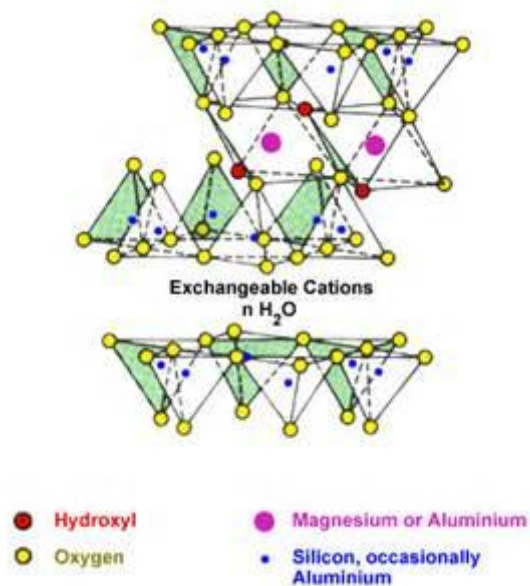


Evolution of life on Earth



Structure of Montmorillonite

Sheets of tetrahedra of silica (blue) intercalated with layers of octahedra of alumina (purple) and empty layers on which can be adsorbed organic substances and water.

After reading the books by Dawkins and Asimov, for completeness I had read a third book written by an Israeli scientist, Iris Fry: *The origin of life on Earth*.

As always it was my habit to read three books on the same subject and then use an old trick of mine: take the arithmetic mean of the three conclusions.

Each of the three books proposed different theories for the origin of life on Earth, which can be described briefly as follows:

- 1- Dawkins proposed the self-replicating virus-like *selfish genes* as the first forms of life that appeared on Earth.
- 2- Asimov seemed to lean towards a pre-biotic primordial soup containing the germs of future proteins and DNA that would have developed in the primitive oceans by the action of ultraviolet rays and lightnings.
- 3- Iris Fry, after describing a long and boring list of possible theories, all equally likely, seemed to prefer the theory of Cairn-Smith and others, who thought that life

had developed from pre-biotic material on the ocean floors on a phrame of crystal lattice of clay or of pyrite that formed a scaffold functioning as a catalyst for the development of life.

Even if I had tried to do the arithmetic mean of these three theories, I could not decide what was the hypothesis closest to my tastes, given my education as a geologist, expert of paleontology, micropaleontology and the theory of evolution.

As it's easy to imagine, at the end of the third book I had fallen into a state of demoralization and physical exhaustion due to the uncertainty of the choice facing me. I must admit that I liked all three alternatives and maybe I even harbored a slight preference for the Cairn-Smith's theory, because as a petroleum geologist, I knew the catalyst effect of montmorillonite clay in the transformation of biological organic matter into oil and methane in the deep sea. There was definitely an affinity between the crystal structure of the clay and the molecules of organic substances, which favored the creation of the hydrocarbons. And if that process of transformation had been possible during the geological ages, why not suppose that it were possible the reverse process, namely the transformation of simple pre-biotic substances such as sugars and amino acids, into more complex substances such as proteins and DNA?

To complicate matters, Fry had also discussed at length the hypothesis of an *intelligent design* favoured by the religious people, the so-called "new creationists", among which there were also numerous scientists. The existence of a Divine Mind which regulated the biology of life on Earth was the last resort for those who realized that the probability of creating even a small protein, putting together a sequence of 104 amino acids from natural causes, without divine intervention, was equivalent to the probability of creating a 747 aircraft from a landfill of scrap and waste, due to the effect of a tornado.

So I decided to make a trip to the farm of Leon, to see what was the opinion of the Kabbalist on the issue of *intelligent design*.

I found Leon sitting as usual on his stone bench under the carob tree, intent on reading his Cabala. After greeting him, I explained to him the cause of my new visit, only a few days away from the other visits, during which we had discussed first the book of Dawkins and then the book of Asimov.

"This time it is the third book, that of Iris Fry, an Israeli lady..."

