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### RESEARCH ARTICLE

## ARTICLES OF THE WRITTEN PROTOTYPE CONSTITUTION OF MATTER: WE ARE NOT ALONE IN THE UNIVERSE! FIRST EVIDENCE: THE ANCIENT PLANET MARS

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### Abstract

Matter is programmed/designed according to the laws of the positive sciences: mathematics, physics, astrophysics, chemistry, and biology. These laws are translated into the extremely rich and highly functional geochemical behavior of matter. To understand the geochemical behavior of matter, we see that these too are bound by regular, precise, and immutable rules and laws. These coincide with some conclusions drawn from the author's original work, based on years of research into the causes of the geochemical behavior of matter. Thus, for the first time, the "Prototype Constitution of Matter" has emerged. This constitution, unlike man-made laws, is absolutely valid everywhere in the universe, in different time dimensions, and in all environments, conditions, and circumstances, without exception. No element alone has the right to violate, disregard, or have other choices regarding this Constitution of matter. No element is excluded or scorned, even if it is present in trace amounts and is of no value. They are all considered as components of existence that ensure and integrate. They are in a position to sustain, create, enrich, diversify, and be inclusive, and they are free.

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This aspect of matter encompasses positive qualities such as neutrality, inclusivity, integration, creation, diversification, enrichment, and the ability to sustain and perpetuate life. For billions of years, it has created various forms (organic and inorganic) and systems; It has transformed and changed into other forms and systems; And they have continuously restructured and evolved themselves according to the existing physical conditions (P/T) they have passed through, moving forward (there is no regression in their nature). In this process, they also increase their purity and degree of accuracy/correctness. As they evolve, their continuity, sustainability, abilities, strengths, degree of purity, ability to act correctly, problem-solving abilities, and ability to change and transform will naturally increase. The human life cycle is limited to approximately 70-90 years. Considered on a cosmic scale, this cycle, which is nothing, has evolved in such a short time that it is insufficient for them to sustain their lives in a positive way. Because their evolutionary process was insufficient within this very short timeframe, it has been thought that, from the past to the present, they have remained enslaved to their original intentions, such as wild, aggressive, possessive, selfish, self-serving, and unsharing emotions and feelings inherited from nature through their genes.

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From the past to the present, and from the present to the future, their lives will be filled with wars. Only the physical appearance, scope, and forms of wars will change. However, the fundamental aims of wars remain the same. It is believed that if they have not been able to domesticate themselves within the encompassing realms of positive sciences after birth, if they have not become planetary, and if they have not sufficiently reached the common human, ethical, and moral values to be acquired after birth through evolution, then their capabilities, sustainability, purity, ability to do correctly, analyze, and think are nothing compared to matter; they constitute a collection of values below zero. Matter does not have negativity in its nature; it always has positivity. Humans have both, because they can evolve both forward and backward. Matter absolutely does not evolve backward; it always evolves forward. It is certain that a form it creates will be better than its previous form. According to the first articles of the Constitution of Matter; whatever formations it has caused on Earth, it will also create similar conjugate allotropes of the same forms in similar systems in the universe. That is, while their physical properties differ, their chemical compositions, formation mechanisms, purposes, and functions are the same. On our planet, all marine and terrestrial macrobial and microbial forms/life (plant and animal cells, etc.) of organic origin, marine and terrestrial microbial and microbial forms (rocks, minerals, ores, substances, etc.) of inorganic origin, and inorganic systems (galaxies, terrestrial and rocky planets and moons, suns, etc.) are alive. Inorganic forms and systems are composed of atomic building blocks made up of atoms, ions, molecules, and subatomic particles.

Similarly, organic forms are composed of animal and plant basic cells. Therefore, there are trillions (or according to some researchers, 40-50 billion) of galaxies of varying sizes in the universe, just like our world. The absence of life on the billions and trillions of terrestrial rocky planets and moons (moons) located in the habitable intermediate regions of these galaxies' solar systems relative to their stars (Suns) would absolutely contradict the laws of physics, astrophysics, chemistry, mathematics, and biology. Life in the universe, existing and future on different rocky-terrestrial planets and moons, will never be alone. Living beings, whether on inorganic systems or separately (organic forms with short life cycles die first), gradually collapse/die after millions and/or billions of years. Conversely, from collapsed/dead organic-inorganic forms and inorganic systems, new forms and systems are born/formed millions and/or billions of years later. This cycle constantly repeats itself towards infinity. Therefore, we are definitely not alone in the universe. Let's briefly summarize and clarify these views with a concrete example: The publicly available videos of ancient Mars/The Red Planet from NASA and its valuable researchers have been viewed. In his initial impressions, the author had many positive observations, as well as some demands that needed to be known and achieved. The most important positive observation was that ancient Mars was frozen. The observation of rock units similar to conjugate allotropic rock stratigraphic units around the world was not surprising.

Its appearance was that of the world in its frozen, present-day state. The articles of the Constitution of Matter were validated, because they were valid everywhere in the universe. There was no problem with this validity, and they were all proven. The author, an environmentalist and nature lover, was surprised and saddened by a geological event: Later, in his intensive research, the author discovered that Ancient Mars once had terrestrial and marine macrobial-microbial life, and that during the Quaternary period (Cenozoic era according to the World International Chronostratigraphic Timeline - 2018), approximately 1,400,000 to 50,000 years ago (or, if narrowed down and further researched, possibly between 50,000 and 300,000 years ago), Ancient Mars dramatically lost and/or evaporated its modern, thick atmosphere, geochemical rock cycle, and all life on it... However, Ancient Mars was not dead... It was alive... But it was in a deep coma of grief... Ancient Mars was transferring heat to the upper crust along its zones of weakness (along active different fault systems and zones), and all its biological, physical, and chemical reactors were actively working... This grief deeply affected the author: What happened to Ancient Mars? Why did this happen when everything was going well? In conclusion, according to the prototype Constitution and articles of matter, it was revealed that Ancient Mars did not die, and therefore the extinction of its atmosphere, geochemical rock cycle, and life did not originate from ancient Mars. Because life could not have died before ancient Mars. In other words, life could not have died out before ancient Mars.

The extinction of life and the cessation of the geochemical rock cycle have led to the conclusion that there was an extraordinary external intervention in the atmosphere of ancient Mars. As everyone wonders, what evidence exists for life on ancient Mars? There is plenty of evidence, and I will not present it. However, the evidence I will present alone is sufficient and will be more than enough. My research has shown that the thick and extensively exposed/outcropped rock stratigraphic units found in and around the Jezero and Gale craters on Mars; In a well-known region of the world, Cenozoic-aged (according to the World International Chronostratigraphic Timeline-2018 Cenozoic) chalk series rock units with similar equivalent allotropes exhibit very similar rock type features, stratigraphic relationships and paleoclimatological features to chalks and chalky evaporite deposits/beds (anhydrite,

gypsum, various salts and perchlorates, hydrated limestone/ $\text{Ca}(\text{OH})_2$ , limestone/ $\text{CaO}$ , various clay-sulfate minerals, chalky coral-cokina-macrotous limestones etc.). These rocks have been identified and named according to the type geographic place names on ancient Mars and dated to the ages of equivalent chalky rocks on Earth (Tarhan, 2025). In other words, the chalk series rock units with thick and widespread outcrops in and around Mars' Gale Crater, consisting of chalk and chalky-evaporite sediments (anhydrite, gypsum, salt-perchlorate, clay-sulfate-sulfur minerals; anhydrous calcium sulfate/anhydrite/ $\text{CaSO}_4$ , hydrated dehydrate / gypsum /  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$  and semi-hydroxide hemihydrates / basanite / gypsum/ $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ , hydrated lime/ $\text{Ca}(\text{OH})_2$ , lime/ $\text{CaO}$ , etc.), have been dated according to Earth's geological time scale, relative to their allotropic equivalents on Earth.

Chalk/chalk series rocks/chalky-evaporite rocks are carbonate-type sedimentary rocks of organic origin, biochemically formed, with a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ . They are composed of the shells, skeletons, and bodies of microscopic phytoplankton and zooplankton microorganisms that once lived in warm, clean, alkaline (probably between pH 7.0 and pH 9.0), lacustrine and shallow-deep marine environments; after dying, they accumulated on the seabed for millions of years; Chalk is a carbonate-type sedimentary rock of organic origin, biochemically formed, with a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ , and the entirety and/or the chalk itself constitutes definitive, tangible evidence and indicator of marine microbial life. Over time, these dead plankton accumulations have compacted to form loosely textured, porous, low-density, massive, thick, homogeneous, and horizontally layered sedimentary rocks. These sedimentary rocks are brittle, easily reduced to chalk dust (approximately 3  $\mu\text{m}$ /micron fine chalk dust), porous, spongy, and low-density, and their thickness can range from meters to kilometers.

The rest is just detail... Chalks are composed of microscopically small, invisible eukaryotes (single cells) such as phytoplankton (cyanobacteria, blue-green algae/lichens/seaweeds; cyanobacteria form various stromatolites, etc.) and zooplankton (coccoliths-coccolithophores, foraminifera, globigerinods, rhabdoliths, fungi, bacteria, etc.) that live in warm, alkaline, clean, shallow-to-deep marine environments. Zooplankton, which makes up animal plankton, feed organically on phytoplankton fragments that make up plant plankton, which live suspended and floating in marine environments and are broken down and dispersed into the water by ocean waves. In other words, the chalk series rock units, chalks, and chalky-evaporite sediments of various ages observed on ancient Mars were formed by microorganisms that once lived, reproduced, diversified, spread, and died in the ancient Martian seas and oceans over millions of years (according to the 2018 Cenozoic Era of the World International Chronostratigraphic Timeline). Organic, biochemically formed chalk or chalk series rock units and chalky evaporite deposits, consisting of 95-99% dead microorganism accumulations, have been proven to indicate the presence of terrestrial-marine microbial-microbial life on ancient Mars during the Cenozoic era (World International Chronostratigraphic Timeline - 2018 Cenozoic era), and this has been first described, proposed, and suggested by the author. Chalks may sometimes contain traces of the skeletons of siliceous organisms and clastic/clastic clay and silt.

Chalks of organic origin and biochemically formed chalk, chalky evaporite deposits, and/or chalk series rocks are distinctly different from carbonates/inorganic limestones formed as a result of rock-water and rich carbon dioxide ( $\text{CO}_2$ ) interactions in the atmosphere and/or composed of inorganic calcium carbonate/calcite/ $\text{CaCO}_3$ , and are clearly distinguished by many parameters. Consequently, ancient Mars certainly once hosted terrestrial-marine, microbial-microbial life. It was a blue planet like Earth. Sadly, what happened to Ancient Mars likely occurred thousands of years ago, during the Quaternary period on Earth! After losing its atmosphere, the geochemical rock cycle (Tarhan, 2018), and all marine-terrestrial microbial-microbial life, it transformed into a terrestrial, rocky, cold, dry planet with desert winds. Ancient Mars will go down in Earth's history as the first planet to lose life. However, according to the articles of the First Prototype Constitution of Matter, Ancient Mars is neither the first nor the last planet in the universe to lose life.

Before ancient Mars, there were, are, and will be planets and moons that have lost, are losing, and will lose life. According to our studies, ancient Mars is not dead. Mars is alive and will continue to live. However, despite expending a great deal of effort/power, Mars has no chance of intervening externally in the spiral leakage of gas and heat from its atmosphere into space. Therefore, due to his grief, he is in a pathologically painful coma. Ancient Mars has only one problem that is important to it. They request that intelligent alien beings from a neighboring world intervene in their atmosphere from the outside and break or minimize the spiraling cycle of carbon dioxide ( $\text{CO}_2$ ) gas and heat leaking from their atmosphere into space. It is very clear that despite all its efforts, it cannot thicken its atmosphere, since the amount of carbon dioxide gas ( $\text{CO}_2$ ) and heat it produces, even though it transfers heat to the Martian surface and actively operates all its existing reactors, is less than the carbon dioxide gas and heat leaking

from its atmosphere into space. If Mars' atmosphere/atmospheric sphere thickens, it will trap/hold heat, create a greenhouse effect, potentially restore the geochemical rock cycle, and initiate life. This crucial suggestion should be among the priorities of all scientists and researchers on Earth in their scientific work. Everyone, from various disciplines, should work, develop projects, and implement them to stop the leakage of carbon dioxide and heat from the Martian atmosphere into space. Mars has every potential. Beyond robotic excavators, geological robots conducting scientific research, and high-resolution video imagery, Mars will need nothing more than Earth.

Heavy materials will not be transported from Earth to Mars. It is foreseen/thought that Mars has the potential to produce them. Ancient Mars/The Red Planet is ready and waiting to become a second world for aliens from Earth. But those who have not yet fully completed their evolution should not share, occupy, divide, or add to the suffering of Mars with their cannons, rifles, and nuclear weapons; on the contrary, they should go as benevolent, nature-loving, and life-loving saviors, remembering the lost lives and resurrecting their places. Those who have not completed their evolution; those who do not see the living beings that die in forest fires and floods as living because they do not have a human-like appearance; those who kill innocent, blameless women, babies, children, and living beings; those who cause their merciless and savage deaths by leaving them thirsty and hungry; the mute, deaf, and blind armchair-loving/lazy people of the so-called international legal organizations established to solve these and similar problems; Those without diplomas, diploma thieves, the incompetent, those who disregard the law, the naked kings who turn existing laws and institutions into rotten tomatoes like themselves; those who present illegal acts as law, and embellish legitimate ones with lawlessness, injustice, and unfairness under the guise of law; those who, under the guise of seeing everyone as a threat, become a threat to everyone, those who are expansionist and invasive; those who, due to their inherently primitive carrier genes, are possessive, egoistic, unsharing, and greedy (they would not be satisfied even if you gave them the entire universe); irresponsible, uncontrolled, and limitless creatures who imagine the planet as their backyard; those who benefit from all the beauties of the planet but cause the most harm to it, those who destroy the planet's ecosystem as a result of human-caused activities that are definitely not of natural origin; By reminding that the negative things done to the planet must be corrected by the hands of those who did them and those who caused them; if you know how to create chaos, you must also learn how to clean it up in order for a business to be sustainable.

If you want to live in unity and harmony, you have a mutual obligation and responsibility to respect one another. Where can you find such a one-sided yogurt in abundance? Let me remind those who remain indifferent and unresponsive under the guise of democracy, rights, and law: History will remember you on its dusty shelves as instigators/encouragers/instigators of crimes, accomplices, supporters, and defenders of those who committed them...

### **Introduction:-**

**The problem is:** How do we understand and define matter? The crucial thing is to solve this problem by knowing and understanding it. First and foremost, we shouldn't accept matter as just any inanimate object or thing. Viewing it as a lifeless, motionless object standing still is very misleading. Just as statements like "we haven't suffered any loss of life" during forest fires and natural floods are inaccurate, viewing matter as inanimate is equally wrong. Yet, there are so many living things that contribute to maintaining the balance of the ecosystem during forest fires and floods that it's impossible to list them all. It's wrong to not consider the plants, trees, insects, and animals in the burned forests as living species. These living things in the forest also have babies, children, offspring, families, neighbors, relatives, ancestors, a past, and a future. Ibn Sina (who wrote many works in positive sciences and philosophy, but is primarily considered an unrivaled authority in the field of medicine and a leading representative of medieval medicine) beautifully and accurately described humans with his statement, "Man is an animal that thinks and can express its thoughts". For example, some documentaries clearly show that animals love, feed, protect, and fight against dangers their young, just like humans do.

Given this situation, the question arises: what causes these geochemical behaviors and rich functionalities of matter? These properties of matter do not develop by chance or random conditions. On the contrary, they develop according to certain rules and laws. These laws are naturally programmed / designed based on the laws of the positive sciences: mathematics, physics, chemistry, and biology. Therefore, wherever it is in the universe, whatever time dimensions it may be in, and whatever different thermodynamic, thermochemical-physicochemical environments and conditions it passes through, it responds with very rich and functional geochemical behaviors that are programmed/designed according to these positive sciences and cannot be changed by similar physical conditions (P/T). In other words, these very rich and functional geochemical behaviors of matter are programmed according to

the laws of physics, mathematics, chemistry, and biology. The types of responses matter should give according to these fundamental programs are limited by immutable laws and rules. The application of these immutable laws and rules has become a tendency and a necessity for matter. Because the laws of physics, chemistry, mathematics, and biology/botany-zoology are valid everywhere in the universe, regardless of location or time dimension. They apply in the same and unchanging way. These immutable principles have caused changes and transformations in matter. According to these laws, matter has existed from infinity and will continue to exist to infinity.

Therefore, in order to understand matter, to unravel its mysterious secrets, to understand the organic forms and inorganic systems it forms, their transformations into one another; to understand, know and solve the normal (without any extraordinary circumstances) natural life cycle durations; to better understand the very rich and very functional geochemical behaviors of matter, these immutable tendencies and necessities of matter, the author first brought to the agenda the first six articles of the "First Prototype Constitution of Matter" under the title of "First Prototype Constitution of Matter" (Tarhan, 2024c). He also requested researchers working on this subject to develop articles related to this Constitution of matter. During his original studies, the author kept notes of articles that could be new articles of the prototype Constitution of matter, and has increased the total to approximately 20 articles to date. Of course, there are many more articles related to the rich geochemical behaviors of matter. It was thought and suggested that when these are made into regular and immutable articles, it will be easier to understand matter and the organic forms, inorganic systems and substances it forms. Because it will also become clear that some scientific views that contradict the articles of the Constitution of matter cannot develop in nature and the universe. Natural systems and organic forms do not arise randomly, but evolve and complete their normal natural life cycles according to certain rules and laws. In this way, matter will continue its existence towards infinity through changes and transformations.

When we consider some concrete data and laws we've learned from nature and matter, we can make some important inferences. For example, we are faced with the fact that we are not alone in the universe, but we are not eternal/infinite either. Our planet Earth did not form solely for intelligent beings, as is often thought. This formation evolved and developed as a common living space for all living things, and the ecosystem was balanced. Other life forms in the universe developed and will develop in exactly the same way. Because, since the laws of matter, physics, chemistry, mathematics, and biology are equally valid everywhere in the universe, it would be contrary to the Constitution of matter, the laws of physics, chemistry, mathematics, and biology, for there not to be trillions (according to some researchers, 40-50 billion) large and small galaxies, trillions of terrestrial-rocky planets and moons within these galaxies, planets and moons (moons) in the moderately habitable zone relative to their star (Sun), with a thick and reasonably oxygenated atmosphere (approximately 21%) and an ozone layer. Terrestrial-rocky planets and moons (Moons) with thick and modern atmospheres have their own unique geochemical rock cycles (Tarhan, 2018), which have been defined and named. Geochemical rock cycles evolve naturally through precipitation, erosion, transport, deposition, and by developing macrobial-microbial life in water, lakes, seas, oceans, and terrestrial-marine environments. Therefore, in the Universe, some organic forms and inorganic systems complete their life cycles after millions and billions of years, and through their transformations into other forms and systems, allotropic organic forms, allotropic inorganic substances and systems with similar counterparts are reborn/formed and continue their existence. With the end of these cycles, new systems and cycles are formed / born. In this way, living life and inorganic systems in the universe do not remain alone. If some end after billions of years, others are reborn and formed again after billions of years. In this way, by evolving from simple to perfect, matter will evolve through evolutionary processes, increasing its degree of purity and leading to a further enrichment of diverse geochemical behaviors and multifunctional properties.

Consequently, it has been concluded that the natural life cycles of our planet's living beings, and especially humans, can be enhanced or diminished by human hands. Thanks to the genes we inherit from birth, and as prisoners of them, we possess emotions such as savagery, aggression, possessiveness, unsharing nature, jealousy, selfishness, ego, and ego, before fully evolving. Another conclusion reached is that it has been considered and suggested that it might be possible to double the average lifespan, or life cycle, of a normal human being compared to today's life cycle durations. To achieve this, you need to learn some information from nature. Studies of long-lived plants and trees in nature (e.g., olive trees that live for about a thousand years or more, queen bees, and cold-blooded animals, etc.) by botanists and zoologists have led to the idea that these studies could be applied to reduce the aging process of cells. The important thing is to create similar allotropes. This can be done through scientific studies. According to the articles of the first prototype constitution of matter, you must have the obligation and responsibility to do this together and in unity, just like matter itself. Otherwise, if the aggression, possessiveness, unsharing, egoistic, and

selfish emotions and feelings (practically known as animalistic emotions) hidden and encoded in our inherited genes from nature are not tamed by positive sciences after birth, if they are not domesticated and evolved on a human and planetary level, and if you cannot transform them into sharing, ethical, and moral values, you will never succeed. Wars, like those waged by our ancestors in the past, will continue from generation to generation, with the same aims and objectives, but with physical forms and scope altered by the conditions of the day, yet bound by unevolved, primitive genes inherited from nature.

