

Articles of the Written Prototype Constitution of Matter: We are not alone in the Universe! First Evidence: The Ancient Planet Mars

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.

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.

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

48 articles of the Constitution of Matter; whatever formations it has caused on Earth, it will also
49 create similar conjugate allotropes of the same forms in similar systems in the universe. That
50 is, while their physical properties differ, their chemical compositions, formation mechanisms,
51 purposes, and functions are the same. On our planet, all marine and terrestrial macrobial and
52 microbial forms/life (plant and animal cells, etc.) of organic origin, marine and terrestrial
53 microbial and microbial forms (rocks, minerals, ores, substances, etc.) of inorganic origin, and
54 inorganic systems (galaxies, terrestrial and rocky planets and moons, suns, etc.) are alive.
55 Inorganic forms and systems are composed of atomic building blocks made up of atoms, ions,
56 molecules, and subatomic particles.

57
58 Similarly, organic forms are composed of animal and plant basic cells. Therefore, there are
59 trillions (or according to some researchers, 40-50 billion) of galaxies of varying sizes in the
60 universe, just like our world. The absence of life on the billions and trillions of terrestrial
61 rocky planets and moons (moons) located in the habitable intermediate regions of these
62 galaxies' solar systems relative to their stars (Suns) would absolutely contradict the laws of
63 physics, astrophysics, chemistry, mathematics, and biology. Life in the universe, existing and
64 future on different rocky-terrestrial planets and moons, will never be alone. Living beings,
65 whether on inorganic systems or separately (organic forms with short life cycles die first),
66 gradually collapse/die after millions and/or billions of years. Conversely, from collapsed/dead
67 organic-inorganic forms and inorganic systems, new forms and systems are born/formed
68 millions and/or billions of years later. This cycle constantly repeats itself towards infinity.
69 Therefore, we are definitely not alone in the universe. Let's briefly summarize and clarify
70 these views with a concrete example: The publicly available videos of ancient Mars/the Red
71 Planet from NASA and its valuable researchers have been viewed. In his initial impressions,
72 the author had many positive observations, as well as some demands that needed to be known
73 and achieved. The most important positive observation was that ancient Mars was frozen. The
74 observation of rock units similar to conjugate allotropic rock stratigraphic units around the
75 world was not surprising.

76
77 Its appearance was that of the world in its frozen, present-day state. The articles of the
78 Constitution of Matter were validated, because they were valid everywhere in the universe.
79 There was no problem with this validity, and they were all proven. The author, an
80 environmentalist and nature lover, was surprised and saddened by a geological event: Later, in
81 his intensive research, the author discovered that Ancient Mars once had terrestrial and
82 marine macrobial-microbial life, and that during the Quaternary period (Cenozoic era
83 according to the World International Chronostratigraphic Timeline - 2018), approximately
84 1,400,000 to 50,000 years ago (or, if narrowed down and further researched, possibly between
85 50,000 and 300,000 years ago), Ancient Mars dramatically lost and/or evaporated its modern,
86 thick atmosphere, geochemical rock cycle, and all life on it... However, Ancient Mars was
87 not dead... It was alive... But it was in a deep coma of grief... Ancient Mars was transferring
88 heat to the upper crust along its zones of weakness (along active different fault systems and
89 zones), and all its biological, physical, and chemical reactors were actively working... This
90 grief deeply affected the author: What happened to Ancient Mars? Why did this happen when
91 everything was going well? In conclusion, according to the prototype Constitution and articles
92 of matter, it was revealed that Ancient Mars did not die, and therefore the extinction of its
93 atmosphere, geochemical rock cycle, and life did not originate from ancient Mars. Because
94 life could not have died before ancient Mars. In other words, life could not have died out
95 before ancient Mars.

96

97 The extinction of life and the cessation of the geochemical rock cycle have led to the
98 conclusion that there was an extraordinary external intervention in the atmosphere of ancient
99 Mars. As everyone wonders, what evidence exists for life on ancient Mars? There is plenty of
100 evidence, and I will not present it. However, the evidence I will present alone is sufficient and
101 will be more than enough. My research has shown that the thick and extensively
102 exposed/outcropped rock stratigraphic units found in and around the Jezero and Gale craters
103 on Mars; In a well-known region of the world, Cenozoic-aged (according to the World
104 International Chronostratigraphic Timeline-2018 Cenozoic) chalk series rock units with
105 similar equivalent allotropics exhibit very similar rock type features, stratigraphic
106 relationships and paleoclimatological features to chalks and chalky evaporite deposits/beds
107 (anhydrite, gypsum, various salts and perchlorates, hydrated limestone/ $\text{Ca}(\text{OH})_2$,
108 limestone/ CaO , various clay-sulfate minerals, chalky coral-cokina-macrotous limestones etc.).
109 These rocks have been identified and named according to the type geographic place names on
110 ancient Mars and dated to the ages of equivalent chalky rocks on Earth (Tarhan, 2025). In
111 other words, the chalk series rock units with thick and widespread outcrops in and around
112 Mars' Gale Crater, consisting of chalk and chalky-evaporite sediments (gypsum anhydrite,
113 gypsum, salt, hydrated lime/ $\text{Ca}(\text{OH})_2$, lime/ CaO , clay sulfate minerals), have been dated
114 according to Earth's geological time scale, relative to their allotropic equivalents on Earth.
115

116 **Chalk/chalk series rocks/chalky-evaporite rocks are carbonate-type sedimentary rocks**
117 **of organic origin, biochemically formed, with a chemical composition of calcium**
118 **carbonate/calcite/ CaCO_3 . They are composed of the shells, skeletons, and bodies of**
119 **microscopic phytoplankton and zooplankton microorganisms that once lived in warm,**
120 **clean, alkaline (probably between pH 7.0 and pH 9.0), lacustrine and shallow-deep**
121 **marine environments; after dying, they accumulated on the seabed for millions of years;**
122 **Chalk is a carbonate-type sedimentary rock of organic origin, biochemically formed,**
123 **with a chemical composition of calcium carbonate/calcite/ CaCO_3 , and the entirety**
124 **and/or the chalk itself constitutes definitive, tangible evidence and indicator of marine**
125 **microbial life. Over time, these dead plankton accumulations have compacted to form**
126 **loosely textured, porous, low-density, massive, thick, homogeneous, and horizontally**
127 **layered sedimentary rocks. These sedimentary rocks are brittle, easily reduced to chalk**
128 **dust (approximately 3 μm /micron fine chalk dust), porous, spongy, and low-density, and**
129 **their thickness can range from meters to kilometers.**
130

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

147 proposed, and suggested by the author. Chalks may sometimes contain traces of the skeletons
148 of siliceous organisms and clastic/clastic clay and silt.

149
150 **Chalks of organic origin and biochemically formed chalk, chalky evaporite deposits,**
151 **and/or chalk series rocks are distinctly different from carbonates/inorganic limestones**
152 **formed as a result of rock-water and rich carbon dioxide (CO₂) interactions in the**
153 **atmosphere and/or composed of inorganic calcium carbonate/calcite/CaCO₃, and are**
154 **clearly distinguished by many parameters.** Consequently, ancient Mars certainly once
155 hosted terrestrial-marine, macrobial-microbial life. It was a blue planet like Earth. Sadly, what
156 happened to Ancient Mars likely occurred thousands of years ago, during the Quaternary
157 period on Earth! After losing its atmosphere, the geochemical rock cycle (Tarhan, 2018), and
158 all marine-terrestrial macrobial-microbial life, it transformed into a terrestrial, rocky, cold, dry
159 planet with desert winds. Ancient Mars will go down in Earth's history as the first planet to
160 lose life. However, according to the articles of the First Prototype Constitution of Matter,
161 Ancient Mars is neither the first nor the last planet in the universe to lose life.

162
163 Before ancient Mars, there were, are, and will be planets and moons that have lost, are losing,
164 and will lose life. According to our studies, ancient Mars is not dead. Mars is alive and will
165 continue to live. However, despite expending a great deal of effort/power, Mars has no chance
166 of intervening externally in the spiral leakage of gas and heat from its atmosphere into space.
167 Therefore, due to his grief, he is in a pathologically painful coma. Ancient Mars has only one
168 problem that is important to it. They request that intelligent alien beings from a neighboring
169 world intervene in their atmosphere from the outside and break or minimize the spiraling
170 cycle of carbon dioxide (CO₂) gas and heat leaking from their atmosphere into space. It is
171 very clear that despite all its efforts, it cannot thicken its atmosphere, since the amount of
172 carbon dioxide gas (CO₂) and heat it produces, even though it transfers heat to the Martian
173 surface and actively operates all its existing reactors, is less than the carbon dioxide gas and
174 heat leaking from its atmosphere into space. If Mars' atmosphere/atmospheric sphere thickens,
175 it will trap/hold heat, create a greenhouse effect, potentially restore the geochemical rock
176 cycle, and initiate life. This crucial suggestion should be among the priorities of all scientists
177 and researchers on Earth in their scientific work. Everyone, from various disciplines, should
178 work, develop projects, and implement them to stop the leakage of carbon dioxide and heat
179 from the Martian atmosphere into space. Mars has every potential. Beyond robotic excavators,
180 geological robots conducting scientific research, and high-resolution video imagery, Mars will
181 need nothing more than Earth.

182
183 Heavy materials will not be transported from Earth to Mars. It is foreseen/thought that Mars
184 has the potential to produce them. **Ancient Mars/the Red Planet is ready and waiting to**
185 **become a second world for aliens from Earth.** But those who have not yet fully completed
186 their evolution should not share, occupy, divide, or add to the suffering of Mars with their
187 cannons, rifles, and nuclear weapons; on the contrary, they should go as benevolent, nature-
188 loving, and life-loving saviors, remembering the lost lives and resurrecting their places. Those
189 who have not completed their evolution; those who do not see the living beings that die in
190 forest fires and floods as living because they do not have a human-like appearance; those who
191 kill innocent, blameless women, babies, children, and living beings; those who cause their
192 merciless and savage deaths by leaving them thirsty and hungry; the mute, deaf, and blind
193 armchair-loving/lazy people of the so-called international legal organizations established to
194 solve these and similar problems; Those without diplomas, diploma thieves, the incompetent,
195 those who disregard the law, the naked kings who turn existing laws and institutions into
196 rotten tomatoes like themselves; those who present illegal acts as law, and embellish

197 legitimate ones with lawlessness, injustice, and unfairness under the guise of law; those who,
 198 under the guise of seeing everyone as a threat, become a threat to everyone, those who are
 199 expansionist and invasive; those who, due to their inherently primitive carrier genes, are
 200 possessive, egoistic, unsharing, and greedy (they would not be satisfied even if you gave them
 201 the entire universe); irresponsible, uncontrolled, and limitless creatures who imagine the
 202 planet as their backyard; those who benefit from all the beauties of the planet but cause the
 203 most harm to it, those who destroy the planet's ecosystem as a result of human-caused
 204 activities that are definitely not of natural origin; By reminding that the negative things done
 205 to the planet must be corrected by the hands of those who did them and those who caused
 206 them; if you know how to create chaos, you must also learn how to clean it up in order for a
 207 business to be sustainable.

208
 209 If you want to live in unity and harmony, you have a mutual obligation and responsibility to
 210 respect one another. Where can you find such a one-sided yogurt in abundance? Let me
 211 remind those who remain indifferent and unresponsive under the guise of democracy, rights,
 212 and law: History will remember you on its dusty shelves as instigators/encouragers/instigators
 213 of crimes, accomplices, supporters, and defenders of those who committed them...

214
 215 **Key words:-** Matter, Laws of Matter, Existence of Life in the Universe and on Mars, Medical Sciences, Law,
 216 Social Sciences, 3I/Atlas, Evolution, Impact Craters, Environment, Climatology, Planetary-Interplanetary
 217 Treaty, Positive Sciences, Discovery of Organic Elements, Sinkholes/Sinkholesing/Sinkholesization.

218
 219 **Introduction:-**
 220 **The problem is:** How do we understand and define matter? The crucial thing is to solve this
 221 problem by knowing and understanding it. First and foremost, we shouldn't accept matter as
 222 just any inanimate object or thing. Viewing it as a lifeless, motionless object standing still is
 223 very misleading. Just as statements like "we haven't suffered any loss of life" during forest
 224 fires and natural floods are inaccurate, viewing matter as inanimate is equally wrong. Yet,
 225 there are so many living things that contribute to maintaining the balance of the ecosystem
 226 during forest fires and floods that it's impossible to list them all. It's wrong to not consider the
 227 plants, trees, insects, and animals in the burned forests as living species. These living things in
 228 the forest also have babies, children, offspring, families, neighbors, relatives, ancestors, a
 229 past, and a future. Ibn Sina (who wrote many works in positive sciences and philosophy, but
 230 is primarily considered an unrivaled authority in the field of medicine and a leading
 231 representative of medieval medicine) beautifully and accurately described humans with his
 232 statement, "**Man is an animal that thinks and can express its thoughts**". For example,
 233 some documentaries clearly show that animals love, feed, protect, and fight against dangers
 234 their young, just like humans do.

235
 236 Given this situation, the question arises: what causes these geochemical behaviors and rich
 237 functionalities of matter? These properties of matter do not develop by chance or random
 238 conditions. On the contrary, they develop according to certain rules and laws. These laws are
 239 naturally programmed / designed based on the laws of the positive sciences: mathematics,
 240 physics, chemistry, and biology. Therefore, wherever it is in the universe, whatever time
 241 dimensions it may be in, and whatever different thermodynamic, thermochemical-
 242 physicochemical environments and conditions it passes through, it responds with very rich
 243 and functional geochemical behaviors that are programmed/designed according to these
 244 positive sciences and cannot be changed by similar physical conditions (P/T). In other words,
 245 these very rich and functional geochemical behaviors of matter are programmed according to
 246 the laws of physics, mathematics, chemistry, and biology. The types of responses matter
 247 should give according to these fundamental programs are limited by immutable laws and

248 rules. The application of these immutable laws and rules has become a tendency and a
249 necessity for matter. Because the laws of physics, chemistry, mathematics, and
250 biology/botany-zoology are valid everywhere in the universe, regardless of location or time
251 dimension. They apply in the same and unchanging way. These immutable principles have
252 caused changes and transformations in matter. According to these laws, matter has existed
253 from infinity and will continue to exist to infinity.

254
255 Therefore, in order to understand matter, to unravel its mysterious secrets, to understand the
256 organic forms and inorganic systems it forms, their transformations into one another; to
257 understand, know and solve the normal (without any extraordinary circumstances) natural life
258 cycle durations; to better understand the very rich and very functional geochemical behaviors
259 of matter, these immutable tendencies and necessities of matter, the author first brought to the
260 agenda the first six articles of the “First Prototype Constitution of Matter” under the title of
261 **“First Prototype Constitution of Matter”** (Tarhan, 2024c). He also requested researchers
262 working on this subject to develop articles related to this Constitution of matter. During his
263 original studies, the author kept notes of articles that could be new articles of the prototype
264 Constitution of matter, and has increased the total to approximately 20 articles to date. Of
265 course, there are many more articles related to the rich geochemical behaviors of matter. It
266 was thought and suggested that when these are made into regular and immutable articles, it
267 will be easier to understand matter and the organic forms, inorganic systems and substances it
268 forms. Because it will also become clear that some scientific views that contradict the articles
269 of the Constitution of matter cannot develop in nature and the universe. Natural systems and
270 organic forms do not arise randomly, but evolve and complete their normal natural life cycles
271 according to certain rules and laws. In this way, matter will continue its existence towards
272 infinity through changes and transformations.

273
274 When we consider some concrete data and laws we've learned from nature and matter, we can
275 make some important inferences. For example, we are faced with the fact that we are not
276 alone in the universe, but we are not eternal/infinite either. Our planet Earth did not form
277 solely for intelligent beings, as is often thought. This formation evolved and developed as a
278 common living space for all living things, and the ecosystem was balanced. Other life forms
279 in the universe developed and will develop in exactly the same way. Because, since the laws
280 of matter, physics, chemistry, mathematics, and biology are equally valid everywhere in the
281 universe, it would be contrary to the Constitution of matter, the laws of physics, chemistry,
282 mathematics, and biology, for there not to be trillions (according to some researchers, 40-50
283 billion) large and small galaxies, trillions of terrestrial-rocky planets and moons within these
284 galaxies, planets and moons (moons) in the moderately habitable zone relative to their star
285 (Sun), with a thick and reasonably oxygenated atmosphere (approximately 21%) and an ozone
286 layer. Terrestrial-rocky planets and moons (Moons) with thick and modern atmospheres have
287 their own unique geochemical rock cycles (Tarhan, 2018), which have been defined and
288 named. Geochemical rock cycles evolve naturally through precipitation, erosion, transport,
289 deposition, and by developing macrobial-microbial life in water, lakes, seas, oceans, and
290 terrestrial-marine environments. Therefore, in the Universe, some organic forms and
291 inorganic systems complete their life cycles after millions and billions of years, and through
292 their transformations into other forms and systems, allotropic organic forms, allotropic
293 inorganic substances and systems with similar counterparts are reborn/formed and continue
294 their existence. With the end of these cycles, new systems and cycles are formed / born. In
295 this way, living life and inorganic systems in the universe do not remain alone. If some end
296 after billions of years, others are reborn and formed again after billions of years. In this way,
297 by evolving from simple to perfect, matter will evolve through evolutionary processes,

298 increasing its degree of purity and leading to a further enrichment of diverse geochemical
299 behaviors and multifunctional properties.

300
301 Consequently, it has been concluded that the natural life cycles of our planet's living beings,
302 and especially humans, can be enhanced or diminished by human hands. Thanks to the genes
303 we inherit from birth, and as prisoners of them, we possess emotions such as savagery,
304 aggression, possessiveness, unsharing nature, jealousy, selfishness, ego, and ego, before fully
305 evolving. Another conclusion reached is that it has been considered and suggested that it
306 might be possible to double the average lifespan, or life cycle, of a normal human being
307 compared to today's life cycle durations. To achieve this, you need to learn some information
308 from nature. Studies of long-lived plants and trees in nature (e.g., olive trees that live for
309 about a thousand years or more, queen bees, and cold-blooded animals, etc.) by botanists and
310 zoologists have led to the idea that these studies could be applied to reduce the aging process
311 of cells. The important thing is to create similar allotropes. This can be done through scientific
312 studies. According to the articles of the first prototype constitution of matter, you must have
313 the obligation and responsibility to do this together and in unity, just like matter itself.
314 Otherwise, if the aggression, possessiveness, unsharing, egoistic, and selfish emotions and
315 feelings (practically known as animalistic emotions) hidden and encoded in our inherited
316 genes from nature are not tamed by positive sciences after birth, if they are not domesticated
317 and evolved on a human and planetary level, and if you cannot transform them into sharing,
318 ethical, and moral values, you will never succeed. Wars, like those waged by our ancestors in
319 the past, will continue from generation to generation, with the same aims and objectives, but
320 with physical forms and scope altered by the conditions of the day, yet bound by unevolved,
321 primitive genes inherited from nature.

322
323 Therefore, it is recommended that you guide yourself not with theological ideas, but with
324 truths derived from positive sciences. Theological education should not be permitted. All
325 children are common elements of this planet. Those who have not completed their evolution
326 do not have, and should not have, the right to reverse the evolution of others. Although there
327 are physical differences at the root of everything in nature and the universe, their functional
328 mechanisms and purposes are similar (allotropic). Of course, there are internal and external
329 parameters for humans. Nutrition, clean environment and hygienic/healthy conditions, organic
330 and chemically uncontaminated diets are many reasons. However, despite all these
331 negativities, it is possible to increase human lifespan. However, it is never possible to
332 eternalize/immortalize the normal life cycles of living life and inorganic systems. It is
333 contrary to the nature and Constitution of matter, and to the laws of physics, mathematics,
334 chemistry, and biology.

335
336 In conclusion, to understand nature and the universe and unravel its mysterious secrets, it is
337 absolutely necessary to know the articles of the prototype Constitution of matter. Because the
338 organic forms and inorganic systems that matter creates do not arise randomly, haphazardly,
339 or by chance. As matter passes through different thermodynamic systems and different
340 thermochemical-physicochemical environments, it exhibits geochemical behaviors according
341 to certain laws and rules. It develops, evolves, and transforms stable organic forms (plant and
342 animal formations, etc.) and inorganic systems (galaxies, terrestrial-rocky and gas planets,
343 satellites (moons), matter/rock/minerals, and different states of matter, etc.) suitable for those
344 environments and conditions. Through these changes and transformations, matter undergoes
345 phase changes, transforming into different states of matter that can be stable in each different
346 thermodynamic system and under different thermochemical-physicochemical environments
347 and conditions. Through these phase changes, they maintain and sustain their existence in all

348 environments and conditions by transforming into different allotropic organic substances,
349 different allotropic inorganic systems, and different allotropic inorganic substances. This is
350 because similar conjugate allotropics have different physical properties (texture, structure/fat-
351 thin, tall-short-dwarf, color/yellow-white-black, mineralogical composition, etc.). However,
352 their chemical composition, which is the essence of matter, the basic building blocks of living
353 things—plant and animal cells, inorganic substances, and the atomic building blocks of the
354 substances that make up their systems atoms, ions, molecules, and subatomic particles are the
355 same and similar. Their purposes, functions, and mechanisms are also similar. They only
356 differ in their physical characteristics/appearance due to the physical conditions (P/T) of the
357 places where they are formed and located. However, the same genus-species-famias exhibit
358 similar mental characteristics and behaviors among themselves. Take one, hit the other; it
359 makes no difference. etc...

360
361 If ancient Martians had ever existed, we would be fighting space wars with them right now.
362 Why? Why are there, and will there be, wars on Earth? The articles of the prototype
363 constitution of matter are valid everywhere in the universe. Although the physical
364 appearances of similar allotropic counterparts may differ, the savagery, aggression,
365 unshareability, and everything else in their inherited/genetically encoded genes are the same
366 and/or similar to each other. Similar conjugate allotropes evolve in different environments and
367 on different planets. The rich and highly functional geochemical behaviors of matter have
368 developed, are developing, and will continue to develop a wide variety of allotropic organic
369 forms (animal and plant cells), inorganic forms (rocks, minerals, ores, elements, etc.), and
370 inorganic systems (galaxies, planets, suns, satellites, etc.) in nature and the universe... These
371 natural cycles of change and transformation, except for interruptions/discontinuities outside of
372 spontaneously developed extraordinary natural events, will continue indefinitely...

373
374 **The First Prototype Constitution of the Article:-**
375 The atomic building blocks (atoms, ions, molecules) of different elements that make up
376 substances/rocks/minerals/ores cannot remain unstable for a long period of time. The
377 laws/principles of the following matter are generally written taking into account the exchange
378 and transformation of energy types and solid matter/rock/minerals into one another in the
379 solid phase and in-situ (autochthonous in their original location). Therefore, the author has for
380 the first time formulated and written the first 6 laws of the Constitution of matter (Tarhan,
381 2024c).

382
383 **Octet Rule:** Regardless of the environment and conditions in which they are found, the
384 atomic building blocks (atoms, ions, molecules) of different elements that make up substances
385 / rocks / minerals tend to minimize their kinetic energy level in their outermost shells / layers /
386 orbitals by increasing them to eight electrons, similar to the number of electrons in the
387 outermost shell of noble gases. Therefore, the atoms of elements with eight electrons in their
388 outermost shells (noble gases) behave independently. Without any external force,
389 intervention, or extraordinary situation, they have no desire or inclination to combine with the
390 atoms of other elements to form compounds. Apart from noble gases, the atomic building
391 blocks (atoms, ions, molecules) of other elements do not have such a chance or preference. To
392 remain stable, they are obliged to share electrons (give and take electrons) with the atomic
393 building blocks (atoms, ions, molecules) of other elements. They form compounds by
394 combining through ionic chemical bonds or by sharing their outermost electrons through
395 covalent chemical bonds. In the universe, hydrogen (H) and helium (He) atoms, which are
396 light and simple in structure and are the ancestors of all the different elements (there are many
397 more elements and their derivatives that we do not know about besides those known to date)

398 and heavy, strong elements, are found in abundance. Hydrogen has only one electron. The
 399 fact that it increases its electron count to two to resemble helium is called the **Duplet rule**.

