SCIENTIFIC MIRACLE OF THE HOLY QURAN REGARDING SECRETS OF CREATION OF MOUNTAINS

Seyyed Mohammad Musavi-Moqaddam\textsuperscript{1} and Zohreh Baba-Ahmadi-Milani\textsuperscript{2}

\textsuperscript{1}Hadith and Qur’anic Sciences Department, University of Tehran, Iran
\textsuperscript{2}Ph. D Student in Hadith and Qur’anic Sciences Course, University of Tehran, Iran

ABSTRACT

Various Quranic verses have mentioned cases of Divine creation in the world, making us ponder on them. Among these creatures are the mountains. The Almighty Allah has specifically invited us to pay attention to creation of the mountains and spoken about different aspects of them. However, the major focus of this study is on aspects and secrets of creation of mountains. Results of the present study show that the mountains have many uses for the earth inhabitants, including calm and establishment, as a heaven for humans, fountain head of the rivers, and the means to finding roads. This research aims at reviewing mountain secrets using Quranic verses and scientific facts.

Key words: Holy Quran, Creation, Mountains, Miracle, Secrets.

Introduction

Among Quranic miracles that are discovered in the recent centuries and have surprised scientists are Quranic statements about scientific issues such as, duality of creatures, movements of the sun and the earth, creation of the mountains, etc. That is while humans did not discovered such issues several centuries after revelation of the Holy Quran (Rezaei Esfahani, 2001). The miracles of Quranic verses should have two characteristics; 1. They should reveal scientific secrets that were not discovered before revelation of that Quranic verse. That scientific issue should be discovered a long time after revelation of the verse and should not be discoverable via usual means of humans in revelation era. 2. The unseen news should be about the occurrence of natural and historical events that were not known by anyone at the revelation time, but be materialized later on as the Holy Quran had announced. The news should not be predictable via usual ways (Rezaei Esfahani, 2001).