Therefore, it is recommended that you guide yourself not with theological ideas, but with truths derived from positive sciences. Theological education should not be permitted. All children are common elements of this planet. Those who have not completed their evolution do not have, and should not have, the right to reverse the evolution of others. Although there are physical differences at the root of everything in nature and the universe, their functional mechanisms and purposes are similar (allotropic). Of course, there are internal and external parameters for humans. Nutrition, clean environment and hygienic/healthy conditions, organic and chemically uncontaminated diets are many reasons. However, despite all these negativities, it is possible to increase human lifespan. However, it is never possible to eternalize/immortalize the normal life cycles of living life and inorganic systems. It is contrary to the nature and Constitution of matter, and to the laws of physics, mathematics, chemistry, and biology.

In conclusion, to understand nature and the universe and unravel its mysterious secrets, it is absolutely necessary to know the articles of the prototype Constitution of matter. Because the organic forms and inorganic systems that matter creates do not arise randomly, haphazardly, or by chance. As matter passes through different thermodynamic systems and different thermochemical-physicochemical environments, it exhibits geochemical behaviors according to certain laws and rules. It develops, evolves, and transforms stable organic forms (plant and animal formations, etc.) and inorganic systems (galaxies, terrestrial-rocky and gas planets, satellites (moons), matter/rock/minerals, and different states of matter, etc.) suitable for those environments and conditions. Through these changes and transformations, matter undergoes phase changes, transforming into different states of matter that can be stable in each different thermodynamic system and under different thermochemical-physicochemical environments and conditions. Through these phase changes, they maintain and sustain their existence in all environments and conditions by transforming into different allotropic organic substances, different allotropic inorganic systems, and different allotropic inorganic substances. This is because similar conjugate allotropies have different physical properties (texture, structure/fat-thin, tall-short-dwarf, color/yellow-white-black, mineralogical composition, etc.). However, their chemical composition, which is the essence of matter, the basic building blocks of living things-plant and animal cells, inorganic substances, and the atomic building blocks of the substances that make up their systems atoms, ions, molecules, and subatomic particles are the same and similar. Their purposes, functions, and mechanisms are also similar. They only differ in their physical characteristics/appearance due to the physical conditions (P/T) of the places where they are formed and located. However, the same genius-species-famias exhibit similar mental characteristics and behaviors among themselves. Take one, hit the other; it makes no difference. etc...

If ancient Martians had ever existed, we would be fighting space wars with them right now. Why? Why are there, and will there be, wars on Earth? The articles of the prototype constitution of matter are valid everywhere in the universe. Although the physical appearances of similar allotropic counterparts may differ, the savagery, aggression, unshareability, and everything else in their inherited/genetically encoded genes are the same and/or similar to each other. Similar conjugate allotropes evolve in different environments and on different planets. The rich and highly functional geochemical behaviors of matter have developed, are developing, and will continue to develop a wide variety of allotropic organic forms (animal and plant cells), inorganic forms (rocks, minerals, ores, elements, etc.), and inorganic systems (galaxies, planets, suns, satellites, etc.) in nature and the universe... These natural cycles of change and transformation, except for interruptions/discontinuities outside of spontaneously developed extraordinary natural events, will continue indefinitely...

#### **The First Prototype Constitution of the Article:-**

The atomic building blocks(atoms,ions,molecules)of different elements that make up substances/rocks/minerals/ores cannot remain unstable for a long period of time. The laws/principles of the following matter are generally written taking into account the exchange and transformation of energy types and solid matter/rock/minerals into one another in the solid phase and in-situ (autochthonous in their original location). Therefore, the author has for the first time formulated and written the first 6 laws of the Constitution of matter (Tarhan, 2024c).

**Octet Rule:** Regardless of the environment and conditions in which they are found, the atomic building blocks (atoms, ions, molecules) of different elements that make up substances / rocks / minerals tend to minimize their kinetic energy level in their outermost shells / layers / orbitals by increasing them to eight electrons, similar to the number of electrons in the outermost shell of noble gases. Therefore, the atoms of elements with eight electrons in their outermost shells (noble gases) behave independently. Without any external force, intervention, or extraordinary situation, they have no desire or inclination to combine with the atoms of other elements to form compounds. Apart from noble gases, the atomic building blocks (atoms, ions, molecules) of other elements do not have such a chance or preference. To remain stable, they are obliged to share electrons (give and take electrons) with the atomic building blocks (atoms, ions, molecules) of other elements. They form compounds by combining through ionic chemical bonds or by sharing their outermost electrons through covalent chemical bonds. In the universe, hydrogen (H) and helium (He) atoms, which are light and simple in structure and are the ancestors of all the different elements (there are many more elements and their derivatives that we do not know about besides those known to date) and heavy, strong elements, are found in abundance. Hydrogen has only one electron. The fact that it increases its electron count to two to resemble helium is called the Duplet rule.

Based on the results of my independent and original studies conducted at different times, Article 6 of the Constitution of the article was created and written by the author for the first time (Tarhan, 2024c). It is seen that there is a common obligation in all the articles. According to the octet rule, they have an obligation to act together. However, the noble gases are outside the scope of the obligation of the matter to act together, in unity and solidarity. The following articles/laws, which constitute the Constitution of the substance, are not bound by noble gases. They can act freely and independently. However, I would like to point out that they are unhappy because they are not self-serving, egoistic, sharing, and cannot do useful work. They can act freely as long as there is no external coercion and interference. The articles/laws that constitute the Constitution of matter have a very rich and functional geochemical behavior that they must exhibit for many reasons, such as maintaining the existence, stability, and condition of matter, remaining stable within the systems they are in and pass through, and keeping those systems in balance. The first article is the fundamental law and is very important. It is an unchangeable law, and even proposing a change is unacceptable. Therefore, matter is programmed not to perish. The new articles added to the six articles of the first prototype Constitution of matter safeguard the first law/principle of matter. As a result of these substances/laws/regulations, substances undergo phase change. In this way, it becomes stable and is preserved. Through the transformation and conversion of different substances with mass into different energies without mass, and vice versa, they maintain a constant total of matter with mass and energies without mass in the universe and in systems. They preserve the law of conservation of matter and energy and the programming/design of non-perishability. All the substances that constitute the Constitution of matter are directly dependent on and related to each other. They are acting together in unity and solidarity (excluding noble gases, which are not part of this unity). It's as if they're saying, "There's no salvation alone, either all together or none of us," and they're acting together.

#### **Initial Articles of the Prototype Constitution of the Article:-**

##### **The First Formed Articles of the Prototyp Constitution of the Matter:-**

The atomic building blocks (atoms, ions, molecules) of different elements that make up matter/rocks/minerals have a tendency and necessity to move together. This is because the atoms of different elements that make up matter/rocks/minerals have a desire and inclination to complete their outer shell electrons to eight electrons in order to keep the kinetic energy level in their outer shells/layers/orbitals at a minimum. To complete their outer shell electrons to eight, they are obliged to exchange (share) electrons with the atoms of other elements (Octet's Rule). This situation reveals the necessity for the atomic building blocks of different elements to be together and in unity. No element has the chance or preference to remain unstable / indecisive alone for a long time with fewer than eight electrons (between 1 and 7 electrons) in its outer shells/orbitals. For elements to become stable/stable and electrically neutral, they absolutely must share (give and take) electrons with the atomic building blocks (atoms, ions, molecules) of other elements. This situation makes all elements existing in nature and the universe (there are far more unknown types and derivatives of elements in the universe than those known to date) dependent on and obligated to each other (except for noble gases). Therefore, they cannot exclude any element, and the chance of making any element exceptional disappears. If they were to grant this exception, then the law of acting together would not be observed.

Their desire to win, even with the demands of "all together or none of us," will not be fulfilled. Therefore, the obligation and tendency to comply with the Constitution of matter arises. However, the decisions of this Constitution of matter are final. Everywhere, in all environments, and under all conditions (including physical P/T

influences directed at them from the outside), without discrimination, bias, or polarization (without polarizing societies, social classes, and countries against each other like the Naked Kings driven by personal gain, self-interest, and lust for power), each element has the obligation and tendency to apply the same law by responding through its own geochemical behavior. Because behind it lies the combined power of similar geochemical behaviors stemming from the same Constitutions of other elements. When these forces unite everywhere and become a common great power/powers, it creates the perception that matter cannot do, cannot transform, and that "nothing is impossible" in its nature. Therefore, they maintain their existence. A small mistake can break the unity, and it can be the end of them all. It is very clear that they have no other chance or choice but to comply. Furthermore, as matter evolves continuously, increasing its degree of purity and accuracy, and its feasibility and sustainability, the chances and preferences for making mistakes are naturally reduced or eliminated. No element's atomic building blocks have the luxury of ignoring or violating this law on their own. Therefore, Article 1 of the prototype Constitution of the Article is the fundamental/main article that constitutes the law/article of the article that cannot be amended and cannot even be proposed for amendment (Tarhan, 2024c, Tarhan, 2018, Tarhan, 2019a, Tarhan, 2019b, Tarhan, 2021, Tarhan, 2024a, Tarhan, 2024b).

**The 2th Law of Matter:-**

The atomic building blocks of different elements that make up substances/rocks/minerals have a necessity to move together in a cycle. Even if substances/rocks/minerals pass through and/or are affected by different thermodynamic systems (closed, transitional/semi-open-semi-closed and open thermodynamic systems, etc.) and different physicochemical-thermochemical conditions within a cycle, they have a necessity to change and transform together within a cyclical system. As a result of the changes and transformations of substances/rocks/minerals within this cycle, they change and transform into other types of similar counterparts with different physical properties (texture, structure, color, mineralogical composition, etc.) but the same chemical composition, allotropic substances/allotropic rocks/allotropic minerals. They mature, evolve towards perfection, diversify, enrich, multiply and spread (Tarhan, 2024a, Tarhan, 2024b).

**The 3th Law of Matter:-**

Substances/rocks/minerals all have a necessity for phase change. As substances/rocks/minerals evolve within a cyclical system, undergoing transformations and changes within one another, they are obligated to undergo phase change together in different thermodynamic systems, physicochemical-thermochemical environments and conditions to maintain their existence, achieve stability, and balance the systems they are in and/or through. During phase change, substances/rocks/minerals change their physical properties (texture, structure, color, mineralogical composition), using the energies available in the environment to transform into stable, similar, conjugate allotropic substances/allotropic rocks/allotropic minerals in different phases. However, during the phase change stages/processes of solid substances/rocks/minerals and energies, there is no change in their total geochemical composition and total energy. In other words, there is no increase or decrease in the total geochemical composition and total energy of the substances/rocks/minerals. It remains constant (Law/Principle of Conservation of Matter and Energy).

**The 4th Law of Matter:-**

During phase changes of substances/rocks/minerals and energies, their total geochemical composition and total energy remain unchanged/conserved. Substances/rocks/minerals change phases together (according to the 1st Law of Matter) in a cycle (according to the 2nd Law of Matter), as they pass through or are affected by different thermodynamic systems (open, transitional/semi-open-semi-closed and closed systems), different physicochemical-thermochemical environments and conditions, through exchanges and transformations into one another in the solid phase and in-situ (autochthonous where they are) (according to the 3rd Law of Matter). The transitional/semi-open-semi-closed thermodynamic system was first defined and named by the author (Tarhan, 2018). It is a fourth thermodynamic system added to the three known thermodynamic systems: open, closed, and isolated (Tarhan, 2018). During phase/state/form changes of substances/rocks/minerals and energies, their total geochemical composition and total energy remain the same/constant as they change into other substances/rocks/minerals and energies. In this way, when substances/rocks/minerals and energies change phase/state, only their physical properties (texture, structure, color and mineralogical composition) change, but they transform into allotropic substances/rocks/minerals/ores with different conjugates/similars whose geochemical compositions do not change; into different conjugate/similar allotropic plant-animal cells and into different conjugate/similar allotropic energy types at different energies (Tarhan, 2024a, Tarhan, 2024b).



**The 5th Law of Matter:-**

The atomic building blocks (atoms, ions, molecules) and energies of the different elements that make up substances/rocks/minerals cannot remain unstable / inconsistent for a very long time during phase change. With phase change, they lose their stability in the different thermodynamic systems and different physicochemical-thermochemical conditions/environments they pass through or are affected by.

They become unstable. In the shortest time period, they tend to become stable together in the current physicochemical-thermochemical conditions/environments by exhibiting different geochemical behaviors and changing into solid materials/rocks/minerals/energies with different physical properties and different thermochemical properties in the current conditions/environments (Tarhan, 2024a, Tarhan, 2024b). They will, by whatever means necessary, and in the shortest possible time, transform their physical properties together, changing into stable materials/rocks/minerals and different energies under the existing conditions, and strive to become stable. Some cannot afford the luxury or preference of saying "I cannot change phase" while others can. According to the First Law of Matter, they are obligated to act together. This necessity always remains dominant, even if the preferences for change and transformation are few. In other words, old, traditional rigid properties always have the necessity of breaking down and evolving, undergoing change and transformation to adapt to changing geochemical-thermochemical conditions/environments; they need to be renewed and updated.

**The 6th Law of Matter:-**

Matter has a necessity to adapt to different thermodynamic systems, different physicochemical-thermochemical conditions, and environments through which it passes or is influenced. Matter does not have intelligence or memory. Unlike us, it does not solve its problems by straining logical imagination and creating different models. It cannot make predictions and plans for the future or the past. On the contrary, it has the necessity to remain stable/steady in the different thermodynamic systems it is in and passes through (open, transitional/semi-open-semi-closed, closed, etc.), under different physicochemical-geochemical-thermochemical conditions and environments, to balance the system it is in, and to adapt to the conditions of the system. It has a necessity and tendency to respond to the physical conditions (P/T) that intervene from the outside with very rich and functional geochemical behaviors. In order to remain stable according to the existing physical conditions (P/T) and conditions in the environment, it tends to adapt by exhibiting different geochemical behaviors according to the existing conditions. In other words, unlike us humans, they don't immediately try to eliminate the physicochemical conditions that affect them by fighting against them. Instead, they gradually try to balance them in a way that neither side suffers. Because destruction is not in the nature of matter. On the contrary, it involves creating, existing, living, sustaining, multiplying, enriching, and spreading. There are no negative aspects in its nature; only positive ones.

Let's give a simple example. The chameleon, a type of reptile, when threatened, changes its color (it has many color-changing properties) to blend in with its surroundings, making itself invisible to its enemy. It physically changes color, adapts to its environment, and survives. But the chameleon's physical change is allotropic. That is, the cells and atomic building blocks of the chameleon before and after the color change are the same and/or rearranged/restructured in the solid phase and in situ. The inherent protective and defensive systems of matter come into play. A restructuring occurs according to the applied physical conditions (P/T). This continues until the physical conditions change, i.e., until the danger passes. But it survives. There is no decrease, increase, or change in its chemical composition before and after the color change. Its total chemical properties remain the same. It is forced to adapt by changing only its physical properties, by changing phase. Why? Because it is obliged to perform this geochemical behavior/reaction/natural defense mechanism/instant reflex/instant response against the violence its enemy will inflict upon it. Otherwise, the continuity and sustainability of the mine would be impossible. By nature, this change, transformation, adaptation to the environment, and allotropic change in physical characteristics of the chameleon develops over a short period of time. However, the adaptation of substances, rocks, and minerals to their environment by their very nature their physical phase change and allotropic transformations develops gradually and slowly over millions and billions of years. It doesn't happen instantaneously. It's not happening instantly. They're balancing the systems by spreading it out over time.

**3I/Atlas:-**

Let's give another current example of the necessity and responsibility of matter to protect and preserve, not to destroy but to keep alive. The fact that the alien celestial body "3I/Atlas" surfed in our solar system has raised concerns about the increased costs of projects aimed at protecting our planet from collisions with other celestial bodies. According to the author, the celestial body 3I/Atlas comes from a hot region. It is of organic origin. It was

formed biochemically. The matter, which is probably a type of sedimentary carbonate rock with the chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ , has converted itself into energy. He surfs among the stars with this energy. These types of large celestial bodies do not cause natural accidents or disasters. Similarly, in 2017 and 2019, alien celestial bodies made tourist trips in our solar system. They did not cause any natural accidents. Such celestial bodies have made, are making, and will make tourist trips in the Universe. These are natural developments and should not be surprising. According to scientists, there are approximately over 400 alien celestial bodies in our Solar System. According to scientists and NASA researchers, 3I/Atlas will pass closest to our planet on December 19th, at a distance of 270 million km, and will not cause an accident. Furthermore, NASA researchers have determined that 3I/Atlas emits methanol and hydrogen cyanide gases, which are important for life. This significant data suggests that 3I/Atlas is not a comet, but rather an organic, carbonate-composed asteroid, a "visit tourist" surfing through space, converting itself into energy. 3I/Atlas (July 1, 2025) is moving in a hyperbolic orbit in our solar system at a very high speed of approximately 210,000 km per hour. It is an asteroid approximately 5.6 km in diameter (Figure 1). Previously, asteroids II/'Oumuamua (2017) and 21/Borisov (2019) also visited our solar system.



**Figure 1:- Taken from 3I/Atlas, an interstellar tourist explorer (The enigma of interstellar asteroid 3I/ATLAS: science, hypotheses and discoveries).**

It is quite natural for our planet to take precautions against collisions with foreign celestial bodies, and for research and projects to be conducted on this subject. However, such excessive costs are unnecessary for such projects and precautions. It is thought that if the laws of matter, which are discussed in this article, had been known, even partially, until now, these unnecessary expenses would not have been incurred. Therefore, it is suggested that a portion of the money spent and accumulated on such projects be used to contribute to the nutrition and education of children in underdeveloped and impoverished countries. Because, according to the laws of matter discussed above, except for extraordinary unintended accidents in the Universe, no meteorite, asteroid, or comet of sufficient size to cause damage has the chance or preference to collide with another meteorite, rocky planet, or moon. Why? The first reason is that matter has the obligations and responsibilities of protection, preservation, and non-destruction. The second reason is that funding should be provided to researchers who demonstrate how it achieves this protection (avoiding collisions and distortions, etc.). It was thought and suggested that this would save us from great fears and unnecessary expenses. According to research, the celestial body 3I/Atlas will not collide with our planet. According to the author, it will not collide with other celestial bodies during the tourist trip either. The fact that the celestial body will not collide with other celestial bodies, terrestrial-rocky planets, and moons cannot be attributed to chance and coincidence. There are rules and laws governing this avoidance of collision. Researchers who receive funding from public taxes should explain and reveal the mechanisms of these rules and laws that prevent collisions...

Celestial bodies that are essentially touristic will naturally shrink in mass and size as they convert themselves into energy. It is certain that some of these will become cosmic debris. These small meteoroids (including the remnants

of man-made space rockets, etc.) have been defined as cosmic/space debris for the first time. Why do outer space, terrestrial-rocky planets, moons, comets, and large asteroids accept meteor/meteorite-sized pieces of cosmic debris? Why, however, do they not accept larger ones? This is explained in the articles of the Constitution. How do these large celestial bodies meet their end? These questions await resolution.

In conclusion, it has been suggested and proposed that both 3I/Atlas and other previous large asteroids/celestial bodies in our Solar System, which have transformed themselves into energy and embarked on interstellar tourist trips, originated not from a cold region, but from a hot one. Furthermore, 3I/Atlas is not a comet. Comets are generally composed of volcanic rocks of the ignimbrite, agglomerate and pyroclastic types and ice (Tarhan, 2018). These asteroids are organically formed, biochemically generated, sedimentary carbonate/calcite/ $\text{CaCO}_3$ , a type of carbonate that surfs the vacuum of space. These asteroids have been accepted and proposed as further evidence and indications that there is other life in the Universe, that we are not alone in space, and that there will never be solitary life in the universe. Tourist travelers from cold regions do not have this chance or preference. Why? Another characteristic of 3I/Atlas is that it demonstrates concrete and definitive evidence of the transformation and conversion of a solid substance with mass into energy without mass. Scientists and researchers state that the asteroid 3I/Atlas passed closest to our planet on December 19th, at a distance of 270 million km, and is now heading out of our solar system.

