Todeschini and, in antiquity, Plato and Aristotle, all of them strived to give an aethereal explanation of all things.

Anyway, in order to give an explanation of the magnetic field, in my model, I have to understand what a magnetic field is. I want to know how is it produced, in what it differs from an electric field and why these differences can exist.

After Øersted had performed his experiment in 1820, scientists were in excitement. They verified that a conductor run by an electric current produces a magnetic field. It can attract another conductor run by another electric current. It was clear that the two currents produce a magnetic field able to attract one the other.

A conductor run by electric current can attract a magnet and vice versa. But a strange thing happens when you try to move an electric charge with a magnetic field. The charge doesn't move. If the charge moves inside a Crookes tube and gets near a magnet, it deviates because the action of the magnetic field affects it. But if the charge is motionless the magnet doesn't have any influence on it.

An experiment led by Faraday in 1831 proved to be rather interesting. He was trying to move electric charges with an electromagnet, i.e. a coil supplied by a battery wrapped around a ferromagnetic torus. On the other side of the torus, he set a different coil. This was a wrapped coil connected with a galvanometer. By doing so, Faraday intended to register the movement of even the slightest charge induced by the electric coil.
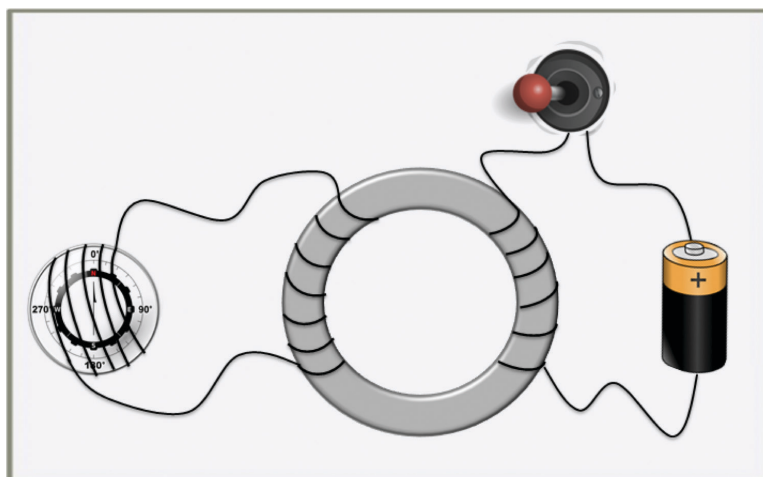
Figure 7.43. Faraday circuit.

Passage of current in the coil would produce a magnetic field able to deviate the needle of the galvanometer. Faraday saw that no current was generated in the torus until the switch was closed. When he opened the switch, he observed for a very short moment that the needle deviated with a short impulse.

Faraday understood that the static magnetic field the battery generated in induction was not able to move the electric charges extant in the iron. It was necessary a variation in the magnetic field to move a charge and produce an electric current in the torus. When he opened the switch, as a consequence, the magnetic field was passing from the maximum value to zero in a very short time. This sudden variation produced an electric current in the torus, registered by the deviation of the galvanometer.

Faraday extended this experiment trying to move a magnet inside a coil connected with a galvanometer.

You could wonder what is the relation, or maybe the difference between the electric and the magnetic fields. If they are both deformations of the aether, what could be the difference between the two? Electrical charges generate an electric field, while magnets generate a magnetic field.
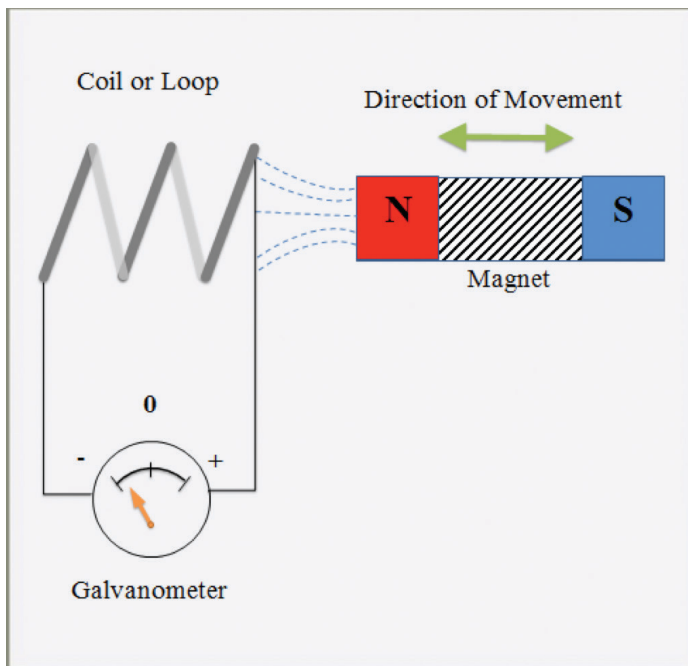
Figure 7.44. A moving magnet generates electric current.

Now, I wonder how this phenomenon could be explained from an aethereal point of view. How can we justify the difference between the electric and the magnetic fields?

Let's go back to the premises. An electric field is an aetheron wind that moves toward or from the charge. Gravity is a wind of aetherons with an acceleration of 9.81 m/s². Similarly, an electric field is a wind that moves the aetherons with a certain acceleration. The acceleration is necessary to move the charge.

The charge is a vortex that contains aetherons, i.e. particles with a certain mass. The energy of the vortex has also some characteristics of the mass. To move a mass, as you know, a force is needed. According to the second principle of mechanics F=m · a, to produce a force an acceleration is necessary.

The hypothesis that I want to introduce is that the magnetic field is a wind of aetherons with the following characteristics:

— it is endowed with constant speed;
— it does not possess any acceleration;
— it is devoid of the possibility to put in motion an electric charge.

Someone could think that, if a body is thrown into a river, it is led away by the current, in any case. It doesn't matter if the speed of the water is constant or not. But, in this case, you have to consider that a charge is vortex made. A vortex in a river is motionless because it can cut the flux and it is not driven away by the water.

I can conclude that a magnetic field is static, with a constant speed of the aetherons. To have acceleration, the magnetic field has to move: you have this way a speed changing in time, i.e. acceleration. The acceleration is necessary to move a charge and create an electric current.

However, a further question comes to the mind. Which is the reason why two magnets are able to attract one the other? A static magnetic field is not able to move a charge, but it can move another magnet. Why? We have to understand how a magnet generates its proper field.

In a magnet, according to Ampere, charges are continuously moving. They generate an induced magnetic field. This magnetic field enters into the second magnet where there are other moving charges. These charges interact with the incoming magnetic field, by producing a magnetic, attractive or repulsive force. This depends on the direction of the rotation of the charges.

So, even if the magnetic field is static, it can move another magnet. This is because, inside a magnet, the charges are already moving.

In short, by this, I have tried to explain that both, the electric and the magnetic field, are generated by the aether. An electric field is a wind of accelerated aetherons, while a magnetic field is a wind of aetherons moving at a constant speed.