Although many exact scientific issues are presented in the Holy Quran, it should be kept in mind that the Holy Quran is not a mere encyclopedia or a book on ecology, botany, cosmology, or a scientific book; rather, it is a book for training and guidance (Makarem Shirazi, 2004; Rostami, 2007). The Holy Quran has introduced itself as the guiding book: ﴿شَﮭْﺮُ رَﻣَﻀَﺎنَ اﻟﱠﺬِی أُﻧْﺰِلَ ﻓِﯿﮫِ اﻟْﻘُﺮْآنُ ھُﺪیً ﻟِﻠﻨﱠﺎس﴾ (Sūrah Al-Baqarah (2): 185) “Ramadan is the (month) in which was sent down the Qur'an, as a guide to mankind.” The purpose of the Quran is leading human beings to the path of salvation (Marefati, 2007). The major reason why scientific issues are mentioned in the Quran, as stated in the Quran, is proving the existence of Allah (Rostami, 2007). Dr. Abdullāh Shahātah has stated, “Especially among Meccan Quranic chapters, there is no chapter except that it mentions the world and pondering on its creation and order to attract people’s hearing, seeing, senses, and mind to Allah’s creation, thus relating the creatures to their Creator” (Shahātah, Bitā, p. 30). Other purposes of Quranic scientific facts are proving the Resurrection, introducing a purpose for the creation (Rafeie Muhammadi, 2001), and knowing the nature (Golshani, 2014). All these are keys to the main purpose that is proving the existence of Allah. As mentioned, one of the purposes of Quranic verses about scientific facts is knowing the world nature. More than 750 Quranic verses mention natural phenomena (Tantāwī, Bitā, 2015). Among these natural phenomena are the mountains, which are mentioned in many verses. Some of the verses are about mountains’ appearance and height (Sūrah Al-Baqarah (2): 260; Sūrah Hūd (11): 43). Some other Quranic verses implicitly mention mountain width, height, essence, and gigantic appearance (Sūrah Ibrāhīm (14): 46;
Sūrah Al-‘Asrā’ (17): 37; Sūrah Maryam (19): 90; Sūrah Al-‘Ahzāb (33): 72; Sūrah Al-Hashr (59): 21.There are other verses about historical importance of the mountains (Sūrah Al-‘A’rāf (7): 74; Sūrah Al-Hijr (15): 82; Sūrah Al-Shu’arā (26): 1499). Some verses have used mountains for making analogy (Sūrah Hūd (11): 42; Sūrah Al-Nūr (24): 43). Some of the Quranic verses refer to the mountains that witnessed Prophets’ (s.a) miracles, such as those of Prophet Abraham (a.s) and Prophet Moses (a.s) ( Sūrah Al-Baqarah (2): 260; Sūrah Al-‘A’rāf (7): 143, 171). Still there are verses stressing the mountains as the shelter for humans and animals (Sūrah Al-Nahl (16): 68, 81) or the source of flowing water (Sūrah Al-Ra’d (13): 3, Sūrah Al-Nahl (16): 61, Sūrah Al-Mursalāt (77): 27). Some Quranic verses emphasize Quran’s scientific miracle, that the mountains are the nails of the earth, that a little part of them are on the earth, but much of them are beneath the earth, and that their duty is stabilization of the earth (Sūrah Al-Naba’ (78): 7, Sūrah Al-Ra’d (13): 3, Sūrah Al-Hijr (15): 19, Sūrah Al-Nahl (16): 15, Sūrah Al-‘Anbiyā’ (21): 31, Sūrah Al-Naml (27): 61, Sūrah Luqmn (31): 10, Sūrah Fussilat (41): 10, Sūrah Qāf (50): 7, Sūrah Al-Mursalāt (77): 27, Sūrah Al-Nāzi‘āt (79): 32, Sūrah Al-Ghāshiyah (88): 19). Other Quranic verses mention various routs passing through the mountains (Sūrah Fāṭir (35): 27) or the movement of the mountains (Sūrah Al-Naml (27): 88). Some of the verses contain the mountains that glorify Allah along with other creatures (Sūrah Al-‘Anbiyā’ (21): 79, Sūrah Al-Hajj (22): 18, Sūrah Sād (38): 18). Certain verses mention the return of mountains to Allah in the Day of Judgment (Sūrah Tāhā (20): 105, Sūrah Al-Kahf (18): 45, Sūrah Tūr (52): 10, Sūrah Al-Wāqi‘ah (56): 5, Sūrah Al-Hāqqah (69): 14, Sūrah Al-Ma‘ārij (70): 9, Sūrah Al-Muzzammil (73): 14, Sūrah Al-Mursalāt (77): 10, Sūrah Al-Naba’ (78): 20, Sūrah Al-Takwīr (81): 3, Sūrah Al-Qāri‘ah (101): 55). All thesereferences show that the

Exalted Allah has a special viewpoint about the mountains and they are ponderable. Nevertheless, the main purpose of this research is the secrets of creating mountains.In fact, Allah has not created anything in vein, as is stated in the Quran (Sūrah Al-Mu’minūn (23): 115, Sūrah Al-Dukhān (44): 38, Sūrah Al-‘Anbiyā’ (21): 16, Sūrah Al-Ahqāf (46): 3).The mountains are no exception and have many secrets and benefits. Allah invites us to pay attention to creation of the mountains, and to the sky, how it is raised high? And at the Mountains, how they are fixed firm?” The present study reviews the secrets of creation of mountains using Quranic verses.

The Reasons for and Secrets of Creation of Mountains

The Holy Quran has used two terms to refer to the mountains; one isjibāl and the other israwāsī. Tabarsi has written about the verses containing rawāsī, “Rawāsī are the mountains. This word refers to something that is so heavy that it is firm in its place, just as an anchor that keeps a ship firm in its place. The mountains are firm things that save the earth from trembling” (Tabarsi, 1993; 4, p. 46, under verse 32 of Sūrah Al-‘Anbiyā’). The creation of mountains is not without a reason. In various sūrahs, creation of mountains, secrets of their creation, and secrets of their existence are mentioned with different words, which will be discussed below.

Comfort and Calm for the Earth Inhabitants

The holy Quran has stressed creatures’ calm and comfort more than other benefits of mountains, which prevent the earth irregular movements andvibration (Sobhani, 2005). The role of mountains in preventing earth vibrations is stated in several Quranic sūrahs as

---

1 This categorization is taken from the books “Min Ayāt Al-‘Ijāz Al-‘Ilmī Al-‘Arz fl Al-Qurān Al-Karīm” and

follows: 

“He set on the earth mountains standing firm, lest it should shake with you/them. And if there are mountains, thousands of volcanos erupted and a severe earthquake happened. Then the earth exited its orbit and lost its balance” (Tantāwī, Bita, 2015). Ayatollah Ma’refat has also written, “The earthquakes and volcanos are scant evidences of the earth innerhotness and fire eruption” (Ma’refat, 2007).