They also note that our solar system is 4.5 billion years old and 3I/Atlas is approximately 7 billion years old. However, according to the author, 3I/Atlas, being a tourist asteroid, will continue its leisurely surfing journey through the universe without causing any natural disaster until its mass is depleted and it becomes part of the universe's debris, as it transforms itself into massless energy. Scientists and researchers state that the asteroid/celestial body 3I/Atlas passed its closest point to our planet on December 19th, at a distance of 270 million km, and is currently moving away from our solar system. They also note that our solar system is 4.5 billion years old, while 3I/Atlas is approximately 7 billion years old. However, according to the author, 3I/Atlas, a visiting asteroid, will continue its pleasant tourist surfing journey through the universe without causing any natural disaster, transforming into massless energy/heat/light until its mass is depleted and it becomes part of the universe's debris...

### **Impact Craters:-**

Another phobia and prejudice is the idea and suggestion that "impact craters" can be overcome... Because it has been thought and suggested that scientists and researchers will get rid of their prejudices and phobias about the pits (until now known as impact craters) frequently seen on the outer surfaces of rocky and terrestrial planets, moons, and large celestial bodies/asteroids, formed by the impacts of meteors, celestial bodies, asteroids, and comets... Because the formation of large circular pits and basins, known as impact craters, which develop at a regional level and are frequently seen on the outer surfaces of terrestrial rocky planets, moons, and asteroids, and the formation of smaller circular pits and basins developing in terrestrial areas within and outside these large circular pits and basins, are definitely not caused by the impacts of celestial bodies (meteorites, comets, asteroids, terrestrial rocky dwarf planets of different sizes). Moreover, according to the aforementioned articles of the Constitution, this is not possible. Why? Because matter has responsibilities and obligations such as protecting, preserving, not destroying, living, sustaining, evolving, enriching, spreading, etc.

We can draw some conclusions from these laws of matter. The view that impact craters are found on the outer surfaces of terrestrial-rocky planets, moons, and asteroids has collapsed. These views are absolutely wrong. From now on, the circular depressions known as impact craters have been defined, named, and proposed as sinkholes/sinkholesing/sinkholesization formations. Under these headings, it is suggested that they be re-examined and investigated using geological and geophysical methods. You don't need to go to Mars or the Moon for this. To date, impact craters and depressions of various sizes found on the outer surfaces of terrestrial-rocky planets, moons, and asteroids are sinkholes/sinkholesing/sinkholesization pit and lake formations specific to the terrestrial-rocky planets, moons, and asteroids in which they are located. They all have their own unique geological and paleoclimatological evolution, formation methods, and mechanisms... They have absolutely no direct or indirect relation to impact craters...

Until now, it has been suggested that the impact craters seen on the surface of our planet Earth were formed as a result of the impacts of meteors, asteroids, meteoroids, and comets. Approximately 190 impact craters and impact crater lakes have been identified on Earth (Earth Impact Database, 2024) ([https://tr.wikipedia.org/wiki/D%C3%BCn\\_ya%27daki\\_%C3%A7arpma\\_kraterlerin\\_listesi](https://tr.wikipedia.org/wiki/D%C3%BCn_ya%27daki_%C3%A7arpma_kraterlerin_listesi)). Impact craters in many parts of the world, in Arizona, and in

Argentina (Rio Cuartto Crater, Bland et al., 2002) should be re-examined. The extinction of the dinosaurs has been linked to these impact craters. However, it has been thought and suggested that the formation of impact craters and impact crater lakes in these different regions of the Earth has no relation to the impacts of meteors, celestial bodies, asteroids, and comets on the Earth's surface. They are directly related to the geological history of the terrestrial-rocky planets, satellites, and asteroids on which they are located. This is directly related to sinkholes / sinkholesing / sinkholesization events, which are unique to each individual and have different causes and formation mechanisms. This article concludes and argues that the impact crater view is fundamentally flawed. It is also argued that the extinction of dinosaurs cannot be attributed to impact craters. It is suggested and proposed that the causes of dinosaur extinction should be re-investigated. It is considered that natural events cannot be explained by logical models of imagination and the deceptions of matter. It is considered and argued that they must be explained using the parameters of positive sciences. For example, can you find the physical and mechanical effects of the impacting material, its chemical composition, its burning and explosion in the atmosphere, and similar traces in the impact craters on Earth? Absolutely not... Because the articles of the Constitution of matter do not allow for such massive destruction... I apologize, but the Universe is not a "Dingo's Stable" like Earth. Everyone does not have the freedom to act as they wish, without limits, irresponsibly, and unconditionally. It has absolute and immutable laws and rules... Therefore, it is able to maintain its eternity and the great galactic hormonal balance dance. But we know about the existence of meteorites, which are cosmic debris that doesn't cause destruction when they fall to Earth, as well as their chemical composition, physical properties, and effects...

As I have stated before in my research papers published in the "South Florida Journal of Development", some commonly held views that have become entrenched in the geological literature due to unresolved issues are actually wrong; I have broken these vicious cycles; I have opened the way for positive science, it will evolve, I am a researcher who thinks differently, but I am not the only geologist in this world (Tarhan, 2024a, Tarhan, 2024b, Tarhan, 2024d, Tarhan, 2024e, Tarhan, 2024f). Therefore, it is considered and suggested that researchers from all different disciplines fulfill their responsibilities and obligations; they should contribute to positive science, social sharing, solidarity, peace, and co-existence. No living being has superiority or privilege over another. This planet is the common living space of all living beings...

#### **The 7th Law of Matter:-**

In all galaxies and other galaxies in the Universe that have thick atmospheres/atmospheric spheres, ozone layers, and modern atmospheres composed of approximately 21% oxygen (O<sub>2</sub>), nitrogen (78%), and other gas molecules, the formation of macrobial-microbial absolute life is inevitable as a result of the Gülnaz geochemical rock cycle (first defined and named by Tarhan, 2018). Such terrestrial-rocky planets and moons are generally located in the intermediate habitable zones relative to their stars (Suns) in their own solar systems. In such planets and moons, as in our planet Earth, the geochemical rock cycle (precipitation/snow-rain, water, streams, rivers, lakes, seas, oceans; erosion, transport, sedimentation, deposition, etc.) develops. Depending on the geochemical rock cycle, macrobial-microbial life (plants, forests, species of living things, intelligent extraterrestrial beings, etc.) develops as a prototype in the seas and on land. They evolve towards perfection, multiply, spread, enrich, and diversify. Even if such planets and moons lacked oxygen gas, and had thick atmospheres dominated by carbon dioxide and/or nitrogen gas, along with other gases, life would never arise. Oxygen is an essential element and gas for life. However, the view that life exists or could arise on planets and moons with thick atmospheres dominated by other gases, as has been known and thought until now, is considered incorrect and has been put forward.

Because the prototype plant and animal cells that matter would form are programmed/designed according to the presence of oxygen gas. They are not programmed according to any element and/or gas/molecule other than the element oxygen (O) and/or oxygen gas/molecule (O<sub>2</sub>). Therefore, plant and animal life would not arise. Furthermore, harmful ultraviolet (UV) radioactive rays from the Sun, solar winds, and space are filtered (absorbed) by the ozone layer. The ozone layer, in turn, is composed of isotopes of the element oxygen. In other words, in the absence and/or deficiency of oxygen gas (even if it is less than or more than 21 percent), life can never arise, even in the presence of a thick atmosphere composed of other gases. In a thick atmosphere with approximately 21 percent oxygen, matter initially forms a prototype of life. Through continuous and sustainable processes, matter evolves and multiplies according to different allotropic generations; this leads to transformations, changes, enrichment, and diversification into different species and derivatives. Matter accomplishes all these events/data in the presence of oxygen, carbon dioxide gas, and carbon cycles. In cyclical environments where oxygen and carbon cycles are absent, but other gases are present, absolutely no plant or animal life can form or evolve. Therefore, the 7th law of matter necessitates the existence of oxygen, carbon, and carbon dioxide cycles/elements for life. Because the

fundamental purpose of matter is: to exist, to create, to form, to sustain, not to destroy, to beautify, to multiply, and to spread. Therefore, it has made the existence of oxygen and carbon elements necessary as the basic building blocks for life. No other element has been given these tasks. From this, we can conclude that if there is life on any terrestrial-rocky planet or moon in the universe, it must be composed of different conjugate allotropes similar to life on our planet Earth. Never imagine that a living organism (plant and animal) is composed of different gases and elements. It is recommended that your research be conducted in accordance with established views, as the universe has a single set of mathematical, physical, chemical, and biological laws and their derivatives. These are valid everywhere in the universe. There are no different types and variations of physical, mathematical, chemical, and biological laws or different Constitutions of matter/article in different regions of the universe. However, there are far more unknown inorganic and organic elements and their derivatives than we know.

**The 8th Law of Matter:-**

When matter succumbs to extraordinary forces/conditions applied to it from the outside and passes into an unstable/inconsistent molten liquid magmatic phase through partial melting, its properties of survival, sustainability, constructiveness, formation, and life-sustaining are lost. Therefore, there is a tendency and necessity to reach a stable state as soon as possible. To reach a stable state/phase as quickly as possible, it must now utilize its highly functional and rich geochemical behaviors to its own advantage. It tends to solidify and become stable/correct/completely solidified as quickly as possible. The most stable form of matter is the solid state. These solid states/phases consist of crystalline, crystalloblastic (Tarhan, 2018), semi-crystalline-semi-crystalline and non-crystalline/amorphous states/phases. According to this law, matter can never remain in an unstable/inconsistent environment and state for a long time. There is a tendency and a necessity for it to reach a stable/correct phase in the shortest possible time.

**The 9th Law of Matter:-**

Matter has the capacity to structure, repair, regulate, balance, sustain, and control. It functions like R&D. This is because matter is programmed in positive ways to exist, sustain, create, protect, preserve, diversify, not destroy, not perish, enrich, beautify, multiply, and spread. There are no negative aspects in the nature of matter; It is programmed to always focus on positivity. We can draw some conclusions from this law of matter. The matter develops the cycle of evolution from simple to perfect. It can never enter a cycle of backward evolution. Therefore, matter constantly increases its capabilities/strength, accuracy, and purity. In other words, it is constantly evolving.

**The 10th Law of Matter:-**

The inorganic and organic forms and systems of matter always operate within ordered, symmetrical, and sustainable systems. The basic building blocks of mineral crystal structures in solid substances/rocks/minerals/ores that make up inorganic forms and systems are atomic building blocks (atoms, ions, molecules). Under existing physical conditions (P/T), thermodynamic systems, and physicochemical-thermochemical conditions and environments, these atomic building blocks develop ordered and symmetrical crystal structures, thus developing stable mineral crystal structures. Ordered and symmetrical mineral crystal structures, in turn, develop solids/rocks/minerals/ores. Similarly, by forming the ordered and systematic cells (plant and animal cells) that are the basic building blocks of plants and animals, which are organic forms of matter, they create prototype plants and animals that adapt to existing physical conditions (P/T) and environments, leading to their evolution, enrichment, multiplication, dissemination, diversification, and sustainability from generation to generation. According to this article of the Constitution of Matter, matter tends to evolve positively in a gradual manner across different generations by creating prototypes of inorganic systems, inorganic forms, and organic forms, enabling them to adapt to the physical conditions (P/T), thermodynamic systems, and thermochemical-physicochemical environments in which they exist and/or pass, correcting their deficiencies, and creating and repairing the organs and parts needed according to new conditions. Each next generation has a more perfect structure than the previous one. There is no going back. The more generations it has developed the more positive values, structures, and diversity in terms of genius/genre/species it has created.

Similarly, simple, light atoms of hydrogen (1e, 1p) and helium (2e, 2p), which are very common in the universe, combine, evolve, diversify, enrich, and spread their new generation of allotropes, creating the ancestors of all elements existing in nature and the universe, which have a more perfect, stronger structure and are heavier (Tarhan, 2024a, Tarhan, 2024b, Tarhan, 2024c, Tarhan, 2024d, Tarhan, 2024e, Tarhan, 2024f, Tarhan, 2024g). However, there are far more unknown inorganic and organic element types and derivatives in nature and the universe than the known elements. These are waiting to be discovered. Consequently, matter first creates its organic and inorganic

forms and inorganic systems as prototypes. These prototypes evolve towards perfection from generation to generation, showing a tendency towards the gradual development of perfect allotropes of generations. Matter always evolves forward. Its wheels move forward. The gears never turn backward / they are locked in that direction.

**The 11th Law of Matter:-**

The formation and sustainability of the regular, systematic, and symmetrical structures that constitute the inorganic forms/shapes/states/phases and inorganic systems of matter continue for billions of years. The end of the life cycles of inorganic forms (solid substances/rocks/minerals/metals, etc.) and systems (galaxies, planets, satellites/moons, etc.) is also expressed in billions of years. However, the formation of the regular, symmetrical, systematic, and sustainable structures of organic forms of matter (plants and living things) takes much shorter time. Organic forms/shapes gradually deform due to external and internal factors. As they deteriorate and transform into an irregular, asymmetrical, amorphous structure, their life cycles lose their characteristics after hours, days, and years. Therefore, their life cycles and sustainability are shorter (they die).

Furthermore, outside of normal conditions, it is possible to increase or decrease the sustainability of the life cycles of organic and inorganic forms and inorganic systems of matter through ordinary and extraordinary external interventions. Because in nature (our planet), in the universe, and in matter, there is nothing that cannot be done. What matters is whether we have reached that accumulation of knowledge. Organic forms of matter, as well as inorganic forms and inorganic systems, undergo transformations and exchanges with one another. For example, inorganic elements undergo changes and transformations into allotropic organic elements, which are their similar conjugates of organic origin. The inorganic calcium (Ca) element transforms into the allotropic calcium (Ca) element of organic origin. The richness of nature and the universe, the formation of an endless supply chain, and its infinity stem from this. However, it is not possible to make an existing organic form and/or inorganic system eternal/immortal. When their normal life cycles are complete, they gradually change and transform into other forms and systems, developing new organic and inorganic forms and inorganic systems. Organic forms of matter, as well as inorganic forms and inorganic systems, have a certain normal life cycle. Simply put, we can think of this as aging and metal fatigue...

**The 12th Law of Matter:-**

Matter has a tendency and necessity to establish, regulate, repair, and maintain the necessary systems for the formation, enrichment, diversification, evolution, and sustainability of life, and for the formation of ecosystem balance. In other words, matter establishes, controls, repairs, and regulates the ecosystem through its geochemical behavior, ensuring the orderly and harmonious functioning of organic forms and inorganic systems, and their preservation and maintenance.

**Carbon Emissions and Climate Change:-**

Floods, forest fires, flood-forest disasters, and the resulting loss of life and disruption of ecosystem balance have many causes, and they all share a single culprit: Specifically in humans and other living things, innate traits are passed down through inherited genes from generation to generation, including savagery, aggression, egoism, selfishness, a desire to possess, to kill and destroy for survival, a denial of the right to life and well-being to those different from oneself, and a lack of sharing all of which have not evolved naturally within their short life cycles. However, especially in humans, the necessity and responsibility of evolving, domesticating, living in unity and solidarity, creating free, peaceful, and sharing generations, and acquiring the human, moral, and ethical values they can later gain through planetization, within the scope of positive sciences after birth, will depend on intelligent beings.

**On our planet, climate change and ecosystem degradation were not, and will not be, caused by natural events.**

Just as parents strive to nourish, protect, care for, and sustain their children until death, nature similarly seeks to protect, preserve, and sustain the life it has created and evolved as a prototype. Therefore, the cycle of negative events that develops and triggers each other in the ecosystem is the sum of negative, uncontrolled, and unchecked irresponsible actions that develop and arise as a result of human activities. It is neither correct to blame nature for the negative consequences stemming from the negative impacts on the environment and nature caused by human activities, nor is it clear that this will bring about a positive breakthrough and restructuring towards fundamental solutions to the problems. The sole culprits and those responsible for climate change and ecosystem degradation are unevolved and/or incompletely evolved intelligent beings on Earth. Nature is tired and weary of protecting its living beings from these intelligent beings. It will ultimately be up to you to clean up the negativity you have caused and

created. We will both benefit from all the beauties of the world and be the ones who cause the most harm to nature, the environment, living beings, and water. There's no such thing as an abundance of yogurt. I apologize profusely, but this planet is not "Dingo's stable." No one can, or should, run rampant as they please, without limits, independently, arbitrarily, irresponsibly, and freely. Saying "this terrorist is yours, that terrorist is mine, this is your industrial zone, that is my industrial zone" is not correct. This needs to be understood. This planet does not belong to a select few or to a select few. Ants, elephants, and other living creatures share common habitats and spaces with humanoid-looking beings and creatures that resemble humans. The planet's water, forests, air, atmosphere everything is shared. Everyone has, and should have, a responsibility and obligation to abide by the social laws and agreements that must be followed collectively and individually against all negativity, to act responsibly, and to protect and preserve. Okay, we understand! Of course, there will be natural needs and requirements. But human activities undertaken to meet these needs should not be profit-driven and irresponsible. They must be continuous and sustainable. Harmful substances resulting from these human activities should be filtered, purified, and not haphazardly dumped into the environment or discharged into waters and seas. Did nature create the mucilage/sea slime/red tide formations that occur in seas and closed basins? These formations have no relation to nature. They are entirely the result of human-caused activities, uncontrolled and irresponsible behavior.

Is it nature that is causing the deep-sea discharges into the seas without treatment due to the increasing world population and urbanization; Are harmful waste materials (plastics, waste, etc.) and radioactive waste materials dumped into the seas from ships caused by nature? I want to state clearly that the responsibility, the culprit, the origin of all negative natural events that have occurred and will occur in the world, lies with the unevolved and resisting-evolutionary intelligent beings of the world themselves. The climate change and temperature increases experienced in recent years, the resulting floods, forest fires, drought, water scarcity, and excessive rainfall, in short, the main cause of the disruption of the ecosystem, is carbon emission/release/release into the atmosphere/atmosphere; it is the sum of arbitrary, irresponsible, indifferent, uncontrolled, and unmanageable behaviors, non-implementations, and lawlessness; it is unnatural, but the result of subsequent erroneous and harmful human activities, and is therefore world-human-caused. Therefore, I deeply regret that you have failed to protect the living creatures of nature from harmful substances resulting from human-caused activities, and I hope and pray that a similar fate to that of ancient Mars will not be repeated. It is thought that the life of ancient Mars disappeared/vanished as a result of extraordinary natural events. However, it has been suggested that Earthlings, while benefiting from the beauty and various advantages of their planet, are attempting to bring about its own end with their own hands. It is urgently necessary to look at the environment and climate change from different perspectives, to make decisions that are unbiased, inclusive, sharing, and fair to everyone, as a single whole, and to implement them definitively and impartially.

#### **The Benefits and Harms of Carbon and Oxygen Emissions:-**

Carbon dioxide gas is essential for both the atmosphere and the plants and forests that make up life. Plants and forests consume carbon dioxide gas, producing glucose for their own growth through photosynthesis using light. In return, they release/produce oxygen ( $O_2$ ) gas into the atmosphere. Oxygen gas (or molecules) contributes to the formation of the thick ozone layer, which filters ultraviolet (UV)/ultraviolet radioactive rays (electrically charged, massless particles/photons) from the sun, which are harmful to the atmosphere (approximately 21% oxygen) and to living organisms, causing skin cancer. It is also crucial for the respiration of animal life (the balanced oxygen level in the blood should be 97-98%). In this way, by consuming carbon dioxide gas ( $CO_2$ ) in the environment, the formation of oxygen ( $O_2$  molecules) and ozone ( $O_3$  molecules) necessary for animal life and the atmosphere is ensured, thus balancing the ecosystem. In other words, we can consider the process of consuming a substance that is not beneficial to the environment (carbon dioxide gas) and, in return, producing another beneficial substance (oxygen), as an ecosystem cycle/or balance. When considered unilaterally, we perceive this as profit and loss. When considered bilaterally, both parties have achieved the greatest gains necessary for their survival (both sides have made their most profitable exchanges. Both sides have made the greatest profit of their lives). Both sides have mutually provided each other with substances that are very dangerous and harmful to their own lives, thus achieving enormous gains from this exchange/cycle. In this way, the substance mutually secures their future and sustainability. It benefits everyone, big or small, strong or weak, by making them mutually dependent on each other.

This exchange cycle (ecosystem balance) has created a necessity for reciprocal exchanges that are of primary importance for their own lives and futures, ensuring their survival and sustainability. Plants consume the carbon dioxide ( $CO_2$ ) gas produced by inorganic systems, converting it into glucose through photosynthesis using light, which is essential for their growth. In return, the oxygen produced by plants is consumed by living organisms for

their own respiration and survival, as well as for the thickening of the ozone layer, which absorbs harmful radiation and is released into the atmosphere. While these gases are harmful to both parties, this reciprocal exchange transforms ecosystem balance into a means of salvation for their existence. Matter establishes a natural ecosystem that acts as a natural power plant, controlling, restoring, and regulating the balance and sustainability of organic forms, inorganic systems, and natural life.