7.8. Strong and Weak Nuclear Force

The structure inside the atom: this is something we have to understand. The atom is made of a vortex of aether with a non–uniform distribution of aetherons. Vortexes are able to produce such a distribution. The electron is given by a scarcity of aetherons while the proton is an abundance of aetherons. Abundance and scarcity are referred to the average distribution of aetherons in the space.

From DeBroglie's experience, we know that mass particles behave like waves. The electron is a wave that develops in the more external part of the atom, over the orbitals that are set at fixed distances from the center. The radius of these orbits is such to have integer waves around the atom. They don't overlap over themselves provoking auto interference and self–destruction. [73]

What happens at the very moment when an atom loses an electron? The electron is a negative charge. You will probably wonder on what a negative charge is. It is a scarcity of aetherons. This scarcity is maintained by a vortex that moves aetherons. This is a deformation or stress of the aether around the charge. Without the vortex, we would not have the charge, nor the electric field. In the exact moment when the charge moves, it produces a hydrodynamic effect on the near aether. This induced movement on the aether has a constant speed, and constitutes the magnetic induced field.

The nucleus, after losing the electron, is the positive charge. The vortex, in this case, rotates in the opposite direction, in order to produce an abundance of aetherons. The vortex continuously attracts aetherons in the center, creating, this way, an inward wind of aether. This is the electric field associated with the positive charge. When the proton or the positive ion and the electron reunite, the two vortexes merge together, and the atom will result as possessing an overall neutral charge.
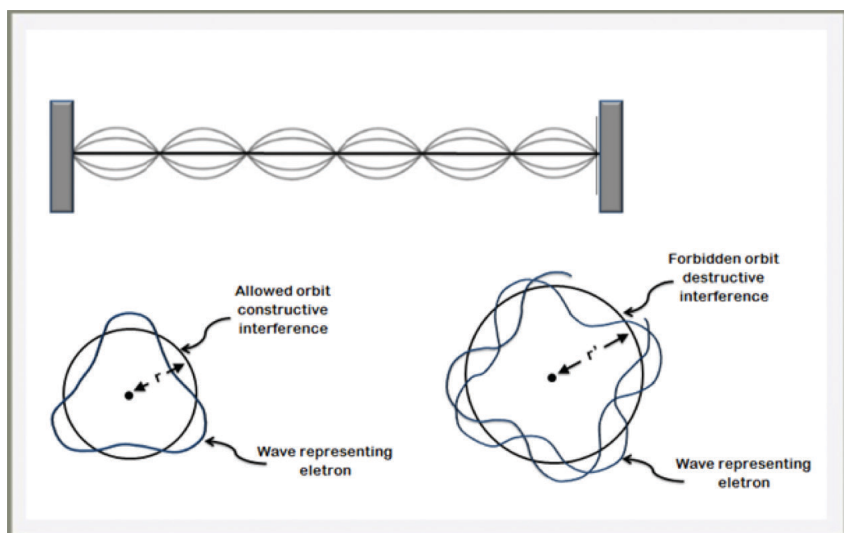
Figure 7.45. The wave forming the orbit.

The positively charged nucleus can be made up by many protons and a neutron as well. They are kept together by the overall vortex of the nucleus. I will as soon as possible explain what neutrons consist of. They are neutrons because of the fact they have not a charge. They are not deviated in their motion by an electric or magnetic field.

Amazing is the experiment led by Millikan to determine the charge of the electron. He nebulizes some oil ionized with x rays between the two plates of a capacitor. By varying the tension between the two plates, the electric field of the capacitor changes.

$E=V/d$ is the electric field. V is the tension and d is the distance between the two plates. The small drops move downward due to gravity. But drops are also under the action of the electric field. By regulating the electric field, Millikan said he was able to find a position of equilibrium. With a microscope fixed in its apparatus, he was able to find the tension necessary to reach the equilibrium position. With this tension, it is possible to calculate the charge of the ion: $q=m \cdot g/E$.

Millikan saw that the charge of the drops was always a multiple of the same value 1.602×10^{-19} Coulomb that is thus the smallest possible charge, the charge of the electron. Remember that φ is 1,618.

Thompson made another experiment. He applied a magnetic field to a Crookes tube and measured the deviation of the electron due to

the field. He was able, hence, to calculate the mass of the electron since he already knew the value for the charge. The calculated mass of the electron was 9.109×10^{-31} kg. It is a value almost 2000 times less than the smallest known atom, the hydrogen atom. The electron is thus 1836 times smaller than the proton.

We were, until now, still considering the situation of an atom made by an electron and a proton. Let's see the case of a bigger atom. They have a bigger number of electrons. An electron requires a vortex that oscillates like a wave. A wave that vibrates in the aether is electromagnetic radiation. A spherical wave, once you have fixed the wavelength, can develop completely. It always develops without overlapping itself. It just stays at a certain distance from the center of the atom. This being the condition, electrons can stay only in seven different layers or electronic shells. In these shells electrons, i.e. waves in the aether, keep moving. Each of these shells will possess certain energy said energy level. Every layer can contain more than one orbital. Each orbital can contain two electrons or waves with opposite spin direction. This is the Pauli Exclusion Principle.

There are four different kinds of orbital, s, p, d and f that will arrange in the seven energetic shells. Do you remember the cymatics figures? We set in a relationship the atom vortex with sound generated vibrations. There are 7 notes like 7 energetic shells around the atom.

The electrons always occupy the empty shell with lower energy. Hund's rule about the maximum multiplicity says that electrons fill all orbitals with parallel spin to semi–saturate them. Then, they complete the orbitals following the Pauli principle.

To interact with the others, atoms use mostly the more external electrons, in the more external shell, called valence electrons. An external wave can be shared with other atoms that have the right electronic configuration to accept it. The vortex wave will hence become bigger to the point of reaching the power to envelope both atoms, and constitute a molecule. The wave will conserve its amplitude and wave length, i.e. its energy.

In order to have a resulting wave that closes without overlapping and entering in interference with itself, the atoms have to arrange within the correct geometry. They are forced to. This geometry will give the molecule its electric and chemic characteristics.

Our vortex model seems to work better and better. It can describe atoms and molecules. However, there is still something to say about strong and weak nuclear force.

First, I want to speak about the strong nuclear interaction. This is a force commonly reckoned among the four fundamental interactions in particle physics. It goes hands in hands with electromagnetism, weak interaction, and gravitation. It is the force that holds most ordinary matter together and binds neutrons and protons to create the atomic nuclei. The strong force field energy stays at the base of most of the mass of a common proton or neutron. This was, since the beginning, the most common definition of this force.

In 1935, the Japanese physicist Hideki Yukawa introduced the definition of a new kind of force. It is the force keeping united protons in the nucleus. The physicist called this force *strong nuclear force*. It is a much stronger force than the electromagnetic force and it works keeping together the protons.