400
 401 Based on the results of my independent and original studies conducted at different times,
 402 Article 6 of the Constitution of the article was created and written by the author for the first
 403 time (Tarhan, 2024c). It is seen that there is a common obligation in all the articles. According
 404 to the octet rule, they have an obligation to act together. However, the noble gases are outside
 405 the scope of the obligation of the matter to act together, in unity and solidarity. The following
 406 articles/laws, which constitute the Constitution of the substance, are not bound by noble
 407 gases. They can act freely and independently. However, I would like to point out that they are
 408 unhappy because they are not self-serving, egoistic, sharing, and cannot do useful work. They
 409 can act freely as long as there is no external coercion and interference. The articles/laws that
 410 constitute the Constitution of matter have a very rich and functional geochemical behavior
 411 that they must exhibit for many reasons, such as maintaining the existence, stability, and
 412 condition of matter, remaining stable within the systems they are in and pass through, and
 413 keeping those systems in balance. **The first article is the fundamental law and is very**
 414 **important. It is an unchangeable law, and even proposing a change is unacceptable.**
 415 Therefore, matter is programmed not to perish. The new articles added to the six articles of
 416 the first prototype Constitution of matter safeguard the first law/principle of matter. As a
 417 result of these substances/laws/regulations, substances undergo phase change. In this way, it
 418 becomes stable and is preserved. Through the transformation and conversion of different
 419 substances with mass into different energies without mass, and vice versa, they maintain a
 420 constant total of matter with mass and energies without mass in the universe and in systems.
 421 They preserve the law of conservation of matter and energy and the programming/design of
 422 non-perishability. All the substances that constitute the Constitution of matter are directly
 423 dependent on and related to each other. They are acting together in unity and solidarity
 424 (excluding noble gases, which are not part of this unity). It's as if they're saying, "**There's no**
 425 **salvation alone, either all together or none of us,**" and they're acting together.

426
 427 **Initial Articles of the Prototype Constitution of the Article:-**
 428 **The First Formed Articles of the Prototyp Constitution of the Matter:-**
 429 **The atomic building blocks (atoms, ions, molecules) of different elements that make up**
 430 **matter/rocks/minerals have a tendency and necessity to move together.** This is because
 431 the atoms of different elements that make up matter/rocks/minerals have a desire and
 432 inclination to complete their outer shell electrons to eight electrons in order to keep the kinetic
 433 energy level in their outer shells/layers/orbitals at a minimum. To complete their outer shell
 434 electrons to eight, they are obliged to exchange (share) electrons with the atoms of other
 435 elements (Octet's Rule). This situation reveals the necessity for the atomic building blocks of
 436 different elements to be together and in unity. No element has the chance or preference to
 437 remain unstable / indecisive alone for a long time with fewer than eight electrons (between 1
 438 and 7 electrons) in its outer shells/orbitals. For elements to become stable/stable and
 439 electrically neutral, they absolutely must share (give and take) electrons with the atomic
 440 building blocks (atoms, ions, molecules) of other elements. This situation makes all elements
 441 existing in nature and the universe (there are far more unknown types and derivatives of
 442 elements in the universe than those known to date) dependent on and obligated to each other
 443 (except for noble gases). Therefore, they cannot exclude any element, and the chance of
 444 making any element exceptional disappears. If they were to grant this exception, then the law
 445 of acting together would not be observed.

446

447 Their desire to win, even with the demands of "all together or none of us," will not be
448 fulfilled. Therefore, the obligation and tendency to comply with the Constitution of matter
449 arises. However, the decisions of this Constitution of matter are final. Everywhere, in all
450 environments, and under all conditions (including physical P/T influences directed at them
451 from the outside), without discrimination, bias, or polarization (without polarizing societies,
452 social classes, and countries against each other like the Naked Kings driven by personal gain,
453 self-interest, and lust for power), each element has the obligation and tendency to apply the
454 same law by responding through its own geochemical behavior. Because behind it lies the
455 combined power of similar geochemical behaviors stemming from the same Constitutions of
456 other elements. When these forces unite everywhere and become a common great
457 power/powers, it creates the perception that matter cannot do, cannot transform, and that
458 "nothing is impossible" in its nature. Therefore, they maintain their existence. A small
459 mistake can break the unity, and it can be the end of them all. It is very clear that they have no
460 other chance or choice but to comply. Furthermore, as matter evolves continuously, increasing
461 its degree of purity and accuracy, and its feasibility and sustainability, the chances and
462 preferences for making mistakes are naturally reduced or eliminated. No element's atomic
463 building blocks have the luxury of ignoring or violating this law on their own. Therefore,
464 **Article 1 of the prototype Constitution of the Article is the fundamental/main article that**
465 **constitutes the law/article of the article that cannot be amended and cannot even be**
466 **proposed for amendment** (Tarhan, 2024c, Tarhan, 2018, Tarhan, 2019a, Tarhan, 2019b,
467 Tarhan, 2021, Tarhan, 2024a, Tarhan, 2024b).

468

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

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

481

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

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

496

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

498 During phase changes of substances/rocks/minerals and energies, their total geochemical
 499 composition and total energy remain unchanged/conserved. Substances/rocks/minerals change
 500 phases together (according to the 1st Law of Matter) in a cycle (according to the 2nd Law of
 501 Matter), as they pass through or are affected by different thermodynamic systems (open,
 502 transitional/semi-open-semi-closed and closed systems), different physicochemical-
 503 thermochemical environments and conditions, through exchanges and transformations into
 504 one another **in the solid phase and in-situ** (autochthonous where they are) (according to the
 505 3rd Law of Matter). The transitional/semi-open-semi-closed thermodynamic system was first
 506 defined and named by the author (Tarhan, 2018). It is a fourth thermodynamic system added
 507 to the three known thermodynamic systems: open, closed, and isolated (Tarhan, 2018).
 508 During phase/state/form changes of substances/rocks/minerals and energies, their total
 509 geochemical composition and total energy remain the same/constant as they change into other
 510 substances/rocks/minerals and energies. In this way, when substances/rocks/minerals and
 511 energies change phase/state, only their physical properties (texture, structure, color and
 512 mineralogical composition) change, but they transform **into allotropic**
 513 **substances/rocks/minerals/ores with different conjugates/similars whose geochemical**
 514 **compositions do not change; into different conjugate/similar allotropic plant-animal**
 515 **cells and into different conjugate/similar allotropic energy types at different energies**
 516 (Tarhan, 2024a, Tarhan, 2024b).

517

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

519 **The atomic building blocks (atoms, ions, molecules) and energies of the different**
 520 **elements that make up substances/rocks/minerals cannot remain unstable / inconsistent**
 521 **for a very long time during phase change.** With phase change, they lose their stability in the
 522 different thermodynamic systems and different physicochemical-thermochemical
 523 conditions/environments they pass through or are affected by. They become unstable. In the
 524 shortest time period, they tend to become stable together in the current physicochemical-
 525 thermochemical conditions/environments by exhibiting different geochemical behaviors and
 526 changing into solid materials/rocks/minerals/energies with different physical properties and
 527 different thermochemical properties in the current conditions/environments (Tarhan, 2024a,
 528 Tarhan, 2024b). They will, by whatever means necessary, and in the shortest possible time,
 529 transform their physical properties together, changing into stable materials/rocks/minerals and
 530 different energies under the existing conditions, and strive to become stable. Some cannot
 531 afford the luxury or preference of saying "I cannot change phase" while others can. According
 532 to the First Law of Matter, they are obligated to act together. This necessity always remains
 533 dominant, even if the preferences for change and transformation are few. In other words, old,
 534 traditional rigid properties always have the necessity of breaking down and evolving,
 535 undergoing change and transformation to adapt to changing geochemical-thermochemical
 536 conditions/environments; **they need to be renewed and updated.**

537

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

539 Matter has a **necessity to adapt** to different thermodynamic systems, different
 540 physicochemical-thermochemical conditions, and environments through which it passes or is
 541 influenced. Matter does not have intelligence or memory. Unlike us, it does not solve its
 542 problems by straining logical imagination and creating different models. It cannot make
 543 predictions and plans for the future or the past. On the contrary, it has the necessity to remain
 544 stable/steady in the different thermodynamic systems it is in and passes through (open,
 545 transitional/semi-open-semi-closed, closed, etc.), under different physicochemical-
 546 geochemical-thermochemical conditions and environments, to balance the system it is in, and

547 **to adapt to** the conditions of the system. It has a necessity and tendency to respond to the
 548 physical conditions (P/T) that intervene from the outside with very rich and functional
 549 geochemical behaviors. In order to remain stable according to the existing physical conditions
 550 (P/T) and conditions in the environment, it tends to adapt by exhibiting different geochemical
 551 behaviors according to the existing conditions. In other words, unlike us humans, they don't
 552 immediately try to eliminate the physicochemical conditions that affect them by fighting
 553 against them. Instead, they gradually try to balance them in a way that neither side suffers.
 554 Because destruction is not in the nature of matter. On the contrary, it involves creating,
 555 existing, living, sustaining, multiplying, enriching, and spreading. There are no negative
 556 aspects in its nature; only positive ones.

557
 558 Let's give a simple example. **The chameleon**, a type of reptile, when threatened, changes its
 559 color (it has many color-changing properties) to blend in with its surroundings, making itself
 560 invisible to its enemy. It physically changes color, **adapts to its environment**, and survives.
 561 But the chameleon's **physical change is allotropic**. That is, the cells and atomic building
 562 blocks of the chameleon before and after the color change are the same and/or
 563 rearranged/restructured in the solid phase and in situ. The inherent protective and defensive
 564 systems of matter come into play. A restructuring occurs according to the applied physical
 565 conditions (P/T). This continues until the physical conditions change, i.e., until the danger
 566 passes. But it survives. There is no decrease, increase, or change in its chemical composition
 567 before and after the color change. Its total chemical properties remain the same. It is forced to
 568 adapt by changing only its physical properties, by changing phase. Why? Because it is obliged
 569 to perform this geochemical behavior/reaction/natural defense mechanism/instant
 570 reflex/instant response against the violence its enemy will inflict upon it. Otherwise, the
 571 continuity and sustainability of the mine would be impossible. By nature, this change,
 572 transformation, adaptation to the environment, and allotropic change in physical
 573 characteristics of the chameleon develops over a short period of time. However, the
 574 adaptation of substances, rocks, and minerals to their environment by their very nature their
 575 physical phase change and allotropic transformations develops gradually and slowly over
 576 millions and billions of years. It doesn't happen instantaneously. It's not happening instantly.
 577 They're balancing the systems by spreading it out over time.

578
 579 **3I/Atlas:-**

580 Let's give another current example of the necessity and responsibility of matter to protect and
 581 preserve, not to destroy but to keep alive. The fact that the alien celestial body "3I/Atlas"
 582 surfed in our solar system has raised concerns about the increased costs of projects aimed at
 583 protecting our planet from collisions with other celestial bodies. According to the author, the
 584 celestial body 3I/Atlas comes from a hot region. It is of organic origin. It was formed
 585 biochemically. The matter, which is probably a type of sedimentary carbonate rock with the
 586 chemical composition of calcium carbonate/calcite/ CaCO_3 , has converted itself into energy.
 587 He surfs among the stars with this energy. These types of large celestial bodies do not cause
 588 natural accidents or disasters. Similarly, in 2017 and 2019, alien celestial bodies made tourist
 589 trips in our solar system. They did not cause any natural accidents. Such celestial bodies have
 590 made, are making, and will make tourist trips in the Universe. These are natural developments
 591 and should not be surprising. According to scientists, there are approximately over 400 alien
 592 celestial bodies in our Solar System. According to scientists and NASA researchers, 3I/Atlas
 593 will pass closest to our planet on December 19th, at a distance of 270 million km, and will not
 594 cause an accident. Furthermore, NASA researchers have determined that 3I/Atlas emits
 595 methanol and hydrogen cyanide gases, which are important for life. This significant data
 596 suggests that 3I/Atlas is not a comet, but rather an organic, carbonate-composed asteroid, a

597 "visit tourist" surfing through space, converting itself into energy. 3I/Atlas (July 1, 2025) is
 598 moving in a hyperbolic orbit in our solar system at a very high speed of approximately
 599 210,000 km per hour. It is an asteroid approximately 5.6 km in diameter (Figure 1).
 600 Previously, asteroids II/Oumuamua (2017) and 2I/Borisov (2019) also visited our solar
 601 system.



602
 603 **Figure 1:- Taken from 3I/Atlas, an interstellar tourist explorer (The enigma of interstellar asteroid**
 604 **3I/ATLAS: science, hypotheses and discoveries).**
 605

606 It is quite natural for our planet to take precautions against collisions with foreign celestial
 607 bodies, and for research and projects to be conducted on this subject. However, such
 608 excessive costs are unnecessary for such projects and precautions. It is thought that if the laws
 609 of matter, which are discussed in this article, had been known, even partially, until now, these
 610 unnecessary expenses would not have been incurred. Therefore, it is suggested that a portion
 611 of the money spent and accumulated on such projects be used to contribute to the nutrition
 612 and education of children in underdeveloped and impoverished countries. Because, according
 613 to the laws of matter discussed above, except for extraordinary unintended accidents in the
 614 Universe, no meteorite, asteroid, or comet of sufficient size to cause damage has the chance or
 615 preference to collide with another meteorite, rocky planet, or moon. Why? The first reason is
 616 that matter has the obligations and responsibilities of protection, preservation, and non-
 617 destruction. The second reason is that funding should be provided to researchers who
 618 demonstrate how it achieves this protection (avoiding collisions and distortions, etc.). It was
 619 thought and suggested that this would save us from great fears and unnecessary expenses.
 620 According to research, the celestial body 3I/Atlas will not collide with our planet. According
 621 to the author, it will not collide with other celestial bodies during the tourist trip either. The
 622 fact that the celestial body will not collide with other celestial bodies, terrestrial-rocky planets,
 623 and moons cannot be attributed to chance and coincidence. There are rules and laws
 624 governing this avoidance of collision. Researchers who receive funding from public taxes
 625 should explain and reveal the mechanisms of these rules and laws that prevent collisions...
 626 Celestial bodies that are essentially touristic will naturally shrink in mass and size as they
 627 convert themselves **into energy**. It is certain that some of these will become **cosmic debris**.
 628 These small meteoroids (including the remnants of man-made space rockets, etc.) have been
 629 defined as cosmic/space debris for the first time. Why do outer space, terrestrial-rocky
 630 planets, moons, comets, and large asteroids accept meteor/meteorite-sized pieces of cosmic

631 debris? Why, however, do they not accept larger ones? This is explained in the articles of the
 632 Constitution. How do these large celestial bodies meet their end? **These questions await**
 633 **resolution.**

634
 635 In conclusion, it has been suggested and proposed that both 3I/Atlas and other previous large
 636 asteroids/celestial bodies in our Solar System, which have transformed themselves into energy
 637 and embarked on interstellar tourist trips, originated not from a cold region, but from a hot
 638 one. Furthermore, 3I/Atlas is not a comet. Comets are generally composed of volcanic rocks
 639 of the ignimbrite, agglomerate and pyroclastic types and ice (Tarhan, 2018). These asteroids
 640 are organically formed, biochemically generated, sedimentary carbonate/calcite/ CaCO_3 , a
 641 type of carbonate that surfs the vacuum of space. These asteroids have been accepted and
 642 proposed as further evidence and indications that there is other life in the Universe, that we
 643 are not alone in space, and that there will never be solitary life in the universe. Tourist
 644 travelers from cold regions do not have this chance or preference. Why? Another
 645 characteristic of 3I/Atlas is that it demonstrates concrete and definitive evidence of **the**
 646 **transformation and conversion of a solid substance with mass into energy without mass.**
 647 Scientists and researchers state that the asteroid 3I/Atlas passed closest to our planet on
 648 December 19th, at a distance of 270 million km, and is now heading out of our solar system.
 649 They also note that our solar system is 4.5 billion years old and 3I/Atlas is approximately 7
 650 billion years old. However, according to the author, 3I/Atlas, being a tourist asteroid, will
 651 continue its leisurely surfing journey through the universe without causing any natural
 652 disaster until its mass is depleted and it becomes part of the universe's debris, as it transforms
 653 itself into massless energy. Scientists and researchers state that the asteroid/celestial body
 654 3I/Atlas passed its closest point to our planet on December 19th, at a distance of 270 million
 655 km, and is currently moving away from our solar system. They also note that our solar system
 656 is 4.5 billion years old, while 3I/Atlas is approximately 7 billion years old. However,
 657 according to the author, 3I/Atlas, a visiting asteroid, will continue its pleasant tourist surfing
 658 journey through the universe without causing any natural disaster, transforming into massless
 659 energy/heat/light until its mass is depleted and it becomes part of the universe's debris...

660
 661 **Impact Craters:-**

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

676
 677 We can draw some conclusions from these laws of matter. The view that impact craters are
 678 found on the outer surfaces of terrestrial-rocky planets, moons, and asteroids has collapsed.
 679 These views are absolutely wrong. From now on, the circular depressions known as impact
 680 craters have been defined, named, and proposed as **sinkholes/sinkholesing/sinkholesization**

681 formations. Under these headings, it is suggested that they be re-examined and investigated
 682 using geological and geophysical methods. You don't need to go to Mars or the Moon for this.
 683 To date, impact craters and depressions of various sizes found on the outer surfaces of
 684 terrestrial-rocky planets, moons, and asteroids are **sinkholes/sinkholesing/sinkholesization**
 685 pit and lake formations specific to the terrestrial-rocky planets, moons, and asteroids in which
 686 they are located. They all have their own unique geological and paleoclimatological
 687 evolution, formation methods, and mechanisms... They have absolutely no direct or indirect
 688 relation to impact craters...

689
 690 Until now, it has been suggested that the impact craters seen on the surface of our planet Earth
 691 were formed as a result of the impacts of meteors, asteroids, meteoroids, and comets.
 692 Approximately 190 impact craters and impact crater lakes have been identified on Earth
 693 (Earth Impact Database, 2024)
 694 (https://tr.wikipedia.org/wiki/D%C3%BCnya%27daki_%C3%A7arpma_kraterlerinin_listesi).
 695 Impact craters in many parts of the world, in Arizona, and in Argentina (Rio Cuartto Crater,
 696 Bland et al., 2002) should be re-examined. The extinction of the dinosaurs has been linked to
 697 these impact craters. However, it has been thought and suggested that the formation of impact
 698 craters and impact crater lakes in these different regions of the Earth has no relation to the
 699 impacts of meteors, celestial bodies, asteroids, and comets on the Earth's surface. They are
 700 directly related to the geological history of the terrestrial-rocky planets, satellites, and
 701 asteroids on which they are located. This is directly related to sinkholes / sinkholesing /
 702 sinkholesization events, which are unique to each individual and have different causes and
 703 formation mechanisms. This article concludes and argues that the impact crater view is
 704 fundamentally flawed. It is also argued that the extinction of dinosaurs cannot be attributed to
 705 impact craters. It is suggested and proposed that the causes of dinosaur extinction should be
 706 re-investigated. It is considered that natural events cannot be explained by logical models of
 707 imagination and the deceptions of matter. It is considered and argued that they must be
 708 explained using the parameters of positive sciences. For example, can you find the physical
 709 and mechanical effects of the impacting material, its chemical composition, its burning and
 710 explosion in the atmosphere, and similar traces in the impact craters on Earth? Absolutely
 711 not... Because the articles of the Constitution of matter do not allow for such massive
 712 destruction... I apologize, but the Universe is not a "Dingo's Stable" like Earth. Everyone
 713 does not have the freedom to act as they wish, without limits, irresponsibly, and
 714 unconditionally. It has absolute and immutable laws and rules... Therefore, it is able to
 715 maintain its eternity and the great galactic hormonal balance dance. But we know about the
 716 existence of meteorites, which are cosmic debris that doesn't cause destruction when they fall
 717 to Earth, as well as their chemical composition, physical properties, and effects...

718
 719 As I have stated before in my research papers published in the "South Florida Journal of
 720 Development", some commonly held views that have become entrenched in the geological
 721 literature due to unresolved issues are actually wrong; I have broken these vicious cycles; I
 722 have opened the way for positive science, it will evolve, I am a researcher who thinks
 723 differently, but I am not the only geologist in this world (Tarhan, 2024a, Tarhan, 2024b,
 724 Tarhan, 2024d, Tarhan, 2024e, Tarhan, 2024f). Therefore, it is considered and suggested that
 725 researchers from all different disciplines fulfill their responsibilities and obligations; they
 726 should contribute to positive science, social sharing, solidarity, peace, and co-existence. No
 727 living being has superiority or privilege over another. This planet is the common living space
 728 of all living beings...

729
 730 **The 7th Law of Matter:-**

731 In all galaxies and other galaxies in the Universe that have thick atmospheres/atmospheric
 732 spheres, ozone layers, and modern atmospheres composed of approximately 21% oxygen
 733 (O₂), nitrogen (78%), and other gas molecules, the formation of macrobial-microbial absolute
 734 life is inevitable as a result of the Gülnaz geochemical rock cycle (first defined and named by
 735 Tarhan, 2018). Such terrestrial-rocky planets and moons are generally located in the
 736 intermediate habitable zones relative to their stars (Suns) in their own solar systems. In such
 737 planets and moons, as in our planet Earth, the geochemical rock cycle (precipitation/snow-
 738 rain, water, streams, rivers, lakes, seas, oceans; erosion, transport, sedimentation, deposition,
 739 etc.) develops. Depending on the geochemical rock cycle, macrobial-microbial life (plants,
 740 forests, species of living things, intelligent extraterrestrial beings, etc.) develops **as a**
 741 **prototype** in the seas and on land. They evolve towards perfection, multiply, spread, enrich,
 742 and diversify. Even if such planets and moons lacked oxygen gas, and had thick atmospheres
 743 dominated by carbon dioxide and/or nitrogen gas, along with other gases, life would never
 744 arise. **Oxygen is an essential element and gas for life.** However, the view that life exists or
 745 could arise on planets and moons with thick atmospheres dominated by other gases, as has
 746 been known and thought until now, is considered incorrect and has been put forward.