In our world, the increasing temperatures, droughts, forest fires, and floods in recent years cannot be directly attributed to nature. In other words, these natural disasters are not spontaneously occurring natural events. Blaming nature would be unfair. If we disrupt the ecosystem that nature has developed within itself, such problems and disasters become inevitable. The main culprits and causes of climatic and seasonal changes and natural disasters are humans. Humans benefit from all the beauties of nature. Humans are also the ones who cause the most damage to nature, the environment, seas, and waters. When there are one-sided exchanges rather than reciprocal ones, the results end in disaster. The waste generated as a result of industrial activities, such as deep-sea discharges without filters and purification systems, releasing radioactive waste into seas and oceans, and similar pollutants (plastics, household and industrial waste, etc.), pollute the waters. If macrobial and microbial life is threatened, they become unable to establish the necessary ecosystem balance. Due to a lack of necessary attention and care, we are essentially interfering with these naturally occurring ecosystem cycles/balances from the outside. It is believed that this is causing the disruption of the ecosystem. While we should be helping the ecosystem to continue and be sustainable, we are, on the contrary, causing its deterioration due to the negative consequences of human activities. The greatest legacy we can leave to future generations is not a devastated world, battling various pandemics and suffering from trauma; but rather a clean world, a world where happiness and peace prevail, where babies, children, and living beings are not killed due to wars of conquest, where nuclear weapons do not explode in the atmosphere, where competent people govern, and where a well-ordered ecosystem functions...

#### **The 13th Law of Matter:-**

The fundamental principle of matter is based on the laws of mathematics, physics, chemistry, and biology. There are no other types of laws or regulations in the universe or in nature that are similar to, or derivatives of, the positive sciences such as mathematics, physics, chemistry, and biology. Even if these positive sciences are expressed with different numbers and letters, they yield the same results when translated into one another. The laws of positive science are the only valid and unchanging laws throughout the universe and across different time dimensions. Matter, programmed/designed according to the laws of positive science (mathematics, physics, chemistry, biology/botany-zoology, etc.), and applies them exactly as they are, without alteration. Matter is programmed / designed according to the laws of mathematics, physics, chemistry, and biology. It applies these laws everywhere in the universe without change, compromise, or alteration.

#### **The 14th Law of Matter:-**

**Matter never disappears.** Through transformation and conversion into other organic and inorganic forms and inorganic systems, matter continuously renews and restructures itself, thus ensuring its existence indefinitely. While matter transforms into different substances, different substances into different energies (Figure 1), and energies into different energies and their derivatives through cycles of change and transformation, the totality of matter and energy remains constant. In this way, matter evolves, increasing its degree of purity, sustainability, strength, accuracy, and capability, while simultaneously extending the life cycles of the inorganic systems and new organic forms it creates and will create. Because living things have very short life cycles, their evolutionary processes are very slow. Therefore, their evolution progresses in both forward and backward directions. This is where the problem lies. Since the degree of purification and capability of living things (plants and animals) progresses very slowly, they are subject to aggression, savagery, self-interest, jealousy, unwillingness to share, and a constant desire to possess, passed down from generation to generation through inherited genes. The wheels of evolution in matter, however, always work and turn forward. They never work backward. Therefore, the degree of purity and perfection constantly increases. These characteristics give it very rich and functional geochemical behaviors, creating the perception that "there is nothing that matter cannot do," meaning there is nothing it cannot accomplish.

#### **The 15th Law of Matter:-**

The building blocks of inorganic systems of matter are atomic building blocks (atoms, ions, molecules). The building blocks of organic forms of matter are cells (plant and animal cells). These are formed by the very rich and highly functional geochemical behaviors of matter. The geochemical behaviors of matter are applied throughout the universe and in different time dimensions with similar mechanisms that remain unchanged. Even if they exhibit



different physical properties in response to external factors, their task, purpose, and functional mechanisms are always the same. For example, in the universe, in other galaxies, on different planets and moons (moons) with rocky terrestrial surfaces, thick and modern atmospheres (21% oxygen), and thick ozone layers, the physical characteristics of living plants, animals, and aliens may differ, but their instincts, reactions, emotional and spiritual states are similar. This is because they are composed of different/different genius-species-family allotropes of the same organic form. They only exhibit different physical properties according to the different physical conditions (P/T) of the environments in which they are formed, and their different thermodynamic and physicochemical-thermochemical properties. The atomic building blocks (atoms, ions, molecules) from which they are formed, the substances that make up animal and plant cells, their functions, and their mechanisms of formation are the same or similar. In other words, matter applies the same positive scientific laws and immutable laws that it has programmed. It does not apply different positive scientific laws on one planet and different ones on another. This is because there is only one type of mathematical, geometric, analytical geometry, physics, inorganic and organic chemistry, biology, botany, and zoological law in the universe. There are neither other types nor derivatives of these.

**The 16th Law of Matter:-**

In forming organic forms and inorganic systems, matter/rocks/minerals/ores, it exhibits geochemical behavior by taking in greater amounts of elements that are abundant in nature and the universe, and in smaller amounts of elements that are scarce. It does not exclude or belittle any substance/element, nor does it engage in displays of power or favoritism. It acts justly and fairly.

**The 17th Law of Matter:-**

Until now, it was known or thought that gravity/universal gravitational field and magnetic field existed on terrestrial, rocky planets and moons (such as the Moon) in galaxies, and that life could arise on planets and moons with thick atmospheres. It was believed that in the presence of any gas that makes up a thick atmosphere, different life forms could exist or exist that could adapt to that gas. Therefore, in science fiction films, Martians are imagined as short, thin, green-skinned alien creatures with huge heads and huge eyes. However, according to the existing and mentioned points of matter, it is not possible for life to arise on terrestrial and rocky planets and moons with thick atmospheres where different gases are active (i.e., oxygen and carbon elements are absent) by breathing and/or ingesting different gases. Why? Because, as understood from the points mentioned above, it is contrary to the nature of matter. Matter fulfills this role by creating life and organic forms in the presence of oxygen and carbon elements, which are abundant in nature.

In other words, the planet's gravity and magnetic field can support or create a thick atmospheric sphere containing approximately 21% oxygen molecules ( $O_2$ ), a thick ozone layer ( $O_3$ ), and a nitrogen-dominant atmosphere at atmospheric pressure, allowing for the formation of life. Life also arises in gases with similar and equivalent properties to nitrogen molecules. Even if the thick atmosphere contains oxygen molecules above and below the 21% oxygen ratio, and without an ozone layer, life still cannot form, and ecosystem equilibrium cannot be established. Why? Because the atomic building blocks (atoms, ions, molecules) and subatomic particles of the oxygen element, which is very common in nature, have very strong oxidizing properties, form oxide compounds with different elements, and are not combustible but enable combustion, forming the basic/essential main elements and components of silicate, carbonate, and silicate-carbonate based minerals, rocks, and substances. Because oxygen anions ( $O_2$ )<sup>2-</sup> and radical carbonate anions ( $CO_3$ )<sup>2-</sup> have very important functional roles. That is, the presence of oxygen and carbonate elements and molecules is essential for the development and evolution of living organisms. No other element or molecule can fulfill the functions and responsibilities of carbon and oxygen elements and molecules. Even if thick atmospheric spheres were formed by other gases, living life and its various allotropes would not develop and/or form...

**The 18th Law of Matter:-**

The author was surprised by the striking similarities between the geology of Jezero and Gale Craters on ancient Mars and their surrounding areas, the characteristics of allotropic rock types exposed in the region, paleoclimatology, prebiotic or biotic activities (biomarker signatures composed of organic molecules of microorganisms), paleoelien processes, and stratigraphic relationships. From this geological data, a new framework for understanding matter was constructed. According to this framework, terrestrial-rocky planets and moons (Moons), and gas planets and moons within the same solar system and time dimensions, even if millions of kilometers apart from each other and their stars (Sun), undergo similar structural, stratigraphic, rock type, atmospheric, paleoclimatological, and paleoelien processes during the same time intervals. However, due to

differences in physical properties, variations develop in their thickness and distribution. This data suggests that the universe is infinitely large, and that mathematical, physical, chemical, and biological laws apply equally everywhere in the universe; In similar thermodynamic systems, under similar thermochemical-geochemical environments and conditions, allotropic systems, inorganic and organic forms and systems develop with similar counterparts. While there may be some unique differences between different galaxies and different solar systems, the inorganic and organic systems and forms that develop on terrestrial-rocky planets and moons within each system exhibit and exist with very similar characteristics. This facilitates the balancing of the ecosystem, which is very large on a universal scale. It is certain that this will lead to significant material and temporal gains in terms of understanding, interpreting, analyzing, and predicting important similarities regarding other terrestrial-rocky planets and moons, as well as gas planets and moons, within the same system. In other words, we won't need to rediscover America.

#### **The Presence of Oxygen in a Thick Atmosphere and the Importance of a Thick Ozone Layer for Life:-**

Ultraviolet (UV) rays from the sun cause oxygen molecules ( $O_2$ ) in the upper layers of the atmosphere to break down, resulting in the formation of free oxygen atoms ( $O_2 \rightleftharpoons O + O$ ). These free oxygen atoms (O) react with oxygen molecules ( $O_2$ ) to form ozone ( $O_3$ ) molecules ( $O_2 + O \rightleftharpoons O_3$ ). Ozone molecules naturally form the thick ozone layer. The ozone layer naturally forms in the stratosphere, approximately 50-80 km above the Earth's surface. It also acts as a greenhouse gas, trapping and retaining heat. By filtering (absorbing) ultraviolet (UV) rays from the sun, the ozone layer prevents harmful radioactive rays from reaching the Earth's surface. Due to the thinning of the ozone layer, ultraviolet rays reaching the Earth's surface can cause skin cancer in humans. Mild greenhouse gases produced as a result of human activities (chlorine, chlorofluorocarbons / CFCs, refrigerators, car exhaust, deodorants/sprays/perfumes, livestock emissions, carbon dioxide /  $CO_2$ , methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur, and hexafluoride, etc.) react with ozone, causing the ozone layer to thin, become depleted, and disintegrate.

As is known, 87% of the world's energy comes from fossil fuels such as coal, oil, and natural gas. In addition to light greenhouse gases, which cause the thinning, depletion, and fragmentation of the ozone layer, the increase in carbon dioxide emissions, also resulting from human activities, traps heat, increasing the greenhouse effect and consequently raising temperatures. Increased atmospheric temperatures lead to reversible reactions that disrupt the ecosystem. This results in increased seasonal and annual temperature variations; increased forest fires; drought and rising temperatures; and, conversely, extreme rainfall and floods. This ecosystem imbalance is not caused by natural events, but rather by human activities, leading to disasters that cause the deaths of millions of people and non-human living beings, irreversible ecosystem damage, and unwittingly creating the conditions for devastating and widespread pandemics like Covid-19. Those incompetent, humanoid creatures who underestimate the power and existence of the ant seem to have forgotten the immense global damage and economic impact that Covid-19, a creature invisible to the naked eye, has inflicted on living beings. I would like to remind those humanoid creatures who ignore it that it possesses the power and potential to end their own lives, just as it has made the planet a living hell. You appreciate the organic honey of the bee. When it is said that the honeybee should be protected and is a common inhabitant of the planet, a war is declared. If its rights are not granted, it and those like it know how to claim them. Since wars in the world are fought for self-interest, creatures that are ignored can also wage war to claim their rights. Do not rely on your apparent power. It was suggested that mutual duties and mutual rights to life should be respected.

Therefore, collective and coordinated decisions must be made on a planetary scale to prevent the excessive release of carbon and light greenhouse gases into the atmosphere, or to minimize disruption of ecosystem balance. These decisions must be implemented effectively, with control and supervision, and without compromise. Light gases released into the atmosphere, which act as greenhouse gases, are harmful to the ozone layer. Excessive carbon dioxide emissions into the atmosphere trap heat, acting as a greenhouse gas and causing an increase in temperature. Because these phenomena cause the disruption of natural ecosystems, extreme temperature increases on the Earth's surface, and when sea waters reach an average of  $27^\circ C$ , mass deaths of marine macrobial and microbial life (fish, etc.) occur in the seas. Forest fires increase, floods become more common. Many disasters occur that are not natural but are caused by humans, resulting in the loss of millions of lives.

As is known, there are many reasons for carbon emissions into the atmosphere. These are caused by human activities (industrialization, energy demand, urbanization, population growth, supply-demand relations, construction in place of forests, destruction of coastlines, increase in livestock farming, uncontrolled and unregulated increase in carbon dioxide emissions, etc.). 87% of the world's energy comes from natural fossil fuels such as coal, oil, and

natural gas. Those who use these resources release large amounts of carbon into the atmosphere due to mining. Those who lack scientific understanding and are ignorant, yet believe they know everything, are not content with uprooting and destroying olive trees that are over a thousand years old and using the coal deposits beneath them to generate electricity (even though the country possesses many resources such as water, soil, sun, sea, lakes, rivers, coasts, forests, and wind, etc.). They are also trying to increase profitability and efficiency by not installing filters on the chimneys of coal-fired power plants. Isn't the inevitable outcome already clear? In conclusion, due to excessive carbon emissions into the atmosphere and the resulting heat retention/trapping/capture, leading to increased temperatures on the Earth's surface, and also due to the dispersal of light greenhouse gases into the atmosphere as a result of human activities, causing ozone depletion and the destruction of the protective ozone layer, measures must be taken to reduce carbon emissions and light greenhouse gases that damage the ozone layer. These measures must be taken urgently, decisively, and without compromise; Urgent, decisive, and uncompromising measures must be taken, implemented, restricted, and monitored...

#### **The 19th Law of Matter:-**

To date, we know of the existence of certain inorganic chemical elements in nature and the universe. The periodic table has been developed for the classification of inorganic chemical elements. This table arranges all known elements according to their increasing atomic numbers (also called proton number). However, it has been thought and suggested that there are far more unknown chemical elements and derivatives of inorganic origin in nature and the universe than those known. These are waiting to be discovered. Furthermore, in nature and the universe, the basic building blocks of life, organic elements such as carbon, hydrocarbons, and oxygen, are known. Conversely, it has been thought and suggested that, corresponding to all known and unknown inorganic chemical elements and derivatives in nature and the universe, there are also all known and previously unknown organic elements and derivatives. In other words, in nature and the universe, there are known and unknown organic elements and derivatives that have similar conjugate allotropes for all known and unknown chemical elements and derivatives. The evolution, enrichment, and infinity of nature stem from these forces.

Therefore, it is certain that the presence of inorganic chemical elements will increase from today onwards. It is thought that these will take their place in the periodic table of inorganic elements. Furthermore, it is believed that all known and unknown elements and derivatives of inorganic origin, as well as allotropes of organic origin, are very widespread in nature and the universe. It is essential and recommended to begin the creation of a periodic table/chart showing the classification of organic elements, equivalent to the classification of inorganic elements. With these tables, it will be possible to learn about the known and unknown organic elements you need from nature and, in its simplest form, to produce them artificially using different agents/catalysts from inorganic elements...

#### **The 20th Law of Matter:-**

It is certain that discovering the known and unknown inorganic chemical elements in nature, and revealing the existence of similar conjugate allotropes of these known and unknown inorganic chemical elements in nature and the universe, as well as the known and unknown organic elements, will lead to a vast wealth of resources. The creation of a periodic table of organic elements will reveal the richness of biological diversity and natural food supply chains in nature and the universe. It will be possible to enrich and spread these by learning from nature, genetically coding, and diversifying them. By giving land to local people, and using modern tools for genetic cloning and diversification in suitable areas, it is possible to create rich food supply chains. Is there any need to fight and exploit each other? It is not right to expect everything from nature. Furthermore, you would not be depriving your wild four-legged friends of their rights. They also feed from nature. For example, do you have the right to eat the wild pears of bears? Since you call yourselves intelligent beings, why don't you take inspiration from nature, copy its genetics, create biodiversity, plant and cultivate?... If you work, produce, share scientific knowledge with each other, act in unity and solidarity, and conduct research, everything is possible. If you enter a mode/attitude of creating something new through logical imagination, modeling, using unknown and unseen parameters, and making assumptions, you will not succeed... For example, some researchers claim that there was an invisible storm on ancient Mars blowing at 160 km per hour, etc.

#### **Concrete Proof That We Are not Alone in the Universe: Ancient Mars:-**

##### **Geological Exploration of Gale Crater on Ancient Mars Provides First Concrete Evidence of Microbial Life:- Introduction:-**

The author's original work aims to understand and embody the geology of ancient Mars/The Red Planet. To understand the geology of Mars, the approach is to correlate/compare the geology of Gale Crater and its

surroundings with the geology of a known region on Earth that shows similarities to the rock stratigraphic units in Gale Crater. The aim here is to find solutions to problems by utilizing what is known and moving towards the unknown. For a more detailed explanation of the geology of Gale Crater and terrestrial-marine microbial-macroscopic life in ancient Mars, see (Tarhan, 2025), (Figure 1). This study utilizes publicly available video footage and data from NASA regarding Gale Crater and its surroundings on ancient Mars (Image credit: NASA/JPL/Caltech; <https://mars.nasa.gov/mars2020/multimedia/videos/?v=461>; and includes publicly available EDL, Elder Fox Documentaries, Marsolog, and Cronicas Marcianas YouTube videos) to compare/correlate the geology of Gale Crater with the geology of a region on our planet Earth. This study is incomplete. However, some concrete scientific data that emerged during the study are intended to be shared with the scientific community. It is believed that scientists and researchers working on ancient Mars should consider these views and data to avoid wasting time and to facilitate discussions on the subject.

Mars, also known as The Red Planet, is the fourth planet closest to the Sun and the seventh largest in size within our Solar System in the Milky Way Galaxy. It is a ringless, terrestrial, rocky planet (Figure 3). It has two natural satellites, Phobos and Deimos (Figure 4). Mars is the second smallest planet in the Solar System after Mercury. Its average diameter is 6,780 km. Its average distance from the Sun is 1.5 AU (AU is the distance between Earth and the Sun; AU = 150 million km). Visible to the naked eye from Earth, the surface of Mars has both giant asteroid craters (impact craters) like those on the Moon, and volcanoes, valleys, deserts, and Polar Regions like those on Earth. Mars' North and South poles are high, like Earth's North and South poles, and have icy zones similar to Antarctica, the southern hemisphere continent, which is 98% ice-covered and the rest land. It is unknown whether the paleomagnetic properties of its poles change over time, but they should normally change within the galactic system. It completes a rotation on its axis in 24.6 hours and an orbit in 687 days. Its surface temperature varies between  $-143^{\circ}\text{C}$  and  $35^{\circ}\text{C}$ , with an average temperature of  $-56$  and  $-62^{\circ}\text{C}$ . It has four seasons, each lasting six months. Mars' mass is about one-tenth that of Earth. Its gravitational force is not large enough to hold a dense atmosphere. Mars' continental crust gradually thickens from the northern hemisphere to the southern hemisphere, and Gale Crater is located in the southern hemisphere (NASA data).