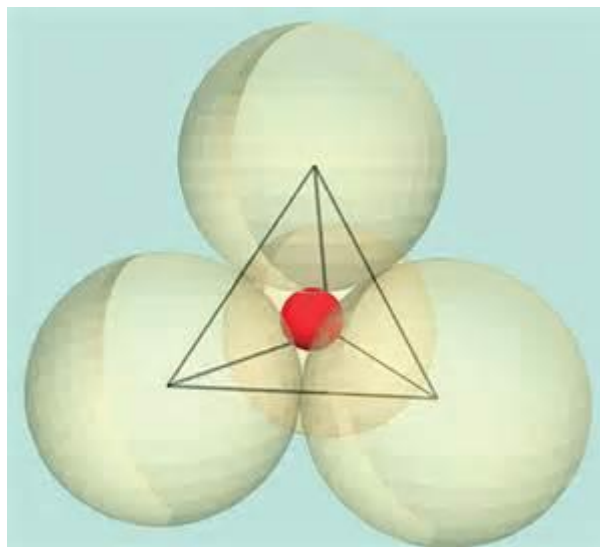
I explained the causes of my doubts describing the conflicting positions of the three authors of the books I had read, and when I finished, Leon said: "There are no problems. First of all, make yourself comfortable and sit here next to me and as usual I'll get a bottle of Nero d'Avola and two glasses ... then after wetting our beaks it will be easier to discuss. "Leon disappeared into the house and when he returned he said:" I thank you for these interesting questions that stimulate my mind and help me to always learn something new, but first let's have a drink. "He then meticulously filled the two glasses and we toasted, then Leon said:" The favorite theory of the three scientists have something in common and all three are making a serious mistake. You know what? "

"I think all three prefer an origin of life by natural causes without the intervention of God. They exclude the intelligent design. Is this the mistake? "

"Not exactly ... it's something deeper than the intelligent design ..."

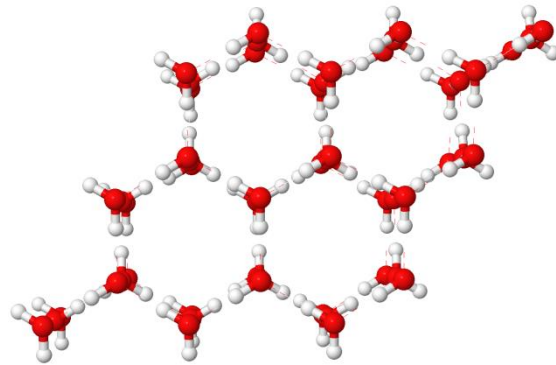
"Then what is it ...? " I asked.

"All of them ignore the geometry of God's substance, which forms the frame and the space lattice on which develops not only life, but all creation. All the geometry of space-time is based on the tetrahedron, which is the basic building block of matter and life. The symbol of life was for the ancient Hebrews the tetragrammaton, the sacred name of God, which was just a tetrahedron. "After Leon had explained this concept he made me see on his computer a tetrahedron of silica.



Tetrahedron of oxygen atoms, with at the center a silicon atom.

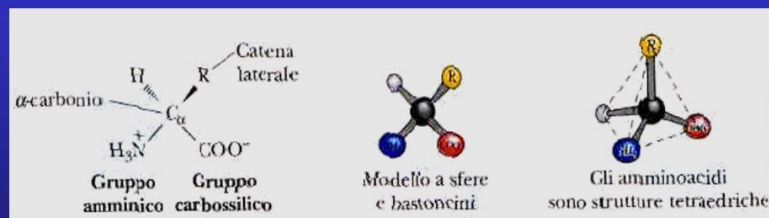
"Extraordinary!" I commented " The tetrahedron also forms the crystal lattice of silica, which is the most common mineral of all the terrestrial rocks. It seems that the ancients were aware of this very thing! "