747
 748 Because the prototype plant and animal cells that matter would form are
 749 programmed/designed according to the presence of oxygen gas. They are not programmed
 750 according to any element and/or gas/molecule other than the element oxygen (O) and/or
 751 oxygen gas/molecule (O₂). Therefore, plant and animal life would not arise. Furthermore,
 752 harmful ultraviolet (UV) radioactive rays from the Sun, solar winds, and space are filtered
 753 (absorbed) by the ozone layer. The ozone layer, in turn, is composed of isotopes of the
 754 element oxygen. In other words, in the absence and/or deficiency of oxygen gas (even if it is
 755 less than or more than 21 percent), life can never arise, even in the presence of a thick
 756 atmosphere composed of other gases. In a thick atmosphere with approximately 21 percent
 757 oxygen, matter initially forms a prototype of life. Through continuous and sustainable
 758 processes, matter evolves and multiplies according to different allotropic generations; this
 759 leads to transformations, changes, enrichment, and diversification into different species and
 760 derivatives. Matter accomplishes all these events/data in the presence of oxygen, carbon
 761 dioxide gas, and carbon cycles. In cyclical environments where oxygen and carbon cycles are
 762 absent, but other gases are present, absolutely no plant or animal life can form or evolve.
 763 Therefore, the 7th law of matter necessitates the existence of oxygen, carbon, and carbon
 764 dioxide cycles/elements for life. Because the fundamental purpose of matter is: to exist, to
 765 create, to form, to sustain, not to destroy, to beautify, to multiply, and to spread. Therefore, it
 766 has made the existence of oxygen and carbon elements necessary as the basic building blocks
 767 for life. No other element has been given these tasks. From this, we can conclude that if there
 768 is life on any terrestrial-rocky planet or moon in the universe, it must be composed of
 769 different conjugate allotropes similar to life on our planet Earth. Never imagine that a living
 770 organism (plant and animal) is composed of different gases and elements. It is recommended
 771 that your research be conducted in accordance with established views, as the universe has a
 772 single set of mathematical, physical, chemical, and biological laws and their derivatives.
 773 These are valid everywhere in the universe. There are no different types and variations of
 774 physical, mathematical, chemical, and biological laws or different Constitutions of
 775 matter/article in different regions of the universe. However, there are far more unknown
 776 inorganic and organic elements and their derivatives than we know.

777

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

779 When matter succumbs to extraordinary forces/conditions applied to it from the outside and
 780 passes into an unstable/inconsistent molten liquid magmatic phase through partial melting, its

781 properties of survival, sustainability, constructiveness, formation, and life-sustaining are lost.
 782 Therefore, **there is a tendency and necessity to reach a stable state as soon as possible.** To
 783 reach a stable state/phase as quickly as possible, it must now utilize its highly functional and
 784 rich geochemical behaviors to its own advantage. It tends to solidify and become
 785 stable/correct/completely solidified as quickly as possible. **The most stable form of matter is**
 786 **the solid state.** These solid states/phases consist of crystalline, **crystalloblastic** (Tarhan,
 787 2018), semi-crystalline-semi-crystalline and non-crystalline/amorphous states/phases.
 788 According to this law, **matter can never remain in an unstable/inconsistent environment**
 789 **and state for a long time. There is a tendency and a necessity for it to reach a**
 790 **stable/correct phase in the shortest possible time.**

791
 792 **The 9th Law of Matter:-**

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

801
 802 **The 10th Law of Matter:-**

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

824
 825 Similarly, simple, light atoms of hydrogen (1e, 1p) and helium (2e, 2p), which are very
 826 common in the universe, combine, evolve, diversify, enrich, and spread their new generation
 827 of allotropes, creating the ancestors of all elements existing in nature and the universe, which
 828 have a more perfect, stronger structure and are heavier (Tarhan, 2024a, Tarhan, 2024b,
 829 Tarhan, 2024c, Tarhan, 2024d, Tarhan, 2024d, Tarhan, 2024e, Tarhan, 2024f, Tarhan, 2024g).
 830 However, there are far more unknown inorganic and organic element types and derivatives in

831 nature and the universe than the known elements. These are waiting to be discovered.
 832 Consequently, matter first creates its organic and inorganic forms and inorganic systems as
 833 prototypes. These prototypes evolve towards perfection from generation to generation,
 834 showing a tendency towards the gradual development of perfect allotropes of generations.
 835 Matter always evolves forward. Its wheels move forward. The gears never turn backward /
 836 they are locked in that direction.

837

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

839 The formation and sustainability of the regular, systematic, and symmetrical structures that
 840 constitute the inorganic forms/shapes/states/phases and inorganic systems of matter continue
 841 for billions of years. The end of the life cycles of inorganic forms (solid
 842 substances/rocks/minerals/metals, etc.) and systems (galaxies, planets, satellites/moons, etc.)
 843 is also expressed in billions of years. However, the formation of the regular, symmetrical,
 844 systematic, and sustainable structures of organic forms of matter (plants and living things)
 845 takes much shorter time. Organic forms/shapes gradually deform due to external and internal
 846 factors. As they deteriorate and transform into an irregular, asymmetrical, amorphous
 847 structure, their life cycles lose their characteristics after hours, days, and years. Therefore,
 848 their life cycles and sustainability are shorter (they die). Furthermore, outside of normal
 849 conditions, it is possible to increase or decrease the sustainability of the life cycles of organic
 850 and inorganic forms and inorganic systems of matter through ordinary and extraordinary
 851 external interventions. Because in nature (our planet), in the universe, and in matter, there is
 852 nothing that cannot be done. What matters is whether we have reached that accumulation of
 853 knowledge. Organic forms of matter, as well as inorganic forms and inorganic systems,
 854 undergo transformations and exchanges with one another. For example, inorganic elements
 855 undergo changes and transformations into allotropic organic elements, which are their similar
 856 conjugates of organic origin. The inorganic calcium (Ca) element transforms into the
 857 allotropic calcium (Ca) element of organic origin. The richness of nature and the universe, the
 858 formation of an endless supply chain, and its infinity stem from this. However, it is not
 859 possible to make an existing organic form and/or inorganic system eternal/immortal. When
 860 their normal life cycles are complete, they gradually change and transform into other forms
 861 and systems, developing new organic and inorganic forms and inorganic systems. **Organic**
 862 **forms of matter, as well as inorganic forms and inorganic systems, have a certain**
 863 **normal life cycle.** Simply put, we can think of this as aging and metal fatigue...

864

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

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

872

873

874

875 **Carbon Emissions and Climate Change:-**

876 Floods, forest fires, flood-forest disasters, and the resulting loss of life and disruption of
 877 ecosystem balance have many causes, and they all share a single culprit: Specifically in
 878 humans and other living things, innate traits are passed down through inherited genes from
 879 generation to generation, including savagery, aggression, egoism, selfishness, a desire to
 880 possess, to kill and destroy for survival, a denial of the right to life and well-being to those

881 different from oneself, and a lack of sharing all of which have not evolved naturally within
 882 their short life cycles. However, especially in humans, the necessity and responsibility of
 883 evolving, domesticating, living in unity and solidarity, creating free, peaceful, and sharing
 884 generations, and acquiring the human, moral, and ethical values they can later gain through
 885 planetization, within the scope of positive sciences after birth, will depend on intelligent
 886 beings.

887
 888 **On our planet, climate change and ecosystem degradation were not, and will not be,**
 889 **caused by natural events.** Just as parents strive to nourish, protect, care for, and sustain their
 890 children until death, nature similarly seeks to protect, preserve, and sustain the life it has
 891 created and evolved as a prototype. Therefore, the cycle of negative events that develops and
 892 triggers each other in the ecosystem is the sum of negative, uncontrolled, and unchecked
 893 irresponsible actions that develop and arise as a result of human activities. It is neither correct
 894 to blame nature for the negative consequences stemming from the negative impacts on the
 895 environment and nature caused by human activities, nor is it clear that this will bring about a
 896 positive breakthrough and restructuring towards fundamental solutions to the problems. The
 897 sole culprits and those responsible for climate change and ecosystem degradation are
 898 unevolved and/or incompletely evolved intelligent beings on Earth. Nature is tired and weary
 899 of protecting its living beings from these intelligent beings. It will ultimately be up to you to
 900 clean up the negativity you have caused and created. We will both benefit from all the
 901 beauties of the world and be the ones who cause the most harm to nature, the environment,
 902 living beings, and water. There's no such thing as an abundance of yogurt. I apologize
 903 profusely, but this planet is not "Dingo's stable." No one can, or should, run rampant as they
 904 please, without limits, independently, arbitrarily, irresponsibly, and freely. Saying "this
 905 terrorist is yours, that terrorist is mine, this is your industrial zone, that is my industrial zone"
 906 is not correct. This needs to be understood. This planet does not belong to a select few or to a
 907 select few. Ants, elephants, and other living creatures share common habitats and spaces with
 908 humanoid-looking beings and creatures that resemble humans. The planet's water, forests, air,
 909 atmosphere everything is shared. Everyone has, and should have, a responsibility and
 910 obligation to abide by the social laws and agreements that must be followed collectively and
 911 individually against all negativity, to act responsibly, and to protect and preserve.

912
 913 Okay, we understand! Of course, there will be natural needs and requirements. But human
 914 activities undertaken to meet these needs should not be profit-driven and irresponsible. They
 915 must be continuous and sustainable. Harmful substances resulting from these human activities
 916 should be filtered, purified, and not haphazardly dumped into the environment or discharged
 917 into waters and seas. Did nature create the mucilage/sea slime/red tide formations that occur
 918 in seas and closed basins? These formations have no relation to nature. They are entirely the
 919 result of human-caused activities, uncontrolled and irresponsible behavior.

920
 921 Is it nature that is causing the deep-sea discharges into the seas without treatment due to the
 922 increasing world population and urbanization; Are harmful waste materials (plastics, waste,
 923 etc.) and radioactive waste materials dumped into the seas from ships caused by nature? I
 924 want to state clearly that the responsibility, the culprit, the origin of all negative natural events
 925 that have occurred and will occur in the world, lies with the unevolved and resisting-
 926 evolutionary intelligent beings of the world themselves. The climate change and temperature
 927 increases experienced in recent years, the resulting floods, forest fires, drought, water scarcity,
 928 and excessive rainfall, in short, the main cause of the disruption of the ecosystem, is carbon
 929 emission/release/release into the atmosphere/atmosphere; it is the sum of arbitrary,
 930 irresponsible, indifferent, uncontrolled, and unmanageable behaviors, non-implementations,

931 and lawlessness; it is unnatural, but the result of subsequent erroneous and harmful human
 932 activities, and is therefore world-human-caused. Therefore, I deeply regret that you have
 933 failed to protect the living creatures of nature from harmful substances resulting from human-
 934 caused activities, and I hope and pray that a similar fate to that of ancient Mars will not be
 935 repeated. It is thought that the life of ancient Mars disappeared/vanished as a result of
 936 extraordinary natural events. However, it has been suggested that Earthlings, while benefiting
 937 from the beauty and various advantages of their planet, are attempting to bring about its own
 938 end with their own hands. It is urgently necessary to look at the environment and climate
 939 change from different perspectives, to make decisions that are unbiased, inclusive, sharing,
 940 and fair to everyone, as a single whole, and to implement them definitively and impartially.

941

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

943 Carbon dioxide gas is essential for both the atmosphere and the plants and forests that make
 944 up life. Plants and forests consume carbon dioxide gas, producing glucose for their own
 945 growth through photosynthesis using light. In return, they release/produce oxygen (O₂) gas
 946 into the atmosphere. Oxygen gas (or molecules) contributes to the formation of the thick
 947 ozone layer, which filters ultraviolet (UV)/ultraviolet radioactive rays (electrically charged,
 948 massless particles/photons) from the sun, which are harmful to the atmosphere (approximately
 949 21% oxygen) and to living organisms, causing skin cancer. It is also crucial for the respiration
 950 of animal life (the balanced oxygen level in the blood should be 97-98%). In this way, by
 951 consuming carbon dioxide gas (CO₂) in the environment, the formation of oxygen (O₂
 952 molecules) and ozone (O₃ molecules) necessary for animal life and the atmosphere is ensured,
 953 thus balancing the ecosystem. In other words, we can consider the process of consuming a
 954 substance that is not beneficial to the environment (carbon dioxide gas) and, in return,
 955 producing another beneficial substance (oxygen), as an ecosystem cycle/or balance. When
 956 considered unilaterally, we perceive this as profit and loss. When considered bilaterally, both
 957 parties have achieved the greatest gains necessary for their survival (both sides have made
 958 their most profitable exchanges. Both sides have made the greatest profit of their lives). Both
 959 sides have mutually provided each other with substances that are very dangerous and harmful
 960 to their own lives, thus achieving enormous gains from this exchange/cycle. In this way, the
 961 substance mutually secures their future and sustainability. It benefits everyone, big or small,
 962 strong or weak, by making them mutually dependent on each other.

963

964 This exchange cycle (ecosystem balance) has created a necessity for reciprocal exchanges that
 965 are of primary importance for their own lives and futures, ensuring their survival and
 966 sustainability. Plants consume the carbon dioxide (CO₂) gas produced by inorganic systems,
 967 converting it into glucose through photosynthesis using light, which is essential for their
 968 growth. In return, the oxygen produced by plants is consumed by living organisms for their
 969 own respiration and survival, as well as for the thickening of the ozone layer, which absorbs
 970 harmful radiation and is released into the atmosphere. While these gases are harmful to both
 971 parties, this reciprocal exchange transforms ecosystem balance into a means of salvation for
 972 their existence. **Matter establishes a natural ecosystem that acts as a natural power plant,
 973 controlling, restoring, and regulating the balance and sustainability of organic forms,
 974 inorganic systems, and natural life.**

975

976 In our world, the increasing temperatures, droughts, forest fires, and floods in recent years
 977 cannot be directly attributed to nature. In other words, these natural disasters are not
 978 spontaneously occurring natural events. Blaming nature would be unfair. If we disrupt the
 979 ecosystem that nature has developed within itself, such problems and disasters become
 980 inevitable. The main culprits and causes of climatic and seasonal changes and natural

981 disasters are humans. Humans benefit from all the beauties of nature. Humans are also the
 982 ones who cause the most damage to nature, the environment, seas, and waters. When there are
 983 one-sided exchanges rather than reciprocal ones, the results end in disaster. The waste
 984 generated as a result of industrial activities, such as deep-sea discharges without filters and
 985 purification systems, releasing radioactive waste into seas and oceans, and similar pollutants
 986 (plastics, household and industrial waste, etc.), pollute the waters. If macrobial and microbial
 987 life is threatened, they become unable to establish the necessary ecosystem balance. Due to a
 988 lack of necessary attention and care, we are essentially interfering with these naturally
 989 occurring ecosystem cycles/balances from the outside. It is believed that this is causing the
 990 disruption of the ecosystem. While we should be helping the ecosystem to continue and be
 991 sustainable, we are, on the contrary, causing its deterioration due to the negative
 992 consequences of human activities. The greatest legacy we can leave to future generations is
 993 not a devastated world, battling various pandemics and suffering from trauma; but rather a
 994 clean world, a world where happiness and peace prevail, where babies, children, and living
 995 beings are not killed due to wars of conquest, where nuclear weapons do not explode in the
 996 atmosphere, where competent people govern, and where a well-ordered ecosystem
 997 functions...

998

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

1000 The fundamental principle of matter is based on the laws of mathematics, physics, chemistry,
 1001 and biology. There are no other types of laws or regulations in the universe or in nature that
 1002 are similar to, or derivatives of, the positive sciences such as mathematics, physics, chemistry,
 1003 and biology. Even if these positive sciences are expressed with different numbers and letters,
 1004 they yield the same results when translated into one another. The laws of positive science are
 1005 the only valid and unchanging laws throughout the universe and across different time
 1006 dimensions. Matter, programmed/designed according to the laws of positive science
 1007 (mathematics, physics, chemistry, biology/botany-zoology, etc.), and applies them exactly as
 1008 they are, without alteration. Matter is programmed / designed according to the laws of
 1009 mathematics, physics, chemistry, and biology. It applies these laws everywhere in the
 1010 universe without change, compromise, or alteration.

1011

1012 **The 14th Law of Matter:-**

1013 **Matter never disappears.** Through transformation and conversion into other organic and
 1014 inorganic forms and inorganic systems, matter continuously renews and restructures itself,
 1015 thus ensuring its existence indefinitely. While matter transforms into different substances,
 1016 different substances into different energies (Figure 1), and energies into different energies and
 1017 their derivatives through cycles of change and transformation, the totality of matter and
 1018 energy remains constant. In this way, matter evolves, increasing its degree of purity,
 1019 sustainability, strength, accuracy, and capability, while simultaneously extending **the life**
 1020 **cycles of the inorganic systems and new organic forms** it creates and will create.

1021

1022 Because living things have very short life cycles, their evolutionary processes are very slow.
 1023 Therefore, their evolution progresses in both forward and backward directions. This is where
 1024 the problem lies. Since the degree of purification and capability of living things (plants and
 1025 animals) progresses very slowly, they are subject to aggression, savagery, self-interest,
 1026 jealousy, unwillingness to share, and a constant desire to possess, passed down from
 1027 generation to generation through inherited genes. The wheels of evolution in matter, however,
 1028 always work and turn forward. They never work backward. Therefore, the degree of purity
 1029 and perfection constantly increases. These characteristics give it very rich and functional

1030 geochemical behaviors, creating the perception that **"there is nothing that matter cannot**
 1031 **do,"** meaning there is nothing it cannot accomplish.

1032

1033 **The 15th Law of Matter:-**

1034 The building blocks of inorganic systems of matter are atomic building blocks (atoms, ions,
 1035 molecules). The building blocks of organic forms of matter are cells (plant and animal cells).
 1036 These are formed by the very rich and highly functional geochemical behaviors of matter. The
 1037 geochemical behaviors of matter are applied throughout the universe and in different time
 1038 dimensions with similar mechanisms that remain unchanged. Even if they exhibit different
 1039 physical properties in response to external factors, their task, purpose, and functional
 1040 mechanisms are always the same. For example, in the universe, in other galaxies, on different
 1041 planets and moons (moons) with rocky terrestrial surfaces, thick and modern atmospheres
 1042 (21% oxygen), and thick ozone layers, the physical characteristics of living plants, animals,
 1043 and aliens may differ, but their instincts, reactions, emotional and spiritual states are similar.
 1044 This is because they are composed of different/different genius-species-family allotropes of
 1045 the same organic form. They only exhibit different physical properties according to the
 1046 different physical conditions (P/T) of the environments in which they are formed, and their
 1047 different thermodynamic and physicochemical-thermochemical properties. The atomic
 1048 building blocks (atoms, ions, molecules) from which they are formed, the substances that
 1049 make up animal and plant cells, their functions, and their mechanisms of formation are the
 1050 same or similar. In other words, matter applies the same positive scientific laws and
 1051 immutable laws that it has programmed. It does not apply different positive scientific laws on
 1052 one planet and different ones on another. This is because there is only one type of
 1053 mathematical, geometric, analytical geometry, physics, inorganic and organic chemistry,
 1054 biology, botany, and zoological law in the universe. There are neither other types nor
 1055 derivatives of these.

1056

1057 **The 16th Law of Matter:-**

1058 In forming organic forms and inorganic systems, matter/rocks/minerals/ores, it exhibits
 1059 geochemical behavior by taking in greater amounts of elements that are abundant in nature
 1060 and the universe, and in smaller amounts of elements that are scarce. It does not exclude or
 1061 belittle any substance/element, nor does it engage in displays of power or favoritism. **It acts**
 1062 **justly and fairly.**

1063

1064 **The 17th Law of Matter:-**

1065 Until now, it was known or thought that gravity/universal gravitational field and magnetic
 1066 field existed on terrestrial, rocky planets and moons (such as the Moon) in galaxies, and that
 1067 life could arise on planets and moons with thick atmospheres. It was believed that in the
 1068 presence of any gas that makes up a thick atmosphere, different life forms could exist or exist
 1069 that could adapt to that gas. Therefore, in science fiction films, Martians are imagined as
 1070 short, thin, green-skinned alien creatures with huge heads and huge eyes. However, according
 1071 to the existing and mentioned points of matter, it is not possible for life to arise on terrestrial
 1072 and rocky planets and moons with thick atmospheres where different gases are active (i.e.,
 1073 oxygen and carbon elements are absent) by breathing and/or ingesting different gases. Why?
 1074 Because, as understood from the points mentioned above, it is contrary to the nature of matter.
 1075 **Matter fulfills this role by creating life and organic forms in the presence of oxygen and**
 1076 **carbon elements, which are abundant in nature.**

1077

1078 In other words, the planet's gravity and magnetic field can support or create a thick
 1079 atmospheric sphere containing approximately 21% oxygen molecules (O₂), a thick ozone

1080 layer (O₃), and a nitrogen-dominant atmosphere at atmospheric pressure, allowing for the
 1081 formation of life. Life also arises in gases with similar and equivalent properties to nitrogen
 1082 molecules. Even if the thick atmosphere contains oxygen molecules above and below the 21%
 1083 oxygen ratio, and without an ozone layer, life still cannot form, and ecosystem equilibrium
 1084 cannot be established. Why? Because the atomic building blocks (atoms, ions, molecules) and
 1085 subatomic particles of the oxygen element, which is very common in nature, have very strong
 1086 oxidizing properties, form oxide compounds with different elements, and are not combustible
 1087 but enable combustion, forming the basic/essential main elements and components of silicate,
 1088 carbonate, and silicate-carbonate based minerals, rocks, and substances. Because oxygen
 1089 anions (O₂)²⁻ and radical carbonate anions (CO₃)²⁻ have very important functional roles. That
 1090 is, the presence of oxygen and carbonate elements and molecules is essential for the
 1091 development and evolution of living organisms. No other element or molecule can fulfill the
 1092 functions and responsibilities of carbon and oxygen elements and molecules. Even if thick
 1093 atmospheric spheres were formed by other gases, living life and its various allotropes would
 1094 not develop and/or form...

1095

1096 **The 18th Law of Matter:-**

1097 The author was surprised by the striking similarities between the geology of Jezero and Gale
 1098 Craters on ancient Mars and their surrounding areas, the characteristics of allotropic rock
 1099 types exposed in the region, paleoclimatology, prebiotic or biotic activities (biomarker
 1100 signatures composed of organic molecules of microorganisms), paleoelien processes, and
 1101 stratigraphic relationships. From this geological data, a new framework for understanding
 1102 matter was constructed. According to this framework, terrestrial-rocky planets and moons
 1103 (Moons), and gas planets and moons within the same solar system and time dimensions, even
 1104 if millions of kilometers apart from each other and their stars (Sun), undergo similar
 1105 structural, stratigraphic, rock type, atmospheric, paleoclimatological, and paleoelien processes
 1106 during the same time intervals. However, due to differences in physical properties, variations
 1107 develop in their thickness and distribution. This data suggests that the universe is infinitely
 1108 large, and that mathematical, physical, chemical, and biological laws apply equally
 1109 everywhere in the universe; In similar thermodynamic systems, under similar
 1110 thermochemical-geochemical environments and conditions, allotropic systems, inorganic and
 1111 organic forms and systems develop with similar counterparts. While there may be some
 1112 unique differences between different galaxies and different solar systems, the inorganic and
 1113 organic systems and forms that develop on terrestrial-rocky planets and moons within each
 1114 system exhibit and exist with very similar characteristics. This facilitates the balancing of the
 1115 ecosystem, which is very large on a universal scale. It is certain that this will lead to
 1116 significant material and temporal gains in terms of understanding, interpreting, analyzing, and
 1117 predicting important similarities regarding other terrestrial-rocky planets and moons, as well
 1118 as gas planets and moons, within the same system. In other words, we won't need to
 1119 rediscover America.

1120

1121 **The Presence of Oxygen in a Thick Atmosphere and the Importance of a Thick Ozone** 1122 **Layer for Life:-**

1123 Ultraviolet (UV) rays from the sun cause oxygen molecules (O₂) in the upper layers of the
 1124 atmosphere to break down, resulting in the formation of free oxygen atoms (O₂ ⇌ O + O).
 1125 These free oxygen atoms (O) react with oxygen molecules (O₂) to form ozone (O₃) molecules
 1126 (O₂ + O ⇌ O₃). Ozone molecules naturally form the thick ozone layer. The ozone layer
 1127 naturally forms in the stratosphere, approximately 50-80 km above the Earth's surface. It also
 1128 acts as a greenhouse gas, trapping and retaining heat. By filtering (absorbing) ultraviolet (UV)
 1129 rays from the sun, the ozone layer prevents harmful radioactive rays from reaching the Earth's

1130 surface. Due to the thinning of the ozone layer, ultraviolet rays reaching the Earth's surface
1131 can cause skin cancer in humans. Mild greenhouse gases produced as a result of human
1132 activities (chlorine, chlorofluorocarbons / CFCs, refrigerators, car exhaust,
1133 deodorants/sprays/perfumes, livestock emissions, carbon dioxide / CO₂, methane, nitrous
1134 oxide, hydrofluorocarbons, perfluorocarbons, sulfur, and hexafluoride, etc.) react with ozone,
1135 causing the ozone layer to thin, become depleted, and disintegrate.