The folding phenomenon in ecology is recently discovered. Folding is thecauseof formation of mountain skirt or mountain width. The earth layer on which we live is a solid layer under which are warm liquid layers. Nowadays it is proved that the stabilization of mountains is related to the folding phenomenon. In other words, folding is the substruction of projected stones that form the mountains (Zakīr Nīk, 2011). Some scientists believe that most mountains on the earth are formed by eruption of volcanos and then diffusion and congealingof molten materials. This way they are formed like nails on the earth, thus calming underground volcanos and preventing vibration of the earth (Sobhani, 2005; Hamīdī, 2007; Makarem Shirzai, 2004).

b. The Earth Outer Force: Among the main outer forces to the earthare the sun and the moon gravities. The sun and moon gravities are so strong that they attract a great deal of water from world huge seas and oceans, making small and large tides throughout them. If crust of the earth was without a shield, like the oceans, and was formed of a thin layer, such as soil or sand, it could easily be effected by the moon gravity. Then it had irregular movements like the sea tide. The mountains are like a strong steal armor around the earth. Since they have an underground relationship with each other, they create a strong overall net and prevent irregular movement of the earth crust (Hamidi, 2007; Makarem Shirzai, 2004). One of the other outer forces are severe hurricanes. These hurricanes are formed because ofthe earth movement around itself and around the sun with high speed. If there were no barriers against the hurricanes, they would perish whatever live beings on the earth. These barriers are in fact the mountainranges (Hamidi, 2007; Sobhani, 2005).

The Regulator of the Earth Movement Speed

As mentioned before, the earth faces three forces, namely the force of heat and molten material, the force of moon and sun gravities, and the force of thunderstorms. Some scientists believe that the mountains are like flywheels that control earth speed variation (Makarem Shirzai, 2004). The Holy Quran has stated this fact about fourteen hundred years ago (Sūrah Al-Ra’d (13): 3; Sūrah Al-Hijr (15): 19; Sūrah Al-Nahl (16): 15; Sūrah Al-‘Anbiyā’ (21): 3; Sūrah Al-Naml 3: 31; Sūrah Al-Nab’a (78): 7.

\[3\] Sūrah Luqmān (31): 10; Sūrah Al-‘Anbiyā’ (21): 31; Sūrah Al-Nahl (16): 15.

\[4\] Sūrah Al-Nab’a (78): 7.
When the mountains were set up on the earth, had a circular movement like the heavens. Also it is said that before the creation of mountains the earth has been as a sphere and had a circular movement like the heavens. (Sūrah Al-Nāzīˈāt (79): 32).

When a ship is on the water it bends to the two sides, but it stands firm when heavy things are put in it. Likewise, the earth is trembling on the water, but the mountains keep it steady (Fakhr Rāzī, 2010).

Allah created the earth rocks and high mountains just as described in Quranic verses. Scientifically, this duty of the mountains is called isostasy or an equilibrium in the earth crust caused by gravity, which is in turn because of rock quality of the mountains under the ground (Yahyā, 2011). Therefore, the mountains, just like their eminent appearance, are the nails that keep the earth pieces together (Kamarei, 2008).

In many Quranic verses the mountains are described as “having roots”, “being like nails”, and “bein like flywheels”. The last attribute is stated with different words. In one sermon, Imam Ali (a.s) has also said, “Who has made the earth firm and trembling.” In these verses, Fakhr Rāzī and Alīsī have said, “When a ship is on the water it bends to the two sides, but it stands firm when heavy things are put in it. Likewise, the earth is trembling on the water, but the mountains keep it steady” (Fakhr Rāzī, 2010).

Also it is said that before the creation of mountains the earth has been as a sphere and had a circular movement like the heavens. When the mountains were set up on the earth, they kept it from trembling (Biyzāwī, 2008).

Allamah Tabatabaei has written, “Calling the mountains nails may be because they were mostly produced of volcano eruptions; a point on the earth the cut, molten materials overflow from it, and congeal as a nail on the earth, making it calm again” (Tabatabaei, 2007).