This is a force that acts strongly in the very short distances because immediately when a proton is out of the nucleus, it is repelled away. It acts only over distances of the order of 10^{-15} m, corresponding to the dimensions of the nucleus of the atom.

The scientific quantum explanation of the weaker electromagnetic force is a non–uniform distribution of virtual photons. When I have read this explanation in a book of physics, I felt excited. It is an explanation very similar to the one I have introduced. You have only to notice that the photons are in reality aetherons that, by concentrating in a non–uniform way, create the electromagnetic field.

The strong nuclear force, on the other hand, originates, according to official science, by the action of particles called mesons. Electromagnetic interaction means that the electric charges emit or absorb virtual photons. Accordingly, protons should have a nuclear charge, and should absorb or emit virtual mesons. The mechanism should be the same for the virtual photons and the virtual mesons.

Till now, in my reference model, I have introduced only one particle, the aetheron. This has been enough to explain the gravity, the magnetic field, and the electric field. What about the stronger nuclear force? The hypothesis I want to make is that it is not necessary to introduce any other particle like the mesons.

I'm convinced that the aether vortex is enough. When we have an atom with more than one proton, the proximity of the protons is guaranteed by the overlap and concentricity of the vortexes. The rotation of the vortexes guarantees the continuous concentricity and they can't escape one from the other. The vortex of aether is responsible for the stronger nuclear interaction. In the next chapter, I will show another application of this idea. Then I'll start thinking of the weaker nuclear force.

Protons stay at the very heart of the atoms. Moreover, there is a force keeping united the protons in the nucleus of the atom. Science states that protons are not the ultimate particle of the matter but that there are inside smaller particles called quarks.

The proton, in itself, does not exist in nature. In chemistry, the term proton is often used to describe a hydrogen ion in water solution. The mass of the proton is 1.672×10^{-27}kg and its charge is 1.602×10^{-19}C. The two numbers are very near to the value of the golden number: $\varphi = 1,618$.

The greater part of the mass of a proton is given by the gluonic field energy. This exotic name is to describe the force that keeps together the quarks forming the proton. And this field is nothing else than the strong nuclear force, created by virtual particles called gluons. On the other hand, when the strong nuclear interaction is viewed as the force keeping together the protons of the nucleus, the mesons are called pions. How can we explain, within the new model, the role of quarks and the force field keeping them together?

In the new model, as you can personally deduce, the proton is not a particle, but a system of particles kept together by a vortex. It is an abundance of particles due to the fact that the starting vortex keeps on attracting aetherons toward the center of the proton. So the proton, as stated by mainstream science, is formed by many sub–particles. These sub–particles are aetherons and not quarks. Aetherons are thus the elementary particles constituting the protons. The gluonic field of force is not intermediated by any new particle like gluons, but it is our vortex. By rotating, the vortex keeps the aetherons inside and maintains their number constant. This is the glue that produces the proton. No gluons are needed.

Can we say the same for electrons? The electron is formed exactly like the proton by aetherons. Science, however, doesn't apply the strong nuclear force to the electrons as well. This is because they are not formed

by quarks, as they claim. We know however that an electron is a scarcity of aetherons. However, electrons are formed by aetherons. What is the difference between protons and electrons?

Electrons, when they overlap the protons and form atoms, are however somewhat different from protons. When the electrons overlap the protons to form an atom, their vortex oscillates with different frequency, according to their energy. In this sense, electrons are different from protons. However, when they are taken per se alone, they are exactly like protons, a vortex that works on aether.

We have till now discussed of protons, electrons and strong nuclear interaction (or force). I want now to speak about neutrons. Science states that a neutron mass is slightly greater than the proton one. Analyzing the neutron, we will be driven to consider the weaker nuclear force. To understand this, we have to examine how a neutron is made.

To comprehend, we have to consider what the beta decay of a neutron is. This is radioactive decay, i.e. a nuclear reaction. Through it, a radioactive chemical element gets transformed into another one, with a different atomic number. It is a decay that occurs when, in a nucleus, there are a number of neutrons greater in comparison with protons. The consequence will be a lack of equilibrium. The decay leads to a situation of energetic equilibrium.

Neutrons decay by emitting Beta rays, i.e. fast electrons. This point can appear strange since electrons are emitted by a nucleus containing only protons and neutrons. This is because neutrons are not stable when being let alone and disintegrate only by decaying in a proton, an electron, and an antineutrino.

$$n \Rightarrow p + e + \bar{\upsilon}$$
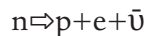
The antineutrino has a negligible mass, much smaller than the one of the electron, and neutral charge. Antineutrinos keep with them only energy, making this way more stable the nucleus which is emitting them. This is because they pass to a lower state of energy.

How can we explain the beta decay of the neutron within our new aether model?

The neutron has no charge, but it decays in a proton plus an electron and an antineutrino. Science states that this decay is due to the weak nuclear interaction (force). It acts by changing the "flavor" of the quarks that

are composing the neutron, in order to produce a proton. A proton is in fact made by two quarks up and one quark down. The neutron has, on the other way, two quarks down and one up. One quark changes flavor thanks to the weak interaction. [74]
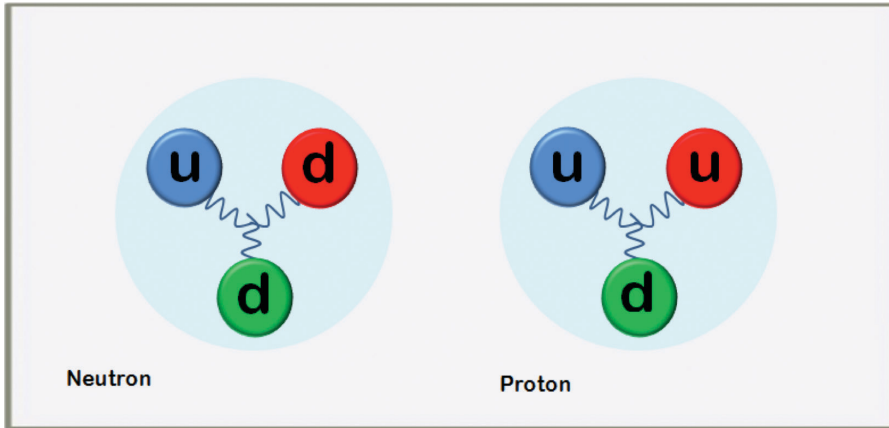

Figure 7.46. Quarks forming Neutron and Proton.

In reality, a neutron doesn't change. It is already formed by a proton plus an electron. The two vortexes are kept united, forming the neutron, by the weak nuclear interaction. The neutron is thus a sort of very simple atom formed by a positive and a negative charge. The antineutrino, this particle with a very small mass, is, in reality, the energy necessary to divide the proton and the electron, once the neutron is expelled. When the neutron is expelled by the nucleus, the antineutrino divides the proton and the electron. The neutron this way decays.