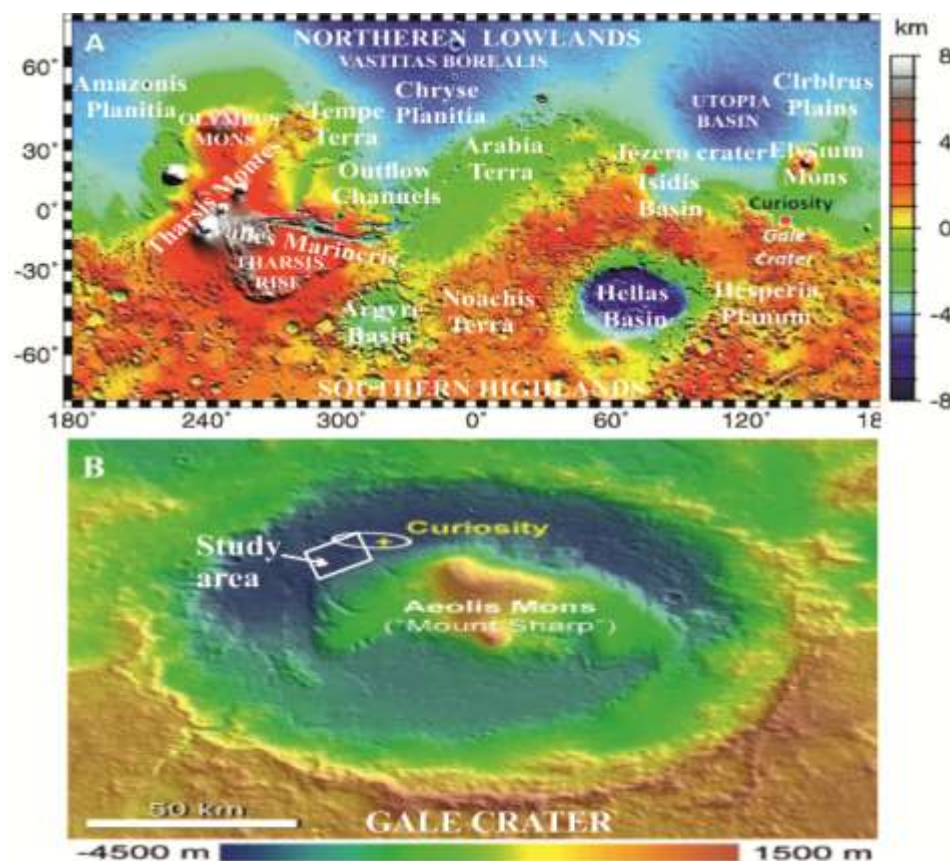
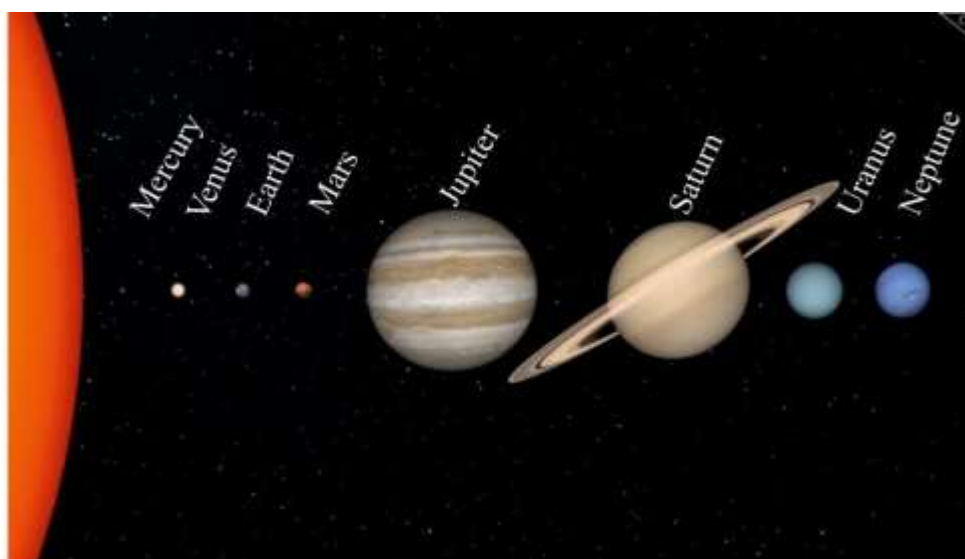


Figure 2:- Location map of the study area in Gale Crater on ancient Mars

A) Locations of Gale and Jezero craters on the Mars Orbiting Laser Altimeter (MOLA) elevation map (Image credit: NASA/JPL/GSFC). B) As seen on the topographic map, Mount Sharp (Aeolis Mons), composed of sedimentary rocks, is located within Gale crater, approximately 5,5 km higher than the northern rim of the crater. The yellow marker within the white circle indicates the landing site of NASA's Curiosity rover, and the white rectangle indicates the approximate operational area (Image credit: NASA/MOLA team; retrieved from <https://skyandtelescope.org/astronomy-news/mount-sharp-or-aeolis-mons/>).

The Solar System consists of four small terrestrial-rocky inner planets (Mercury, Venus, Earth, and Mars) and four large gaseous outer planets (Jupiter, Saturn, Uranus, and Neptune) (Figures 2, 3). However, Pluto was demoted from planet status and reclassified as a dwarf planet at the “International Astronomical Union” meeting in Prague in 2006 (Stern, et al., 2015). Researchers are also trying to determine how many Neptune-sized planets exist. The following are the research and exploration vehicles on the surface of Mars, managed by NASA's Jet Propulsion Laboratory, in order of their landing dates: Sojourner (1997), the conjoined twins Spirit (2004-2010), Opportunity (2004-2018), Curiosity (2012-present), InSight (Mars rover, 2018-2022), Ingenuity (Mars rover, 2021-2022), Ice Mapper, and Perseverance (2021-present) rover geologists (Credit: NASA/JPL-Caltech).



**Figure 3:- Planets in our solar system**

The relative sizes, distances from their star, the Sun, and positions of the four rocky inner planets (Mercury, Venus, Earth, and Mars) and the four gaseous outer planets (Jupiter, Saturn, Uranus, and Neptune) within our Solar System are shown here (Image credit: NASA/JPL/Caltech; taken from <https://youtu.be/EXYiUh6AKFw>, <https://youtu.be/EXYiUh6AKFw?t=29>).



**Figure 4:- Mars and its moons, and Earth**

A) Mars / The Red Planet and its moons. B) Mars / The Red Planet and our planet Earth (Image credit: NASA/JPL/Caltech).

**Previous Studies of Gale Crater:-**

Milliken et al., (2010), The kilometers-thick sedimentary sequence in Gale Crater exhibits stratigraphic changes in lithology consistent with transitions in water and climatic conditions claimed to be global in scale. The sequence splits into two formations, with the lower formation exhibiting a clear transition in mineralogy from clay/sulfate to sulfate/oxide assemblages and separated from the upper formation by erosion unconformity. Overlap and crater counts indicate that the strata in the lower formation extend along the Noachian-Hesperian time-stratigraphic boundary. In contrast, the beds in the upper formation, which are devoid of clay minerals or sulfates, are thinner, more regularly spaced, and clearly younger. The observed stratigraphic trends suggest that the rocks in Gale Crater underwent a global transition from a climate favorable to clay mineral formation to one more favorable to the formation of sulfates and other salts.

Buz et al., (2017), To determine the origins of the different lithological rock units detected by the Curiosity rover, they studied the mineralogy and geology of the Gale crater's rim and basement rocks using high-resolution images and infrared spectra. While no significant difference was observed in the basement/base rock spectral features, some CRISM scenes of the crater's rim and wall rocks showed basement/base rock features containing olivine accompanied by Fe/Mg phyllosilicates. Hydrated materials showing 2.48  $\mu\text{m}$  (micron) absorption on the eastern walls/rim of Gale crater are spectrally similar to the sulfate unit at Mount Sharp (Aeolis Mons) (Figures 5 and 6). The sedimentary layers at the base of Gale, southwest of the landing site, are likely the same age as the "Bradbury units" discovered by Curiosity. They are also hydrated and contain Fe/Mg phyllosilicates. The spectral characteristics of these phyllosilicates differ from the "Al-I-substituted" nontronite identified by CRISM at Mount Sharp, suggesting their formation from fluids of different compositions. Geological mapping of the crater floor shows that hydrated or hydroxylated materials are typically overlain by spectrally indistinguishable, erosion-resistant, cliff-forming units. The authors also point out several important details: olivine and Fe/Mg phyllosilicates are common in the Gale rim/wall rocks; feldspar-rich units were sought but not detected; multiple units of hydrated and hydroxylated materials are found in the ground materials southwest of the MSL landing site; and the >90 m thin-layered sedimentary sequence in the northwest Gale crater floor shows variations between lacustrine and eolian environments.

Ewing et al., (2017), The Mars Science Laboratory rover Curiosity (MSL) compared the two active wind-blown "Bagnold Dunes" in Gale Crater on Mars with Martian and terrestrial eolian dune sedimentary processes. The presence of grain fall, grain flow, and impact waves resembles terrestrial sand dunes; impact waves were present on all dune slopes and had a similar size and shape to their terrestrial counterparts. They suggested that in the "Bagnold Dune Field", as on Earth, dune field pattern dynamics and basin-scale boundary conditions indicated the style and distribution of sedimentary processes.

Grant et al., (2019), Several fan-shaped sediments formed by the accumulation of water-borne sediments on the walls/border rocks and floor of Gale crater are remarkably well-preserved. They note that these are much younger (~2 billion years or less) compared to the older, more widespread water-related sediments formed 3 billion years ago in the crater. They suggest that the late periods of water-related activity in Gale crater may be associated with late chemical precipitation and/or cementation of older rocks within the crater, and that habitable conditions persisted within the crater later than previously thought. They state that the local alluvial deposits in Gale crater were likely emplaced in less than 2 Ga.

Lewis et al., (2019), They measured how the local gravitational field changed as the Curiosity (MSL) rover passed through Gale crater and began climbing Aeolis Mons (Mount Sharp). They stated that the density of the material under Gale crater is relative porous, refuting the theory that the crater floor was once buried under several kilometers of rock. They stated that the density of the sedimentary rocks in Gale crater is  $1680 \pm 180$  kilograms per cubic meter. They noted that this value is lower than expected, indicating high porosity, and highlighted the fact that the porosity phenomenon is very important geological data indicating that the rocks have not been subjected to maximum burial depths throughout their history.

Thomson et al., (2019), They note that the origin of the sedimentary mound in Gale crater, the landing site of the Mars Science Laboratory rover Curiosity, remains a mystery. Here, they conducted a volume-based analysis to calculate the total potential contribution of river material. Based on these results, they divided the sedimentary mound in Gale crater into three regions: lower, middle, and upper regions. The upper boundary of the lowest region is formed by the maximum contribution of submerged sediments, which constitute ~13% to 20% of the mound

volume. The upper region is defined by the height of the unbroken rim to the north (-2.46 km). They state that sediments above this height were not deposited by flowing water. According to these volume balance calculations, they state that mechanisms other than flowing water are necessary to explain the overwhelming majority of sediments transported to Gale crater. They mention that the most likely candidate process is eolian suspension-to-deposition. The authors also noted that less than 20% of the volume of the central mound of Gale crater in Aeolis Mons is due to riverine processes; that the vast majority of sediments transported to Gale crater were carried by mechanisms other than flowing water; and that most of the sediments in Aeolis Mons were likely deposited as Aeolian aerial cascade sediments.

Rampe et al., (2020), The Mars Science Laboratory Curiosity rover was sent to Mars in August 2012 to investigate the habitability of ancient and modern environments. They state that Curiosity was sent to Gale crater to study a series of sedimentary rocks approximately 3.5 Ga old, containing secondary minerals, indicating accumulation and/or alteration of liquid water, based on orbital visible and short-wave infrared reflection spectra. The sedimentary sequence on the lower slopes of Mount Sharp in Gale crater, based on the transition from smectite-bearing layers to sulfate-bearing layers, indicates a dramatic change from a relatively warm and humid climate to a cold and dry climate in early/ancient Mars. They state that diagenetic processes led to the alteration of olivine, the release of  $\text{Fe}^{2+}$  /  $\text{Fe(II)}$ , and the precipitation of magnetite. The fracture-related halos in the “Stimson” and “Murray” formations are evidence of complex aquatic processes even long after streams and lakes disappeared from Gale Crater. The sedimentology and composition of the rocks analyzed by Curiosity indicate that habitable environments persisted intermittently on or beneath the surface of Gale Crater for perhaps more than a billion years.

Bristow et al., (2021), They note that the sedimentary rocks exposed in Gale crater on Mars contain extensive clay minerals. They found evidence of past reactions with liquid water and sulfate brines that may have seeped through the clay from an overlying sulfate bed. They note that similar sulfate beds are common throughout the planet. They state that Mars' sedimentary rock records hold information about geological processes that occurred on the planet billions of years ago. They note that a traverse from “Vera Rubin Ridge” to “Glen Torridon” allowed Curiosity to examine a lateral cross-section of rock layers that accumulated in a Martian lake approximately 3.5 billion years ago. They note that there are spatial differences in the mineralogy of the sedimentary rocks. These differences indicate local infiltration of silica-poor brines formed during the deposition of magnesium sulfate-containing layers of the overlying sedimentary rocks. They note that the destabilization of silicate minerals, caused by silica-poor saline waters (rarely found on Earth), was common on ancient/old Mars due to the globally distributed distribution of sulfate deposits.

Eng et al., (2024), Sharp’s findings on the change in the clay-sulfate transition indicate significant compositional changes along the transition from Vera Rubin Ridge, supporting the wet-dry cycle hypothesis in the clay-sulfate transition. It has long been hypothesized that the clay-sulfate transition in Gale crater records an environmental/cyclical change from “hot and wet” to “cold and dry”. At one time, the paleolake that filled Gale crater allowed phyllosilicates to form. As Mars became colder and drier, sulfates were able to precipitate on top of the phyllosilicates. This mineralogical transition has also been observed elsewhere on Mars and points to a global environmental change. Different hydrated Mg-sulfates can reveal the characteristics of the paleoenvironment at the time of deposition and thus shed light on the geological past. The objectives of this study are (a) to characterize potential sulfate-bearing rocks with the Curiosity rover’s multispectral imaging instrument Mastcam; (b) To limit the detection threshold of Mastcam's Mg-sulfate using laboratory techniques. We identified three novel rock spectral classes specific to the clay-sulfate transition and one novel class associated with the “Greeneheugh pediment”. Our laboratory results indicate that detection of Mg-sulfate with Mastcam will be difficult unless it is close to pure.

### **Geology of Gale Crater:-**

Therefore, the rock types of rock stratigraphic units (chalk series rock units, chalk, chalky evaporite deposits) formed in a region of the world at the Cenozoic age (according to the World International Chronostratigraphic Timeline-2018) and similar rock stratigraphic units that probably formed during the same time period (Cenozoic era according to the World International Chronostratigraphic Timeline-2018) and exposed in and around the Jezero and Gale Craters on ancient Mars (chalk series rocks, chalk, chalky evaporite deposits / gypsum-anhydrite, plaster, salt, hydrated-unhydroxide lime, clay-sulfate minerals, etc., which are organically and biochemically formed carbonate sedimentary rocks); It is not coincidental that the hot-alkaline, shallow-deep marine sedimentary and lacustrine environments have similar geological ages, stratigraphic relationships and paleoclimatological features relative to the world (Tarhan, 2025). Not only are they not coincidental, but they also constitute proof of the correctness of the



articles of the first prototype Constitution of the aforementioned substance which should exist in nature (see Articles 4 and 13 of the Constitution of the Substance).

Therefore, in his studies on ancient Mars, the author, taking into account the geographical place names identified on Mars, has for the first time described and named the formations at the geological formation level according to the places where they are found (Tarhan, 2025). Rock type characteristics (chalk series rock stratigraphic units, chalk, chalky evaporite deposits) have been dated according to their conjugate allotropic formations on Earth (Cenozoic time according to the World International Chronostratigraphic Time Scale-2018), stratigraphic relationships and paleoclimatological features have been revealed. Possible mineral potentials; possible predictions regarding past terrestrial-marine macrobial-microbial life have been put forward. Ancient Mars is not dead and is alive. However, ancient Mars, which is in a chronic coma due to the sorrow of losing all its living life, has created active zones of weakness (different fault systems, etc.) in its sorrow of bringing back living life, just like parents who nourish, protect and care for their children. This weakness causes continuous heat transfer to the surface of Mars across the zones. In order to thicken and repair its atmosphere to restore the lost geochemical rock cycle, Mars is actively operating all its physical, biological, and chemical reactors, as clearly seen and observed in some publicly available NASA videos of Mars that the author has been able to follow. In particular, the existence of rich and fertile soils suitable for colonization and agriculture, such as the Dingo Gap formation, which is its allotropic equivalent on Earth, the Harran formation (Tarhan, 2025), gives hope that it has the potential to be a second world for the settlement and replacement of neighboring Earthlings... However, as mentioned in the conclusion, the single-priority-most important problem for ancient Mars, in contrast to all the potential it can offer to neighboring Earthlings, is the desire and demand of Earthling neighboring aliens to intervene in its atmosphere and restructure it, and to break and/or minimize the spiral cycle of carbon dioxide gas and heat escaping/leaking from its atmosphere into space. It is not dead, but it awaits with hope, as a planet in a deep coma, for its recovery and return to its former health...

In the western delta of Jezero Crater and around Mount Sharp (Aeolis Mons) in Gale Crater, Gediz Vallis Channel, Dingo Gap, Kimberly, Yellowknife Bay, Vera Rubin Ridge and Husband Hills, very thick and widespread outcrops of chalk series rock stratigraphic units and chalky evaporite deposits (anhydrite, gypsum, salt, slaked /  $\text{Ca}(\text{OH})_2$  - unslaked lime /  $\text{CaO}$ , clay-sulfate minerals etc.) have been observed (Tarhan, 2025). The chalk series rock units and chalky evaporite deposits exposed around Gale Crater are seen to have much less thickness compared to their allotropic counterparts in the world (Figures 5 and 6). When these data, as well as NASA data, are considered and analyzed together, it is seen that the continental crust of ancient Mars thickened from the northern hemisphere towards the southern hemisphere (Figure 2). Although these geological data/phenomena are observed in the elevation and topography maps of the study area's location map (Figure 2), in both Jezero Crater and Gale Crater, around Mount Sharp (Aeolis Mons) (Figures 5 and 6); in the Gale Crater tectonic zone basin / Aeolis Palus basin, in the edge zones of the tectonic basin, a currently active tectonic crush zone has developed, and within these edge zones, where grabenization tectonics are likely dominant, in the Glen Torridon and Kimberly regions; In the Jezero and Gale craters on ancient Mars, which are thought to be of the same age as the allotropic conjugate formations on Earth, there are thick and widespread outcrops of chalk series rock units, chalk and chalky evaporite rock stratigraphic units, which are thought to be of Cenozoic age (Cenozoic time according to the World International Chronostratigraphic Time Scale-2018) (Tarhan, 2025).

In the Gale crater, the chalky series rock units forming Mount Sharp (Figure 2) are underpinned by thick and widespread rock outcrops of the Gale peridotites (Gp), a dark petroleum-colored rock composed of iron-ilmenite-titanium-rich olivine, pyroxene, and plagioclase minerals from the cosmic upper mantle of ancient Mars, first identified and named (Figures 5 and 6). The basal units of the chalky series rock stratigraphic units, which overlie the Gale peridotites with an angular unconformity, were first identified, named, and dated as the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim) (according to the World International Chronostratigraphic Time Scale-2018, relative to similar allotropic chalky series rock units worldwide). The Mount Sharp chalk series rests on Gale peridotites (Gp) at its base, with an angular unconformity beginning with the pebblestone member (KMimc) of the basal conglomerate (Figures 5 and 6) (Tarhan, 2025).

In the aforementioned regions of ancient Mars, it has been determined for the first time that Cenozoic-aged (Cenozoic era according to the World International Chronostratigraphic Time Scale-2018) chalk series rock units, with thick and widespread outcrops, and chalky evaporite deposits (anhydrite, gypsum/plaster, salt, hydrated and unhydrated limestone, various clay-sulfate minerals, etc.) are autochthonously overlying the Gale peridotites (Gp) of



cosmic upper mantle peridotite origin in ancient Mars (known in earlier studies at Mount Sharp in Gale Crater as sedimentary deposits/mounds, clay-sulfate-containing rock units, paleolake deposits, and partially eolian-processed sedimentary deposits, etc.). Ancient Martian cosmic upper mantle peridotites have surfaced from the base of autochthonous chalk series rock units deposited in warm, clean (its seas were untouched by radioactive waste, toxic waste from ships, and it is certain that there was no industrial waste or environmental pollution), rich alkaline waters and shallow-deep sea and lake sedimentary environments. The strongest evidence that its marine and lacustrine environments were uncontaminated is the absence of red stratomomali, formed by cyanobacteria, which are red algae/moss. In the Gale crater, the chalk series rock units known as Mount Sharp (Aeolis Mons) sedimentary units, chalk and chalky evaporite sedimentary rock units (anhydrite, gypsum, salt-perchlorate, clay-sulfate-sulfur minerals; anhydrous calcium sulfate/anhydrite/ $\text{CaSO}_4$ , hydrated dehydrate / gypsum /  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$  and semi-hydroxide hemihydrates / basanite / gypsum/ $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ , hydrated lime/ $\text{Ca}(\text{OH})_2$ , lime/ $\text{CaO}$ , etc.), were deposited directly onto the ancient Martian cosmic upper mantle peridotites in marine and/or oceanic environments with unconformity due to primordial contacts. There is an angular discrepancy between them (Figures 5 and 6). The chalk series rock units, which have thick and widespread outcrops on the ancient planet Mars, and the chalk and chalky-evaporite sediments, composed of microscopically invisible plankton-type microorganisms (phytoplankton and zooplankton), have been identified for the first time as concrete, definitive evidence and indicators that marine microbial life once existed on Mars in antiquity (Tarhan, 2025). Chalk and/or chalky series rock units are organic, biochemically formed carbonate sedimentary rocks with a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ , resulting from the accumulation of skeletons, shells, and organism body remains of microscopically invisible plankton-type microorganisms that died and settled on the seabed/ocean floor over millions of years. They range in thickness from meters to kilometers (the approximate thickness of the autochthonous chalk series rock stratigraphic units at Mount Sharp is likely 4-5.5 km / (NASA data).