Imam Ali (a.s) has mentioned the same fact this way, “And He prevented the earth from trembling with the mountains that are like nails.” Allah created firm mountains like the nails to prevent the earth from vibration and set them as the haven for the creatures. Imam Ali (a.s) has also said in another sermon, “The mountains that work as flywheels. The roots of heavy mountains that are deeply inside the earth pieces prevent them from dismantling, just as the nails join wood pieces (Sobhani, 2005).

In many Quranic verses the mountains are described as “having roots”, “being like nails”, and “being like flywheels”. This last attribute is stated with different words. “And the mountains hath He firmly fixed.” “He set on the (earth), mountains standing firm, high above it.” “(Have We not made) the mountains as pegs.”

The exegesis writers have written much about these verses. Fakhr Rāzī and Alīsī have said, “When a ship is on the water it bends to the two sides, but it stands firm when heavy things are put in it. Likewise, the earth is trembling on the water, but the mountains keep it steady” (Fakhr Rāzī, 2010).

In many Quranic verses the mountains are described as “having roots”, “being like nails”, and “being like flywheels”. This last attribute is stated with different words. When a ship is on the water it bends to the two sides, but it stands firm when heavy things are put in it. Likewise, the earth is trembling on the water, but the mountains keep it steady” (Fakhr Rāzī, 2010).

So the mountains are put in it. Likewise, the earth is trembling on the water, but the mountains keep it steady” (Fakhr Rāzī, 2010).

Also it is said that before the creation of mountains the earth has been as a sphere and had a circular movement like the heavens. When the mountains were set up on the earth,  

6 Sūrah Al-Nāzīˈāt (79): 32.
7 Sūrah Al-Naml (27): 61.
8 Sūrah Fussilat (41): 10.
9 Sūrah Al-Nabaˈ (78): 7.
10 Sermon 1.
11 Sermon 90, p. 197.
12 Sermon 170, p. 403
13 Sermon 202, p. 487.
Franc Press\textsuperscript{14}, a coauthor of one of major ecology reference books in world universities called The Earth, stated in his book that the mountains are a part of the big earth and rooted deep inside it (Zakīr Nīk, 2011). This important duty of the mountains discovered by ecology and seismology scientists had been stated in the Holy Quran and speech of Imam Ali (a.s) in \textit{Nahj al-Balāghah} several centuries ago. It can be concluded that this world is created by the All-Wise All-Knowing Allah.

\textbf{The Fountain Head of Rivers and Water Transmitter}

The Holy Quran has mentioned the fountains and rivers, beside the mountains, as great signs of expediency in creation of the world. One example is, \textit{و هو الذي مَّدَّ الأرض و جعل فيها رواَسي و أَلْهَارا و من كلّ النَّعَشات جعل فيها زْوَجَينَ اثْنَيْنَ يَغْلِي النَّيلَ} \textsuperscript{15} “And it is He who spread out the earth, and set thereon mountains standing firm and (flowing) rivers: and fruit of every kind He made in pairs, two and two: He dreweth the night as a veil o’er the Day. Behold, verily in these things there are signs for those who consider!” Another example is, \textit{وَ أَلْقَى فِيهَا رَوَاَسِيَ شَامِخيَّاتٍ وَأَسْقَيْنَاهُم مَّاً فُرَاَتَانَ} \textsuperscript{16} “He created the heavens without any pillars that ye can see; He set on the earth mountains standing firm, lest it should shake with you.”

The reason why mountains and rivers go together in some Quranic verses is that if the earth was all flat, the flowing of water became difficult. In fact, life on the earth is due to existence of water and constant flowing of water is due to existence of mountains. If there were no mountains, water flowing stopped and the earth became wholly wetland (Makarem Shirazi, 1995). Moreover, the origin of big rivers is the mountains; natural fountains flow from mountains into the valleys (Tabatabaei, 2007; Makarem Shirazi, 1995; Sobhani, 2005). The mountains are big water stores; they save snow, natural ice houses, and water. Hence, the Quranic verses mention mountains and rivers together (Hamidi, 2007). The weather is very cold atop the mountains and rain and snow are stored there. High in the mountains is full of snow and ice in winters. The snow gradually melts in the summer and flows in the form of rivers (Makarem Shirazi, 1995; Sobhani, 2005). The mountains also entangle the clouds in one region so that they fell down their rain or snow. Then the mountains store the water in various ways. Later they return the water in an ordered slow manner to revive the life of all beings (Makarem Shirazi, 1995; Hamidi, 2007). Imam Sādiq (a.s) has stated, “Creation of big rivers is a benefit of the mountains” (Majlīsī, Bita, 2014). He has also told one of his companions, “O Mofazzal! Look at these mountains that are replete with mud and rock. The unwise people know them useless, but they have many uses. For instance, the snow falls on mountains and remains atop summits to be melted and flow into rivers when the people need it” (Mofazzal, 1997).