The antineutrino is a vortex that rotates in such a way to divide the proton end the electron. This vortex is the weak nuclear force that can create a proton from a neutron. It is weaker than the strong nuclear force that keeps united the nucleus; in fact, it can't divide the neutron until this is included in the nucleus.

With this chapter, we conclude. We have described till now the gravity force, the force that moves the celestial bodies, the electric field, the magnetic field, the strong nuclear force and the weak one. All these are forces that are generated by the aether.

7.9. Flat Earth: a Brief Summary

The geomorphologic model has, by now, reached a more definite shape and the circle is closed. Although there is still, of course, a great deal to understand, it seems we were able to give a first rough description of the Earth on which we live. By writing this section, I'd like to make a brief summary of the considerations I have till now developed. Obviously, this is not a way to abandon the topic. But now, I would like just recap a bit.

The model of the Earth that is emerging is very different from the theories offered by official science. The mathematics behind the Earth follows a few precise rules that you have to know and use when you want to reach a description more and more precise. First of all, the number 111 can be used to describe a lot of phenomena related to the flat Earth.

My aim was to give evidence of the fact the Earth is motionless and flat. Anyway, the most interesting discovery emerging till now was to find that there is an aether vortex over the Earth. Light moves in a mean called aether that fills the space. This luminiferous mean is made up of a very subtle matter, formed by small particles called aetherons.

The aether is also on the basis of the formation of mass. It can act over masses with a force that becomes perceptible while engendering the gravity force.

A huge electrical potential comes to be applied to a volume of aether. A capacitor is acting over the space included between its plates. As a consequence, it will produce a non–uniform distribution of aetherons in the space. This is at the origin of a movement: the aetherons activity to reestablish the equilibrium. It will produce some antigravitational effect as it occurs in the lifter, or in the discs of Thomas Thousand Brown.

7.9.1. *The Michelson Gale Experiment*

The experiment of Michelson Gale proves light moves at different speeds at different latitudes. This is due to the vortex of aether that spins around the Earth axis at the North Pole. This vortex is responsible for the motion of the sun, moon, and planets. To maintain its angular momentum, the vortex has to increase its speed downward. The analemma of the sun is proof of this variation in speed. The sun, in fact, trapped in its magnetic rail, moves up and down, increasing or decreasing its speed accordingly.

This happens since the equation of time tells the sun doesn't always move at the same constant speed during the year. It is due to the changing speed of the aether vortex with height.

7.9.2. *The Aether Vortex*

According to the Bernoulli law, while changing its speed by acquiring height, this vortex reaches different pressures and densities. It increases its pressure moving upward. To reestablish the equilibrium, a vertical wind of aether raises, and generates the gravity force. This vortex of aether is put in rotation by the dome, while it rotates. The dome is made of a semiconductor material. The rotation of this material inside the magnetic field of the Earth produces eddy currents. These, in turn, produce an induced magnetic field. This induced and rotating field acts on the aether by putting it in the rotation again.

7.9.3. *The Rotation of the Dome*

The dome rotates due to the exterior waters of above that reverse over it. The dome itself is a big turbine. The waters move out of the abyss under the Earth's mantle and are lifted up. They are put and maintained in the circuit by the aether vortex. This is the main factor which produces in its eye antigravitational effects. It is due to the charge separation in the aether. It is an effect similar to that happening in the eye of tornadoes. The waters filling the inside of the Earth are lifted up to the rotor of the dome. This way they can act over the turbine pales.

7.9.4. *The Origin of the Magnetic Field*

This is how the magnetic field of the earth is formed. Under the crust, there is the rock mantle. Below there is an enormous basin containing a huge quantity of salted water. The fact that waters inside the Earth are salted is important because water becomes conductive only if there are ions loosen in it. All this water is contained in a big basin made of magnetite. It provides the starting magnetic field necessary to produce the more powerful magnetic field of the Earth.

Waters are moved by the action of the sun and the moon. The sun creates a powerful magnetic field that interacts with the one of the Earth. I

don't mean just talking of some gravitational action, but of the magnetic effect exerted over conductive waters, which are already affected by the magnetic field of the basin. Since the water is moving in a preexistent magnetic field, induced currents arise from which the final magnetic field of the Earth is created. This is due to an induction effect.

7.9.5. *A Movement of Waters*

The most interesting is the fact that surface tides move in coordination with the inner ones that are responsible for the magnetic field of the Earth. By observing the surface tides, we have an idea of the movement of the inner waters. Surface tides move around neutral points or nodes called amphidromic points. These are points where waters always keep the same level during the day, and tides do not affect them. Tides rotate with a frequency given by the passage of the moon around the amphidromic points.

7.9.6. *The Amphidromic Points*

What are the amphidromic points? It seems clear that the waters of the abyss move the same way, and the magnetic field produced compels the surface waters to move accordingly. The waters of the abyss move around some rocky structures made to sustain the mantle. There are pillars around which waters are forced to move. One big pillar is positioned under the South Atlantic Ocean producing the South Atlantic magnetic anomaly. Where pillars are, in fact, much water is missing and the magnetic field develops like a coil around the pillars.

7.9.7. *The Action of the Sun and the Moon*

The magnetic field, in turn, produces the aether vortex. The vortex pushes the sun and the moon, and they participate to create the magnetic field. The Earth is full of closed self–sustaining cycles like this one. Think for instance of the water cycle everybody has learned at school.

By now, many details have been understood. However, many questions are still unanswered. I can just say we have achieved something of the first layer.

Appendix

Exact Coriolis Calculation

I want to give some more accurate calculation of the Coriolis acceleration on the Globe. I would like to prove, this way, that you cannot detect Coriolis on Earth because the planet is not spinning. I want to check an affirmation I made in the first chapter. It's about an airplane taking off from the North Pole and from there flying toward the equator in an exclusively south direction. While keeping its speed constant, it should detect the Earth rotating beneath. The rotation speed of the Earth should gradually increase to reach at the equator the incredible speed of almost 1700 km/h. This is the speed of the Earth due to its rotation around its axis.

So, I will try to make the exact calculation of the Coriolis acceleration. The expected result should show that the earth moves at 1700 km/h under the airplane. Why is this an important calculation? Because there's a number of guys who underestimate Coriolis. They minimize this acceleration and pretend an airplane can easily correct its speed in order to reach the landing airport. On the other hand, it should be clear that, with such a quick spinning under it, an airplane will not be in the possibility to land. The only possibility left is to return to the exact starting point, and then try a landing there.

On the pole, the peripheral speed of the Earth is zero and the airplane is purely rotating around the earth's axis. When it takes off, it has no peripheral speed. When moving toward South, the Earth won't pull it anymore. So it will be flying independently from the Earth.

