

A comparative analysis of Modern and Quranic Account of Mountains

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Abstract

Indeed, whenever one approach the divine words of Quran he discovers a wonder. Quran is not intended for a specific group of people or time or a particular field. It not only addresses the common man but time and again it challenges the people of high intellect. The Qur'an is not a book of geology or geomorphology and does not provide a unified description of the mountains. Instead there are verses dispersed all over the Quran which describe certain aspects of mountains with varying detail. The primary objectives of this paper is to analyze the role of mountains describe by Quran in comparison to the modern scientific findings.

The Quran describe mountains 49 time, the word mountain (الجبال) is appear 39 times, and expressed in 10 other verses. The description of mountains provided by Quran can be clearly divided into two distinct classes. Firstly the verses of Quran which describe the mountain in general sense and it address the common people with limited understanding. While there are certain passages which explain the geomorphological and geological account of mountains and clearly it challenge the man with high intellectual.

The Quran systematically report the mountains as pegs or pickets and describe it as stabilizer for earth. By describing the mountains as "pegs" the Quran not only describe the outward extension of the mountains but also emphasizes its downward extensions within the earth. The role of mountains as stabilizers can be justified by the fact the tectonic plates are in constant movement and only stopped or slow down when one plate collide with another producing folded mountains. Alongside the Quran also provide information about the ultimate fate of the mountain which is perfectly in line with the modern ideas.

Key words *the role of mountains describe by Quran, the geomorphological and geological account of mountains*

Introduction:

It is very difficult to scientifically define mountains, as it cannot be define simply by elevation because there are elevated plateaus higher than mountains such as Deosai plateau of Gilgit Baltistan 3500m above sea level (asl) and North American Prairies 2000m asl. There is no universally accepted definition of mountains. Various criteria's used by geologists to define mountains include elevation, relief, slope etc. however most Geologist and Geomorphologist classify mountains as a landform that rises at least 1000 feet or more above surrounding area (Stuwe, 2007). A mountain is an elevated landform which dominate the surrounding by their soaring height (Goudie, 2004). These mighty lumps of rocks and soil rise more or less steeply not only on earth but also in the oceans. Oxford Dictionary define mountains as a "natural height of the earth rising abruptly from the surrounding having an impressive or notable elevation". Mountains generally have steep sides with rounded or sharp ridges. The highest point of a mountains is referred as summit or peak. Mountains can be isolated summits but in most cases they occurs as huge ranges.

The United nation Environment program define the mountain environment as follow:

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- Elevation of at least 2,500 meter.
- Elevation of at least 1,500 meter, with more than 2 degree slope.
- Elevation of at least 1,000 meter, with more than 5 degree slope.
- Elevation of at least 300 meter, with 300 meter elevation range within 7 kilometer.

Globally mountains make 24% of the landmass, 33% of Eurasia, 24% of North America, 19% of South America and 14% of Africa (Blyth et al. 2002). The highest mountain on the surface of the earth is Mount Everest (8850m asl (Gerrard, 1990).

Mountain can be divided into three types i.e. folded mountains, volcanic and Block mountains. The origin of all these three type of mountains is attributed to Plate tectonics. Plate tectonics theory reports the large scale movements of earth's lithosphere. The theory based on the concepts of continental drift, formulated during 20th century. The idea of plate tectonic is attributed to Benjamin Franklin who for the first time gives the idea that earth crust is a shell floating on fluid interior and thus capable of breaking by the movement in the fluid interior. However in 1912 Alfred Wegener formally devised the idea of continental drift theory (Spaulding and Namowitz, 2005). Based on chemical and physical properties, the earth interior is divided into a silica rich outer core, highly viscous mantle and a liquid outer and solid inner core. Earth has two type of crust i.e. continental and oceanic with different properties (McIntyre et al. 1991). Continental crust is on average 35km thick but under mountains its thickness reach up to 70km. The crust below the oceans is referred as Oceanic crust, it is 6-11 km thick and denser as compared to continental crust. These continental and oceanic plates move toward each other and away from each other causing the origin of volcanic, block and folded mountains (Goudie (2004).