\textbf{Purifier of Water}

Another role of the mountains is purifying the water. The rain water absorbs some air pollution and also the earth dirt and mud. The mountains act as large purifying machines and make this water clean and pure. Moreover, some useful materials are combined with this water when it passes through the mountains (Hamidi, 2007). The mountains are a kind of “sand purifier”. Sand layers of mountain include rubbles on the bottom and sand on the top. Passing through various mountain layers removes bacteria from water (Sobhani, 2005). The Holy Quran has mentioned these two great secrets in the following verse, \textit{وَجَعَلْنَاهُ مَّاً فَرَاَتَانَ} \textsuperscript{17} “And made therein mountains standing firm, lofty (in stature); and provided for you water sweet (and wholesome).” The phrase “lofty mountains” refers to the high altitude of mountains that makes them cold storehouses for water. The phrase “sweet water”

\footnotesize

\textsuperscript{14} He has been head of American Academy of Science for twelve years and the scientific counselor of former U.S. President, Jimmy Carter.

\textsuperscript{15} Sūrah Al-Ra’\textsuperscript{d} (13): 3.

\textsuperscript{16} Sūrah Luqmān (31): 10.

\textsuperscript{17} Sūrah Al-Mursalāt (77): 27.
afterwards shows that the mountains have an effective role in purifying water from unwanted materials and bacteria (Sobhani, 2005).

**Havens for Human Beings**

In some Quranic verses, another benefit of mountains for humans is mentioned; as a haven, including this verse, “Of the hills He made some for your shelter.” The term “اَلْﮑَﺘَﺎن” (shelter) means the caves and houses dug in the mountain, where humans hide from cold, heat, rain, and wind (Tabarsi, 1993; Tabatabaei, 2007; Makarem Shirazi, 1995; Hossaynî Shâh, 1984; Kashani, 1994). There are also other Quranic verses in this regard, including, 

وَرَنَّى ﻣِنَ اﻟْﺠِﺒَﺎلِ ﯽِﺑِّوُتا

“And ye carve houses out of (rocky) mountains with great skill.”

And they used to hew out dwellings from the mountains (feeling themselves) secure.”

And they are means of recognizing the roads, (Tabarsî, 1993; Tabatabaei, 2007; Makarem Shirazi, 1995; Hossaynî Shâh, 1984; Kashani, 1994). There are also other Quranic verses in this regard, including, 

وَرَنَّى ﻣِنَ اﻟْﺠِﺒَﺎلِ ﯽِﺑِّوُتا

“They are means of recognizing the roads, which have been mountain caves before they learnt to build houses. Nowadays caves can reside humans at special conditions (Hamidi, 2007). Moreover, mountain areas have a relaxing greatness and silence in which human heart can rest and concentrate. One’s mind gets rid of harming thoughts and experiences new conditions. The mountains have always placed people seeking calm. The Prophets (s.a) took refuge in mountains from the oppression of their ages and worshipped Allah in silence and privacy. Prophet Adam (a.s) used to go to “Sûrândîyâ” mountains, and Prophet Moses (a.s) went to “Tûr” mountain from Sinâ range, and Prophet Jesus (a.s) spent his time in “Sâ’îr” mountain. Prophet Muhammad (s.a) worshipped Allah in “Nûr” mountain near Mecca when he was appointed as prophet. “Jûdî” mountain was the saving place of Prophet Jesus (a.s) and his sincere companions from the storm (Hamidi, 1386, p. 157).