Spatial arrangements of tetrahedra of silica

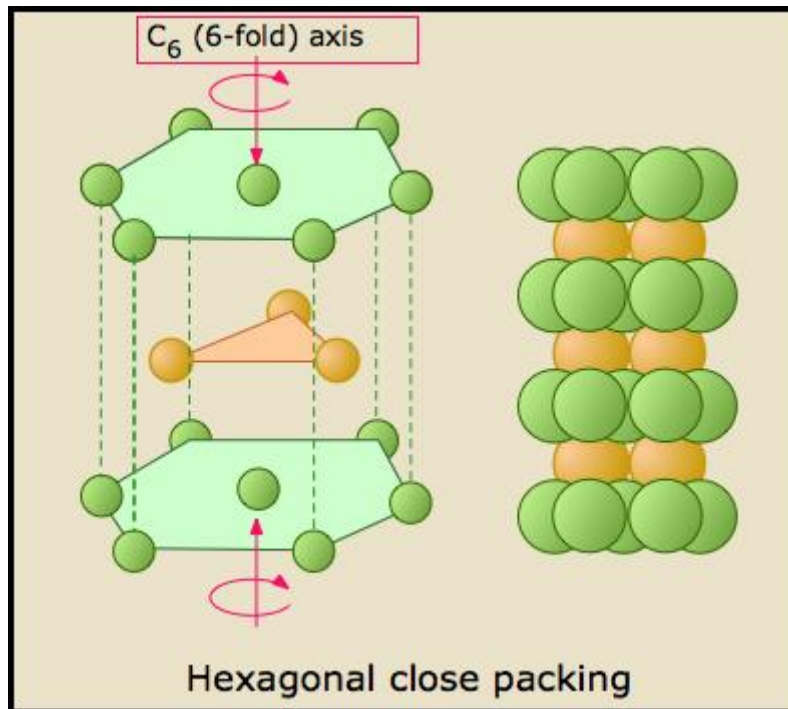
Leon nodded and showed me the spatial arrangement of the tetrahedra of silica illustrated above and said: "Everything is written in the Mind of the Holy of Holies. Through His substance He directs the becoming of the world. For example, the silica tetrahedra form sheets of hexagonal structure, leaving the center of the hexagons empty. Why? There is a precise reason. Between a sheet and the other can be adsorbed water and pre-biotic organic substances, which then will organize themselves into simple organic compounds, which typically will form hexagonal structures of carbon, hydrogen and oxygen atoms from the lattice of tetrahedra of silica.

Gli aminoacidi



Anatomia di un aminoacido. Ad eccezione della prolina e dei suoi derivati, tutti gli aminoacidi che si trovano comunemente nelle proteine possiedono questo tipo di struttura.

This is the very structure of the quantized logons explained by me in my essay on the ether, published on Academia Edu under the title: The Mystery of the Continuum." Leon then showed this picture on his computer.



"It is a compact distribution of logons, i.e. atoms of space-time, that form a hexagonal lattice of tetrahedra in contact between them. Naturally, the clays, which are the sediments that were the first to be deposited on the sea bottom, reflect the same structure of space-time that is the most likely of all the possible structures. The silicon joining with oxygen atoms, forms tetrahedra which are distributed according to a spatial distribution with a hexagonal symmetry. "

"Then you prefer the Cairn-Smith theory? "I asked, and Leon pouring a second glass of wine said:" Sure, sure, it's the simplest and most logical theory because it is based on simple natural phenomena and as said your favorite prophet Albert Einstein: *the explanations should be simple and ...* " *you do not really understand something until you're able to explain it to your grandmother.* "

"I'm sure my grandmother would understand this explanation because she was convinced that man was created by God, from the slime of the Earth! "I said, and Leon raised his glass to toast by saying:" **Afar min ha-adamah**Correct! Of course in addition to the matter that is never perfectly inert and is far from inanimate, because it is made of His Holy Substance, there is always the will of God. So we can

say that to the theory of Cairn-Smith, we must also add the theory of the intelligent design, to complete it! "

And we concluded the discussion with a third toast to Life on Earth!