Chalks are formed from the accumulation of skeletons, organism bodies, and shells of microorganisms in white, sticky muds. They are very thick and widespread sedimentary rocks of organic origin and biochemically formed, with a chemical composition of calcium carbonate / calcite /  $\text{CaCO}_3$ . Chalks, chalky evaporite deposits, and chalk series rock units are formed from the compacted remains of dead microorganisms (skeletons, bodies, shells, etc.) that lived in warm, shallow-deep marine and lacustrine environments, clean and alkaline-rich (probably between pH 7.0 and pH 9.0) marine-lacial environments, and which constitute 95-99% of the plankton species (phytoplankton and zooplankton). These remains accumulate in thick, massive, solid, and homogeneous deposits on the seabed of seas and lakes. Chalk and chalk series rock units, which are organically derived, biochemically formed carbonate type sedimentary rocks with a calcium carbonate / calcite chemical composition, have several reasons that distinguish them from inorganic-derived calcium carbonate and/or limestones formed as a result of the interaction of rock, water, and rich carbondioxide ( $\text{CO}_2$ ) in the atmosphere.

On the planet Mars, the chalk series rock units, which are very thick and widespread outcrops, consist of chalk and chalky evaporites, as well as microscopic plankton species (phytoplankton, zooplankton) and marine and lacustrine microbial organisms. They are definitely autochthonous in their locations (they have not been brought from elsewhere). In other words, they formed in their respective locations. These are national and indigenous organic and biochemically formed carbonate type sedimentary rocks originating from the ancient planet Mars. They have absolutely no relation to allochthonous/transported alien rock, mineral, and ore formations that originated from space or were formed as a result of impacts. They are entirely ancient Martian in origin, indigenous, and formed in their own unique hot, alkaline, and lacustrine-marine sedimentary environments. They have taken rock fragments (peridotite, serpentine, magnesite, kaolinite, etc.) and mineral pieces (olivine, pyroxene, plagioclase, etc.) from the peridotites at its base. However, the chalk series rock units, chalks, and chalky-evaporite sediments of ancient Mars have been heavily cut and subjected to tectonic deformation by various currently active fault systems. The existence and current activity of different fault systems on ancient Mars, and the small and large regional and terrestrial craters known as circular depressions seen on the surface of ancient Mars, are definitely not the result of impacts from any celestial body, asteroid, meteorite, or comet from space. They are tectonic, seismic, volcanic, and geological formations associated with and originating from ancient Mars. Very widespread tectonic crush zones, composed of cataclastic rocks, have developed along the fault systems. Therefore, the “Conrad Unconformity” between the Jezero and Gale craters and the surrounding ancient Cenozoic-aged (Cenozoic according to the World International Chronostratigraphic Timeline-2018) chalk series rock stratigraphic units of the ancient planet Mars, consisting of chalks and chalky evaporite deposits (known in previous studies of Mars as rocks containing clay-sulfate minerals), and the cosmic upper mantle peridotites of Mars is clearly visible at and near the surface (Figures 5 and 6).



**Figure 5:- Mars' cosmic upper mantle Gale peridotites (Gp) exposed in the Gale crater around Mount Sharp (Aeolis Mons) and the Gediz Vallis Channel.**

The Upper Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim; conglomerate member/KMimc) overlies these peridotites autochthonously with an angular unconformity. The primary stratigraphic relationships between the Middle Miocene Gediz Vallis Channel formation (Mig; conglomerate member/Migc), which overlies the eroded geomorphology of the Mount Sharp chalk series with an angular unconformity and horizontal bedding, and is covered by a caramel-reddish-brown glassy amorphous crust/crusting/crustization (Mig) armor on its atmospheric outer surfaces, and consists of chalk and chalky evaporite sediments (the boundaries of the formations named by the author are drawn and their symbols are written).

According to Figure 5; KMimc, conglomerate/pebblestone member of the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series; KMim, Upper Maastrichtian-Lower Miocene Mount Sharp chalk series; Mig, Middle Miocene Gediz Vallis Channel formation (chalk, chalky clay-evaporite deposits); Migc, conglomerate/pebblestone member of the Gediz Vallis Channel formation (chalky conglomerate/pebblestone); Qta, Terrace / Old alluvium; Qal, Alluvium; Foreground left-lateral strike-slip fault and tectonic crush zone; +, horizontal stratification; Arrows indicate pseudobedding, solid flow protrusions, and different block formations on the atmospheric outer surface of the Middle Miocene Gediz Vallis Channel Formation, formed by solid phase dissolution and recrystallization due to temperature differences that developed during ancient Martian nights and days. These formations are caramel reddish-brown, glassy amorphous, hard, compact, and impermeable. Therefore, crust/crusting/crustization has developed pseudobedding, solid flow protrusions, and different block formations of varying thicknesses on the atmospheric outer surface of the Gediz Vallis Channel Formation (Image credit: NASA/JPL/Caltech; <https://mars.nasa.gov/mars2020/multimedia/videos/>; Cronicas Marcianas YouTube videos). The sedimentary accumulation/mound of rocks exposed in and around Gale Crater are not deposits formed by Aeolian processes or impact. These chalk series rock units have been determined to be autochthonous in the western delta of Jezero Crater and its surroundings; around Mount Sharp (Aeolis Mons) in Gale Crater and the Gale Crater tectonic zone basin/Aeolis Palus; and around Glen Torridon, Vera Rubin Ridge, Gediz Vallis Channel, and their surroundings. However, the Gale Crater tectonic zone/Aeolis Palus (Figure 5) is likely cut by currently active left-lateral strike-slip fault systems around Glen Torridon. A very densely crushed tectonic zone has developed on both sides of the basin. Normal dip-slip fault/fault systems (grabenization?) are observed in the marginal zones of the Gale Crater tectonic zone/Aeolis Palus basin.

#### **Terrestrial, Marine, Microbial, and Macrobal Life Existed on Ancient Mars:-**

Until now, researchers and scientists have been searching for traces of microbial life and its food sources on ancient Mars. This study, by identifying the presence of chalk and chalk series rocks on ancient Mars for the first time, has definitively confirmed the existence of microbial life. It has been confirmed that the zooplankton species of

microorganisms that make up this microbial life organically feed on the fragmented remains of phytoplankton, the plant species that make up the chalk, which have been broken down by waves. Therefore, in ancient Mars, in and around Jezero and Gale Craters, cosmic upper mantle peridotites, chalk series rock units, chalk and chalky evaporite sediments (anhydrite, various gypsum/plaster, various salts and perchlorate salts, hydrated and unhydrated lime, clay-sulfate minerals, etc.) are found in an autochthonous position, with very thick and widespread outcrops (Figures 5 and 6). However, organically derived and biochemically formed chalky series rock stratigraphic units are observed in the basal and different sections of chalk and chalky-evaporite carbonate type sedimentary formations; levels of conglomerate/pebblestone rock units (pebblestone, cross-bedded sandstone, siltstone, and mudstone, etc.) that are predominantly chalky and sometimes caramel-reddish-brown in color are also observed. Desert storm wind alluvium (loess, regolith, **aerosol**) chalk, hematite / rust / ferric dust covers and the presence of chalk and iron dunes are observed. Stream, creek and river dendritic drainage systems, alluvium, old alluvium/terrace, landslides and slope debris/rock flows and very widespread developed flood deposits are seen (Tarhan, 2025).

- 1- It has been determined that the bluish-blackish-gray blocks on the atmospheric outer surface of chalky rocks, on crust/crusting/crustization (Mig) deposits that have developed down the topographic slope, and within flood sediments, are of chalk origin. These chalk blocks on the crustal surfaces of chalky rocks, whose atmospheric outer surfaces are covered with glassy amorphous, hard, impermeable armored coverings (crust/crusting/crustization), exhibit fluorescent properties under radioactive ultraviolet (UV) radiation from the Sun (electrically charged, massless particles/photons) due to their anatase/anataz ( $\text{TiO}_2$ ) content, which is an allotropic mineral of titanium (naturally, phytoplankton and zooplankton very commonly contain titanium/titanium mineral). Because anatase/anataz, an allotropic mineral of titanium, exhibits high photocatalytic activity (radioactive decay) under ultraviolet light (another piece of evidence proving the existence of life). Therefore, as NASA states, the ancient Martian atmosphere was broken up by solar winds, leaking gas (carbon dioxide) into space, and this leakage continues; the Martian atmosphere consisted of 95-96% carbon dioxide ( $\text{CO}_2$ ), 0.13-0.17% oxygen ( $\text{O}_2$ ), and other gases; its atmosphere was thin, there was no ozone layer; the atmospheric pressure was low (about one-tenth of Earth's atmosphere), and evaporation occurred. Considering this data, the rich anatase/anatas ( $\text{TiO}_2$  / titanium allotrope) content of chalky blocks and the widespread anatase minerals on the atmospheric outer surfaces of some chalky rocks mean that Mars' thin atmosphere cannot filter (trace) ultraviolet rays, resulting in misleading / false fluorescence/fluorescent properties with a bluish-blackish-gray color. This phenomenon clearly indicates that ultraviolet rays are effective on the Martian surface and pose a risk to astronauts.
- 2- Chalk and chalk-series rocks are, in fact, direct evidence of marine microbial life. They are concrete, very clear evidence and indicators of microbial life that once existed on ancient Mars/The Red Planet.
- 3- Why? Because chalk and chalky rocks are composed of microscopic plankton (phytoplankton and zooplankton) that are too small to be seen with the naked eye (coccoliths-coccolithophores, foraminifera, diatoms, rhabdolites, stromatolites formed by cyanobacteria and dinoflagellates, etc.). These organisms live in warm, clean, alkaline, lacustrine, shallow, and deep-sea environments. Chalks are composed of eukaryotes (single-celled) of phytoplankton/plant plankton (stromatolites formed by cyanobacteria known as blue-green algae/moss/lichens, etc.) and zooplankton/animal plankton (coccoliths-coccolithophores, foraminifera, diatoms, rhabdolites, etc.). Zooplankton, living in warm, clean, alkaline, lacustrine and shallow-deep sea-oceanic environments, were naturally and organically nourished by the decomposition of phytoplankton, which lived suspended and floating in the same aquatic environments, by sea waves. It has been definitively determined and demonstrated that a balanced and orderly ecosystem, with macrobial-microbial life in terrestrial and marine environments, once existed on ancient Mars/The Red Planet. It has been suggested and put forward that the problem of finding definitive and concrete indicators of microbial life in animal zooplankton, which feed on phytoplankton living in the same environment, has been resolved. According to this conclusive evidence, the existence of terrestrial and marine microbial-macrobian life on ancient Mars at one time has been substantiated and put forward in this article and for the first time in (Tarhan, 2025) article.
- 4- The earliest ancestors of humans on our planet Earth were "Homo habilis or Homo erectus," who emerged in East Africa 2,4 million years ago. The first modern humans, "Homo sapiens/Homonids," evolved from these ancestors approximately 300,000 years ago, according to evolutionary theory. Video footage of Mars shows that the Jezero and Gale craters and the surrounding chalk series rock units, consisting of chalk and chalky evaporite deposits (anhydrite, various gypsum/plasterstone, various salts/perchlorate salts, hydrated lime /  $\text{Ca}(\text{OH})_2$ -

unslaked lime / CaO, clay-sulfate minerals, etc.), exhibit very similarities in paleoclimatological characteristics and stratigraphic relationships to their conjugate allotropes on our planet, namely the Upper Maastrichtian-Lower Miocene chalk series rock units and the Middle Miocene chalky and chalky evaporite deposits (gypsum-anhydrite, plasterstone, salt, hydrated lime /  $\text{Ca}(\text{OH})_2$ -unslaked lime / CaO, clay-sulfate minerals, etc.), cochineal and mactra limestone rock units. Furthermore, the chalky rocks on ancient Mars and Earth are similar to each other when considering their rock type characteristics (chalk series, chalks, etc.), stratigraphic relationships, and depositional environments; the chalk series rock units, chalks, and chalky evaporite sediments on Earth have been relatively dated according to the "World International Chronostratigraphic Time Scale-2018". Mars and Earth are, in fact, two terrestrial-rocky planets located together within our Solar System in the Milky Way galaxy. Their time dimensions are not very different. They are inner terrestrial planets approximately 225 million km apart (Figures 3 and 4). Therefore, the geological ages of the Jezero and Gale craters and the surrounding chalk series rock stratigraphic units on ancient Mars have been assigned, predicted, interpreted, and proposed as Upper Maastrichtian-Lower Miocene, corresponding to the geological ages of the equivalent chalk series rock units on Earth, while the ages of the chalky and chalky-evaporite (known as clay-sulfate-containing rock units) have been assigned, predicted, interpreted, and proposed as Middle Miocene.

### **The Emergence and Extinction of Ancient Martian Aliens:-**

The first macrobial life on ancient Mars was formed by "Martian Homo habilis" or "Martian Homo erectus". The first modern intelligent Martian beings, "Martian Homo sapiens / Homonids," are believed to have emerged during the Quaternary period, approximately 1.4 million to 300,000 years ago, according to the "World International Chronostratigraphic Chart-2018". However, based on the author's professional knowledge and experience in field geology, mineralogy, and petrography, it is suggested that they likely emerged between 50,000 and 300,000 years ago.

By comparing the geology of ancient Mars with the geology of our world today using images, it has been observed and determined that ancient Mars resembles our world today almost identically, exhibiting similar paleoclimatological features. In the author's work on ancient Mars/The Red Planet, it is seen that terrestrial-marine microbial-macrobian life definitely existed on ancient Mars at one time; and that the geochemical rock cycle (Tarhan, 2018), which includes all the elements and components that develop/or create this life, was definitely active (snow-rain/precipitation, erosion/wear, transport, accumulation/deposition/sedimentation/deposition, stream, river, lake, sea and ocean etc.). In other words, it is certain that there was definitely/concretely a living life on ancient Mars at one time, that it had abundant rainfall and water, large and wide riverbeds - canyons, lakes, seas, warm-clean-deep oceans. Therefore, the reddish, continental-rocky, cold-dry Mars/Red Planet, where desert storms rage today, was once a blue planet like our own Earth. Until the Quaternary period, and/or between 1400 million and 50,000 years ago or more precisely, probably between 50,000 and 300,000 years ago there was definitely terrestrial and marine microbial and macrobian life on ancient Mars.

Today, 95-99% of the sedimentary rock units exposed on the surface of ancient Mars/The Red Planet consist of chalk series rock units, chalk, and chalky evaporite deposits (gypsum-anhydrite, plaster, salt, hydrated and unhydrated lime, clay-sulfate minerals, etc.). Many new pieces of evidence/concrete data indicate that the freezing of the flood deposits and the Gülnaz geochemical rock cycle seen on ancient Mars today is not billions of years old (approximately 3.5 billion years); that ancient Mars suddenly lost/evaporated all life on its surface sometime between 50,000 and 300,000 years ago in Earth time; that it had abundant water, lakes, seas, and oceans; and that it was a blue planet like Earth (Figure 4). Furthermore, 95-99% of the rock types observed on the surface of ancient Mars/The Red Planet consist of chalk series rock units, chalk, and chalky evaporite deposits. For the first time, the author has identified, proposed, and suggested the formations of different ages and formed under different paleoclimatological conditions. Using the geographic names previously created, given, and made on the ancient planet Mars, the formations are described, named, have their rock type characteristics and probable/possible relative ages are given at the formation level, for the first time, in relation to their equivalent allotropic formations on Earth, using the geographic names of the type places where these formations are found (Tarhan, 2025)...

1. The pelagic zone refers to the column of water where floating and aquatic organisms live. The benthic zone refers to the bottom zone. Organisms living on the bottom are called benthic. Plankton is the common name given to all living organisms found mostly in marine and lake waters, but which are visible only under a microscope.
2. Chalk and chalk rock formations often contain a rich fossil record of microscopic coccolithophores, providing valuable information about past marine ecosystems and environmental conditions. The main component of chalk is

the remains of marine foraminifera, seaweed / algae / lichens, and various other microscopic organisms that, upon death, sink to the seabed and accumulate in a muddy structure. If these biological remains are primarily composed of calcium carbonate / calcite /  $\text{CaCO}_3$ , and are of organic origin and biochemically formed sedimentary structure, then chalk formation(s) occur.

However, it is thought that the ancient Martian native intelligent beings (Martian Homo sapiens/Homonids), in other words, our different allotropes, our Martian alien relatives, dramatically disappeared/vanished within our Solar System in the Milky Way galaxy (Figures 3 and 4), during the Quaternary period of the Cenozoic era (according to the 2018 International Chronostratigraphic Timeline of Earth), probably between 50,000 and 300,000 years ago, as a result of an extraordinary geological event whose cause is currently unknown. Martian Homo sapiens/Homonids probably didn't learn to cultivate the land before; as hunter-gatherer communities/clans; before fully reproducing, multiplying, spreading, dispersing, and effectively modernizing; along with their families, livestock; It has been thought and suggested that they dramatically disappeared/vanished along with terrestrial and marine macrobial and microbial organisms. However, it has been observed that some traces left by ancient Martians on inorganic systems (rocks, caves, etc.) during their lives have been seen, at least partially, to this day (Tarhan, 2025)...

### **We Are Not Alone in the Universe!:-**

The fact that our planet Earth and Mars/The Red Planet, located in a moderately habitable zone within the same solar system in the Milky Way galaxy, exhibit very similar characteristics has been argued not to be a coincidence, chance, or privilege, according to the aforementioned articles of the prototype Constitution of matter/article. This is because, in the trillions of other galaxies of varying sizes in the universe (some scientists suggest there are around 40-50 billion galaxies), terrestrial rocky planets and moons (moons) with modern atmospheres containing approximately 21% oxygen molecules by weight and a thick ozone layer must have developed in order for macrobial and microbial life to arise, alongside the geochemical rock cycle (precipitation, erosion, transport, water, rivers, lakes, seas, and oceans, etc.).

Oxygen ( $\text{O}_2$ ) is very important for animal cells, and carbon dioxide ( $\text{CO}_2$ ) is very important for plant cells. Humans and intelligent extraterrestrial beings have body masses composed of nearly 99% of six elements. Of these, oxygen (O) constitutes 65% and carbon (C) 18%. Plant cells take in carbon dioxide and use sunlight for photosynthesis to produce the glucose necessary for growth. They release oxygen into the atmosphere. In this way, the ecosystem is balanced. In short, the atomic building blocks of no element other than oxygen and carbon dioxide gases (molecules and elements) are suitable for this. However, on our planet Earth and on all terrestrial-rocky planets and moons in the universe, macrobial-microbial life develops and evolves in the presence of oxygen and carbon dioxide gases. If these conditions have developed on different planets and moons, macrobial-microbial life forms with different physical characteristics but similar structural and mental structures, composed of allotropes, will form. Just as matter is programmed according to the laws of physics, chemistry, mathematics, and biology, similarly, naturally occurring plant and animal cells are programmed / designed according to the presence of oxygen and carbon dioxide gases and elements. In other words, even if the intelligent beings on our planet, who are aliens, differ in physical characteristics (color, height, weight, etc.) from intelligent beings formed on other planets and moons, their emotions, spirits, anatomy, instinctive reactions, and inherited/hereditary traits such as savagery, aggression, egoism, possessiveness, jealousy, envy, and self-serving behavior are all similar allotropes of each other. In short, as mentioned above, it makes no difference whether you take one or the other.

Therefore, if ancient Martians had ever existed, we would be fighting them space wars right now. Proof? Our planet's supposedly intelligent Earthling aliens seem to be born and live not to live happily, but to wage war against each other. Wars between Earthling aliens have existed in the past (the Thirty-Year War, the Hundred-Year War, etc.), exist today (as you know), and will naturally continue in the future. Don't worry, alien wars exist and will continue among other aliens living on planets in other galaxies, both within their own groups and between aliens on different planets. The wars between aliens on different planets and with aliens on other planets are due to the aggression, lack of sharing, possessiveness, egoism, and similar inherited behaviors coded into their primitive genes; these desires and wills to fight are encoded in their primitive genes. Inherited genes are passed down from generation to generation. The desires of these primitive genes their domestication towards communal living and sharing after birth, that is, towards civilization can be transformed into human and ethical values in the direction of planetary integration. Generations should be allowed to form in this direction. Otherwise, this cycle, which originated in the past, will continue indefinitely. It is possible to collectively limit and positively structure the life cycle and its characteristics.