1136
1137 As is known, 87% of the world's energy comes from fossil fuels such as coal, oil, and natural
1138 gas. In addition to light greenhouse gases, which cause the thinning, depletion, and
1139 fragmentation of the ozone layer, the increase in carbon dioxide emissions, also resulting from
1140 human activities, traps heat, increasing the greenhouse effect and consequently raising
1141 temperatures. Increased atmospheric temperatures lead to reversible reactions that disrupt the
1142 ecosystem. This results in increased seasonal and annual temperature variations; increased
1143 forest fires; drought and rising temperatures; and, conversely, extreme rainfall and floods.
1144 This ecosystem imbalance is not caused by natural events, but rather by human activities,
1145 leading to disasters that cause the deaths of millions of people and non-human living beings,
1146 irreversible ecosystem damage, and unwittingly creating the conditions for devastating and
1147 widespread pandemics like Covid-19. Those incompetent, humanoid creatures who
1148 underestimate the power and existence of the ant seem to have forgotten the immense global
1149 damage and economic impact that Covid-19, a creature invisible to the naked eye, has
1150 inflicted on living beings. I would like to remind those humanoid creatures who ignore it that
1151 it possesses the power and potential to end their own lives, just as it has made the planet a
1152 living hell. You appreciate the organic honey of the bee. When it is said that the honeybee
1153 should be protected and is a common inhabitant of the planet, a war is declared. If its rights
1154 are not granted, it and those like it know how to claim them. Since wars in the world are
1155 fought for self-interest, creatures that are ignored can also wage war to claim their rights. Do
1156 not rely on your apparent power. It was suggested that mutual duties and mutual rights to life
1157 should be respected.

1158
1159 Therefore, collective and coordinated decisions must be made on a planetary scale to prevent
1160 the excessive release of carbon and light greenhouse gases into the atmosphere, or to
1161 minimize disruption of ecosystem balance. These decisions must be implemented effectively,
1162 with control and supervision, and without compromise. Light gases released into the
1163 atmosphere, which act as greenhouse gases, are harmful to the ozone layer. Excessive carbon
1164 dioxide emissions into the atmosphere trap heat, acting as a greenhouse gas and causing an
1165 increase in temperature. Because these phenomena cause the disruption of natural ecosystems,
1166 extreme temperature increases on the Earth's surface, and when sea waters reach an average of
1167 27°C, mass deaths of marine macrobial and microbial life (fish, etc.) occur in the seas. Forest
1168 fires increase, floods become more common. Many disasters occur that are not natural but are
1169 caused by humans, resulting in the loss of millions of lives.

1170
1171 As is known, there are many reasons for carbon emissions into the atmosphere. These are
1172 caused by human activities (industrialization, energy demand, urbanization, population
1173 growth, supply-demand relations, construction in place of forests, destruction of coastlines,
1174 increase in livestock farming, uncontrolled and unregulated increase in carbon dioxide
1175 emissions, etc.). 87% of the world's energy comes from natural fossil fuels such as coal, oil,
1176 and natural gas. Those who use these resources release large amounts of carbon into the
1177 atmosphere due to mining. Those who lack scientific understanding and are ignorant, yet
1178 believe they know everything, are not content with uprooting and destroying olive trees that
1179 are over a thousand years old and using the coal deposits beneath them to generate electricity

1180 (even though the country possesses many resources such as water, soil, sun, sea, lakes, rivers,
 1181 coasts, forests, and wind, etc.). They are also trying to increase profitability and efficiency by
 1182 not installing filters on the chimneys of coal-fired power plants. Isn't the inevitable outcome
 1183 already clear? In conclusion, due to excessive carbon emissions into the atmosphere and the
 1184 resulting heat retention/trapping/capture, leading to increased temperatures on the Earth's
 1185 surface, and also due to the dispersal of light greenhouse gases into the atmosphere as a result
 1186 of human activities, causing ozone depletion and the destruction of the protective ozone layer,
 1187 measures must be taken to reduce carbon emissions and light greenhouse gases that damage
 1188 the ozone layer. These measures must be taken urgently, decisively, and without compromise;
 1189 Urgent, decisive, and uncompromising measures must be taken, implemented, restricted, and
 1190 monitored...

1191

1192 **The 19th Law of Matter:-**

1193 To date, we know of the existence of certain inorganic chemical elements in nature and the
 1194 universe. The periodic table has been developed for the classification of inorganic chemical
 1195 elements. This table arranges all known elements according to their increasing atomic
 1196 numbers (also called proton number). However, it has been thought and suggested that there
 1197 are far more unknown chemical elements and derivatives of inorganic origin in nature and the
 1198 universe than those known. These are waiting to be discovered. Furthermore, in nature and the
 1199 universe, the basic building blocks of life, organic elements such as carbon, hydrocarbons,
 1200 and oxygen, are known. Conversely, it has been thought and suggested that, corresponding to
 1201 all known and unknown inorganic chemical elements and derivatives in nature and the
 1202 universe, there are also all known and previously unknown organic elements and derivatives.
 1203 In other words, in nature and the universe, there are known and unknown organic elements
 1204 and derivatives that have similar conjugate allotropes for all known and unknown chemical
 1205 elements and derivatives. The evolution, enrichment, and infinity of nature stem from these
 1206 forces.

1207

1208 Therefore, it is certain that the presence of inorganic chemical elements will increase from
 1209 today onwards. It is thought that these will take their place in the periodic table of inorganic
 1210 elements. Furthermore, it is believed that all known and unknown elements and derivatives of
 1211 inorganic origin, as well as allotropes of organic origin, are very widespread in nature and the
 1212 universe. It is essential and recommended to begin the creation of a periodic table/chart
 1213 showing the classification of organic elements, equivalent to the classification of inorganic
 1214 elements. With these tables, it will be possible to learn about the known and unknown organic
 1215 elements you need from nature and, in its simplest form, to produce them artificially using
 1216 different agents/catalysts from inorganic elements...

1217

1218 **The 20th Law of Matter:-**

1219 It is certain that discovering the known and unknown inorganic chemical elements in nature,
 1220 and revealing the existence of similar conjugate allotropes of these known and unknown
 1221 inorganic chemical elements in nature and the universe, as well as the known and unknown
 1222 organic elements, will lead to a vast wealth of resources. The creation of a periodic table of
 1223 organic elements will reveal the richness of biological diversity and natural food supply
 1224 chains in nature and the universe. It will be possible to enrich and spread these by learning
 1225 from nature, genetically coding, and biodiversifying them. By giving land to local people, and
 1226 using modern tools for genetic cloning and biodiversification in suitable areas, it is possible to
 1227 create rich food supply chains. Is there any need to fight and exploit each other? It is not right
 1228 to expect everything from nature. Furthermore, you would not be depriving your wild four-
 1229 legged friends of their rights. They also feed from nature. For example, do you have the right

1230 to eat the wild pears of bears? Since you call yourselves intelligent beings, why don't you take
 1231 inspiration from nature, copy its genetics, create biodiversity, plant and cultivate?... If you
 1232 work, produce, share scientific knowledge with each other, act in unity and solidarity, and
 1233 conduct research, everything is possible. If you enter a mode/attitude of creating something
 1234 new through logical imagination, modeling, using unknown and unseen parameters, and
 1235 making assumptions, you will not succeed... For example, some researchers claim that there
 1236 was an invisible storm on ancient Mars blowing at 160 km per hour, etc.

1237

1238 **Concrete Proof That We Are not Alone in the Universe: Ancient Mars:-**
 1239 **Geological Exploration of Gale Crater on Ancient Mars Provides First Concrete**
 1240 **Evidence of Microbial Life:-**

1241 **Introduction:-**

1242 The author's original work aims to understand and embody the geology of ancient Mars/the
 1243 Red Planet. To understand the geology of Mars, the approach is to correlate/compare the
 1244 geology of Gale Crater and its surroundings with the geology of a known region on Earth that
 1245 shows similarities to the rock stratigraphic units in Gale Crater. The aim here is to find
 1246 solutions to problems by utilizing what is known and moving towards the unknown. For a
 1247 more detailed explanation of the geology of Gale Crater and terrestrial-marine microbial-
 1248 macrobial life in ancient Mars, see (Tarhan, 2025), (Figure 1). This study utilizes publicly
 1249 available video footage and data from NASA regarding Gale Crater and its surroundings on
 1250 ancient Mars (Image credit: NASA/JPL/Caltech;
 1251 <https://mars.nasa.gov/mars2020/multimedia/videos/?v=461>; and includes publicly available
 1252 EDL, Elder Fox Documentaries, Marsolog, and Cronicas Marcianas YouTube videos) to
 1253 compare/correlate the geology of Gale Crater with the geology of a region on our planet
 1254 Earth. This study is incomplete. However, some concrete scientific data that emerged during
 1255 the study are intended to be shared with the scientific community. It is believed that scientists
 1256 and researchers working on ancient Mars should consider these views and data to avoid
 1257 wasting time and to facilitate discussions on the subject.

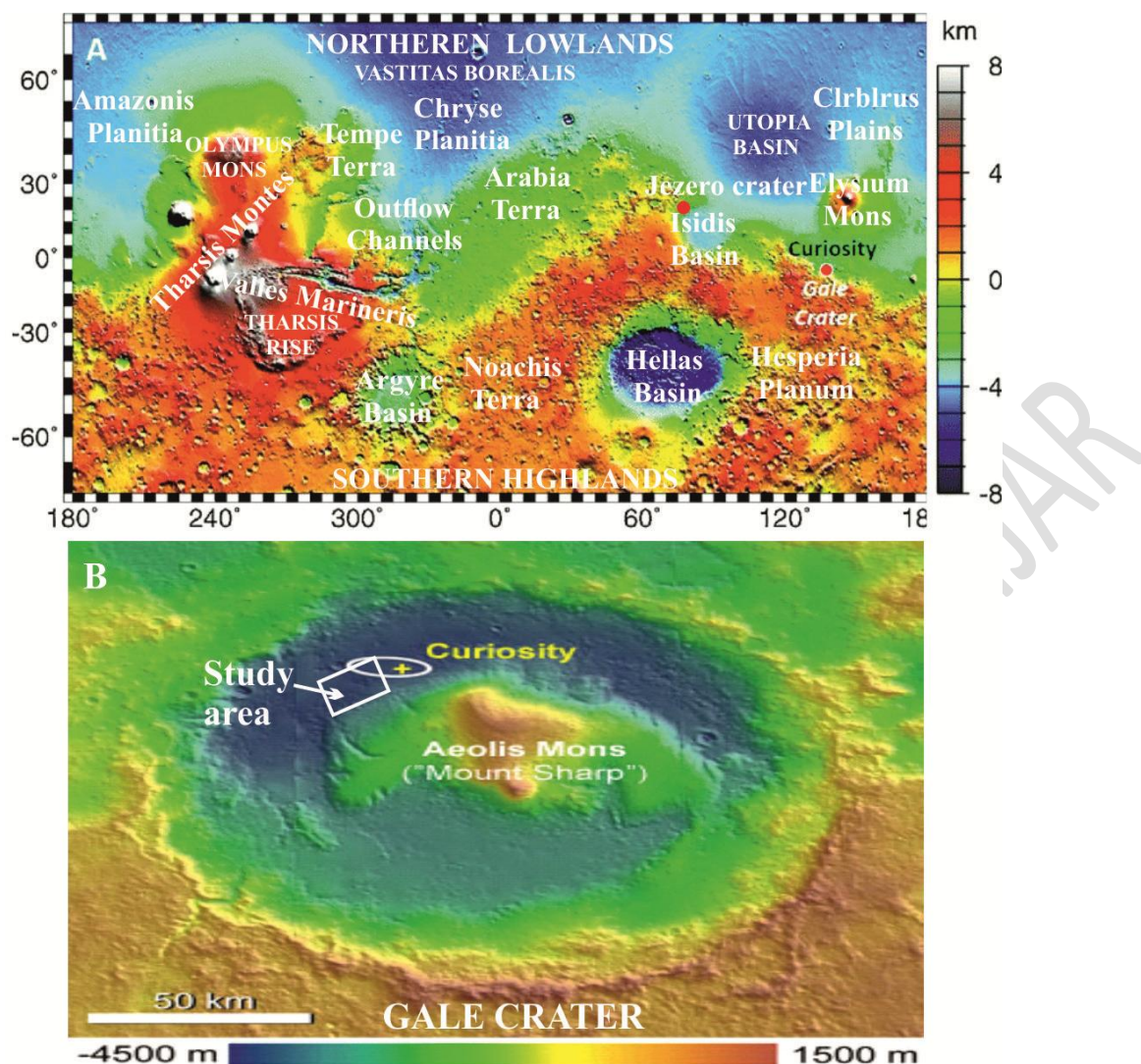
1258

1259 Mars, also known as the Red Planet, is the fourth planet closest to the Sun and the seventh
 1260 largest in size within our Solar System in the Milky Way Galaxy. It is a ringless, terrestrial,
 1261 rocky planet (Figure 3). It has two natural satellites, Phobos and Deimos (Figure 4). Mars is
 1262 the second smallest planet in the Solar System after Mercury. Its average diameter is 6,780
 1263 km. Its average distance from the Sun is 1.5 AU (AU is the distance between Earth and the
 1264 Sun; AU = 150 million km). Visible to the naked eye from Earth, the surface of Mars has both
 1265 giant asteroid craters (impact craters) like those on the Moon, and volcanoes, valleys, deserts,
 1266 and Polar Regions like those on Earth.

1267

1268 Mars' North and South poles are high, like Earth's North and South poles, and have icy zones
 1269 similar to Antarctica, the southern hemisphere continent, which is 98% ice-covered and the
 1270 rest land. It is unknown whether the paleomagnetic properties of its poles change over time,
 1271 but they should normally change within the galactic system. It completes a rotation on its axis
 1272 in 24.6 hours and an orbit in 687 days. Its surface temperature varies between -143°C and
 1273 35°C, with an average temperature of -56 and -62°C. It has four seasons, each lasting six
 1274 months. Mars' mass is about one-tenth that of Earth. Its gravitational force is not large enough
 1275 to hold a dense atmosphere. Mars' continental crust gradually thickens from the northern
 1276 hemisphere to the southern hemisphere, and Gale Crater is located in the southern hemisphere
 1277 (NASA data).

1278



1279
1280

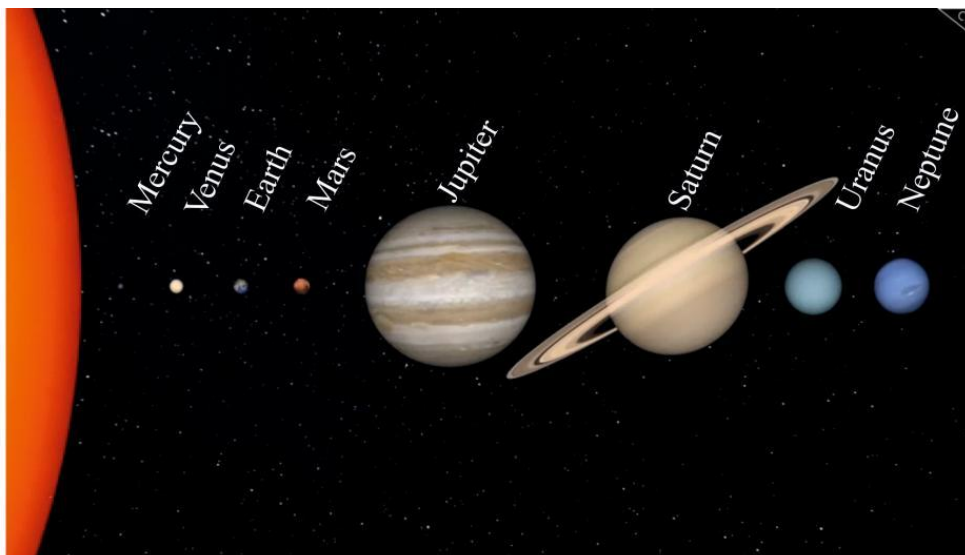
Figure 2:- Location map of the study area in Gale Crater on ancient Mars

1281 A) Locations of Gale and Jezero craters on the Mars Orbiting Laser Altimeter (MOLA) elevation map (Image
1282 credit: NASA/JPL/GSFC). B) As seen on the topographic map, Mount Sharp (Aeolis Mons), composed of
1283 sedimentary rocks, is located within Gale crater, approximately 5,5 km higher than the northern rim of the crater.
1284 The yellow marker within the white circle indicates the landing site of NASA's Curiosity rover, and the white
1285 rectangle indicates the approximate operational area (Image credit: NASA/MOLA team; retrieved from
1286 <https://skyandtelescope.org/astronomy-news/mount-sharp-or-aeolis-mons/>).

1287
1288 The Solar System consists of four small terrestrial-rocky inner planets (Mercury, Venus,
1289 Earth, and Mars) and four large gaseous outer planets (Jupiter, Saturn, Uranus, and Neptune)
1290 (Figures 2, 3). However, Pluto was demoted from planet status and reclassified as a dwarf
1291 planet at the "International Astronomical Union" meeting in Prague in 2006 (Stern, et al.,
1292 2015). Researchers are also trying to determine how many Neptune-sized planets exist.

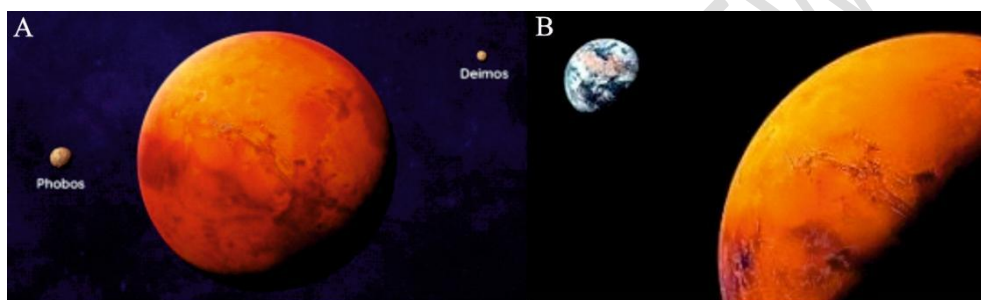
1293 The following are the research and exploration vehicles on the surface of Mars, managed by
1294 NASA's Jet Propulsion Laboratory, in order of their landing dates: Sojourner (1997), the
1295 conjoined twins Spirit (2004-2010), Opportunity (2004-2018), Curiosity (2012-present),
1296 InSight (Mars rover, 2018-2022), Ingenuity (Mars rover, 2021-2022), Ice Mapper, and
1297 Perseverance (2021-present) rover geologists (Credit: NASA/JPL-Caltech).

1298



1299
1300 **Figure 3:- Planets in our solar system**

1301 The relative sizes, distances from their star, the Sun, and positions of the four rocky inner planets (Mercury,
1302 Venus, Earth, and Mars) and the four gaseous outer planets (Jupiter, Saturn, Uranus, and Neptune) within our
1303 Solar System are shown here (Image credit: NASA/JPL/Caltech; taken from <https://youtu.be/EXYiUh6AKFw>,
1304 <https://youtu.be/EXYiUh6AKFw?t=29>).



1305
1306 **Figure 4:- Mars and its moons, and Earth**

1307 A) Mars / The Red Planet and its moons. B) Mars / The Red Planet and our planet Earth (Image credit:
1308 NASA/JPL/Caltech).

1309
1310 **Previous Studies of Gale Crater:-**

1311 Milliken, et al., (2010), The kilometers-thick sedimentary sequence in Gale Crater exhibits
1312 stratigraphic changes in lithology consistent with transitions in water and climatic conditions
1313 claimed to be global in scale. The sequence splits into two formations, with the lower
1314 formation exhibiting a clear transition in mineralogy from clay/sulfate to sulfate/oxide
1315 assemblages and separated from the upper formation by erosion unconformity. Overlap and
1316 crater counts indicate that the strata in the lower formation extend along the Noachian-
1317 Hesperian time-stratigraphic boundary. In contrast, the beds in the upper formation, which are
1318 devoid of clay minerals or sulfates, are thinner, more regularly spaced, and clearly younger.
1319 The observed stratigraphic trends suggest that the rocks in Gale Crater underwent a global
1320 transition from a climate favorable to clay mineral formation to one more favorable to the
1321 formation of sulfates and other salts.

1322
1323 Buz, et al., (2017), To determine the origins of the different lithological rock units detected by
1324 the Curiosity rover, they studied the mineralogy and geology of the Gale crater's rim and
1325 basement rocks using high-resolution images and infrared spectra. While no significant
1326 difference was observed in the basement/base rock spectral features, some CRISM scenes of
1327 the crater's rim and wall rocks showed basement/base rock features containing olivine

1328 accompanied by Fe/Mg phyllosilicates. Hydrated materials showing 2.48 μm (micron)
1329 absorption on the eastern walls/ridges of Gale crater are spectrally similar to the sulfate unit at
1330 Mount Sharp (Aeolis Mons) (Figures 5 and 6). The sedimentary layers at the base of Gale,
1331 southwest of the landing site, are likely the same age as the “Bradbury units” discovered by
1332 Curiosity. They are also hydrated and contain Fe/Mg phyllosilicates. The spectral
1333 characteristics of these phyllosilicates differ from the “Al-I-substituted” nontronite identified
1334 by CRISM at Mount Sharp, suggesting their formation from fluids of different compositions.
1335 Geological mapping of the crater floor shows that hydrated or hydroxylated materials are
1336 typically overlain by spectrally indistinguishable, erosion-resistant, cliff-forming units. The
1337 authors also point out several important details: olivine and Fe/Mg phyllosilicates are
1338 common in the Gale rim/wall rocks; feldspar-rich units were sought but not detected; multiple
1339 units of hydrated and hydroxylated materials are found in the ground materials southwest of
1340 the MSL landing site; and the >90 m thin-layered sedimentary sequence in the northwest Gale
1341 crater floor shows variations between lacustrine and eolian environments.

1342
1343 Ewing et al., (2017), The Mars Science Laboratory rover Curiosity (MSL) compared the two
1344 active wind-blown “Bagnold Dunes” in Gale Crater on Mars with Martian and terrestrial
1345 eolian dune sedimentary processes. The presence of grain fall, grain flow, and impact waves
1346 resembles terrestrial sand dunes; impact waves were present on all dune slopes and had a
1347 similar size and shape to their terrestrial counterparts. They suggested that in the “Bagnold
1348 Dune Field”, as on Earth, dune field pattern dynamics and basin-scale boundary conditions
1349 indicated the style and distribution of sedimentary processes.

1350
1351 Grant, et al., (2019), Several fan-shaped sediments formed by the accumulation of water-
1352 borne sediments on the walls/border rocks and floor of Gale crater are remarkably well-
1353 preserved. They note that these are much younger (~2 billion years or less) compared to the
1354 older, more widespread water-related sediments formed 3 billion years ago in the crater. They
1355 suggest that the late periods of water-related activity in Gale crater may be associated with
1356 late chemical precipitation and/or cementation of older rocks within the crater, and that
1357 habitable conditions persisted within the crater later than previously thought. They state that
1358 the local alluvial deposits in Gale crater were likely emplaced in less than 2 Ga.