The 2,900 kilometer long world tallest himalayan mountains, located in Pakistan, India, China and Nepal have been formed millions of year ago as a result of collision between Indian plate with Eurasian plate. Around 220 million year ago indian plate start its northward movement and travelled northward for about 6000 km. Around 50 million year ago it finally collide with Eurasian plate and as a result the Himalaya were formed (Molnar & Tapponnier, 1975; Achache et al. 1984; Le Fort & Cronin, 1988). This is illustrated in plate 2.

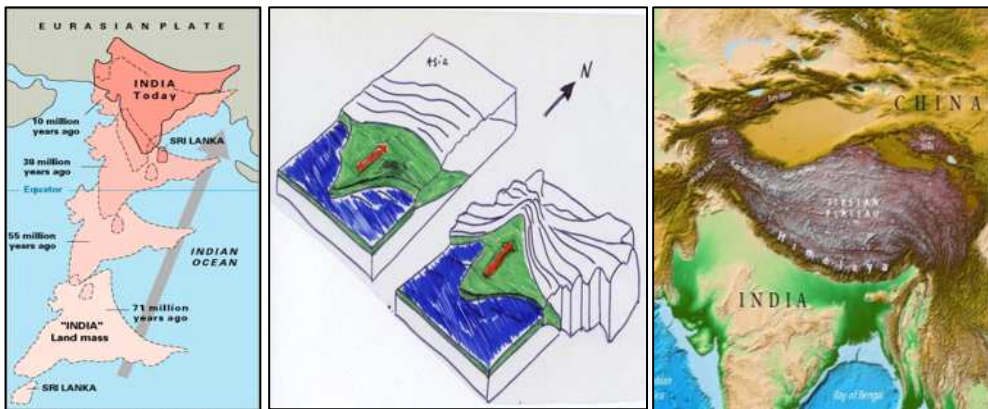


Figure 1. Illustrate the procedure of plate movement and formation of mountains.

<http://www.todayifoundout.com/index.php/2013/12/himalayas-formed/>

Quranic Account of Mountains:

The word "Mountain" is precisely quoted 39 time in holy Quran (33 time in plural and 6 time in singular form) and expressed in 10 other passages. As a whole Quran describe the mountains 49 time and these 49 references can be sorted in 02 distinguishable classes as follows:

1. Verses of Quran which describe mountains in general sense i.e. raised and massive landforms, miracle and supernatural power associated with mountains. The passages fall in this class are further divided into following 06 groups.
 2. The Quranic passages describing the geomorphological and geological accounts of mountains.
- 1(a) **Quranic verses that refer mountains as high raised land forms (Chapter (2) surat I-baqarah (The Cow, verse 260 and Chapter 11, Surat hud (Hud), Verse 43).**

”قَالَ سَاوِيْ اِلَى جَبَلٍ يَّعِصِمُنِي مِنَ الْمَاءِ“¹

“Muhammad Sarwar: His son replied, I Shall climb up a mountain and this will save me from the flood.”

- 1(b) **Quranic Verses that stress the vastness and massiveness of the mountain. (14:46; 17:37; 19:90; 33:72 and 59:21).**

”وَلَا تَمْشِ فِي الْاَرْضِ مَرْحًا اِنَّكَ لَنْ تَخْرِقَ الْاَرْضَ وَلَنْ تَبْلُغَ الْاِحْيَالَ طُوْلًا“²

“Muhammad Sarwar: Do not walk proudly on the earth; your feet cannot tear apart the earth nor are you tall as the mountains.”

”اِنَّا عَرَضْنَا الْاَمَانَةَ عَلَي السَّمٰوٰتِ وَالْاَرْضِ وَالْجِبَالِ فَاَبَيْنَ اَنْ يَّحْمِلْنَهَا وَاَشْفَقْنَ مِنْهَا“³

“Muhammad Sarwar: We offer our trust (deputation) to the heaven, to the earth and to the mountains, but they could not bear this burden and were afraid to accept it.”

”لَوْ اَنْزَلْنَا هٰذَا الْقُرْاٰنَ عَلٰى جَبَلٍ لَّرَاَيْتَهٗ خٰشِعًا مُّتَصَدِّعًا مِّنْ خَشْيَةِ اللّٰهِ“⁴

“Muhammad Sarwar: Had we sent down this Quran on a mountain, you would have seen it humbled and rent asunder (turn into pieces) for fear of God.”