It has been suggested that independent nature-loving activists and environmentalist social organizations should organize themselves at the national and global levels to fight against the injustice caused by humans harming the planet's beauty, the environment, nature, and the atmosphere. Consequently, according to the aforementioned articles of the first prototype constitution of the matter, it has been argued that macrobial-microbial life exists and can arise in the thick modern atmospheres of terrestrial-rocky planets and moons in the universe, where there is approximately 21% oxygen by weight and an ozone layer, and where carbon and oxygen element cycles exist. In the presence of organic elements such as oxygen, carbon, and hydrocarbons, as well as known and unknown organic elements that are allotropes of inorganic elements, life has formed, is forming, and will form in the universe... Does macrobial-microbial life, which exists on our planet Earth and disappeared on ancient Mars/The Red Planet, have special privileges compared to the rocky-terrestrial planets and moons of other galaxies in the universe?

Therefore, as understood from the articles of the first prototype Constitution of matter, there are thick and widespread outcrops of chalky rocks on ancient Mars/The Red Planet, which are concrete and definitive evidence of terrestrial-marine microbial life. Within the same Solar System, the existence of marine-terrestrial macrobial-microbial life has been confirmed on Earth and Mars, out of 8 planets (Figures 3 and 4). This ratio corresponds to a very high percentage of 25%, or 2/8. There are 4 terrestrial inner planets in our solar system alone. If this probability is applied only to terrestrial-rocky planets and moons, the ratio becomes  $2/4 = 0,5\%$  or a very high percentage of 50%. Even if we think with simple Aristotelian logic, there are trillions of terrestrial-rocky planets and moons with thick, modern atmospheres and life forms in the intermediate habitable zone compared to their Suns. Some of these are in the gradual dying phases, while others are in the gradual birth/existence phases. Within the same solar system, there are four terrestrial, rocky planets, and just as there is a 50% chance of life existing on Earth and ancient Mars, which are 225 million km apart, it is certain that there is, and will be, a vast amount of life in the universe. If we travel 1 billion km from Earth, we must calculate, with 25% and 50% probabilities, how many millions and/or billions of Earth-like planets and moons capable of supporting life exist. In conclusion, we are definitely not alone in the universe. And aliens in the universe will never be alone either. Millions of habitable planets are forming, while millions of planets, along with their life forms, are gradually disappearing. This cycle will constantly repeat itself and continue into eternity.

### **Discussion:-**

1-Milliken et al., (2010), Perspective view of Gale Crater from HiRISE DTM towards the southeast (Figure 6). Analysis of this profile/image supports our generalized geological sketch/column/pillar cross-section of Gale Crater and its immediate surroundings (Figure 6). However, the authors identified three regions in the profile: lower, middle, and upper members. It is thought that some misperceptions occurred when analyzing this sedimentary sequence in Gale Crater. The authors, like other earlier researchers, have rightly referred to the clay-sulfate minerals and saline units in Gale crater. The problem: They mention that these clay-sulfate minerals and saline units are widespread in the "lower member". In contrast, they mention and argue that these clay-sulfate-saline units are not widespread in the "upper member". As can be clearly seen in Figures (5 and 6) in studies of the Cenozoic-aged (according to the Cenozoic time in the International Chronostratigraphic Time Scale 2018) chalk series rock units of the ancient planet Mars, the rock units forming the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim, Figures 5 and 6), which corresponds to the sub-unit, were formed in a hot, alkaline, deep marine environment. They were formed in a paleoclimatology where evaporation was low and precipitation was abundant. They definitely were not formed in an evaporite environment.

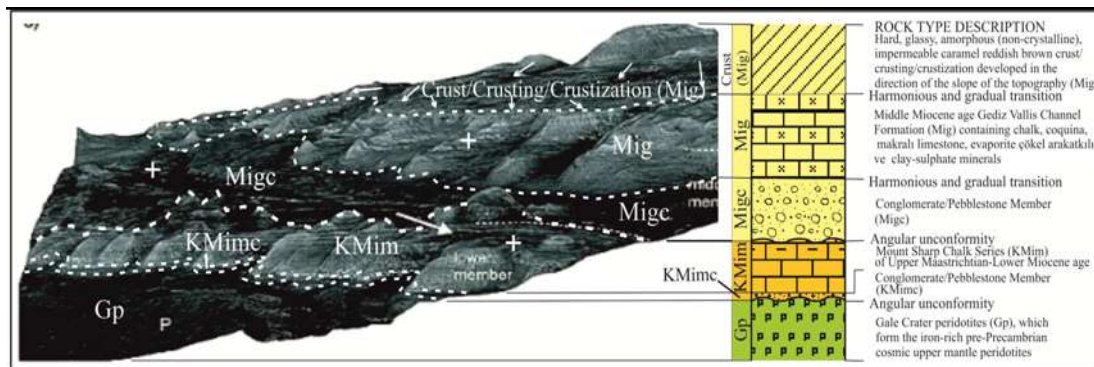
They are autochthonous, intruding into the Gale Peridotites (Gp), which are ancient Mars cosmic upper mantle peridotites at their base, with an angular unconformity beginning with a basal conglomerate (pebblestone member / KMimc) (Figures 5 and 6). This formation contains clay minerals, smectite and Fe/Mg phyllosilicates, and detrital fragments of the peridotite and mineral (olivine) particles from its base. However, the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim), which corresponds to the authors' lower member and is defined, dated, and characterized at the formation level for the first time, and consists of similar chalk rock series over a long time interval, lacks clay-sulfate-salt-gypsum-anhydrite-like evaporite formations (Figures 5 and 6). The unit that the authors (Milliken et al., 2010) define as the upper member in their profiles of the Gale crater (Figure 6), and which does not contain evaporite formations (clay-sulfate-salt), corresponds to this unit. In NASA images, it is known as a clay-sulfate bearing/containing unit. The Gediz Vallis Channel formation (Mig, Migc), which the author shows and draws in Figures 5 and 6, consists of chalk and chalky-evaporite deposits (anhydrite, various gypsum/plaster, various salts/perchlorate salts, slaked lime/ $\text{Ca}(\text{OH})_2$  - unslaked lime/ $\text{CaO}$ , clay-sulfate minerals, etc.) and is found in very thick and widespread outcrops in and around the Jezero and Gale craters, where it formed in a semi-open-semi-



closed shallow marine basin with high evaporation and low precipitation. It corresponds to the Middle Miocene Gediz Vallis Channel formation (Mig, Mige), which was first named and dated at the formation level (Tarhan, 2025). Within the Cenozoic chalky rocks of ancient Mars, in the Middle Miocene Gediz Vallis Channel Formation (Mig), located in the upper parts of the sedimentary sequence in Gale Crater, chalk and chalky-evaporite deposits (anhydrite, gypsum, salt, slaked lime /  $\text{Ca}(\text{OH})_2$  - quicklime /  $\text{CaO}$ , clay-sulfate minerals, etc.) have been observed to be very common.

The Middle Miocene Gediz Vallis Channel Formation (Mig) overlies the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series at its base with an angular unconformity, horizontally bedding, and an autochthonous occurrence with a pebblestone member (Mige) on the eroded geomorphology of the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series at its base, as seen in Figures (4 and 5). In other words, as clearly seen in this excellent image presented by the authors (Milliken et al., 2010), although there is an angular unconformity between the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series corresponding to the lower member and the Middle Miocene Gediz Vallis Channel Formations, which are very common in ancient Mars and consist of chalk-chalk evaporite deposits corresponding to the upper member, the thick-solid-massive-homogeneous chalky rocks that make up the formations are horizontally bedding and are not folded (Figures 5 and 6). Although an unconformity has developed between autochthonous chalky formations of different ages in the Gale crater due to erosion, a folding/orogenic phase has not developed within this erosion process. Such stratigraphic relationships are observed between units formed in shallow-marine depositional environments developed on stable plates.

The absence of folding orogeny between these unconformable formations means that, despite the angular unconformity between the widespread and thick chalk series rock stratigraphic units and chalky evaporite units in and around the Jezero and Gale craters, the lack of a folding phase suggests that the depositional environment in which the chalk series rock units and chalky-evaporites were deposited the marine basin developed on a once stable plate or on stable cosmic upper mantle peridotites (the presence and extent of cosmic upper mantle peridotites appear to be much more significant). The stable region in the Cenozoic era is seen to exist approximately around Arabia Terra, Utopia Basin, Isidis Basin and Hellas Basin as shown in Figure (2).



**Figure 6:- Perspective view of Gale Crater from HiRISE DTM towards the southeast (modified from Milliken et al., 2010); The boundaries of rock units of different ages and lithologies on the perspective view were drawn by the author. Symbols of the formations were placed. The column/pillar cross-section on the right side of the perspective view was also drawn by the author.**

As shown in Figure (6); Gp, Mars' cosmic upper mantle peridotites; KMime, conglomerate/pebblestone member of the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series; KMim, Upper Maastrichtian-Lower Miocene Mount Sharp chalk series; Mige, conglomerate/pebblestone member of the Middle Miocene Gediz Vallis Channel formation; Mig, Middle Miocene Gediz Vallis Channel formation; +, horizontal stratification; The arrows indicate the direction of pseudobedding, solid flow protrusions, and block formations along the topographic slopes of the caramel-reddish-brown, glassy amorphous, hard, compact, and impermeable crust/crusting/crustization formation, which formed on the atmospheric outer surface of the Middle Miocene Gediz Vallis Channel formation due to solid-phase dissolution and recrystallization caused by temperature differences that developed during ancient Martian nights and days. Therefore, the glassy-amorphous crust (crust/crusting/crustization) that develops on the atmospheric outer surface of chalky rocks and forms the armored crust cover corresponds to pseudobedding, solid flow protrusions, and block formations of varying thicknesses on the atmospheric outer surface of chalky rocks.

As clearly and precisely shown in Figures (5 and 6), the angular unconformity relationships between the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series rock units in the Gale crater and the basement rocks forming the cosmic upper mantle Gale peridotites (Gp) at its base are demonstrated. The relationships of the chalky rock units in the field and in the profile/image coincide exactly with each other. They reveal very important data and relationships. The angular unconformities between the chalk series rock units, the chalky-evaporite deposits, and the Gale peridotites forming the underlying cosmic upper mantle peridotites are clearly visible. The stratigraphic relationships between the chalky rock series and the rock formations composed of chalk, and the angular unconformities between the formations in the perspective image/profile, show that the formations are conformable and transitional with the basal conglomerates/pebblestone members and the formations to which these members belong. Despite angular unconformities between the chalky formations, orogenic/folded phases have not developed. It is very clear that the chalky formations located at and above the base of the angular unconformities are not folded, but horizontally bedding. This situation has been mentioned in some previous studies. Only erosion and weathering phases have developed. The next formation has been deposited horizontally bedding with an angular unconformity on top of the eroded geomorphology of the previous formation. Such formations develop in marine depositional environments on stable plates. Although the chalky formations are horizontally bedding, they have been deposited horizontally unconformably on the eroded geomorphological surface between them.

In ancient Mars, the chalk series rock units, which are seen as thick and widespread outcrops in and around the Jezero and Gale craters, have been identified and named at the formation level, consisting of chalk and chalky evaporite sediments (anhydrite, gypsum, salt-perchlorate, clay-sulfate-sulfur minerals; anhydrous calcium sulfate/anhydrite/ $\text{CaSO}_4$ , hydrated dehydrate / gypsum /  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$  and semi-hydroxide hemihydrates / basanite / gypsum/ $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ , hydrated lime/ $\text{Ca}(\text{OH})_2$ , lime/ $\text{CaO}$ , etc.). These chalk series rock units, which have similar counterparts on Earth, have been dated according to the Earth timeline based on their similar allotropes on Earth, due to their rock type characteristics, stratigraphic relationships, formation method, organic origin, and biochemical formation similarities.

Chalky rock units, chalk and chalky-evaporite sediments, consist of deposits of skeletons, shells, and organism bodies of 95-99% eukaryotic (single-celled) microorganisms that have accumulated on the seabed over millions of years as a result of the death of phytoplankton/plant plankton (stromatolites, diatoms, etc. formed by cyanobacteria known as blue-green algae/mosses/lichens) and zooplankton/animal plankton (coccoliths-coccolithophores, foraminifera, globigerinoids, rhabdolites, etc.), along with white, sticky muds. They may sometimes also contain small amounts of skeletons of siliceous organisms. They may contain trace amounts of detrital clay and silt grains. Therefore, chalky rock units may contain layers and nodules of silicon / chert / opal / chalcedon in places. Chalk and chalk series rocks are formed from the subsequent compaction of deposits of skeletons of dead microorganisms, too small to be seen with the naked eye on a microscopic scale, that accumulated on the seabed. They are thick, massive, heterogeneous, meters and kilometers thick, white in color, brittle, porous, low-density/light, loose, and when crushed, become soft chalk dust with a size of 3 microns. Chalk series rock units, chalks, and chalky-evaporite deposits are entirely composed of plankton, which are evidence of tiny lacustrine and marine microbial life on a microscopic scale. Chalks are organically formed, biochemically formed, and are a type of carbonate sedimentary rock with a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ . Therefore, chalk series rock units and chalk-chalky evaporite deposits (gypsum anhydrite, plaster, salt, slaked lime /  $\text{Ca}(\text{OH})_2$  - quicklime /  $\text{CaO}$ , clay-sulfate minerals, etc.) never contain plagioclase-type inorganic minerals and rock units and interbeds composed of these minerals. However, they may contain different clay minerals and kaolinite rocks formed as a result of the competition and decomposition of plagioclase in aqueous environments.

An important preliminary study (Lewis et al., 2019) on sedimentary rock units exposed in and around the Gale crater on ancient Mars coincides with and supports the conclusions we have put forward regarding ancient Mars. In this preliminary study (Lewis et al., 2019), the authors state that the exposed units in and around the Gale crater are low-density, highly porous, and were not subjected to burial (rock pressure from overlying rocks) throughout their history. It is very clear that these important geological data presented by the authors (Lewis et al., 2019) correspond to the chalk series rock units, chalk and chalky-evaporite sediments, which were first identified by the author in the Jezero and Gale craters on ancient Mars as porous, low-density/light, white-colored, defined and named as different formations (Tarhan, 2025) and that they overlap with each other. Jezero and Gale craters and their surroundings exhibit thick and widespread outcrops of Upper Maastrichtian-Lower Miocene chalk series rock units, composed of Middle Miocene chalk and chalky-evaporite sediments (gypsum-anhydrite, plaster, salt, slaked lime /  $\text{Ca}(\text{OH})_2$ , quick lime /  $\text{CaO}$ , clay-sulfate minerals, etc.), with chalk being the dominant rock unit; the chalks are of organic



origin, biochemically formed, consisting of 95-99% eukaryotic phytoplankton and zooplankton species, with a chemical composition of calcium carbonate / calcite /  $\text{CaCO}_3$ , highly porous, sponge-like, water-absorbing; they were not subjected to deep burial (under rock load) and tectonic deformations during their formation; they are light, brittle, fragile, and change to chalk dust of approximately 3 microns in size when force is applied; The fragments of shells, skeletons and bodies of microorganisms that lived and died in an alkaline marine environment with a pH value of 7.0 and above / between 9.0 constitute another evidence of carbonate type sedimentary rocks that have accumulated / settled on the seabed for millions of years. Lewis et al., (2019), The data they presented not only coincided with the data presented in our study, but also provided another scientific evidence and indicator of the accuracy of our study and data.

2- Chalks are sedimentary rocks of organic origin, biochemically formed, with a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ . They are brittle, light, easily crushed, highly porous, absorb water like a sponge, have very low density, and possess unique physical properties. Lewis et al., (2019), one of the pioneering researchers who worked in Gale Crater, refuted the views of other pioneering researchers who worked in Gale Crater that the rocks in Gale Crater were subjected to a 1-2 km thick burial (rock pressure from the overlying rock load). On the contrary, he clearly and unequivocally proved and stated that the rocks in Gale Crater have high porosity, low density, and have not been subjected to maximum burial depths throughout their history (Figures 5 and 6). These scientifically certain and concrete data clearly show that the views put forward by the authors are absolutely correct and are consistent with and overlap with our views. Because the most important physical characteristics of chalks and chalk series rock units are their high porosity, like sandstones, and their sponge-like water absorption. They form in alkaline marine-lake environments (approximately pH 7.0 to pH 9.0). The presence of thick and widespread chalk series rock units and chalky evaporites in and around the Jezero and Gale craters on ancient Mars, which we identified for the first time, confirms the accuracy of our findings; it is very clear that these rocks are highly porous, not subjected to burial pressure, and have very low densities, providing further important supporting evidence for the existence of chalk series rocks, which we first determined.

Chalks, despite having a chemical composition of calcium carbonate/calcite/ $\text{CaCO}_3$ , are formed from microscopic organisms (plant and animal plankton). They are organic and biochemically formed carbonate sedimentary rocks. As is known, chalks differ completely from inorganic carbonates and limestones, which have a chemical composition of calcium carbonate ( $\text{CaCO}_3$ ), both in their formation mechanisms and origins. Inorganic carbonates and limestones are formed as a result of the interaction of water, the rich carbon dioxide gas ( $\text{CO}_2$ ) of the atmosphere, and rocks, and are of inorganic origin (not organic formations). However, phytoplankton and zooplankton are microscopic deposits of small, dead microorganisms with a calcium carbonate/calcite/ $\text{CaCO}_3$  chemical composition (sometimes containing silica, but 95-99% organic calcium carbonate) formed from microscopic living fragments and aggregations; their skeletons, shells, and organism bodies are deposited on the seabed. They are solid, massive, homogeneous, thickly horizontally layered, porous, low-density, and highly porous; they are formed from millions of years of accumulated remains, and are a type of carbonate sediment of organic origin. They are of organic origin. They are a type of sedimentary carbonate that is biochemically formed, highly porous, and easily reduced to chalk powder.

3- Another important, definitive, and concrete geological evidence regarding chalk is the presence of chalk series rock units of different ages, exhibiting thick and widespread outcrops, which first surfaced on ancient Mars. These chalk and chalky evaporite formations (gypsum-anhydrite, plaster, salt, hydrated and unhydrate lime, slaked lime - unslaked lime, clay-sulfate minerals, all known in previous studies as sulfate-containing/containing units on ancient Mars) are covered by a glassy amorphous, hard, impermeable crustal armor along different topographic slopes, developed as a result of the interaction of these formations with the atmospheric conditions of ancient Mars. It was determined that the crust was covered/coated with a glassy amorphous, hard, impermeable, caramel-reddish-brown crusted armor, first described by the author as crust/crusting/crustization. This crust formation has led to the development of several important geological events. This formation, which developed in accordance with the paleoclimatology of ancient Mars at that time, was first described and named as crust/crusting/crustization, and its formation mechanism was elucidated, making it a very important geological formation (Figures 5 and 6). The formation mechanisms of these geological structures will be addressed in later studies. This glassy, amorphous, hard, and impermeable armored crust has concealed many geological events and prevented many others from being lost. Furthermore, it has archived historical/temporal records of the geological events and paleoclimatological processes that these formations underwent after their formation.

4-Previous studies of Gale crater and its surroundings on ancient Mars generally agree on the presence of clay-sulfate minerals in the rock units, the content of Fe/Mg phyllosilicates, and the presence of sand dunes (Miiliken et al., 2010; Buz et al., 2017; Ewing et al., 2017; Grant et al., 2019; Thomson et al., 2019; Rampe et al., 2020; Bristow et al., 2021; Eng et al., 2024). However, one of the earlier researchers (Buz et al., 2017) stated that they searched for Fe/Mg phyllosilicates in the sedimentary units of Gale crater, as well as feldspar-rich rock units in the sedimentary rock units of Gale crater and the rock units on the periphery/surroundings of Gale crater, but did not find them. This opinion of the authors is very important. This is because the sedimentary rock units in and around Gale Crater are composed of biochemically formed calcium carbonate/calcite/ $\text{CaCO}_3$  carbonate sedimentary rocks formed from the accumulation of skeletons and organism shells of microscopic, invisible phytoplankton/plant plankton and zooplankton/animal plankton species that lived in hot, clean, alkaline (pH greater than 7, possibly pH 9) marine environments for millions of years. They are not plagioclase-containing rocks. Therefore, the opinion of previous researchers (Buz et al., 2017) that plagioclase-containing rocks are absent is correct. Because the rock units exposed around Gale Crater consist of chalk series rock units, chalk, and chalky evaporite deposits that do not contain plagioclase. The authors' data indicating the absence of plagioclase-containing rocks in Gale Crater and its surrounding walls are consistent with this geological data from our studies. This constitutes further evidence supporting the existence of chalky rocks on ancient Mars. When all this geological data and evidence are evaluated together, it becomes certain that terrestrial-marine macrobial-microbial life once existed on ancient Mars. However, I must sadly point out that whatever happened, this life completely disappeared and/or vanished. This constitutes the other painful, sad, and dramatic aspect of the study...