1359
1360 Lewis et al., (2019), They measured how the local gravitational field changed as the Curiosity
1361 (MSL) rover passed through Gale crater and began climbing Aeolis Mons (Mount Sharp).
1362 They stated that the density of the material under Gale crater is relative porous, refuting the
1363 theory that the crater floor was once buried under several kilometers of rock. They stated that
1364 the density of the sedimentary rocks in Gale crater is 1680 ± 180 kilograms per cubic meter.
1365 **They noted that this value is lower than expected, indicating high porosity, and**
1366 **highlighted the fact that the porosity phenomenon is very important geological data**
1367 **indicating that the rocks have not been subjected to maximum burial depths throughout**
1368 **their history.**

1369
1370 Thomson et al., (2019), They note that the origin of the sedimentary mound in Gale crater, the
1371 landing site of the Mars Science Laboratory rover Curiosity, remains a mystery. Here, they
1372 conducted a volume-based analysis to calculate the total potential contribution of river
1373 material. Based on these results, they divided the sedimentary mound in Gale crater into three
1374 regions: lower, middle, and upper regions. The upper boundary of the lowest region is formed
1375 by the maximum contribution of submerged sediments, which constitute ~13% to 20% of the
1376 mound volume. The upper region is defined by the height of the unbroken rim to the north (-
1377 2.46 km). They state that sediments above this height were not deposited by flowing water.

1378 According to these volume balance calculations, they state that mechanisms other than
1379 flowing water are necessary to explain the overwhelming majority of sediments transported to
1380 Gale crater. They mention that the most likely candidate process is eolian suspension-to-
1381 deposition. The authors also noted that less than 20% of the volume of the central mound of
1382 Gale crater in Aeolis Mons is due to riverine processes; that the vast majority of sediments
1383 transported to Gale crater were carried by mechanisms other than flowing water; and that
1384 most of the sediments in Aeolis Mons were likely deposited as Aeolian aerial cascade
1385 sediments.

1386
1387 Rampe et al., (2020), The Mars Science Laboratory Curiosity rover was sent to Mars in
1388 August 2012 to investigate the habitability of ancient and modern environments. They state
1389 that Curiosity was sent to Gale crater to study a series of sedimentary rocks approximately 3.5
1390 Ga old, containing secondary minerals, indicating accumulation and/or alteration of liquid
1391 water, based on orbital visible and short-wave infrared reflection spectra. The sedimentary
1392 sequence on the lower slopes of Mount Sharp in Gale crater, based on the transition from
1393 smectite-bearing layers to sulfate-bearing layers, indicates a dramatic change from a relatively
1394 warm and humid climate to a cold and dry climate in early/ancient Mars. They state that
1395 diagenetic processes led to the alteration of olivine, the release of Fe^{2+} / Fe(II), and the
1396 precipitation of magnetite. The fracture-related halos in the “Stimson” and “Murray”
1397 formations are evidence of complex aquatic processes even long after streams and lakes
1398 disappeared from Gale Crater. The sedimentology and composition of the rocks analyzed by
1399 Curiosity indicate that habitable environments persisted intermittently on or beneath the
1400 surface of Gale Crater for perhaps more than a billion years.

1401
1402 Bristow, et al., (2021), They note that the sedimentary rocks exposed in Gale crater on Mars
1403 contain extensive clay minerals. They found evidence of past reactions with liquid water and
1404 sulfate brines that may have seeped through the clay from an overlying sulfate bed. They note
1405 that similar sulfate beds are common throughout the planet. They state that Mars' sedimentary
1406 rock records hold information about geological processes that occurred on the planet billions
1407 of years ago. They note that a traverse from “Vera Rubin Ridge” to “Glen Torridon” allowed
1408 Curiosity to examine a lateral cross-section of rock layers that accumulated in a Martian lake
1409 approximately 3.5 billion years ago. They note that there are spatial differences in the
1410 mineralogy of the sedimentary rocks. These differences indicate local infiltration of silica-
1411 poor brines formed during the deposition of magnesium sulfate-containing layers of the
1412 overlying sedimentary rocks. They note that the destabilization of silicate minerals, caused by
1413 silica-poor saline waters (rarely found on Earth), was common on ancient/old Mars due to the
1414 globally distributed distribution of sulfate deposits.

1415
1416 Eng, et al., (2024), Sharp’s findings on the change in the clay-sulfate transition indicate
1417 significant compositional changes along the transition from Vera Rubin Ridge, supporting the
1418 wet-dry cycle hypothesis in the clay-sulfate transition. It has long been hypothesized that the
1419 clay-sulfate transition in Gale crater records an environmental/cyclical change from "hot and
1420 wet" to "cold and dry". At one time, the paleolake that filled Gale crater allowed
1421 phyllosilicates to form. As Mars became colder and drier, sulfates were able to precipitate on
1422 top of the phyllosilicates. This mineralogical transition has also been observed elsewhere on
1423 Mars and points to a global environmental change. Different hydrated Mg-sulfates can reveal
1424 the characteristics of the paleoenvironment at the time of deposition and thus shed light on the
1425 geological past. The objectives of this study are (a) to characterize potential sulfate-bearing
1426 rocks with the Curiosity rover’s multispectral imaging instrument Mastcam; (b) To limit the
1427 detection threshold of Mastcam's Mg-sulfate using laboratory techniques. We identified three

1428 novel rock spectral classes specific to the clay-sulfate transition and one novel class
 1429 associated with the “Greeneheugh pediment”. Our laboratory results indicate that detection of
 1430 Mg-sulfate with Mastcam will be difficult unless it is close to pure.

1431

1432 **Geology of Gale Crater:-**

1433 Therefore, the rock types of rock stratigraphic units (chalk series rock units, chalk, chalky
 1434 evaporite deposits) formed in a region of the world at the Cenozoic age (according to the
 1435 World International Chronostratigraphic Timeline-2018) and similar rock stratigraphic units
 1436 that probably formed during the same time period (Cenozoic era according to the World
 1437 International Chronostratigraphic Timeline-2018) and exposed in and around the Jezero and
 1438 Gale Craters on ancient Mars (chalk series rocks, chalk, chalky evaporite deposits / gypsum-
 1439 anhydrite, plaster, salt, hydrated-unhydroxide lime, clay-sulfate minerals, etc., which are
 1440 organically and biochemically formed carbonate sedimentary rocks); It is not coincidental that
 1441 the hot-alkaline, shallow-deep marine sedimentary and lacustrine environments have similar
 1442 geological ages, stratigraphic relationships and paleoclimatological features relative to the
 1443 world (Tarhan, 2025). Not only are they not coincidental, but they also constitute proof of the
 1444 correctness of the articles of the first prototype Constitution of the aforementioned substance
 1445 which should exist in nature (see Articles 4 and 13 of the Constitution of the Substance).

1446

1447 Therefore, in his studies on ancient Mars, the author, taking into account the geographical
 1448 place names identified on Mars, has for the first time described and named the formations at
 1449 the geological formation level according to the places where they are found (Tarhan, 2025).
 1450 Rock type characteristics (chalk series rock stratigraphic units, chalk, chalky evaporite
 1451 deposits) have been dated according to their conjugate allotropic formations on Earth
 1452 (Cenozoic time according to the World International Chronostratigraphic Time Scale-2018),
 1453 stratigraphic relationships and paleoclimatological features have been revealed. Possible
 1454 mineral potentials; possible predictions regarding past terrestrial-marine macrobial-microbial
 1455 life have been put forward. Ancient Mars is not dead and is alive. However, ancient Mars,
 1456 which is in a chronic coma due to the sorrow of losing all its living life, has created active
 1457 zones of weakness (different fault systems, etc.) in its sorrow of bringing back living life, just
 1458 like parents who nourish, protect and care for their children. This weakness causes continuous
 1459 heat transfer to the surface of Mars across the zones. In order to thicken and repair its
 1460 atmosphere to restore the lost geochemical rock cycle, Mars is actively operating all its
 1461 physical, biological, and chemical reactors, as clearly seen and observed in some publicly
 1462 available NASA videos of Mars that the author has been able to follow. In particular, the
 1463 existence of rich and fertile soils suitable for colonization and agriculture, such as the Dingo
 1464 Gap formation, which is its allotropic equivalent on Earth, the Harran formation [23], gives
 1465 hope that it has the potential to be a second world for the settlement and replacement of
 1466 neighboring Earthlings... However, as mentioned in the conclusion, the single-priority-most
 1467 important problem for ancient Mars, in contrast to all the potential it can offer to neighboring
 1468 Earthlings, is the desire and demand of Earthling neighboring aliens to intervene in its
 1469 atmosphere and restructure it, and to break and/or minimize the spiral cycle of carbon dioxide
 1470 gas and heat escaping/leaking from its atmosphere into space. It is not dead, but it awaits with
 1471 hope, as a planet in a deep coma, for its recovery and return to its former health...

1472

1473 In the western delta of Jezero Crater and around Mount Sharp (Aeolis Mons) in Gale Crater,
 1474 Gediz Vallis Channel, Dingo Gap, Kimberly, Yellowknife Bay, Vera Rubin Ridge and
 1475 Husband Hills, very thick and widespread outcrops of chalk series rock stratigraphic units and
 1476 chalky evaporite deposits (anhydrite, gypsum, salt, slaked / $\text{Ca}(\text{OH})_2$ - unslaked lime / CaO ,
 1477 clay-sulfate minerals etc.) have been observed (Tarhan, 2025). The chalk series rock units and

1478 chalky evaporite deposits exposed around Gale Crater are seen to have much less thickness
1479 compared to their allotropic counterparts in the world (Figures 5 and 6). When these data, as
1480 well as NASA data, are considered and analyzed together, it is seen that the continental crust
1481 of ancient Mars thickened from the northern hemisphere towards the southern hemisphere
1482 (Figure 2). Although these geological data/phenomena are observed in the elevation and
1483 topography maps of the study area's location map (Figure 2), in both Jezero Crater and Gale
1484 Crater, around Mount Sharp (Aeolis Mons) (Figures 5 and 6); in the Gale Crater tectonic zone
1485 basin / Aeolis Palus basin, in the edge zones of the tectonic basin, a currently active tectonic
1486 crush zone has developed, and within these edge zones, where grabenization tectonics are
1487 likely dominant, in the Glen Torridon and Kimberly regions; In the Jezero and Gale craters on
1488 ancient Mars, which are thought to be of the same age as the allotropical conjugate formations
1489 on Earth, there are thick and widespread outcrops of chalk series rock units, chalk and chalky
1490 evaporite rock stratigraphic units, which are thought to be of Cenozoic age (Cenozoic time
1491 according to the World International Chronostratigraphic Time Scale-2018) (Tarhan, 2025).

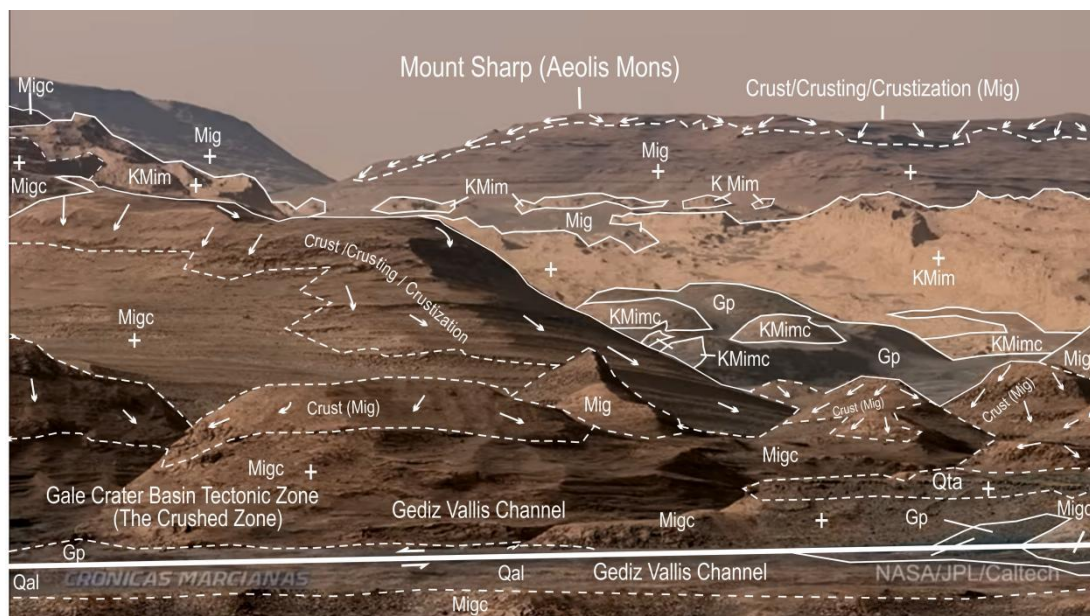
1492
1493 In the Gale crater, the chalky series rock units forming Mount Sharp (Figure 2) are
1494 underpinned by thick and widespread rock outcrops of the Gale peridotites (Gp), a dark
1495 petroleum-colored rock composed of iron-ilmenite-titanium-rich olivine, pyroxene, and
1496 plagioclase minerals from the cosmic upper mantle of ancient Mars, first identified and named
1497 (Figures 5 and 6). The basal units of the chalky series rock stratigraphic units, which overlie
1498 the Gale peridotites with an angular unconformity, were first identified, named, and dated as
1499 the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim) (according to the
1500 World International Chronostratigraphic Time Scale-2018, relative to similar allotropic
1501 chalky series rock units worldwide). The Mount Sharp chalk series rests on Gale peridotites
1502 (Gp) at its base, with an angular unconformity beginning with the pebblestone member
1503 (KMimc) of the basal conglomerate (Figures 5 and 6) (Tarhan, 2025).

1504
1505 In the aforementioned regions of ancient Mars, it has been determined for the first time that
1506 Cenozoic-aged (Cenozoic era according to the World International Chronostratigraphic Time
1507 Scale-2018) chalk series rock units, with thick and widespread outcrops, and chalky evaporite
1508 deposits (anhydrite, gypsum/plaster, salt, hydrated and unhydrated limestone, various clay-
1509 sulfate minerals, etc.) are autochthonously overlying the Gale peridotites (Gp) of cosmic
1510 upper mantle peridotite origin in ancient Mars (known in earlier studies at Mount Sharp in
1511 Gale Crater as sedimentary deposits/mounds, clay-sulfate-containing rock units, paleolake
1512 deposits, and partially eolian-processed sedimentary deposits, etc.). Ancient Martian cosmic
1513 upper mantle peridotites have surfaced from the base of autochthonous chalk series rock units
1514 deposited in warm, clean (its seas were untouched by radioactive waste, toxic waste from
1515 ships, and it is certain that there was no industrial waste or environmental pollution), rich
1516 alkaline waters and shallow-deep sea and lake sedimentary environments. The strongest
1517 evidence that its marine and lacustrine environments were uncontaminated is the absence of
1518 red stratomomali, formed by cyanobacteria, which are red algae/moss. In the Gale crater, the
1519 chalk series rock units known as Mount Sharp (Aeolis Mons) sedimentary units, chalk and
1520 chalky evaporite sedimentary rock units, were deposited directly onto the ancient Martian
1521 cosmic upper mantle peridotites in marine and/or oceanic environments with unconformity
1522 due to primordial contacts. There is an angular discrepancy between them (Figures 5 and 6).
1523 The chalk series rock units, which have thick and widespread outcrops on the ancient planet
1524 Mars, and the chalk and chalky-evaporite sediments, composed of microscopically invisible
1525 plankton-type microorganisms (phytoplankton and zooplankton), have been identified for the
1526 first time as concrete, definitive evidence and indicators that marine microbial life once
1527 existed on Mars in antiquity (Tarhan, 2025). Chalk and/or chalky series rock units are organic,

1528 biochemically formed carbonate sedimentary rocks with a chemical composition of calcium
1529 carbonate/calcite/ CaCO_3 , resulting from the accumulation of skeletons, shells, and organism
1530 body remains of microscopically invisible plankton-type microorganisms that died and settled
1531 on the seabed/ocean floor over millions of years. They range in thickness from meters to
1532 kilometers (the approximate thickness of the autochthonous chalk series rock stratigraphic
1533 units at Mount Sharp is likely 4-5.5 km / (NASA data).

1534
1535 Chalks are formed from the accumulation of skeletons, organism bodies, and shells of
1536 microorganisms in white, sticky muds. They are very thick and widespread sedimentary rocks
1537 of organic origin and biochemically formed, with a chemical composition of calcium
1538 carbonate / calcite / CaCO_3 . Chalks, chalky evaporite deposits, and chalk series rock units are
1539 formed from the compacted remains of dead microorganisms (skeletons, bodies, shells, etc.)
1540 that lived in warm, shallow-deep marine and lacustrine environments, clean and alkaline-rich
1541 (probably between pH 7.0 and pH 9.0) marine-lacustrine environments, and which constitute 95-
1542 99% of the plankton species (phytoplankton and zooplankton). These remains accumulate in
1543 thick, massive, solid, and homogeneous deposits on the seabed of seas and lakes. Chalk and
1544 chalk series rock units, which are organically derived, biochemically formed carbonate type
1545 sedimentary rocks with a calcium carbonate / calcite chemical composition, have several
1546 reasons that distinguish them from inorganic-derived calcium carbonate and/or limestones
1547 formed as a result of the interaction of rock, water, and rich carbon dioxide (CO_2) in the
1548 atmosphere.

1549
1550 On the planet Mars, the chalk series rock units, which are very thick and widespread outcrops,
1551 consist of chalk and chalky evaporites, as well as microscopic plankton species
1552 (phytoplankton, zooplankton) and marine and lacustrine microbial organisms. They are
1553 definitely autochthonous in their locations (they have not been brought from elsewhere). In
1554 other words, they formed in their respective locations. These are national and indigenous
1555 organic and biochemically formed carbonate type sedimentary rocks originating from the
1556 ancient planet Mars. They have absolutely no relation to allochthonous/transported alien rock,
1557 mineral, and ore formations that originated from space or were formed as a result of impacts.
1558 They are entirely ancient Martian in origin, indigenous, and formed in their own unique hot,
1559 alkaline, and lacustrine-marine sedimentary environments. They have taken rock fragments
1560 (peridotite, serpentine, magnesite, kaolinite, etc.) and mineral pieces (olivine, pyroxene,
1561 plagioclase, etc.) from the peridotites at its base. However, the chalk series rock units, chalks,
1562 and chalky-evaporite sediments of ancient Mars have been heavily cut and subjected to
1563 tectonic deformation by various currently active fault systems. The existence and current
1564 activity of different fault systems on ancient Mars, and the small and large regional and
1565 terrestrial craters known as circular depressions seen on the surface of ancient Mars, are
1566 definitely not the result of impacts from any celestial body, asteroid, meteorite, or comet from
1567 space. They are tectonic, seismic, volcanic, and geological formations associated with and
1568 originating from ancient Mars. Very widespread tectonic crush zones, composed of cataclastic
1569 rocks, have developed along the fault systems. Therefore, the "Conrad Unconformity"
1570 between the Jezero and Gale craters and the surrounding ancient Cenozoic-aged (Cenozoic
1571 according to the World International Chronostratigraphic Timeline-2018) chalk series rock
1572 stratigraphic units of the ancient planet Mars, consisting of chalks and chalky evaporite
1573 deposits (known in previous studies of Mars as rocks containing clay-sulfate minerals), and
1574 the cosmic upper mantle peridotites of Mars is clearly visible at and near the surface (Figures
1575 5 and 6).



1576
 1577 **Figure 5:-** Mars' cosmic upper mantle Gale peridotites (Gp) exposed in the Gale crater around Mount Sharp
 1578 (Aeolis Mons) and the Gediz Vallis Channel. The Upper Maastrichtian-Lower Miocene Mount Sharp chalk
 1579 series (KMim; conglomerate member/KMimc) overlies these peridotites autochthonously with an angular
 1580 unconformity. The primary stratigraphic relationships between the Middle Miocene Gediz Vallis Channel
 1581 formation (Mig; conglomerate member/Migc), which overlies the eroded geomorphology of the Mount Sharp
 1582 chalk series with an angular unconformity and horizontal bedding, and is covered by a caramel-reddish-brown
 1583 glassy amorphous crust/crusting/crusting (Mig) armor on its atmospheric outer surfaces, and consists of chalk
 1584 and chalky evaporite sediments (the boundaries of the formations named by the author are drawn and their
 1585 symbols are written).
 1586

1587 According to Figure 5; KMimc, conglomerate/pebblestone member of the Upper
 1588 Maastrichtian-Lower Miocene Mount Sharp chalk series; KMim, Upper Maastrichtian-Lower
 1589 Miocene Mount Sharp chalk series; Mig, Middle Miocene Gediz Vallis Channel formation
 1590 (chalk, chalky clay-evaporite deposits); Migc, conglomerate/pebblestone member of the
 1591 Gediz Vallis Channel formation (chalky conglomerate/pebblestone); Qta, Terrace / Old
 1592 alluvium; Qal, Alluvium; Foreground left-lateral strike-slip fault and tectonic crush zone; +,
 1593 horizontal stratification; Arrows indicate pseudobedding, solid flow protrusions, and different
 1594 block formations on the atmospheric outer surface of the Middle Miocene Gediz Vallis
 1595 Channel Formation, formed by solid phase dissolution and recrystallization due to
 1596 temperature differences that developed during ancient Martian nights and days. These
 1597 formations are caramel reddish-brown, glassy amorphous, hard, compact, and impermeable.
 1598 Therefore, crust/crusting/crustization has developed pseudobedding, solid flow protrusions,
 1599 and different block formations of varying thicknesses on the atmospheric outer surface of the
 1600 Gediz Vallis Channel Formation (Image credit: NASA/JPL/Caltech;
 1601 <https://mars.nasa.gov/mars2020/multimedia/videos/>; Cronicas Marcianas YouTube videos).
 1602 The sedimentary accumulation/mound of rocks exposed in and around Gale Crater are not
 1603 deposits formed by Aeolian processes or impact. These chalk series rock units have been
 1604 determined to be autochthonous in the western delta of Jezero Crater and its surroundings;
 1605 around Mount Sharp (Aeolis Mons) in Gale Crater and the Gale Crater tectonic zone
 1606 basin/Aeolis Palus; and around Glen Torridon, Vera Rubin Ridge, Gediz Vallis Channel, and
 1607 their surroundings. However, the Gale Crater tectonic zone/Aeolis Palus (Figure 5) is likely
 1608 cut by currently active left-lateral strike-slip fault systems around Glen Torridon. A very
 1609 densely crushed tectonic zone has developed on both sides of the basin. Normal dip-slip
 1610 fault/fault systems (grabenization?) are observed in the marginal zones of the Gale Crater
 1611 tectonic zone/Aeolis Palus basin.