We know the Coriolis acceleration will affect a body proceeding in a rectilinear way. At the same time, this same body will move with a

uniform speed V and in the radial direction over a rotating body. Radial means from the center toward the external circumference or vice versa. We can calculate this acceleration with the formula ac=2xVxω. On the globe, an airplane that moves radially moves in south–north direction or vice versa.

The Coriolis acceleration is formed by two different components. Only one of these is in relation with the peripheral speed of the Earth and is the one that we want to consider. Let's see these two components. This part is a little more mathematical. So, if you want, you can directly skip to the final considerations.

Let's consider a point P moving with constant speed V along a platform with a guide that constrains the point to move in a rectilinear way. We can express the speed as $V = \dot{r}$ meaning that the speed is the derivative in respect of time of the distance from the center.

The rotation speed of the platform is $\omega = \dot{\vartheta}$ i.e. the derivative of the angle. If we consider an interval of time dt, the point P moves for a $\dot{r}dt$ distance along the guide. So, its rotation radius changes and with it the peripheral speed changes from $\dot{\vartheta}r$ to $\dot{\vartheta}(r + \dot{r}dt) = \omega(r + rdt)$.
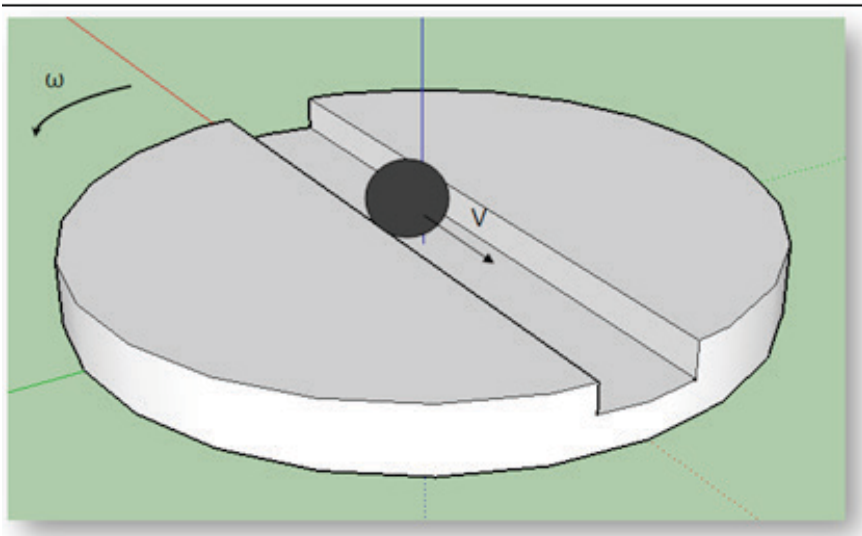
Figure A.1. Rotating platform.
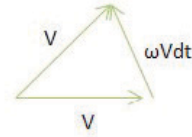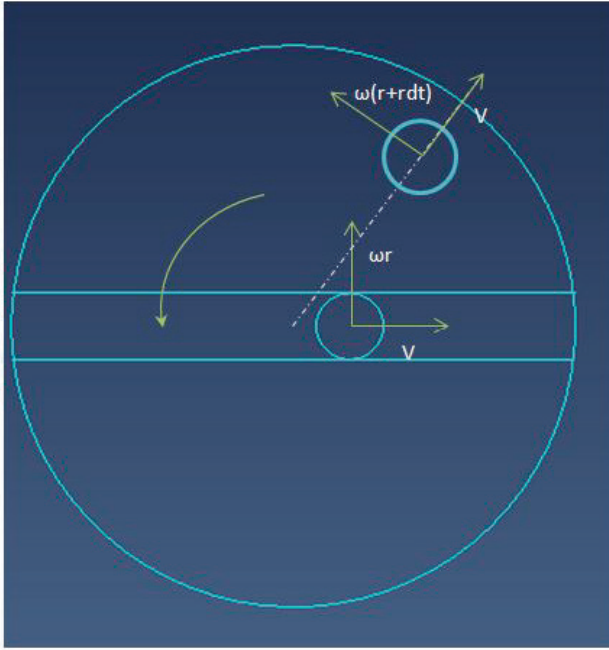
Figure A.2. Rotating platform.

The variation of speed, i.e. the acceleration, according to the general formula $a = \dfrac{\Delta V}{\Delta t}$ will be:

$$\frac{\dot\vartheta(r+rdt)-\dot\vartheta r}{dt} = \dot\vartheta\dot r$$

This is the first component of the Coriolis acceleration, and it is the component we are interested in. And just to be complete, we have to consider the other component too. In the time interval dt, the radial speed V changes direction and the angle with the horizontal changes of $\dot\vartheta dt$. This is a very small angle, thus the variation of the vector $\dot r = V$ is given by $\dot r sen(\dot\vartheta dt) = \dot r\dot\vartheta dt = \omega V dt$.

The acceleration term that arises is

$$\frac{\dot r\dot\vartheta dt}{dt} = \dot r\dot\vartheta$$
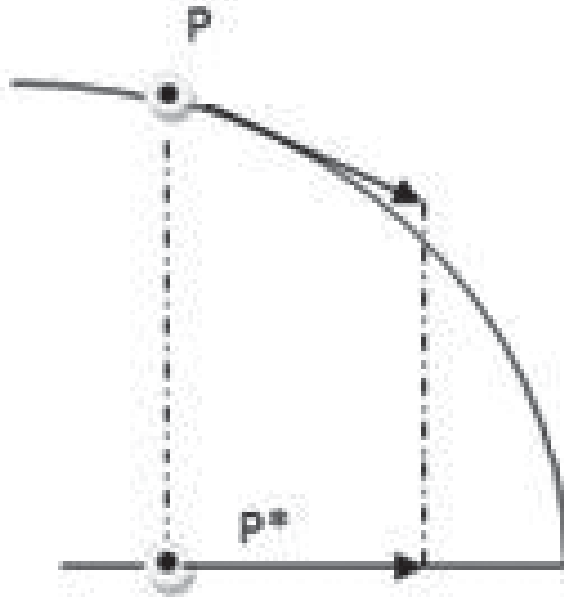
Figure A.3. Coriolis projection.

If we sum together the two terms, we have exactly the Coriolis acceleration, but we are interested mainly in the first component, i.e. in half of the Coriolis acceleration.

Let's try to apply the calculation to our airplane that flies with a speed of 500 km/h toward the equator.

We have that the globe spins with one turn per day, i.e. $\omega = \vartheta = 7{,}27x10^{-5}\frac{rad}{\text{sec}}$.

The airplane moves at 500 km/h, but we have to consider its projection on the globe radius and calculate the speed of the point P*. It is rather an easy calculation. From the North Pole to the equator, on a globe Earth there are 10000 km.

With a speed of 500 km/h, we have a 20 hours journey. The radius of the globe is 6378 km. The speed of the point P* will be:

$$Vp* = \frac{6378}{20} = 319\frac{km}{sec} = 88{,}6m/sec$$

With this speed I can calculate half the acceleration of Coriolis:

$$\frac{1}{2}ac = 0.00644 \frac{m}{sec^2}$$

Using the time of 20 hours, i.e. 72000 seconds, we can calculate the final speed of the Earth at the equator. This is the speed of the Earth moving under the airplane.