### **Conclusion:-**

1. It has been argued that certain scientific studies and geological events that contradict and conflict with the articles of the prototype Constitution of matter are an indication that they did not and cannot occur in nature (on our planet Earth) and in the universe.

2. The articles of the prototype Constitution of matter are valid everywhere in the universe and in different time dimensions. These are realized through the very rich and multifunctional geochemical behaviors of matter.

3. Substances transform into different substances within themselves; energies transform into different energies within themselves; Matter and energy undergo exchange and transformation among themselves (Figure 1). There are no definite boundaries or limitations in these changes and transformations. Transitional thermodynamic systems, intermediate components, and derivatives inevitably develop in these transformations. For example, in transitional thermodynamic systems (Tarhan, 2018), many intermediate components and derivatives develop in the transformations and transitions that occur between substances, between energies, and between matter and energy. We know only a small part of it as links in a chain. It has been thought that we have not reached a sufficient accumulation of knowledge to understand most of it. The reason for this is thought to be that we have not evolved enough to reach a sufficient accumulation of knowledge. However, since matter has been evolving by restructuring itself for billions of years, its degree of purity, degree of accuracy, capability, sustainability, and geochemical behaviors for creating and evolving have become very rich and functional, and it continues to do so. Therefore, for matter, every unsolvable problem has a solution. Naturally, there is no unsolvable problem except for spontaneously occurring and unwanted accidents.

4. Due to the short life cycles of intelligent beings (70-90 years), their degrees of evolution, purity, and accuracy are negligible when compared to the evolutionary processes of matter. This is because, due to their innate, hereditary primitive genes, they are enslaved by wild, aggressive, possessive, egoistic, and unsharing behaviors, and their degree of purity increases slowly as they evolve both forward and backward simultaneously for their own benefit. Therefore, wars have always existed and will continue to exist. So, are we living to fight and die, or are we here and living to live happily and peacefully? This has not yet been decided. However, it is thought that it may be possible to mitigate/prevent enslavement to our innate, hereditary genes through positive post-natal education, sharing, mutually beneficial relationships, and solidarity, thus making them more sharing, using positive sciences. If theology is a viewpoint and a form of education, it makes genes even more active and reactive due to innate, unevolved aggressive, unsharing, and possessive desires and urges. It's like pouring gasoline on a fire...

5. By using, learning from, and adapting to nature, the universe, and the principles of the prototype Constitution of matter (since the basis of nature is creation and sustenance, not destruction, the fundamental purposes and mechanisms of formation are the same and similar even if physical characteristics differ), it is thought possible to

shorten and lengthen the life cycles of intelligent beings on our planet Earth, to maintain ecosystem balance, and to adapt to their environment. Artificial organic organs capable of working in harmony (matter has the ability to adapt to its environment) can be created. However, these transformations, changes, and restructurings can never be made permanent.

6. Macrobial and microbial life definitely existed on ancient Mars at one time. Evidence for this is the author's initial description of thick and widespread surface formations/outcrops on ancient Mars, consisting of chalk series rock units, chalk, and chalky evaporites, all of organic origin, biochemically formed, and having a calcium carbonate/calcite/ $\text{CaCO}_3$  chemical composition (Tarhan, 2025). These chalk rock formations were formed by the accumulation of the shells and skeletons of dead microorganisms, such as phytoplankton and zooplankton, too small to be seen with the naked eye on a microscopic scale, on the seabed. The author was the first to describe and name the presence of chalk and chalk series rocks on ancient Mars, thus confirming the existence of marine-terrestrial and microbial-macrobian life on ancient Mars (Tarhan, 2025). Thousands of years ago, during the Quaternary period relative to Earth (probably between 1,400 million and 50,000 years ago and/or between 300,000 and 50,000 years ago, etc.), the macrobian-microbial life, its thick modern atmosphere, and the Gülnaz geochemical rock cycle dramatically vanished and/or evaporated. The frozen ancient Martian landscape we see today is clearly visible in NASA's publicly available videos of ancient Mars/The Red Planet. The appearance of the frozen ancient planet Mars in these videos exhibits features very similar to the recent appearance of Earth today.

7. The author has for the first time definitively and concretely determined the existence of thick and widespread outcrops of chalky formations on ancient Mars, formed at different times, in different depositional environments, and under different paleoclimatological conditions. Chalky rock formations of different ages have been identified and named at the formation level, and their rock type characteristics, depositional environment, and formations have been dated according to the Earth geological time scale/table in relation to their counterparts on Earth. This is because chalky series rock units, chalk and chalky evaporite deposits are the only representatives, evidence, and indicators of marine microbial life on Earth, on ancient Mars, and on other terrestrial-rocky planets and moons where it may have existed. In short, chalks and chalky rocks constitute the sole scientifically positive evidence proving, confirming, and concretizing the existence of marine-terrestrial macrobian-microbial life on ancient Mars/The Red Planet, which once existed but dramatically vanished and evaporated relatively recently.

In other words, the evidence and proof of microbial life on ancient Mars is: the chalk series rock units, identified for the first time by the author, are chalk and chalky-evaporite sediments themselves. They constitute the essence of marine microbial life. This scientific evidence is concrete, definitive proof, evidence, and indicators that terrestrial-marine macrobian-microbial life once existed on ancient Mars and dramatically disappeared/evaporated. In short, a piece of chalk and/or chalky rock you hold in your hand is a historical record, evidence, and archive of life that lived in the past, imbued with the effects of all the processes it underwent and preserved in fossilized form. These are documents that constitute the essence, evidence, and existence of once-existing life. I would also like to point out that these documents are naturally recorded and archived by the first prototype constitution of matter, which has reached and continues to increase its degree of evolution and accuracy, and whose articles are definitive, impartial, equal to all, sharing, integrative, multiplying, disseminating, fair, and based on justice and equity. These natural archives are not artificial records created through logical, imaginative modeling, prepared according to the personal and private interests and understandings of those who don't even abide by their own fundamental laws, diploma thieves who buy diplomas with money because they lack professional qualifications, incompetent individuals, those who sell empty dreams against hunger and poverty, and creatures with incomplete or partially evolved humanoid appearances; These are not artificial recordings that aim to deceive future generations with false information... The rest is just details/secondary information...

8. The emergence of life on Mars/The Red Planet and our planet Earth (Figures 3 and 4), two of the eight planets in the Milky Way Galaxy's Solar System, is not a coincidence. It is not a privilege or a gift bestowed upon them. It arose as a result of the extremely rich and functional geochemical behavior of the elements of the first prototype Constitution of matter. However, life that existed on ancient Mars, probably thousands of years ago, during the Quaternary period of present-day Earth, was dramatically destroyed / evaporated as a result of extraordinary natural events. The emergence of life on these two planets, located approximately 225 million kilometers apart, is highly probable ( $2/8 = 0.25 = 25\%$ ). Furthermore, if we disregard the gas planets in this range and consider only the four terrestrial planets in our Solar System, this probability becomes much higher, reaching a rate of  $2/4 = 0.5 = 50\%$ . In other words, the emergence of terrestrial-marine and macrobian-microbial life on two of the four inner, rocky planets

in our Solar System means that life exists, originated, and will develop on billions, even trillions, of terrestrial and rocky planets and moons (moons) in the universe. This high probability and the aforementioned principles of the prototype Constitution of matter demonstrate that we are definitely not alone in the universe. The definitive identification of terrestrial, marine, macrobial, and microbial life on Mars, which lost its life, atmosphere, and rock cycle due to unknown geological events, is proof of this. The universe contains trillions of galaxies of varying sizes (some researchers estimate around 40-50 billion). Within these trillions of solar systems formed from these galaxies, there are trillions and/or billions of terrestrial, rocky planets and moons located in the intermediate habitable zone relative to their stars (the Sun). According to the articles of the Prototype Constitution of Matter discussed in this article, there is a 25% to 50% chance that life could be found on neighboring planets in our solar system, such as Mars and Earth. Even if we were to move 1 billion kilometers away from our planet, millions, billions, and perhaps trillions of life forms would exist. Similarly, according to the articles of the Prototype Constitution of Matter, life forms and intelligent space creatures on planets and moons that harbor life will never be alone in the universe. Existing organic forms, inorganic forms, and inorganic systems (except for spontaneously occurring natural events) will gradually lose their life cycles. In other words, they will die. Transformations and changes into other forms and systems occur gradually over billions of years. Conversely, new forms and systems are born / created from extinct forms and systems. These life cycles, which contain continuity and sustainability, will continue to repeat indefinitely.

9. The existence and extinction of terrestrial and marine macrobial and microbial life on ancient Mars within our solar system is undoubtedly very important. Most importantly, the people of Earth must learn from what happened. This creation and destruction on Mars/The Red Planet is undoubtedly a tragic and unforgettable natural event that will be etched in the archives of world history. However, it should be known that extinctions/evaporations, like the extinction of life on ancient Mars, occurred before ancient Mars and will continue to occur afterward.

10. The destruction of the life cycles of innocent women, babies, children, and living beings on Earth must end. Action always elicits a reaction. These very rich and functional geochemical behaviors of matter are formed as a reaction to the natural physical effects applied to it from the outside, in order to not be destroyed, not to destroy, to remain stable, and to become stable.

11. The late Gazi Mustafa Kemal Atatürk, the founder and leader of the secular, social, legal, and democratic Republic of Turkey, said, "Peace at home, peace in the world," and "War is a crime unless absolutely necessary." He told his youth that their goal should always be to move forward towards civilization. If he were alive today, he would share the view of "Peace on the planet, peace between planets." It is proposed that a planetary and interplanetary constitution be created, guaranteeing the sanctity of the fundamental right to live and let live, based on equality between intelligent beings and all wild creatures, within the framework of planetary citizenship. This constitution should be continuously updated according to the conditions of the day, based on scientific and technical developments. It should establish the necessity and responsibility of coexisting peacefully and safely in an environment where the ugly and the beautiful, the poor and the rich, the ant and the elephant coexist, as if it were the first law of matter; it is suggested that they be in solidarity in good times and bad.

12. The Red Planet should be known as a place of suffering, blood, and tears. It is recommended that all scientists and researchers from neighboring Earths focus on restructuring the atmosphere of Mars/Red Planet, which was once a blue planet like our own, as this is of paramount importance and priority. All material and spiritual aid to Mars will never be in vain; Mars holds all kinds of potential. There is no need to take anything heavy from Earth to Mars. According to NASA data, carbon dioxide gas is constantly leaking from the Martian atmosphere into space. However, ancient Mars is not dead. Mars is in a chronic coma and is very sad. To revive life, it continuously transfers heat to the Martian surface through weak zones. Although it operates all its physical, chemical, and biological reactors, the total heat and carbon dioxide gas it produces is less than the total gas and heat leaking/escaping from its atmosphere into space. Therefore, it cannot thicken its atmosphere. It cannot bring back the geochemical rock cycle and life. Mars wants and expects its neighboring Earthlings to intervene in its atmosphere from the outside, thereby breaking or minimizing the spiral carbon dioxide gas cycle that leaks from its atmosphere into space. Therefore, researchers, scientists, institutions, and organizations from all professions around the world are requested and advised to focus their primary scientific efforts on Mars.

If the spiral gas leak cycle in the Martian atmosphere is broken and/or minimized, it is thought and suggested that Mars has the potential to repair its atmosphere by thickening it, trapping/holding heat, and creating a greenhouse gas

effect (primarily carbon dioxide gas, etc.), thereby restoring the geochemical rock cycle and life. At this stage, the biggest and most pressing problem for Mars/The Red Planet is how to interfere with its atmosphere and how to restructure it, and this has been presented for discussion and suggestions from neighboring aliens. It was then thought and suggested that knowing, understanding, and solving other problems of Mars would be much easier. Because Mars cannot intervene in its own atmosphere from the outside. I must also state that Mars is not dead and will not die. Its coma will continue as long as its problems persist. In return, Mars, which is about half the size of Earth, certainly has the potential to become a second world for aliens from neighboring Earth. Please do not go to Mars with your guns, rifles, and nuclear weapons, succumbing to your innate, unevolved, wild, aggressive, possessive, egoistic, and unsharing desires. It is thought that it is possible to tame the possessiveness and unsharing carried by the primal genes from birth, changing and developing with positive sciences, and to instill unifying moral and ethical values on a planetary scale. In conclusion, Mars is ready to become a second world for its alien neighbors, it needs its atmosphere to be structured, and it is predicted and asserted that it possesses all kinds of positive potential.

13. In nature and the universe, there are many known and unknown chemical elements and their derivatives of inorganic origin. The periodic table of chemical elements will expand in the future. However, in nature and the universe, there are many known and unknown elements and their derivatives of organic origin that have similar conjugate allotropes to the known and unknown inorganic chemical elements. A periodic table should be created for organic elements, similar to the periodic table of inorganic chemical elements. By learning from nature, and by artificially replicating genetic cloning and biodiversity, it is possible to expand and broaden food supply chains. It was thought possible to artificially create and discover allotropes of unknown elements of organic origin.

14. This planet is not, and should not be, Dingo's stable. No powerful individual or country should act arbitrarily and without limit, exceeding the boundaries of their power. They must have definite rules and limits. As long as they remain within those limits, they should be free, safe, and peaceful. This is the purpose of constitutions and social contracts. Otherwise, what meaning do constitutions have? Those who take pleasure in the killing of innocent women, babies, children, and living beings, those who cause their deaths through hunger, thirst, and lack of access to food, those who condone these cruelties and injustices; those in positions of power who are blind, deaf, and mute to these cruelties and injustices; those who remain spectators to these cruelties and injustices; those who are indifferent they should know that history will see you, directly and indirectly, as accomplices and partners in the injustices and crimes committed, siding with those who perpetrate them. Don't hide yourselves behind the guise of democracy, rights, law, and freedom that you've created... As the process unfolds, when the false mask on your faces is removed a mask reflecting your primitive, self-serving, aggressive, savage, egoistic, selfish, and unsharing desires your aggressive, expansionist, and occupying dreams that deny the right to life and existence to those who are not like you will remind you of the saying "The Emperor Has No Clothes / King Naked "... That's how you will be remembered, and you will be buried in the dustbin of history...

15. To date, the theory/view that regionally and locally developed large and small circular depressions and basins observed on the outer surfaces of known terrestrial-rocky planets and moons (Moons) and asteroids are impact craters and basins developed as a result of meteorite, asteroid, and comet impacts has been disproven. These geological formations, known as impact craters, have been redefined and named under the general heading of sinkholes/sinkholing/sinkholesization. Sinkholes are unique to the planets and moons on which they are found, and have developed as a result of various geological events; they are indigenous and national geological formations of the planet and satellites (Moons) on which they are located. The causes and mechanisms of the formation of sinkholes, known as impact craters, should be re-investigated...

16. The theory/view of impact craters is definitely not correct according to the author. Until now, the extinction of the dinosaurs has been attributed to impact craters. The extinction of the dinosaurs has no relation whatsoever to impact craters. Therefore, the causes of the dinosaur extinction should be re-investigated. Thousands of dinosaur footprints have been found in Italy. It is suggested that research should begin from there...

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NASA/JPL/Caltech and <https://mars.nasa.gov/mars2020/multimedia/videos/>. Without NASA's publicly available Martian surface video footage and scientific data, I could not have written these and similar articles and made my interpretations. I have also watched and used publicly available EDL/Elder Fox documentaries, *Cronicas Marcianas*, and Marsolog YouTube videos on ancient Mars. Therefore, the successful work of NASA, NASA researchers, and employees, who have made, are making, or will make significant breakthroughs and innovations for life and habitats on Earth, should be appreciated. Their contributions should be acknowledged. They should be given the recognition they deserve. It is strongly recommended that their budgets be increased so that they can advance their work to higher levels. It is also suggested that Mr. Elon Musk provide technical support to all NASA projects related to Mars. If both sides agree, Mr. Elon Musk is requested to send a symbolic bouquet of artificial flowers to Mars on behalf of activist, environmentalist, and nature-loving social platforms around the world, aboard NASA's first spacecraft. This symbolic gesture would be a good opportunity to commemorate the ancient Martian life that has since vanished or evaporated, and to share, to some extent, the pain of ancient Martian life...

**Symbols Used (Dated According to the World International Chronostratigraphic Chart-2018):-**

Gp = Cosmic Upper Mantle Peridotites, Gale Crater Peridotites  
KMim = Upper Maastrichtian-Lower Miocene Mount Sharp Chalk Series  
Mig = Middle Miocene Gediz Vallis Channel Formation  
Migc = Middle Miocene Conglomerate/Pebblestone Member  
Plk = Middle-Upper Pliocene Kimberly Formation  
Plkc = Middle-Upper Pliocene Conglomerate/Pebblestone Member  
Qd = Quaternary (Pleistocene-Holocene) Dingo Gap Formation  
Qta = Quaternary Old Alluvium/Terrace  
Qs/l = Quaternary Slope and Landslide Debris  
Qf = Quaternary Flood Deposits  
Qal = Quaternary Alluvium  
Qg = Quaternary Gray Wolf Peak Basalt Lava  
Qdu = Quaternary Sand Dune  
Qw = Quaternary Old Wind Alluvial Deposits

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**Author contributions:-**

The author is the sole author of the article. The author designed the research, examined publicly available images and data from NASA's Mars rovers, and compared/correlated Martian rock formations with their counterparts on Earth, drawing on their professional knowledge and experience in geology, groundbreaking articles in geological literature, and the content of geological books they have written. He wrote the article. The author wrote the article and has read and approved the published version.

**Conflict of Interest:-**

The author declares that he has no conflict of interest.

**Data, Material and Software Availability:-**

Because the study is very comprehensive and rich in content, as much data as possible has been transferred to the limited manuscript.

**Research Areas:-**

Niyazi Tarhan: Field Geology, Geological Mapping, Mineralogy-Petrography, Metamorphism, Metamorphic Rocks, Granite/Granitoid-Carbonatite-Anorthosite Problems, Structural Geology, Tectonism, Stratigraphy.

**Letter from the Author: -****Dear NASA and Elon Musk,**

NASA and NASA researchers have obtained very important and invaluable geological data regarding the Moon, the natural satellite of our planet Earth. I would like to thank everyone involved. However, it is thought that this valuable data has been misinterpreted by some scientists and researchers. This is because they are unaware that what has been considered correct in the geological literature due to unresolved issues is actually wrong. This has led to different interpretations, which is understandable. Of course, different interpretations are a richness. They give rise to thesis and antithesis...

As is known, the Moon is moving 3,8 cm away from our planet every year. According to my unpublished research, the Moon is in a risky position for Earth. It is recommended not to tamper with it too much. Please do not invest in the Moon. There is no water on the Moon. Any investment you make on the Moon will not yield an economic return. It is recommended that all your resources and capabilities be mobilized for Mars. Any investment made in Mars has the potential to yield an economic return and become our second world. Mr. Elon Musk has the potential to establish agriculture and farms on Mars. The most important and only priority problem for Mars is: restructuring the Martian atmosphere. Breaking or minimizing the spiral cycle of carbon dioxide gas (CO<sub>2</sub>) and heat leaking/escaping from its atmosphere into space. It is recommended not to pursue endless fanciful ideas such as bringing ice from distant ice belts and asteroid impacts, which are laborious and expensive methods that take thousands of years to restructure the Martian atmosphere... Of course, different opinions are important. But there are more economical and feasible options!... What you need to do for Mars is very simple. It requires a little work! It depends on your technological advancements... Mars appears to be the safest and most habitable planet in our Solar System... If Mr. Elon Musk accepts, I would like to collaborate with him on scientific proposals regarding what kind of tools to produce to rapidly thicken the Martian atmosphere after its structuring... However, as far as I know, contributions to the nutrition and school education of children in Ethiopia and other poor countries should not be forgotten... Because all children are common elements of the planet. They are the future of the planet. They must be protected and cared for from cruel, brutal, savage, unsharing, and unevolved human-looking creatures, bigots, who inherit their primitive genes... With love and respect, The Author,

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