1612
 1613
 1614
 1615
 1616
 1617
 1618
 1619
 1620
 1621
 1622
 1623
 1624
 1625
 1626
 1627
 1628
 1629
 1630
 1631
 1632
 1633
 1634
 1635
 1636
 1637
 1638
 1639
 1640
 1641
 1642
 1643
 1644
 1645
 1646
 1647
 1648
 1649
 1650
 1651
 1652
 1653
 1654
 1655
 1656
 1657
 1658
 1659
 1660

Terrestrial, Marine, Microbial, and Macrobial 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 (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 (CO_2), 0.13-0.17% oxygen (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 (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 fluorescent/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.**

1661 Why? Because chalk and chalky rocks are composed of microscopic plankton (phytoplankton
 1662 and zooplankton) that are too small to be seen with the naked eye (coccoliths-
 1663 coccolithophores, foraminifera, diatoms, rhabdolites, stromatolites formed by cyanobacteria
 1664 and dinoflagellates, etc.). These organisms live in warm, clean, alkaline, lacustrine, shallow,
 1665 and deep-sea environments. Chalks are composed of eukaryotes (single-celled) of
 1666 phytoplankton/plant plankton (stromatolites formed by cyanobacteria known as blue-green
 1667 algae/moss/lichens, etc.) and zooplankton/animal plankton (coccoliths-coccolithophores,
 1668 foraminifera, diatoms, rhabdolites, etc.). Zooplankton, living in warm, clean, alkaline,
 1669 lacustrine and shallow-deep sea-oceanic environments, were naturally and organically
 1670 nourished by the decomposition of phytoplankton, which lived suspended and floating in the
 1671 same aquatic environments, by sea waves. It has been definitively determined and
 1672 demonstrated that a balanced and orderly ecosystem, with **macrobial-microbial life in**
 1673 **terrestrial and marine environments**, once existed on ancient Mars/the Red Planet. It has
 1674 been suggested and put forward that the problem of finding definitive and concrete indicators
 1675 of microbial life in animal zooplankton, which feed on phytoplankton living in the same
 1676 environment, has been resolved. According to this conclusive evidence, **the existence of**
 1677 **terrestrial and marine microbial-macrobial life on ancient Mars at one time has been**
 1678 **substantiated and put forward in this article and for the first time in (Tarhan, 2025)**
 1679 **article.**

1680
 1681 The earliest ancestors of humans on our planet Earth were "**Homo habilis** or **Homo erectus**,"
 1682 who emerged in East Africa 2,4 million years ago. The first modern humans, "**Homo**
 1683 **sapiens/Homonids**," evolved from these ancestors approximately 300,000 years ago,
 1684 according to evolutionary theory. Video footage of Mars shows that the Jezero and Gale
 1685 craters and the surrounding chalk series rock units, consisting of chalk and chalky evaporite
 1686 deposits (anhydrite, various gypsum/plasterstone, various salts/perchlorate salts, hydrated
 1687 lime / $\text{Ca}(\text{OH})_2$ -unslaked lime / CaO , clay-sulfate minerals, etc.), exhibit very similarities in
 1688 paleoclimatological characteristics and stratigraphic relationships to their conjugate allotropes
 1689 on our planet, namely the Upper Maastrichtian-Lower Miocene chalk series rock units and the
 1690 Middle Miocene chalky and chalky evaporite deposits (gypsum-anhydrite, plasterstone, salt,
 1691 hydrated lime / $\text{Ca}(\text{OH})_2$ -unslaked lime / CaO , clay-sulfate minerals, etc.), cochineal and
 1692 maetra limestone rock units. Furthermore, the chalky rocks on ancient Mars and Earth are
 1693 similar to each other when considering their rock type characteristics (chalk series, chalks,
 1694 etc.), stratigraphic relationships, and depositional environments; the chalk series rock units,
 1695 chalks, and chalky evaporite sediments on Earth have been relatively dated according to the
 1696 "World International Chronostratigraphic Time Scale-2018". Mars and Earth are, in fact, two
 1697 terrestrial-rocky planets located together within our Solar System in the Milky Way galaxy.
 1698 Their time dimensions are not very different. They are inner terrestrial planets approximately
 1699 225 million km apart (Figures 3 and 4). Therefore, the geological ages of the Jezero and Gale
 1700 craters and the surrounding chalk series rock stratigraphic units on ancient Mars have been
 1701 assigned, predicted, interpreted, and proposed as Upper Maastrichtian-Lower Miocene,
 1702 corresponding to the geological ages of the equivalent chalk series rock units on Earth, while
 1703 the ages of the chalky and chalky-evaporite (known as clay-sulfate-containing rock units)
 1704 have been assigned, predicted, interpreted, and proposed as Middle Miocene.

1705
 1706
 1707 **The Emergence and Extinction of Ancient Martian Aliens:-**
 1708 The first macrobial life on ancient Mars was formed by "**Martian Homo habilis**" or
 1709 "**Martian Homo erectus**". The first modern intelligent Martian beings, "**Martian Homo**
 1710 **sapiens / Homonids**," are believed to have emerged during the Quaternary period,

1711 approximately 1.4 million to 300,000 years ago, according to the "World International
1712 Chronostratigraphic Chart-2018". However, based on the author's professional knowledge and
1713 experience in field geology, mineralogy, and petrography, it is suggested that they likely
1714 emerged between 50,000 and 300,000 years ago.

1715
1716 By comparing the geology of ancient Mars with the geology of our world today using images,
1717 it has been observed and determined that ancient Mars resembles our world today almost
1718 identically, exhibiting similar paleoclimatological features. In the author's work on ancient
1719 Mars/the Red Planet, it is seen that terrestrial-marine microbial-macroblial life definitely
1720 existed on ancient Mars at one time; and that the geochemical rock cycle (Tarhan, 2018),
1721 which includes all the elements and components that develop/or create this life, was definitely
1722 active (snow-rain/precipitation, erosion/wear, transport, accumulation/deposition/sedimentation/deposition,
1723 stream, river, lake, sea and ocean etc.). In other words, it is certain that there was definitely/concretely
1724 a living life on ancient Mars at one time, that it had abundant rainfall and water, large and wide
1725 riverbeds - canyons, lakes, seas, warm-clean-deep oceans. Therefore, the reddish, continental-rocky,
1726 cold-dry Mars/Red Planet, where desert storms rage today, was once a blue planet like our own Earth.
1727 Until the Quaternary period, and/or between 1400 million and 50,000 years ago or more precisely,
1728 probably between 50,000 and 300,000 years ago there was definitely terrestrial and marine
1729 microbial and macroblial life on ancient Mars.

1730
1731
1732 Today, 95-99% of the sedimentary rock units exposed on the surface of ancient Mars/the Red
1733 Planet consist of chalk series rock units, chalk, and chalky evaporite deposits (gypsum-
1734 anhydrite, plaster, salt, hydrated and unhydrated lime, clay-sulfate minerals, etc.). Many new
1735 pieces of evidence/concrete data indicate that the freezing of the flood deposits and the
1736 Gülnaz geochemical rock cycle seen on ancient Mars today is not billions of years old
1737 (approximately 3.5 billion years); that ancient Mars suddenly lost/evaporated all life on its
1738 surface sometime between 50,000 and 300,000 years ago in Earth time; that it had abundant
1739 water, lakes, seas, and oceans; and that it was a blue planet like Earth (Figure 4). Furthermore,
1740 95-99% of the rock types observed on the surface of ancient Mars/the Red Planet consist of
1741 chalk series rock units, chalk, and chalky evaporite deposits. For the first time, the author has
1742 identified, proposed, and suggested the formations of different ages and formed under
1743 different paleoclimatological conditions. Using the geographic names previously created,
1744 given, and made on the ancient planet Mars, the formations are described, named, have their
1745 rock type characteristics and probable/possible relative ages are given at the formation level,
1746 for the first time, in relation to their equivalent allotropic formations on Earth, using the
1747 geographic names of the type places where these formations are found (Tarhan, 2025)...

1748
1749 1. The pelagic zone refers to the column of water where floating and aquatic organisms
1750 live. The benthic zone refers to the bottom zone. Organisms living on the bottom are
1751 called benthic. Plankton is the common name given to all living organisms found
1752 mostly in marine and lake waters, but which are visible only under a microscope.

1753
1754 2. Chalk and chalk rock formations often contain a rich fossil record of microscopic
1755 coccolithophores, providing valuable information about past marine ecosystems and
1756 environmental conditions. The main component of chalk is the remains of marine
1757 foraminifera, seaweed / algae / lichens, and various other microscopic organisms that,
1758 upon death, sink to the seabed and accumulate in a muddy structure. If these biological
1759 remains are primarily composed of calcium carbonate / calcite / CaCO_3 , and are of

1760 organic origin and biochemically formed sedimentary structure, then chalk
1761 formation(s) occur.

1762
1763 However, it is thought that the ancient Martian native intelligent beings (**Martian**
1764 **Homo sapiens/Homonids**), in other words, our different allotropes, our Martian alien
1765 relatives, dramatically disappeared/vanished within our Solar System in the Milky
1766 Way galaxy (Figures 3 and 4), during the Quaternary period of the Cenozoic era
1767 (according to the 2018 International Chronostratigraphic Timeline of Earth), probably
1768 between 50,000 and 300,000 years ago, as a result of an extraordinary geological event
1769 whose cause is currently unknown. Martian Homo sapiens/Homonids probably didn't
1770 learn to cultivate the land before; as hunter-gatherer communities/clans; before fully
1771 reproducing, multiplying, spreading, dispersing, and effectively modernizing; along
1772 with their families, livestock; It has been thought and suggested that they dramatically
1773 disappeared/vanished along with terrestrial and marine macrobial and microbial
1774 organisms. However, it has been observed that some traces left by ancient Martians on
1775 inorganic systems (rocks, caves, etc.) during their lives have been seen, at least
1776 partially, to this day (Tarhan, 2025)...

1777
1778 **We Are Not Alone in the Universe!:-**
1779 The fact that our planet Earth and Mars/the Red Planet, located in a moderately habitable zone
1780 within the same solar system in the Milky Way galaxy, exhibit very similar characteristics has
1781 been argued not to be a coincidence, chance, or privilege, according to the aforementioned
1782 articles of the prototype Constitution of matter/article. This is because, in the trillions of other
1783 galaxies of varying sizes in the universe (some scientists suggest there are around 40-50
1784 billion galaxies), terrestrial rocky planets and moons (moons) with modern atmospheres
1785 containing approximately 21% oxygen molecules by weight and a thick ozone layer must
1786 have developed in order for macrobial and microbial life to arise, alongside the geochemical
1787 rock cycle (precipitation, erosion, transport, water, rivers, lakes, seas, and oceans, etc.).
1788 Oxygen (O₂) is very important for animal cells, and carbon dioxide (CO₂) is very important
1789 for plant cells. Humans and intelligent extraterrestrial beings have body masses composed of
1790 nearly 99% of six elements. Of these, oxygen (O) constitutes 65% and carbon (C) 18%. Plant
1791 cells take in carbon dioxide and use sunlight for photosynthesis to produce the glucose
1792 necessary for growth. They release oxygen into the atmosphere. In this way, the ecosystem is
1793 balanced. In short, the atomic building blocks of no element other than oxygen and carbon
1794 dioxide gases (molecules and elements) are suitable for this. However, on our planet Earth
1795 and on all terrestrial-rocky planets and moons in the universe, macrobial-microbial life
1796 develops and evolves in the presence of oxygen and carbon dioxide gases. If these conditions
1797 have developed on different planets and moons, macrobial-microbial life forms with different
1798 physical characteristics but similar structural and mental structures, composed of allotropes,
1799 will form. Just as matter is programmed according to the laws of physics, chemistry,
1800 mathematics, and biology, similarly, naturally occurring plant and animal cells are
1801 programmed / designed according to the presence of oxygen and carbon dioxide gases and
1802 elements. In other words, even if the intelligent beings on our planet, who are aliens, differ in
1803 physical characteristics (color, height, weight, etc.) from intelligent beings formed on other
1804 planets and moons, their emotions, spirits, anatomy, instinctive reactions, and
1805 inherited/hereditary traits such as savagery, aggression, egoism, possessiveness, jealousy,
1806 envy, and self-serving behavior are all similar allotropes of each other. In short, as mentioned
1807 above, it makes no difference whether you take one or the other.
1808

1809 Therefore, if ancient Martians had ever existed, we would be fighting them space wars right
 1810 now. Proof? Our planet's supposedly intelligent Earthling aliens seem to be born and live not
 1811 to live happily, but to wage war against each other. Wars between Earthling aliens have
 1812 existed in the past (the Thirty-Year War, the Hundred-Year War, etc.), exist today (as you
 1813 know), and will naturally continue in the future. Don't worry, alien wars exist and will
 1814 continue among other aliens living on planets in other galaxies, both within their own groups
 1815 and between aliens on different planets. The wars between aliens on different planets and with
 1816 aliens on other planets are due to the aggression, lack of sharing, possessiveness, egoism, and
 1817 similar inherited behaviors coded into their primitive genes; these desires and wills to fight
 1818 are encoded in their primitive genes. Inherited genes are passed down from generation to
 1819 generation. The desires of these primitive genes their domestication towards communal living
 1820 and sharing after birth, that is, towards civilization can be transformed into human and ethical
 1821 values in the direction of planetary integration. Generations should be allowed to form in this
 1822 direction. Otherwise, this cycle, which originated in the past, will continue indefinitely. It is
 1823 possible to collectively limit and positively structure the life cycle and its characteristics.

1824
 1825 It has been suggested that independent nature-loving activists and environmentalist social
 1826 organizations should organize themselves at the national and global levels to fight against the
 1827 injustice caused by humans harming the planet's beauty, the environment, nature, and the
 1828 atmosphere. **Consequently, according to the aforementioned articles of the first prototype**
 1829 **constitution of the matter, it has been argued that macrobial-microbial life exists and**
 1830 **can arise in the thick modern atmospheres of terrestrial-rocky planets and moons in the**
 1831 **universe, where there is approximately 21% oxygen by weight and an ozone layer, and**
 1832 **where carbon and oxygen element cycles exist.** In the presence of organic elements such as
 1833 oxygen, carbon, and hydrocarbons, as well as known and unknown organic elements that are
 1834 allotropes of inorganic elements, life has formed, is forming, and will form in the universe...
 1835 Does macrobial-microbial life, which exists on our planet Earth and disappeared on ancient
 1836 Mars/the Red Planet, have special privileges compared to the rocky-terrestrial planets and
 1837 moons of other galaxies in the universe?

1838
 1839 Therefore, as understood from the articles of the first prototype Constitution of matter, there
 1840 are thick and widespread outcrops of chalky rocks on ancient Mars/the Red Planet, which are
 1841 concrete and definitive evidence of terrestrial-marine microbial life. Within the same Solar
 1842 System, the existence of marine-terrestrial macrobial-microbial life has been confirmed on
 1843 Earth and Mars, out of 8 planets (Figures 3 and 4). This ratio corresponds to a very high
 1844 percentage of 25%, or 2/8. There are 4 terrestrial inner planets in our solar system alone. If
 1845 this probability is applied only to terrestrial-rocky planets and moons, the ratio becomes $2/4 =$
 1846 $0,5\%$ or a very high percentage of 50%. Even if we think with simple Aristotelian logic, there
 1847 are trillions of terrestrial-rocky planets and moons with thick, modern atmospheres and life
 1848 forms in the intermediate habitable zone compared to their Suns. Some of these are in the
 1849 gradual dying phases, while others are in the gradual birth/existence phases. Within the same
 1850 solar system, there are four terrestrial, rocky planets, and just as there is a 50% chance of life
 1851 existing on Earth and ancient Mars, which are 225 million km apart, it is certain that there is,
 1852 and will be, a vast amount of life in the universe. If we travel 1 billion km from Earth, we
 1853 must calculate, with 25% and 50% probabilities, how many millions and/or billions of Earth-
 1854 like planets and moons capable of supporting life exist. In conclusion, we are definitely not
 1855 alone in the universe. And aliens in the universe will never be alone either. Millions of
 1856 habitable planets are forming, while millions of planets, along with their life forms, are
 1857 gradually disappearing. This cycle will constantly repeat itself and continue into eternity.

1858

1859 **Discussion:-**

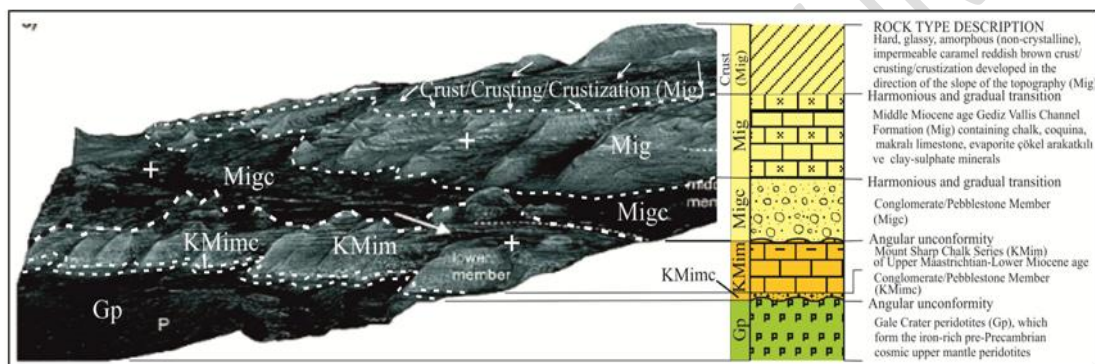
1860 1-Milliken et al., (2010), Perspective view of Gale Crater from HiRISE DTM towards the
 1861 southeast (Figure 6). Analysis of this profile/image supports our generalized geological
 1862 sketch/column/pillar cross-section of Gale Crater and its immediate surroundings (Figure 6).
 1863 However, the authors identified three regions in the profile: lower, middle, and upper
 1864 members. It is thought that some misperceptions occurred when analyzing this sedimentary
 1865 sequence in Gale Crater. The authors, like other earlier researchers, have rightly referred to
 1866 the clay-sulfate minerals and saline units in Gale crater. The problem: They mention that these
 1867 clay-sulfate minerals and saline units are widespread in the “lower member”. In contrast, they
 1868 mention and argue that these clay-sulfate-saline units are not widespread in the “upper
 1869 member”. As can be clearly seen in Figures (5 and 6) in studies of the Cenozoic-aged
 1870 (according to the Cenozoic time in the International Chronostratigraphic Time Scale 2018)
 1871 chalk series rock units of the ancient planet Mars, the rock units forming the Upper
 1872 Maastrichtian-Lower Miocene Mount Sharp chalk series (KMim, Figures 5 and 6), which
 1873 corresponds to the sub-unit, were formed in a hot, alkaline, deep marine environment. They
 1874 were formed in a paleoclimatology where evaporation was low and precipitation was
 1875 abundant. They definitely were not formed in an evaporite environment.

1876
 1877 They are autochthonous, intruding into the Gale Peridotites (Gp), which are ancient Mars
 1878 cosmic upper mantle peridotites at their base, with an angular unconformity beginning with a
 1879 basal conglomerate (pebblestone member / KMimc) (Figures 5 and 6). This formation
 1880 contains clay minerals, smectite and Fe/Mg phyllosilicates, and detrital fragments of the
 1881 peridotite and mineral (olivine) particles from its base. However, the Upper Maastrichtian-
 1882 Lower Miocene Mount Sharp chalk series (KMim), which corresponds to the authors' lower
 1883 member and is defined, dated, and characterized at the formation level for the first time, and
 1884 consists of similar chalk rock series over a long time interval, lacks clay-sulfate-salt-gypsum-
 1885 anhydrite-like evaporite formations (Figures 5 and 6). The unit that the authors (Milliken et
 1886 al., 2010) define as the upper member in their profiles of the Gale crater (Figure 6), and which
 1887 does not contain evaporite formations (clay-sulfate-salt), corresponds to this unit. In NASA
 1888 images, it is known as a clay-sulfate bearing/containing unit. The Gediz Vallis Channel
 1889 formation (Mig, Migc), which the author shows and draws in Figures 5 and 6, consists of
 1890 chalk and chalky-evaporite deposits (anhydrite, various gypsum/plaster, various
 1891 salts/perchlorate salts, slaked lime/Ca(OH)₂ - unslaked lime/CaO, clay-sulfate minerals, etc.)
 1892 and is found in very thick and widespread outcrops in and around the Jezero and Gale craters,
 1893 where it formed in a semi-open-semi-closed shallow marine basin with high evaporation and
 1894 low precipitation. It corresponds to the Middle Miocene Gediz Vallis Channel formation
 1895 (Mig, Migc), which was first named and dated at the formation level (Tarhan, 2025). Within
 1896 the Cenozoic chalky rocks of ancient Mars, in the Middle Miocene Gediz Vallis Channel
 1897 Formation (Mig), located in the upper parts of the sedimentary sequence in Gale Crater, chalk
 1898 and chalky-evaporite deposits (anhydrite, gypsum, salt, slaked lime / Ca(OH)₂ - quicklime /
 1899 CaO, clay-sulfate minerals, etc.) have been observed to be very common.

1900
 1901 The Middle Miocene Gediz Vallis Channel Formation (Mig) overlies the Upper
 1902 Maastrichtian-Lower Miocene Mount Sharp chalk series at its base with an angular
 1903 unconformity, horizontally bedding, and an autochthonous occurrence with a pebblestone
 1904 member (Migc) on the eroded geomorphology of the Upper Maastrichtian-Lower Miocene
 1905 Mount Sharp chalk series at its base, as seen in Figures (4 and 5). In other words, as clearly
 1906 seen in this excellent image presented by the authors (Milliken et al., 2010), although there is
 1907 an angular unconformity between the Upper Maastrichtian-Lower Miocene Mount Sharp
 1908 chalk series corresponding to the lower member and the Middle Miocene Gediz Vallis

1909 Channel Formations, which are very common in ancient Mars and consist of chalk-chalk
 1910 evaporite deposits corresponding to the upper member, the thick-solid-massive-homogeneous
 1911 chalky rocks that make up the formations are horizontally bedding and are not folded (Figures
 1912 5 and 6). Although an unconformity has developed between autochthonous chalky formations
 1913 of different ages in the Gale crater due to erosion, a folding/orogenic phase has not developed
 1914 within this erosion process. Such stratigraphic relationships are observed between units
 1915 formed in shallow-marine depositional environments developed on stable plates.
 1916

1917 The absence of folding orogeny between these unconformable formations means that, despite
 1918 the angular unconformity between the widespread and thick chalk series rock stratigraphic
 1919 units and chalky evaporite units in and around the Jezero and Gale craters, the lack of a
 1920 folding phase suggests that the depositional environment in which the chalk series rock units
 1921 and chalky-evaporites were deposited the marine basin developed on a once stable plate or on
 1922 stable cosmic upper mantle peridotites (the presence and extent of cosmic upper mantle
 1923 peridotites appear to be much more significant). The stable region in the Cenozoic era is seen
 1924 to exist approximately around Arabia Terra, Utopia Basin, Isidis Basin and Hellas Basin as
 1925 shown in Figure (2).