Is this a small speed? It is much greater than the sound speed in the air. It is clearly impossible for the airplane to land.

$$V = 0.00644 * 72000 = 464 \frac{m}{sec} = 1667 \frac{km}{h}$$

How Light Moves

In this little appendix I will make some calculation to show how a wave propagates within a solid and thus in the aether. If not interested, you can skip this part since it doesn't appear essential to understand the real nature of aether.

Aether behaves like a solid because it is able to transmit also transversal waves. This requires a shear modulus, which is the characteristic of a solid.

Said this, we can try to obtain some more information about the aether. So, we have to study how a sound wave propagates in a solid.

To start, let's try to do some further consideration on the speed of a longitudinal wave in a solid. To do this, we can consider a volume of aether with the form of a prism. So, we can make the following two hypotheses:

— the elastic longitudinal wave appears like a train of longitudinal vibration parallel to the direction of propagation, the x–direction of the prism. Deformations are longitudinal, but the material is also stressed in the perpendicular directions y and z. To explain this, think to an eraser. If you pull it, the eraser will lengthen but it also will shrink its section;
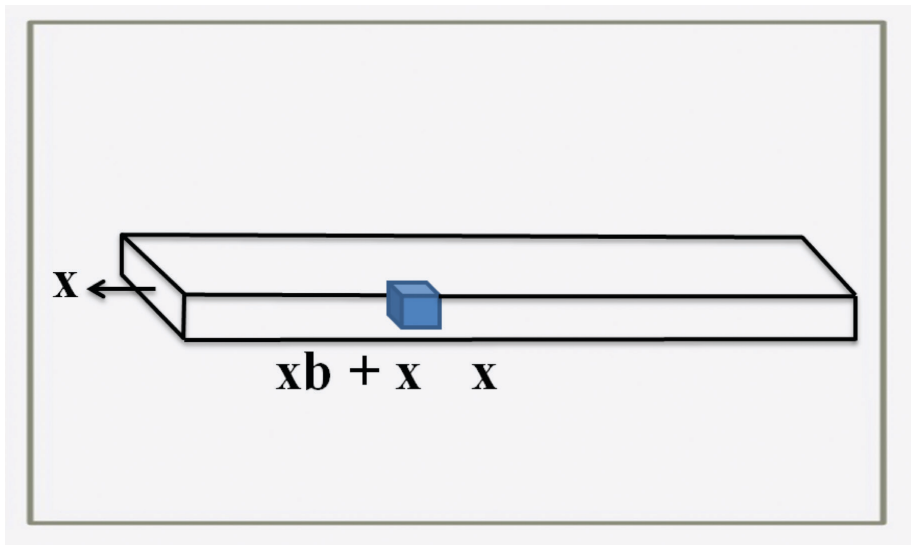
Figure A.4. Prism.

— The behavior of the material is elastic. It has a normal elastic modulus, or Young modulus E, that describes how much the material is stiff. It also shows a shear modulus, or Poisson coefficient ν, that describes the ratio between the elastic transversal deformation and the longitudinal deformation. In order to better understand, please, do not forget the eraser that stretches, but also shrinks its section.

Let's now consider some aetheron contained in a very small cubic volume dV = dx · dy · dz, inside our prism. dV means that the volume is an infinitesimal part of the whole prism. The first face that the wave encounters has coordinate x, the second x+dx.

When the prism is run by a longitudinal elastic wave, the said volume, dv, will have to cope with the two forces on the two faces perpendicular to the x–axis of propagation:
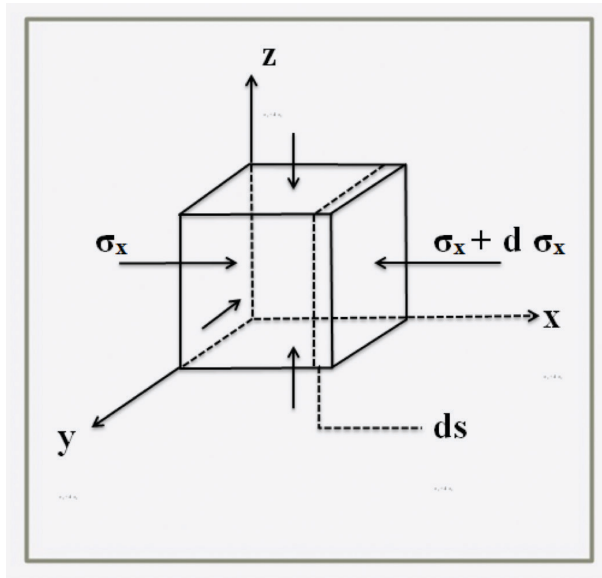
Figure A.5. Small cubic volume.

$\sigma_x \cdot$ (dy $\cdot$ dz) on the face with x coordinate and $(\sigma_x + d\sigma_x) \cdot$ (dydz) on the face with coordinate x+dx.

σ is the pressure generated by the wave on the face. By multiplying it for the area of the face (dy $\cdot$ dz) we will obtain the force acting on it. By considering the direction and, thus, the sign of these two forces, as shown in the picture, we can write the following equation:

$$(\sigma_x \, dydz - \sigma_x \, dydz - d\sigma_x \, dydz) = (-d\sigma_x \, dydz)$$

Then we can rewrite it like this:

$$-\frac{\partial \sigma_x}{\partial x} dx (dydz)$$

This is the resulting force acting on the volume dV. This force is equilibrated by the inertia forces.

Due to the elastic wave hitting the volume dV, the elongation of the aetherons that are near to the face x is a little different from the one of the aetherons near to the face x+dx. We can suppose, however, that dx is near to zero and thus the aetherons vibrate the same way, crossing the thickness of the little cube.

Let's formulate now the equilibrium equation of the little volume. We want to arrive to formulate an equation. It should describe the position of a generic aetheron depending on its position at rest (when the wave is absent) and in a lapse of time t.

We can start with the generic equation:

$$\sum F = m \frac{\partial^2 s}{\partial t^2}$$

which is the differential equation for the Newton equation F=m · a.

We can apply it to our volume, for which we have calculated the resulting force acting on it:

$$-\frac{\partial \sigma_x}{\partial x} dx \,(dydz) = \rho \,(dxdydz) \frac{\partial^2 s}{\partial t^2}$$

where ρ(dxdydz) is the mass of the volume, and ρ is the density of our aether.

We have now:

$$-\frac{\partial \sigma_x}{\partial x} = \rho \frac{\partial^2 s}{\partial t^2}$$

Then we have to search for a relation between the tension σx and the position of the single aetheron s.