**Providing Human Needs by Mines**

Two Quranic verses mention another use of the mountains as follows. “He set on the (earth), mountains standing firm, high above it, and bestowed blessings on the earth.”

وَ ﺟَﻌَﻞَ ﻟَﮑُﻢْ ﻣِﻦَ اﻟْﺠِﺒﺎلِ ﺑِﮭِﻢْ، وَ ﺟَﻌَﻠْﻨﺎ ﻓِﯿﮭﺎ ﻓِﺠﺎﺟﺎً ﺳُﺒُﻠًﺎ،

“And the mountains hath He firmly fixed; blessings for you and your animals.”

Allah’s blessing on the earth include chemical materials of the soil that are useful for agriculture, as well as gold, iron, silver, etc. mines, and oil and gas reserves deep under the ground (Hedayat Quran exegesis 1998).

**Knowing the Roads**

Another benefit of the mountains as stated in Quranic verses is recognition of roads. “And We have set on the earth mountains standing firm, lest it should shake with them, and We have made therein broad highways (between mountains) for them to pass through: that they may receive Guidance.” If the mountains were as level walls, people could not pass them. The earth folding that has created the mountains has made the roads. The Holy Quran has reminded these facts to make us ponder on them (Rostami, 2007).

The Almighty Allah has also mentioned different colors of mountains as another way of recognizing the roads, which have been mountain caves before they learnt to build houses. Nowadays caves can reside humans at special conditions (Hamidi, 2007). Moreover, mountain areas have a relaxing greatness and silence in which human heart can rest and concentrate. One’s mind gets rid of harming thoughts and experiences new conditions. The mountains have always placed people seeking calm. The Prophets (s.a) took refuge in mountains from the oppression of their ages and worshipped Allah in silence and privacy. Prophet Adam (a.s) used to go to “Sûrândîyâ” mountains, and Prophet Moses (a.s) went to “Tûr” mountain from Sinâ range, and Prophet Jesus (a.s) spent his time in “Sâ’îr” mountain. Prophet Muhammad (s.a) worshipped Allah in “Nûr” mountain near Mecca when he was appointed as prophet. “Jûdî” mountain was the saving place of Prophet Jesus (a.s) and his sincere companions from the storm (Hamidi, 1386, p. 157).

18 Sûrah Al-Nahl (16): 81.
19 Sûrah Al-Shu’arâ’ (26): 149; Sûrah Al-‘A’râf (7): 74.
20 Sûrah Al-Hijr (15): 82.
21 Sûrah Hûd (11): 43.
22 Sûrah Fussilat (41): 10.
25 Sûrah Fâtir (35): 27.
shades of color, and black intense in hue.” Most Quran exegesis writers have interpreted the Arabic judada as clear route, road, and identifiable ways (Tabatabaei, 2007; Hussayni, 1984; Kashani, 1994; Tabarī, 2004; Ibn Kathīr, 2010). Allameh Tabatabaei has cited two probabilities about these routes, “These routes may be the ones in the mountains that have different colors or the mountains themselves that areas long lines on the earth; some of these ranges are white, some are red, black, and some are multicolored” (Tabatabaei, 2007).

**Conclusion**

The scientific miracle of the Holy Quran is one of its miraculous aspects discovered in present time. The major purpose of Quran scientific statements is proving the existence of the Exalted Allah. Various Quranic verses have mentioned signs of Allah’s Creation in the world. Among these signs are the mountains that are mentioned frequently in the Quran. The main focus of this research is on the expediency and secrets of creation of mountains. The most important ones are: 1. The mountains protect the earth against inner and outer forces, just like flywheels, and provide calm and establishment for the earth inhabitants. 2. The mountains are big water stores and fountain heads of rivers. 3. The mountains are the biggest water purifiers for rain water that is polluted by pollutants in the air or on the earth. They turn this water to pure sweet water. 4. The mountains are havens for humans against cold, heat, and rain. 5. The mountain mines provide human food and other needs. 6. Finally, the mountains and their different colors help people identify their path throughout the earth.

**References**


Shahātah, Mahmūd Abdullāh, Tafsīr Al-Ayāt Al-Kuwnīyyah, Dār Al-I’tisām, Cairo, Bita.


Yahyā, Hārūn, (2011). Quran Scientific Miracles, Translated by Fatimah Shafiei Sarwestani, Tehran, Helal Publications,