1926
 1927 **Figure 6:-** Perspective view of Gale Crater from HiRISE DTM towards the southeast (modified from Milliken
 1928 et al., 2010); The boundaries of rock units of different ages and lithologies on the perspective view were
 1929 drawn by the author. Symbols of the formations were placed. The column/pillar cross-section on the right side of
 1930 the perspective view was also drawn by the author.
 1931

1932 As shown in Figure (6); Gp, Mars' cosmic upper mantle peridotites; KMime,
 1933 conglomerate/pebblestone member of the Upper Maastrichtian-Lower Miocene Mount Sharp
 1934 chalk series; KMim, Upper Maastrichtian-Lower Miocene Mount Sharp chalk series; Migc,
 1935 conglomerate/pebblestone member of the Middle Miocene Gediz Vallis Channel formation;
 1936 Mig, Middle Miocene Gediz Vallis Channel formation; +, horizontal stratification; The
 1937 arrows indicate the direction of pseudobedding, solid flow protrusions, and block formations
 1938 along the topographic slopes of the caramel-reddish-brown, glassy amorphous, hard, compact,
 1939 and impermeable crust/crusting/crustization formation, which formed on the atmospheric
 1940 outer surface of the Middle Miocene Gediz Vallis Channel formation due to solid-phase
 1941 dissolution and recrystallization caused by temperature differences that developed during
 1942 ancient Martian nights and days. Therefore, the glassy-amorphous crust
 1943 (crust/crusting/crustization) that develops on the atmospheric outer surface of chalky rocks
 1944 and forms the armored crust cover corresponds to pseudobedding, solid flow protrusions, and
 1945 block formations of varying thicknesses on the atmospheric outer surface of chalky rocks.
 1946

1947 As clearly and precisely shown in Figures (5 and 6), the angular unconformity relationships
 1948 between the Upper Maastrichtian-Lower Miocene Mount Sharp chalk series rock units in the
 1949 Gale crater and the basement rocks forming the cosmic upper mantle Gale peridotites (Gp) at

1950 its base are demonstrated. The relationships of the chalky rock units in the field and in the
 1951 profile/image coincide exactly with each other. They reveal very important data and
 1952 relationships. The angular unconformities between the chalk series rock units, the chalky-
 1953 evaporite deposits, and the Gale peridotites forming the underlying cosmic upper mantle
 1954 peridotites are clearly visible. The stratigraphic relationships between the chalky rock series
 1955 and the rock formations composed of chalk, and the angular unconformities between the
 1956 formations in the perspective image/profile, show that the formations are conformable and
 1957 transitional with the basal conglomerates/pebblestone members and the formations to which
 1958 these members belong. Despite angular unconformities between the chalky formations,
 1959 orogenic/folded phases have not developed. It is very clear that the chalky formations located
 1960 at and above the base of the angular unconformities are not folded, but horizontally bedding.
 1961 This situation has been mentioned in some previous studies. Only erosion and weathering
 1962 phases have developed. The next formation has been deposited horizontally bedding with an
 1963 angular unconformity on top of the eroded geomorphology of the previous formation. Such
 1964 formations develop in marine depositional environments on stable plates. Although the chalky
 1965 formations are horizontally bedding, they have been deposited horizontally unconformably on
 1966 the eroded geomorphological surface between them.

1967
 1968 In ancient Mars, the chalk series rock units, which are seen as thick and widespread outcrops
 1969 in and around the Jezero and Gale craters, have been identified and named at the formation
 1970 level, consisting of chalk and chalky evaporite sediments (anhydrite, various
 1971 gypsum/plasterstone, various salts/perchlorate salts, slaked lime/ $\text{Ca}(\text{OH})_2$ - quicklime/ CaO ,
 1972 clay-sulfate minerals, etc.). These chalk series rock units, which have similar counterparts on
 1973 Earth, have been dated according to the Earth timeline based on their similar allotropes on
 1974 Earth, due to their rock type characteristics, stratigraphic relationships, formation method,
 1975 organic origin, and biochemical formation similarities.

1976
 1977 Chalky rock units, chalk and chalky-evaporite sediments, consist of deposits of skeletons,
 1978 shells, and organism bodies of 95-99% eukaryotic (single-celled) microorganisms that have
 1979 accumulated on the seabed over millions of years as a result of the death of
 1980 phytoplankton/plant plankton (stromatolites, diatoms, etc. formed by cyanobacteria known as
 1981 blue-green algae/mosses/lichens) and zooplankton/animal plankton (coccoliths-
 1982 coccolithophores, foraminifera, globigerinoids, rhabdoliths, etc.), along with white, sticky
 1983 muds. They may sometimes also contain small amounts of skeletons of siliceous organisms.
 1984 They may contain trace amounts of detrital clay and silt grains. Therefore, chalky rock units
 1985 may contain layers and nodules of silicon / chert / opal / chalcedon in places. Chalk and chalk
 1986 series rocks are formed from the subsequent compaction of deposits of skeletons of dead
 1987 microorganisms, too small to be seen with the naked eye on a microscopic scale, that
 1988 accumulated on the seabed. They are thick, massive, heterogeneous, meters and kilometers
 1989 thick, white in color, brittle, porous, low-density/light, loose, and when crushed, become soft
 1990 chalk dust with a size of 3 microns. Chalk series rock units, chalks, and chalky-evaporite
 1991 deposits are entirely composed of plankton, which are evidence of tiny lacustrine and marine
 1992 microbial life on a microscopic scale. Chalks are organically formed, biochemically formed,
 1993 and are a type of carbonate sedimentary rock with a chemical composition of calcium
 1994 carbonate/calcite/ CaCO_3 . Therefore, chalk series rock units and chalk-chalky evaporite
 1995 deposits (gypsum anhydrite, plaster, salt, slaked lime / $\text{Ca}(\text{OH})_2$ - quicklime / CaO , clay-
 1996 sulfate minerals, etc.) never contain plagioclase-type inorganic minerals and rock units and
 1997 interbeds composed of these minerals. However, they may contain different clay minerals and
 1998 kaolinite rocks formed as a result of the competition and decomposition of plagioclase in
 1999 aqueous environments.

2000
2001 An important preliminary study (Lewis et al., 2019) on sedimentary rock units exposed in and
2002 around the Gale crater on ancient Mars coincides with and supports the conclusions we have
2003 put forward regarding ancient Mars. In this preliminary study (Lewis et al., 2019), the authors
2004 state that the exposed units in and around the Gale crater are **low-density, highly porous, and**
2005 **were not subjected to burial** (rock pressure from overlying rocks) **throughout their history**.
2006 It is very clear that these important geological data presented by the authors (Lewis et al.,
2007 2019) correspond to the chalk series rock units, chalk and chalky-evaporite sediments, which
2008 were first identified by the author in the Jezero and Gale craters on ancient Mars as porous,
2009 low-density/light, white-colored, defined and named as different formations (Tarhan, 2025)
2010 and that they overlap with each other. Jezero and Gale craters and their surroundings exhibit
2011 thick and widespread outcrops of Upper Maastrichtian-Lower Miocene chalk series rock
2012 units, composed of Middle Miocene chalk and chalky-evaporite sediments (gypsum-
2013 anhydrite, plaster, salt, slaked lime / $\text{Ca}(\text{OH})_2$, quick lime / CaO , clay-sulfate minerals, etc.),
2014 with chalk being the dominant rock unit; the chinks are of organic origin, biochemically
2015 formed, consisting of 95-99% eukaryotic phytoplankton and zooplankton species, with a
2016 chemical composition of calcium carbonate / calcite / CaCO_3 , highly porous, sponge-like,
2017 water-absorbing; they were not subjected to deep burial (under rock load) and tectonic
2018 deformations during their formation; they are light, brittle, fragile, and change to chalk dust of
2019 approximately 3 microns in size when force is applied; The fragments of shells, skeletons and
2020 bodies of microorganisms that lived and died in an alkaline marine environment with a pH
2021 value of 7.0 and above / between 9.0 constitute another evidence of carbonate type
2022 sedimentary rocks that have accumulated / settled on the seabed for millions of years. Lewis
2023 et al., (2019), The data they presented not only coincided with the data presented in our study,
2024 but also provided another scientific evidence and indicator of the accuracy of our study and
2025 data.

2026
2027 2- Chalks are sedimentary rocks of organic origin, biochemically formed, with a chemical
2028 composition of calcium carbonate/calcite/ CaCO_3 . They are brittle, light, easily crushed,
2029 highly porous, absorb water like a sponge, have very low density, and possess unique physical
2030 properties. Lewis et al., (2019), one of the pioneering researchers who worked in Gale Crater,
2031 refuted the views of other pioneering researchers who worked in Gale Crater that the rocks in
2032 Gale Crater were subjected to a 1-2 km thick burial (rock pressure from the overlying rock
2033 load). On the contrary, he clearly and unequivocally proved and stated that the rocks in Gale
2034 Crater have high porosity, low density, and have not been subjected to maximum burial
2035 depths throughout their history (Figures 5 and 6). **These scientifically certain and concrete**
2036 **data clearly show that the views put forward by the authors are absolutely correct and**
2037 **are consistent with and overlap with our views**. Because the most important physical
2038 characteristics of chalks and chalk series rock units are their high porosity, like sandstones,
2039 and their sponge-like water absorption. They form in alkaline marine-lake environments
2040 (approximately pH 7.0 to pH 9.0). The presence of thick and widespread chalk series rock
2041 units and chalky evaporites in and around the Jezero and Gale craters on ancient Mars, which
2042 we identified for the first time, confirms the accuracy of our findings; it is very clear that
2043 these rocks are highly porous, not subjected to burial pressure, and have very low densities,
2044 providing further important supporting evidence for the existence of chalk series rocks, which
2045 we first determined.

2046
2047 Chalks, despite having a chemical composition of calcium carbonate/calcite/ CaCO_3 , are
2048 formed from microscopic organisms (plant and animal plankton). They are organic and
2049 biochemically formed carbonate sedimentary rocks. As is known, chalks differ completely

2050 from inorganic carbonates and limestones, which have a chemical composition of calcium
2051 carbonate (CaCO_3), both in their formation mechanisms and origins. Inorganic carbonates and
2052 limestones are formed as a result of the interaction of water, the rich carbon dioxide gas (CO_2)
2053 of the atmosphere, and rocks, and are of inorganic origin (not organic formations). However,
2054 phytoplankton and zooplankton are microscopic deposits of small, dead microorganisms with
2055 a calcium carbonate/calcite/ CaCO_3 chemical composition (sometimes containing silica, but
2056 95-99% organic calcium carbonate) formed from microscopic living fragments and
2057 aggregations; their skeletons, shells, and organism bodies are deposited on the seabed. They
2058 are solid, massive, homogeneous, thickly horizontally layered, porous, low-density, and
2059 highly porous; they are formed from millions of years of accumulated remains, and are a type
2060 of carbonate sediment of organic origin. They are of organic origin. They are a type of
2061 sedimentary carbonate that is biochemically formed, highly porous, and easily reduced to
2062 chalk powder.

2063
2064 3- Another important, definitive, and concrete geological evidence regarding chalk is the
2065 presence of chalk series rock units of different ages, exhibiting thick and widespread outcrops,
2066 which first surfaced on ancient Mars. These chalk and chalky evaporite formations (gypsum-
2067 anhydrite, plaster, salt, hydrated and unhydrate lime, slaked lime - unslaked lime, clay-sulfate
2068 minerals, all known in previous studies as sulfate-containing/containing units on ancient
2069 Mars) are covered by a glassy amorphous, hard, impermeable crustal armor along different
2070 topographic slopes, developed as a result of the interaction of these formations with the
2071 atmospheric conditions of ancient Mars. It was determined that the crust was covered/coated
2072 with a glassy amorphous, hard, impermeable, caramel-reddish-brown crusted armor, first
2073 described by the author as crust/crusting/crustization. This crust formation has led to the
2074 development of several important geological events. This formation, which developed in
2075 accordance with the paleoclimatology of ancient Mars at that time, was first described and
2076 named as crust/crusting/crustization, and its formation mechanism was elucidated, making it a
2077 very important geological formation (Figures 5 and 6). The formation mechanisms of these
2078 geological structures will be addressed in later studies. This glassy, amorphous, hard, and
2079 impermeable armored crust has concealed many geological events and prevented many others
2080 from being lost. Furthermore, it has archived historical/temporal records of the geological
2081 events and paleoclimatological processes that these formations underwent after their
2082 formation.

2083
2084 4-Previous studies of Gale crater and its surroundings on ancient Mars generally agree on the
2085 presence of clay-sulfate minerals in the rock units, the content of Fe/Mg phyllosilicates, and
2086 the presence of sand dunes (Miiliken et al., 2010; Buz et al., 2017; Ewing et al., 2017; Grant
2087 et al., 2019; Thomson et al., 2019; Rampe et al., 2020; Bristow et al., 2021; Eng et al., 2024).
2088 However, one of the earlier researchers (Buz et al., 2017) stated that they searched for Fe/Mg
2089 phyllosilicates in the sedimentary units of Gale crater, as well as feldspar-rich rock units in
2090 the sedimentary rock units of Gale crater and the rock units on the periphery/surroundings of
2091 Gale crater, but did not find them. This opinion of the authors is very important. This is
2092 because the sedimentary rock units in and around Gale Crater are composed of biochemically
2093 formed calcium carbonate/calcite/ CaCO_3 carbonate sedimentary rocks formed from the
2094 accumulation of skeletons and organism shells of microscopic, invisible phytoplankton/plant
2095 plankton and zooplankton/animal plankton species that lived in hot, clean, alkaline (pH
2096 greater than 7, possibly pH 9) marine environments for millions of years. They are not
2097 plagioclase-containing rocks. Therefore, the opinion of previous researchers (Buz et al., 2017)
2098 that plagioclase-containing rocks are absent is correct. Because the rock units exposed around
2099 Gale Crater consist of chalk series rock units, chalk, and chalky evaporite deposits that do not

2100 contain plagioclase. The authors' data indicating the absence of plagioclase-containing rocks
 2101 in Gale Crater and its surrounding walls are consistent with this geological data from our
 2102 studies. This constitutes further evidence supporting the existence of chalky rocks on ancient
 2103 Mars. When all this geological data and evidence are evaluated together, it becomes certain
 2104 that terrestrial-marine macrobial-microbial life once existed on ancient Mars. However, I must
 2105 sadly point out that whatever happened, this life completely disappeared and/or vanished.
 2106 This constitutes the other painful, sad, and dramatic aspect of the study...

2107

2108 **Conclusion:-**

2109 1. It has been argued that certain scientific studies and geological events that contradict and
 2110 conflict with the articles of the prototype Constitution of matter are an indication that they did
 2111 not and cannot occur in nature (on our planet Earth) and in the universe.

2112

2113 2. The articles of the prototype Constitution of matter are valid everywhere in the universe
 2114 and in different time dimensions. These are realized through the very rich and multifunctional
 2115 geochemical behaviors of matter.

2116

2117 3. Substances transform into different substances within themselves; energies transform into
 2118 different energies within themselves; Matter and energy undergo exchange and transformation
 2119 among themselves (Figure 1). There are no definite boundaries or limitations in these changes
 2120 and transformations. Transitional thermodynamic systems, intermediate components, and
 2121 derivatives inevitably develop in these transformations. For example, in transitional
 2122 thermodynamic systems (Tarhan, 2018), many intermediate components and derivatives
 2123 develop in the transformations and transitions that occur between substances, between
 2124 energies, and between matter and energy. We know only a small part of it as links in a chain.
 2125 It has been thought that we have not reached a sufficient accumulation of knowledge to
 2126 understand most of it. The reason for this is thought to be that we have not evolved enough to
 2127 reach a sufficient accumulation of knowledge. However, since matter has been evolving by
 2128 restructuring itself for billions of years, its degree of purity, degree of accuracy, capability,
 2129 sustainability, and geochemical behaviors for creating and evolving have become very rich
 2130 and functional, and it continues to do so. Therefore, for matter, every unsolvable problem has
 2131 a solution. Naturally, there is no unsolvable problem except for spontaneously occurring and
 2132 unwanted accidents.

2133

2134 4. Due to the short life cycles of intelligent beings (70-90 years), their degrees of evolution,
 2135 purity, and accuracy are negligible when compared to the evolutionary processes of matter.
 2136 This is because, due to their innate, hereditary primitive genes, they are enslaved by wild,
 2137 aggressive, possessive, egoistic, and unsharing behaviors, and their degree of purity increases
 2138 slowly as they evolve both forward and backward simultaneously for their own benefit.
 2139 Therefore, wars have always existed and will continue to exist. So, are we living to fight and
 2140 die, or are we here and living to live happily and peacefully? This has not yet been decided.
 2141 However, it is thought that it may be possible to mitigate/prevent enslavement to our innate,
 2142 hereditary genes through positive post-natal education, sharing, mutually beneficial
 2143 relationships, and solidarity, thus making them more sharing, using positive sciences. If
 2144 theology is a viewpoint and a form of education, it makes genes even more active and reactive
 2145 due to innate, unevolved aggressive, unsharing, and possessive desires and urges. It's like
 2146 pouring gasoline on a fire...

2147

2148 5. By using, learning from, and adapting to nature, the universe, and the principles of the
 2149 prototype Constitution of matter (since the basis of nature is creation and sustenance, not

2150 destruction, the fundamental purposes and mechanisms of formation are the same and similar
2151 even if physical characteristics differ), it is thought possible to shorten and lengthen the life
2152 cycles of intelligent beings on our planet Earth, to maintain ecosystem balance, and to adapt
2153 to their environment. Artificial organic organs capable of working in harmony (matter has the
2154 ability to adapt to its environment) can be created. However, these transformations, changes,
2155 and restructurings can never be made permanent.

2156
2157 6. Macrobial and microbial life definitely existed on ancient Mars at one time. Evidence for
2158 this is the author's initial description of thick and widespread surface formations/outcrops on
2159 ancient Mars, consisting of chalk series rock units, chalk, and chalky evaporites, all of organic
2160 origin, biochemically formed, and having a calcium carbonate/calcite/ CaCO_3 chemical
2161 composition (Tarhan, 2025). These chalk rock formations were formed by the accumulation
2162 of the shells and skeletons of dead microorganisms, such as phytoplankton and zooplankton,
2163 too small to be seen with the naked eye on a microscopic scale, on the seabed. The author was
2164 the first to describe and name the presence of chalk and chalk series rocks on ancient Mars,
2165 thus confirming the existence of marine-terrestrial and microbial-macrobian life on ancient
2166 Mars (Tarhan, 2025). Thousands of years ago, during the Quaternary period relative to Earth
2167 (probably between 1,400 million and 50,000 years ago and/or between 300,000 and 50,000
2168 years ago, etc.), the macrobial-microbial life, its thick modern atmosphere, and the Gülnaz
2169 geochemical rock cycle dramatically vanished and/or evaporated. The frozen ancient Martian
2170 landscape we see today is clearly visible in NASA's publicly available videos of ancient
2171 Mars/the Red Planet. The appearance of the frozen ancient planet Mars in these videos
2172 exhibits features very similar to the recent appearance of Earth today.

2173
2174 7. The author has for the first time definitively and concretely determined the existence of
2175 thick and widespread outcrops of chalky formations on ancient Mars, formed at different
2176 times, in different depositional environments, and under different paleoclimatological
2177 conditions. Chalky rock formations of different ages have been identified and named at the
2178 formation level, and their rock type characteristics, depositional environment, and formations
2179 have been dated according to the Earth geological time scale/table in relation to their
2180 counterparts on Earth. This is because chalky series rock units, chalk and chalky evaporite
2181 deposits are the only representatives, evidence, and indicators of marine microbial life on
2182 Earth, on ancient Mars, and on other terrestrial-rocky planets and moons where it may have
2183 existed. In short, chalks and chalky rocks constitute the sole scientifically positive evidence
2184 proving, confirming, and concretizing the existence of marine-terrestrial macrobian-microbial
2185 life on ancient Mars/the Red Planet, which once existed but dramatically vanished and
2186 evaporated relatively recently. In other words, the evidence and proof of microbial life on
2187 ancient Mars is: the chalk series rock units, identified for the first time by the author, are chalk
2188 and chalky-evaporite sediments themselves. They constitute the essence of marine microbial
2189 life. This scientific evidence is concrete, definitive proof, evidence, and indicators that
2190 terrestrial-marine macrobian-microbial life once existed on ancient Mars and dramatically
2191 disappeared/evaporated. In short, a piece of chalk and/or chalky rock you hold in your hand is
2192 a historical record, evidence, and archive of life that lived in the past, imbued with the effects
2193 of all the processes it underwent and preserved in fossilized form. These are documents that
2194 constitute the essence, evidence, and existence of once-existing life. I would also like to point
2195 out that these documents are naturally recorded and archived by the first prototype
2196 constitution of matter, which has reached and continues to increase its degree of evolution and
2197 accuracy, and whose articles are definitive, impartial, equal to all, sharing, integrative,
2198 multiplying, disseminating, fair, and based on justice and equity. These natural archives are
2199 not artificial records created through logical, imaginative modeling, prepared according to the

2200 personal and private interests and understandings of those who don't even abide by their own
2201 fundamental laws, diploma thieves who buy diplomas with money because they lack
2202 professional qualifications, incompetent individuals, those who sell empty dreams against
2203 hunger and poverty, and creatures with incomplete or partially evolved humanoid
2204 appearances; These are not artificial recordings that aim to deceive future generations with
2205 false information... The rest is just details/secondary information...

2206
2207 8. The emergence of life on Mars/the Red Planet and our planet Earth (Figures 3 and 4), two
2208 of the eight planets in the Milky Way Galaxy's Solar System, is not a coincidence. It is not a
2209 privilege or a gift bestowed upon them. It arose as a result of the extremely rich and
2210 functional geochemical behavior of the elements of the first prototype Constitution of matter.
2211 However, life that existed on ancient Mars, probably thousands of years ago, during the
2212 Quaternary period of present-day Earth, was dramatically destroyed / evaporated as a result of
2213 extraordinary natural events. The emergence of life on these two planets, located
2214 approximately 225 million kilometers apart, is highly probable ($2/8 = 0,25 = 25\%$).
2215 Furthermore, if we disregard the gas planets in this range and consider only the four terrestrial
2216 planets in our Solar System, this probability becomes much higher, reaching a rate of $2/4 =$
2217 $0.5 = 50\%$. In other words, the emergence of terrestrial-marine and macrobial-microbial life
2218 on two of the four inner, rocky planets in our Solar System means that life exists, originated,
2219 and will develop on billions, even trillions, of terrestrial and rocky planets and moons
2220 (moons) in the universe. This high probability and the aforementioned principles of the
2221 prototype Constitution of matter demonstrate that we are definitely not alone in the universe.
2222 The definitive identification of terrestrial, marine, macrobial, and microbial life on Mars,
2223 which lost its life, atmosphere, and rock cycle due to unknown geological events, is proof of
2224 this. The universe contains trillions of galaxies of varying sizes (some researchers estimate
2225 around 40-50 billion). Within these trillions of solar systems formed from these galaxies,
2226 there are trillions and/or billions of terrestrial, rocky planets and moons located in the
2227 intermediate habitable zone relative to their stars (the Sun). According to the articles of the
2228 Prototype Constitution of Matter discussed in this article, there is a 25% to 50% chance that
2229 life could be found on neighboring planets in our solar system, such as Mars and Earth. Even
2230 if we were to move 1 billion kilometers away from our planet, millions, billions, and perhaps
2231 trillions of life forms would exist. Similarly, according to the articles of the Prototype
2232 Constitution of Matter, life forms and intelligent space creatures on planets and moons that
2233 harbor life will never be alone in the universe. Existing organic forms, inorganic forms, and
2234 inorganic systems (except for spontaneously occurring natural events) will gradually lose their
2235 life cycles. In other words, they will die. Transformations and changes into other forms and
2236 systems occur gradually over billions of years. Conversely, new forms and systems are born /
2237 created from extinct forms and systems. These life cycles, which contain continuity and
2238 sustainability, will continue to repeat indefinitely.

2239
2240 9. The existence and extinction of terrestrial and marine macrobial and microbial life on
2241 ancient Mars within our solar system is undoubtedly very important. Most importantly, the
2242 people of Earth must learn from what happened. This creation and destruction on Mars/the
2243 Red Planet is undoubtedly a tragic and unforgettable natural event that will be etched in the
2244 archives of world history. However, it should be known that extinctions/evaporations, like the
2245 extinction of life on ancient Mars, occurred before ancient Mars and will continue to occur
2246 afterward.

2247
2248 10. The destruction of the life cycles of innocent women, babies, children, and living beings
2249 on Earth must end. Action always elicits a reaction. These very rich and functional

2250 geochemical behaviors of matter are formed as a reaction to the natural physical effects
2251 applied to it from the outside, in order to not be destroyed, not to destroy, to remain stable,
2252 and to become stable.