By making a few general remarks on deformation and its equations, we are now able to write the equation of the wave:

$$\frac{\partial^2 s}{\partial x^2} = \frac{\rho (1+v)(1-2v)}{E(1-v)} \frac{\partial^2 s}{\partial t^2}$$

With a dimensional analysis, we can understand that the term

$$\frac{\rho(1+v)(1-2v)}{E(1-v)}$$

is the inverse of a speed.

We can write that the speed of the longitudinal wave is:

$$c = \sqrt{\frac{E}{\rho} * \frac{(1-v)}{(1+v)(1-2v)}}$$

Some conclusion.

Much interesting is the consideration that a longitudinal wave is always faster than a transversal wave. If the light that is a transversal wave runs at 300000 km/sec, a longitudinal wave can travel faster in the aether, denying thus the Einstein's statement that the speed of light can't be outmatched.

Moreover, considering the last formula I have just expressed, you can understand some more characteristics of the aether. To obtain a very high speed of the longitudinal wave, the aether has to be very rigid, with a very high elasticity module, but also with a very low–density ρ.

The problem of Australia

It gets immediately clear that a representation of the lands of the world on the surface of a globe greatly deforms the reality of the Earth, especially in its southern parts. This is a deformation concerning both latitude and longitude. So it becomes difficult, for those seeking to establish the truth, to determine the extent of the distortion.

In order to study the earth geography, many flat–earthers use the Gleason map. This is an azimuthal equidistant projection map centered on the pole. It shows a decidedly elongated Australia in the sense of longitude. The distance between Sidney and Perth appears to be at least doubled, resulting in 8500km instead of the 3300 km given in Google Maps.

I'll try first to do some calculations, first for longitude and then for latitude.

Perth has coordinates 31° 57' 12" South and 115° 51' 25" East.

Sidney has coordinates 33° 51› 54" South and 151° 12› 35" East.

As far as longitude is concerned, there is a difference of about 36° between the two cities. 3300 [km] / 36° equal 92 km for each degree of longitude, exactly as for the globe computation. However, you should remember that, when examining longitude on a globe, the two hemispheres north and south are symmetrical. On the other hand, on a flat Earth, things are different. This is something really important to notice in order to understand why the Gleason map cannot be used to obtain any precise measurements of the Earth.

For simplicity, we could consider Sidney and Perth as staying at the same latitude, let's say 32° South. This means a distance of (90° + 32°) · 111 [km] = 13540km from the pole. It would mean a circumference of 43540 · 2 · π = 85000 km.

85000 [km] / 360° = 236 [km] for each degree of longitude. It wouldn't correspond to the 92° which is the resulting distance when we consider the globe circumference and the Gleason. So, keeping in mind the 36° difference in longitude between Sidney and Perth, you would have a total distance of 36° · 236 [km] = 8500 [km] which does not correspond to the real distance between the two cities, which is of 3300km.

Only making 3300 [km] / 236° = 14° you will find the real difference in longitude between Sidney and Perth on a flat Earth. The map should be corrected by decidedly shortening Australia. Obviously the need for this sort of correction does not only concern Australia but it should be made all over the globe.

Let us now turn to the latitude problem. We know that the sun is about 3330 km high when located on the Tropic of Capricorn. I have asked a friend from Perth to measure with a gnomon the shadow cast by the sun on December 25th. With a 121 cm high stick he measured a 16.5cm shadow, at 12:16, corresponding to the local noon. With this data, an angle of 8.4° is confirmed, which equals the one given by the software for the globe.

With such an angle we would have a distance of Perth from the Tropic of Capricorn of about 500km, when in reality it is about the double (950km).

We cannot question Perth's latitude because it would be a simple experience to take the car on December 21, travel the 1000 km that separate it from Coral Bay, which is located exactly on the tropic, and personally check for the absence of shade at noon. Moreover, we always maintained that even on flat Earth, we have 111 km for each degree of latitude. So, by doing 8.4 · 111 we get a distance of 932 km away from the tropic and not of just 500.

At the same time, we also regard as a certainty the fact that the sun runs lower in the southern regions to give the same amount of energy. I will show later that this is necessary also to give rise to the formation of the sun analemma.

The 932 km of the distance aforementioned would give rise to a sun height of 932 [km] / tan (8.4°) = 6300 km , that would be the same height

at which the sun is when running on the Tropic of Cancer. This is however definitely impossible. In fact, if from the Italian latitudes on December 21 we try to calculate the height of the sun, we find it is of about 3300 km. As a consequence you could imagine the Earth is truly a globe. Anyway, it is not actually so. We have to keep into account the optical effects created by the ionosphere. This will help to explain some of the inconsistencies rising in the analysis of the height of the sun when it is running the northern hemisphere.

The ionosphere is the ionized part of the atmosphere above 100 km in height. The plasma formed by the ions has refractive properties on light. A double refraction is determined: a low refraction due to the atmosphere and the ionosphere and a high refraction due to the plasma of the Van Allen belts extant immediately under the sun.

A situation as described in this drawing is thus obtained:
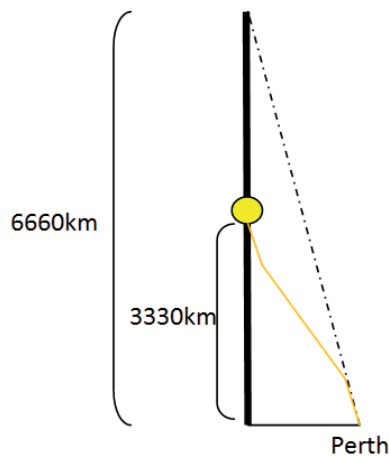
Figure A.6. Double refraction.

We have already mentioned the phenomenon of the double refraction while introducing the fact that the sun is a disk. We were by then looking for a scientific explanation of the fact that the sun is seen as a circle from all over the Earth.

Therefore, the light that is coming from the sun reaching the city of Perth, bends in two points, one at the top and one at the bottom, giving rise to the optical impression of a sun that is always 6660km high all over the Earth.

Let's see now how this explanation can help us to better explain some other inconsistencies. Let's move on to the northern hemisphere where the sun reaches 6660km high (with a fractal description, but in fact it is about 6356 km).

Using a software that gives us the elevation of the sun on June 21, we try to calculate the height of the sun on places that are all roughly set on the same meridian but gradually more distant to the north.

Table A.1.