2253
2254 11. The late Gazi Mustafa Kemal Atatürk, the founder and leader of the secular, social, legal,
2255 and democratic Republic of Turkey, said, "Peace at home, peace in the world," and "War is a
2256 crime unless absolutely necessary." He told his youth that their goal should always be to move
2257 forward towards civilization. If he were alive today, he would share the view of "Peace on the
2258 planet, peace between planets." It is proposed that a planetary and interplanetary constitution
2259 be created, guaranteeing the sanctity of the fundamental right to live and let live, based on
2260 equality between intelligent beings and all wild creatures, within the framework of planetary
2261 citizenship. This constitution should be continuously updated according to the conditions of
2262 the day, based on scientific and technical developments. It should establish the necessity and
2263 responsibility of coexisting peacefully and safely in an environment where the ugly and the
2264 beautiful, the poor and the rich, the ant and the elephant coexist, as if it were the first law of
2265 matter; it is suggested that they be in solidarity in good times and bad.

2266
2267 12. The Red Planet should be known as a place of suffering, blood, and tears. It is
2268 recommended that all scientists and researchers from neighboring Earths focus on
2269 restructuring the atmosphere of Mars/Red Planet, which was once a blue planet like our own,
2270 as this is of paramount importance and priority. All material and spiritual aid to Mars will
2271 never be in vain; Mars holds all kinds of potential. There is no need to take anything heavy
2272 from Earth to Mars. According to NASA data, carbon dioxide gas is constantly leaking from
2273 the Martian atmosphere into space. However, ancient Mars is not dead. Mars is in a chronic
2274 coma and is very sad. To revive life, it continuously transfers heat to the Martian surface
2275 through weak zones. Although it operates all its physical, chemical, and biological reactors,
2276 the total heat and carbon dioxide gas it produces is less than the total gas and heat
2277 leaking/escaping from its atmosphere into space. Therefore, it cannot thicken its atmosphere.
2278 It cannot bring back the geochemical rock cycle and life. Mars wants and expects its
2279 neighboring Earthlings to intervene in its atmosphere from the outside, thereby breaking or
2280 minimizing the spiral carbon dioxide gas cycle that leaks from its atmosphere into space.
2281 Therefore, researchers, scientists, institutions, and organizations from all professions around
2282 the world are requested and advised to focus their primary scientific efforts on Mars.

2283
2284 If the spiral gas leak cycle in the Martian atmosphere is broken and/or minimized, it is thought
2285 and suggested that Mars has the potential to repair its atmosphere by thickening it,
2286 trapping/holding heat, and creating a greenhouse gas effect (primarily carbon dioxide gas,
2287 etc.), thereby restoring the geochemical rock cycle and life. At this stage, the biggest and most
2288 pressing problem for Mars/the Red Planet is how to interfere with its atmosphere and how to
2289 restructure it, and this has been presented for discussion and suggestions from neighboring
2290 aliens. It was then thought and suggested that knowing, understanding, and solving other
2291 problems of Mars would be much easier. Because Mars cannot intervene in its own
2292 atmosphere from the outside. I must also state that Mars is not dead and will not die. Its coma
2293 will continue as long as its problems persist. In return, Mars, which is about half the size of
2294 Earth, certainly has the potential to become a second world for aliens from neighboring Earth.
2295 Please do not go to Mars with your guns, rifles, and nuclear weapons, succumbing to your
2296 innate, unevolved, wild, aggressive, possessive, egoistic, and unsharing desires. It is thought
2297 that it is possible to tame the possessiveness and unsharing carried by the primal genes from
2298 birth, changing and developing with positive sciences, and to instill unifying moral and ethical
2299 values on a planetary scale. In conclusion, Mars is ready to become a second world for its

2300 alien neighbors, it needs its atmosphere to be structured, and it is predicted and asserted that it
 2301 possesses all kinds of positive potential.

2302
 2303 13. In nature and the universe, there are many known and unknown chemical elements and
 2304 their derivatives of inorganic origin. The periodic table of chemical elements will expand in
 2305 the future. However, in nature and the universe, there are many known and unknown elements
 2306 and their derivatives of organic origin that have similar conjugate allotropes to the known and
 2307 unknown inorganic chemical elements. A periodic table should be created for organic
 2308 elements, similar to the periodic table of inorganic chemical elements. By learning from
 2309 nature, and by artificially replicating genetic cloning and biodiversity, it is possible to expand
 2310 and broaden food supply chains. It was thought possible to artificially create and discover
 2311 allotropes of unknown elements of organic origin.

2312
 2313 14. This planet is not, and should not be, Dingo's stable. No powerful individual or country
 2314 should act arbitrarily and without limit, exceeding the boundaries of their power. They must
 2315 have definite rules and limits. As long as they remain within those limits, they should be free,
 2316 safe, and peaceful. This is the purpose of constitutions and social contracts. Otherwise, what
 2317 meaning do constitutions have? Those who take pleasure in the killing of innocent women,
 2318 babies, children, and living beings, those who cause their deaths through hunger, thirst, and
 2319 lack of access to food, those who condone these cruelties and injustices; those in positions of
 2320 power who are blind, deaf, and mute to these cruelties and injustices; those who remain
 2321 spectators to these cruelties and injustices; those who are indifferent they should know that
 2322 history will see you, directly and indirectly, as accomplices and partners in the injustices and
 2323 crimes committed, siding with those who perpetrate them. Don't hide yourselves behind the
 2324 guise of democracy, rights, law, and freedom that you've created... As the process unfolds,
 2325 when the false mask on your faces is removed a mask reflecting your primitive, self-serving,
 2326 aggressive, savage, egoistic, selfish, and unsharing desires your aggressive, expansionist, and
 2327 occupying dreams that deny the right to life and existence to those who are not like you will
 2328 remind you of the saying "The Emperor Has No Clothes / King Naked "... That's how you will
 2329 be remembered, and you will be buried in the dustbin of history...

2330
 2331 15. To date, the theory/view that regionally and locally developed large and small circular
 2332 depressions and basins observed on the outer surfaces of known terrestrial-rocky planets and
 2333 moons (Moons) and asteroids are impact craters and basins developed as a result of meteorite,
 2334 asteroid, and comet impacts has been disproven. These geological formations, known as
 2335 impact craters, have been redefined and named under the general heading of
 2336 sinkholes/sinkholesing/sinkholesization. Sinkholes are unique to the planets and moons on
 2337 which they are found, and have developed as a result of various geological events; they are
 2338 indigenous and national geological formations of the planet and satellites (Moons) on which
 2339 they are located. The causes and mechanisms of the formation of sinkholes, known as impact
 2340 craters, should be re-investigated...

2341
 2342 16. The theory/view of impact craters is definitely not correct according to the author. Until
 2343 now, the extinction of the dinosaurs has been attributed to impact craters. The extinction of
 2344 the dinosaurs has no relation whatsoever to impact craters. Therefore, the causes of the
 2345 dinosaur extinction should be re-investigated. Thousands of dinosaur footprints have been
 2346 found in Italy. It is suggested that research should begin from there...

2347 **Acknowledgements:-**

2348 These and similar texts are the result of my intensive study, original research, interpretation,
 2349 and analysis of ancient Mars/the Red Planet. However, this original work and research is

2350 based on the invaluable infrastructure created by NASA, NASA researchers, and employees.
 2351 This infrastructure relies on video footage and other scientific data taken by NASA's
 2352 geological rovers on the Martian surface, as well as publicly available image credits from
 2353 NASA/JPL/Caltech and <https://mars.nasa.gov/mars2020/multimedia/videos/>. Without
 2354 NASA's publicly available Martian surface video footage and scientific data, I could not have
 2355 written these and similar articles and made my interpretations. I have also watched and used
 2356 publicly available EDL/Elder Fox documentaries, Cronicas Marcianas, and Marsolog
 2357 YouTube videos on ancient Mars. Therefore, the successful work of NASA, NASA
 2358 researchers, and employees, who have made, are making, or will make significant
 2359 breakthroughs and innovations for life and habitats on Earth, should be appreciated. Their
 2360 contributions should be acknowledged. They should be given the recognition they deserve. It
 2361 is strongly recommended that their budgets be increased so that they can advance their work
 2362 to higher levels. It is also suggested that Mr. Elon Musk provide technical support to all
 2363 NASA projects related to Mars. If both sides agree, Mr. Elon Musk is requested to send a
 2364 symbolic bouquet of artificial flowers to Mars on behalf of activist, environmentalist, and
 2365 nature-loving social platforms around the world, aboard NASA's first spacecraft. This
 2366 symbolic gesture would be a good opportunity to commemorate the ancient Martian life that
 2367 has since vanished or evaporated, and to share, to some extent, the pain of ancient Martian
 2368 life...

2369
 2370 **Symbols Used (Dated According to the World International Chronostratigraphic Chart-**
 2371 **2018):-**

2372 Gp = Cosmic Upper Mantle Peridotites, Gale Crater Peridotites
 2373 KMim = Upper Maastrichtian-Lower Miocene Mount Sharp Chalk Series
 2374 Mig = Middle Miocene Gediz Vallis Channel Formation
 2375 Migc = Middle Miocene Conglomerate/Pebblestone Member
 2376 Plk = Middle-Upper Pliocene Kimberly Formation
 2377 Plkc = Middle-Upper Pliocene Conglomerate/Pebblestone Member
 2378 Qd = Quaternary (Pleistocene-Holocene) Dingo Gap Formation
 2379 Qta = Quaternary Old Alluvium/Terrace
 2380 Qs/l = Quaternary Slope and Landslide Debris
 2381 Qf = Quaternary Flood Deposits
 2382 Qal = Quaternary Alluvium
 2383 Qg = Quaternary Gray Wolf Peak Basalt Lava
 2384 Qdu = Quaternary Sand Dune
 2385 Qw = Quaternary Old Wind Alluvial Deposits
 2386

2387 **Funding:-**

2388 This study and research was not supported by any funding. The author, a retired and
 2389 independent researcher, conducted this work with his own limited financial resources,
 2390 drawing upon his past geological field projects, experience in mineralogy and petrography,
 2391 professional knowledge, published articles, and books. No one else contributed to the writing
 2392 or development of this article. The article is entirely the result of the author's own efforts,
 2393 extensive original work, interpretations, and dedication.
 2394
 2395
 2396

2397 **Author contributions:-**

2398 The author is the sole author of the article. The author designed the research, examined
 2399 publicly available images and data from NASA's Mars rovers, and compared/correlated

2400 Martian rock formations with their counterparts on Earth, drawing on their professional
 2401 knowledge and experience in geology, groundbreaking articles in geological literature, and
 2402 the content of geological books they have written. He wrote the article. The author wrote the
 2403 article and has read and approved the published version.

2404

2405 **Conflict of Interest:-**

2406 The author declares that he has no conflict of interest.

2407

2408 **Data, Material and Software Availability:-**

2409 Because the study is very comprehensive and rich in content, as much data as possible has
 2410 been transferred to the limited manuscript.

2411

2412 **Research Areas:-**

2413 Niyazi Tarhan: Field Geology, Geological Mapping, Mineralogy-Petrography,
 2414 Metamorphism, Metamorphic Rocks, Granite/Granitoid-Carbonatite-Anorthosite Problems,
 2415 Structural Geology, Tectonism, Stratigraphy.

2416

2417 **Letter from the Author: -**

2418 **Dear NASA and Elon Musk,**

2419 NASA and NASA researchers have obtained very important and invaluable geological data
 2420 regarding the Moon, the natural satellite of our planet Earth. I would like to thank everyone
 2421 involved. However, it is thought that this valuable data has been misinterpreted by some
 2422 scientists and researchers. This is because they are unaware that what has been considered
 2423 correct in the geological literature due to unresolved issues is actually wrong. This has led to
 2424 different interpretations, which is understandable. Of course, different interpretations are a
 2425 richness. They give rise to thesis and antithesis...

2426

2427 As is known, the Moon is moving 3,8 cm away from our planet every year. According to my
 2428 unpublished research, the Moon is in a risky position for Earth. It is recommended not to
 2429 tamper with it too much. Please do not invest in the Moon. There is no water on the Moon.
 2430 Any investment you make on the Moon will not yield an economic return. It is recommended
 2431 that all your resources and capabilities be mobilized for Mars. Any investment made in Mars
 2432 has the potential to yield an economic return and become our second world. Mr. Elon Musk
 2433 has the potential to establish agriculture and farms on Mars. The most important and only
 2434 priority problem for Mars is: restructuring the Martian atmosphere. Breaking or minimizing
 2435 the spiral cycle of carbon dioxide gas (CO₂) and heat leaking/escaping from its atmosphere
 2436 into space. It is recommended not to pursue endless fanciful ideas such as bringing ice from
 2437 distant ice belts and asteroid impacts, which are laborious and expensive methods that take
 2438 thousands of years to restructure the Martian atmosphere... Of course, different opinions are
 2439 important. But there are more economical and feasible options!... What you need to do for
 2440 Mars is very simple. It requires a little work! It depends on your technological
 2441 advancements... Mars appears to be the safest and most habitable planet in our Solar
 2442 System... If Mr. Elon Musk accepts, I would like to collaborate with him on scientific
 2443 proposals regarding what kind of tools to produce to rapidly thicken the Martian atmosphere
 2444 after its structuring... However, as far as I know, contributions to the nutrition and school
 2445 education of children in Ethiopia and other poor countries should not be forgotten... Because
 2446 all children are common elements of the planet. They are the future of the planet. They must
 2447 be protected and cared for from cruel, brutal, savage, unsharing, and unevolved human-
 2448 looking creatures, bigots, who inherit their primitive genes... With love and respect, The
 2449 Author,

2450

2451 **References:-**

2452 1. Bristow, T. F. et al. (2021). Brine-driven destruction of clay minerals in Gale crater,
2453 Mars. *Science*, Vol 373, Issue 6551, pp. 198-204, DOI: 10.1126/science.abg5449.

2454 2. Buz, J., Ehlmann, B. L., Pan, L., & Grotzinger, J. P. (2017). Mineralogy and
2455 stratigraphy of the Gale crater rim, wall, and floor units. *JGR Planets*, Vol. 122, Issue 5, pp.
2456 1090-1118, <https://doi.org/10.1002/2016JE005163>.

2457 3. Eng, A. M. et al. (2024). A Mastcam Multispectral Investigation of Rock Variability in
2458 Gale Crater, Mars: Implications for Alteration in the Clay-Sulfate Transition of Mount Sharp.
2459 *Journal of Geophysical Research: Planets*, Vol. 129, Issue2, e2023JE008033,
2460 <https://doi.org/10.1029/2023JE008033>.

2461 4. Ewing, R. C. et al. (2017). Sedimentary processes of the Bagnold Dunes: Implications
2462 for the eolian rock record of Mars: Bagnold Dune Field Sedimentary Processes. *Journal of*
2463 *Geophysical Research: Planets*, 122(4), Vol. 122, Issue12, pp. 2544-2573,
2464 DOI:10.1002/2017JE005324.

2465 5. Grant, J. A., and Wilson, S. A. (2019). Evidence for Late Alluvial Activity in Gale
2466 Crater, Mars. *Geophysical Research Letters*. Vol. 46, Issue 13, pp. 7287-7294,
2467 <https://doi.org/10.1029/2019GL083444>

2468 6. Lewis, K. W. et al. (2019). A surface gravity traverse on Mars indicates low bedrock
2469 density at Gale crater. *Science*, Vol. 363, Issue 6426, pp. 525-537. DOI:
2470 10.1126/science.aat0738.

2471 7. Milliken, R. E., Grotzinger, J. P., & Thomson, B. J. (2010). Paleoclimate of Mars as
2472 captured by the stratigraphic record in Gale Crater. *Geophysical Research Letters*, Vol. 37,
2473 Issue 4, <https://doi.org/10.1029/2009GL041870>.

2474 8. Rampe, E. B. et al. (2020). Mineralogy and geochemistry of sedimentary rocks and
2475 eolian sediments in Gale crater, Mars: A review after six Earth years of exploration with
2476 Curiosity. *Geochemistry*, 80(2):125605; DOI:10.1016/j.chemer.2020.125605.

2477 9. Stern, S. A. et al. (2015). The Pluto System: Initial results from its exploration by New
2478 Horizons. *Planetary Science*, Vol 350, Issue 6258, pp 292; DOI: 10.1126/science.aad1815.

2479 10. Tarhan, N. (1987). Orta Anadolu metamorfik ve granitik kayaların kökeni ve evrimi.
2480 *İ.Ü. Müh. Fak. Yerbilimleri Dergi.*, İstanbul-Turkey, 6, 1-2, 57-68.

2481 11. Tarhan, N. (1989). Hınıs-Varto-(Erzurum-Muş) dolayının jeolojisi ve petrolojisi.
2482 *Doktora Tezi*, İ. Üniv. Fen Bilimleri Enst., Jeo. Müh. Anabilim Dalı, İstanbul-Turkey, 181 pp
2483 (yayımlanmamış).

2484 12. Tarhan, N. (2018). *Metamorfik ve Metablastik Kayaları*. Kitap72.com, Cilt 1, 2, 3, 4,
2485 1. Baskı, Ankara.

2486 13. Tarhan, N. (2019a). Granit/granitoidler magmadan oluşmuş intrüzif magmatic
2487 kökenli plütonik kayaları değildir. Granit/granitoidler, bir tür köksüz metamorfik kayaları
2488 olan lökokratoblastik metablastik kaya serileridir. *Uluslararası Katılımlı, 72. Türkiye Jeoloji*
2489 *Kurultayı Bildiri Özleri ve Tam Metin Bildiriler Kitabı (The Proceedings Abstracts Book)*,
2490 2019, s. 433-434, Ankara.

2491 14. Tarhan, N. (2019b). Granit/granitoidler olarak bilinen metamorfik kökenli
2492 lökokratoblastik metablastik kayaların oluşumları. *Uluslararası Katılımlı, 72. Türkiye Jeoloji*
2493 *Kurultayı Bildiri Özleri ve Tam Metin Bildiriler Kitabı (The Proceedings and Abstracts*
2494 *Book)*, 2019, s. 435-437, Ankara.

2495 15. Tarhan, N. (2021). Karbonatitler, magmadan oluşmuş intrüzif magmatik kökenli
2496 plütonik kayaları değildir. Karbonatitler, bir tür köksüz metamorfik kayaları olan
2497 karbonatoblastit türü lökokratoblastik metablastik kaya serileridir (Carbonatites are not
2498 plutonic rocks generated by magmatic intrusions originated from magma. Instead,
2499 carbonatites are carbonatoblastite-type leucocratoblastic metablastic rock series, a kind of

- 2500 rootless metamorphic rocks). Uluslararası Katılımlı, 73. Türkiye Jeoloji Kurultayı Bildiri
 2501 Özleri ve Tam Metin Bildiriler Kitabı (The Proceedings and Abstracts Book), 24-28 Mayıs,
 2502 2021, s.678-683, Ankara.
- 2503 16. Tarhan, N. (2024a). A new state of matter; the 5th state of matter: a new type of
 2504 metamorphic origin superionic metablastic solids/rocks/minerals. South Florida Journal of
 2505 Development, Miami, ISSN 2675-5459, v.5, n.8, p.01- 20. [https://doi.org/10.46932/sfjdv5n8-](https://doi.org/10.46932/sfjdv5n8-027)
 2506 027.
- 2507 17. Tarhan, N. (2024b). Tarhan method in the chemical properties and determinations of
 2508 carbonatoblastites. South Florida Journal of Development, Miami, ISSN2675-5459, v.5, n.9,
 2509 p.01-14. <https://doi.org/10.46932/sfjdv5n9-028>.
- 2510 18. Tarhan, N. (2024c). Origin and Formation of Carbonatoblastites (Known as
 2511 Carbonatites); The First Prototype Constitution of the Article. Earth Sciences, Vol. 13, No. 5,
 2512 pp. 219-238.<https://doi.org/10.11648/j.earth.20241305.13>;
 2513 <http://www.sciencepg.com/article/10.11648/j.earth.20241305.13>.
- 2514 19. Tarhan, N. (2024d). Field and physical properties of carbonatoblastites (known as
 2515 carbonatites): rock forests. South Florida Journal of Development, Miami, v.5, n.12. p.01-
 2516 19,2024.ISSN2675-5459.DOI:10.46932/sfjdv5n12-007;
 2517 <https://ojs.southfloridapublishing.com/ojs/index.php/jdev/article/view/4733>.
- 2518 20. Tarhan, N. (2024e). A new state of matter; the 5th state of matter: a new type of 1467
 2519 metamorphic origin superionic metablastic solids/rocks/minerals. Chapter 02, p.14-58. 1468
 2520 DOI: 10.47172/sfp2020.ed.979-8-9917110-3-6_2. Head Organizer Anderson Catapan, 1469
 2521 Fundamentals of Technology and Innovation, South Florida Publishing, Miami. 1470
 2522 [https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me514](https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me514714r.pdf)
 2523 71 4r.pdf 1472
- 2524 21. Tarhan, N. (2024f). Tarhan metod in the chemical properties and determinations of
 2525 1473 carbonatoblastites. Chapter 03, p.59-90. DOI: 10.47172/sfp2020.ed.979-8-9917110-3-
 2526 6_3. 1474 Head Organizer Anderson Catapan, Fundamentals of Technology and Innovation,
 2527 SouthFloridaPublishing,Miami.1476.
 2528 [https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me514](https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me514774r.pdf)
 2529 774r.pdf1478.
 2530 [https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me54r.](https://southfloridapublishing.com/assets/ebooks/3WBc19TNR30MD5LoIsp6z62Pj80me54r.pdf)
 2531 pdf
- 2532 22. Tarhan, N. (2024g). The world's richest metablastic ore deposits are associated with
 2533 carbonatoblastic rocks of metamorphic origin (known as carbonatites). International Journal
 2534 of Advanced Research (IJAR), ISSN: 2320-5407, 12(12), 1061-1085. DOI:
 2535 10.21474/IJAR01/20114, DOI URL: <http://dx.doi.org/10.21474/IJAR01/20114>.
- 2536 23. Tarhan, N. (2025), There Was Once Undoubtedly Living Life On Ancient Planet
 2537 Mars. But Whatever Happened! It Lost Its Atmosphere And All Its Life, And Became A
 2538 Terrestrial, Rocky, Cold, Dry, And Living Dead Planet: Comparing The Geology Of The
 2539 Earth Around Şanlıurfa (SE Turkey) With The Geology Of Gale Crater On Ancient Mars. Int.
 2540 J. Adv. Res. 13(09), 1036-1128, ISSN:(O) 2320-5407, ISSN(P) 3107-4928. ARTICLE DOI:
 2541 10.21474/IJAR01/21791; DOI URL: <http://dx.doi.org/10.21474/IJAR01/21791>.
- 2542 24. Thomson, B. J. et al. (2019). How Much of the Sediment in Gale Crater's Central
 2543 Mound Was Fluvially Transported?. Geophys Res Lett., Volume 46, Issue10, pp. Pages 5092-
 2544 5099, (10):5092–5099,doi: 10.1029/2018GL081727, <https://doi.org/10.1029/2018GL081727>.
- 2545 25. "Earth Impact Database". (2024). University of New Brunswick. Archived from the
 2546 original on 24 March 2024. Retrieved 25 March 2024.
- 2547 26. Bland, P. A. et al. (2002). "A possible tektite strewn field in the Argentinian
 2548 Pampa" 22 Ağustos 2017 tarihinde Wayback Machine Archived at [website name], Science,
 2549 cilt 296, sayı 5570, s. 1109–12.

2550
2551
2552

UNDER PEER REVIEW IN IJAR