Place	Latitude north	Dist. from the tropic	Elevation angle	Estimated sun height
Tripoli	32,88	1041,18	80,6	6261
Palermo	38,1	1620,6	75,3	6160
Venezia	45,4	2430,9	68	6006
Hannover	52,37	3204,57	61,1	5797
Goteborg	57,7	3796,2	55,7	5559

You can clearly see in the last column how the calculated heights do not match. Let's try with a graph to propose the double refraction in these five locations.
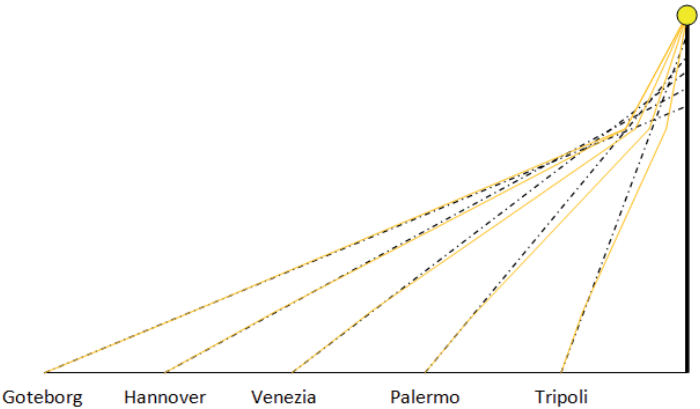
Figure A.7. Double refraction on the northern hemisphere.

This is, of course, a completely qualitative design. It explains however the reasons why there are many calculations that do not return perfectly. The ionosphere screen appears to create an optical globe due to refraction.

Naturally, I'm awaiting comments and further considerations from those who want to deepen the topic.

In order for the calculations and measurements of the height of the sun to be consistent across the Earth, we must assume that there is a double optical effect of refraction due, above, to the Van Allen belts and the plasma contained in them, and, below, to the ionosphere and the plasma it contains. In fact, plasma has refractive power on electromagnetic radiation.

We can apply this concept to Australia and therefore to all the lands south of the Tropic of Capricorn. We then apply the same concept to the lands north of the Tropic of Cancer, thus correcting some inconsistencies that come out of the measurements and calculations. We must now make the same considerations for the area between the two tropics and in particular for the Equator.

People staying on the equator actually see the same angle of elevation of the sun when this is on the tropic of Cancer or on that of Capricorn. This would obviously be impossible if the Equator is really at the center between the two tropics.
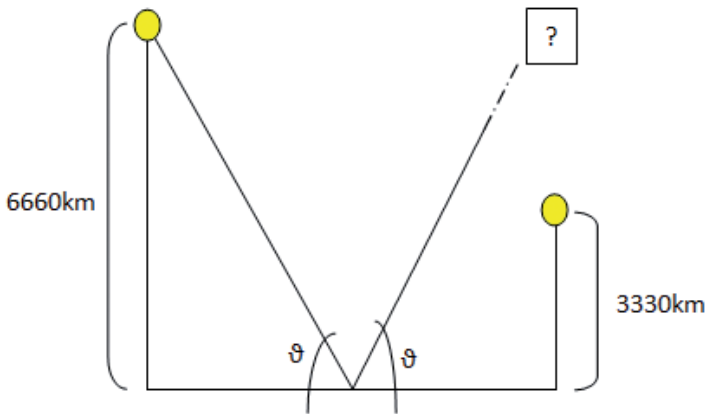
Figure A.8. The equator.

You could therefore think of moving the real position of the Equator and bringing it closer to the Tropic of Cancer, so as to have equal ele-

vation angles in summer and winter. However, the latitude coordinates would never return. In fact, it would not be impossible to verify the distance between the Equator and the tropics with the car and to check for the fact that the two distances are equal. For these very reasons it would be crazy to think that there has been some mystification on the distances of the equator from the tropics. Someone to date would have noticed.

How then to explain the equal angle of elevation of the sun on June 21 and December 21?

Well, the hypothesis we make is that the ionosphere will bend the light in order to have the same elevation angle of the sun in the two different situations.

Among other things, do you know what is the angle of elevation of the sun seen from the equator on the solstice? 66.6° on both summer and winter solstice. Please check. With a distance of the equator from the tropics of about 2600km, in both cases, you will have that the height of the sun equals 6000km. This is a result which does not return with the sun falling over the Tropic of Capricorn. The scene, due to the double refraction of plasma, could instead be the following. Il would prove to be a situation in which the red line is the path made by light due to the double refractive effect, while the dotted line highlights the apparent position of the sun for an observer on the Equator.

It is therefore increasingly evident how optical effects on flat Earth play a fundamental role in determining what we see.


A Detailed Schema of the Earth

Finally, we can draw a more detailed schema for the architecture of the earth. So, we should consider a part of the stator extension as interstitial, a simple void cushion to support the movement of the mobile. As the earth is built according to a strictly proportional geometry, we have to respect the law of the number 5. This is evident in all the other divisions. I'll divide the 6660 dimension into five parts and leave three parts to the glassy section and two parts to the air one. We have to imagine this sort of division in order to avoid friction and to respect safety.

Let's start by supposing that the air cushion could have an extension of 2664 km while the glassy part an extension of 3996 km.

To recapitulate: the stator shows two different parts, one of glass and one of air. What about the mobile? It's an extension of 6660 km, as well, which we could modulate in the following way: 5550 km are arranged for the crystal moving cupola and 1110 km for the waters and the amber wall. Waters, of course, have to be sealed in an extremely safe manner. We have to apply here the same law: the law of the number 5. 1110 km will be divided this way: 444 km will be arranged for the screen of amber and 666 km for the waters.

In the earth underground you similarly will find the same proportions and an important void cushion over the hydrocarbons layer. God stretches the northern sky over empty space and hangs the earth on nothing. (Job 26:7)
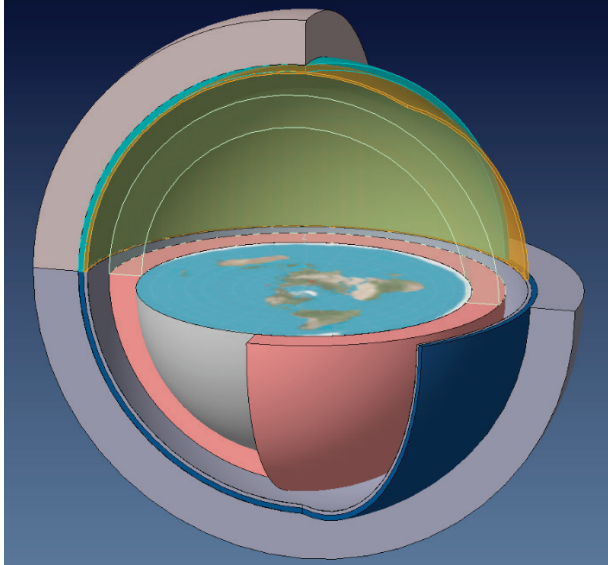
Figure A.9. Our flat earth.

To recapitulate, we'll find inside the dome the following extensions:

— 3996 km of glass
— 2664 km of empty space
— 444 km of amber
— 666 km of waters
— 5550 km of quartz crystals

The same modulation will be found and be evident in the underground solid basin of the earth. You will find there the following measures:

— 3996 km iron/silicates solid basin
— 2664 km empty space
— 444 rocks (perovskite?)
— 666 km Hydrocarbons/marine sediments of the living organisms in the dome)
— 5550 sandy gravels, basaltic rocks, quartz crystals.

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