- 1(c) **Verses that mention only word mountain (or mountains) in the context of a likeness (e.g. 11:42 and 24:43).**

”اَلَمْ تَرَ اَنَّ اللّٰهَ يُزِجِي سَحَابًا ثُمَّ يُؤَلِّفُ بَيْنَهٗ ثُمَّ يَجْعَلُهٗ رَكٰمًا فَتَرٰى الْوُدْقَ يَخْرُجُ مِنْ خِلَلِهٖ وَيُنَزِّلُ

مِّنَ السَّمٰوٰتِ مِنْ جِبَالٍ فِيْهَا مِنْ بَرَدٍ فَيُصِيبُ بِهٖ مَنْ يَّشَاءُ وَيَصْرِفُهٗ عَنِ مَنْ يَّشَاءُ يَكَادُ سَنَا بَرْقِهٖ

يَذْهَبُ بِالْاَبْصَارِ“⁵

“Sahih International: Do you not see that Allah drives clouds? Then he brings them together, then He make them into a mass, and you see the rain emerge from within it. And He send sown from the sky, mountains (of Clouds) within which is hail, and He strikes with it whom He will and averts it from whom He wills. The flash of its lightening almost take away the eyesight.” 1(d) Verses describing the historical importance of mountains (e.g. 7:74; 15:82 and 26:149).

”وَأَذْكُرُوا إِذْ جَعَلْنَا خُلَفَاءَ مِنْ بَعْدِ عَادٍ وَبَوَّأْنَاكُمْ فِي الْأَرْضِ تَتَّخِذُونَ مِنْ سُهُولِهَا قُصُورًا
وَتَنْجِتُونَ الْجِبَالَ بُيُوتًا فَادْكُرُوا الْآيَةَ اللَّهُ وَلَا تَعْتُوا فِي الْأَرْضِ مُفْسِدِينَ“⁶

“Muhammad Sarwar: Recall (the time) when we settled you in the land as the heirs of the tribe of Aad and have you established mountains in the plains and carved homes out of the mountains. Give thanks to God for his favors and do not commit evil in the land.”

”وَكَانُوا يَنْجِتُونَ مِنَ الْجِبَالِ بُيُوتًا آمِنِينَ“⁷

“Muhammad Sarwar: They would carve secure houses out of the mountains.”

”وَتَنْجِتُونَ مِنَ الْجِبَالِ بُيُوتًا فَرِيدِينَ“⁸

“Muhammad Sarwar: Carving comfortable houses out of the mountains.”

1(e) Verses describing miracles associated with mountains (e.g. 2:260 and 7:143,171).

1(f) Passages that refer to mountains in their supernatural, spiritualistic and intangible form as true worshippers of their Creator (e.g., 21:79; 22:18; 34:10 and 38:18).

”وَلَقَدْ آتَيْنَا دَاوُدَ مِنَّا فَضْلًا لِيَجِبَالَ أُورِي مَعَهُ وَالطَّيْرَ وَالنَّارَ لَهُ الْحَدِيدَ“⁹

“Muhammad Sarwar: We granted David a favor by commanding the mountains and birds to sing our praise along with him and soften iron for him.”

”إِنَّا سَخَّرْنَا الْجِبَالَ مَعَهُ يُسَبِّحْنَ بِالْعَشِيِّ وَالْإِشْرَاقِ“¹⁰

“Muhammad Sarwar: We made the mountains join him in glorifying Us (God) in the evening and in the morning.”

3. The Quranic passages describing the geomorphological and geological accounts of mountains.

2(a) Quranic verses which describe the color and composition and importance of mountains for earth surface. (e.g. 13:3; 15:19; 16:15; 16:68, 81; 21:31; 27:61; 31:10; 35 :27; 41:10; 50:7; 77:27; 78:7; 79:32 and 88: 19)

”وَالْأَرْضَ مَدَدْنَاهَا وَأَلْقَيْنَا فِيهَا رَوَاسِيَ وَأَنْبَتْنَا فِيهَا مِنْ كُلِّ شَيْءٍ مَّوْزُونٍ“¹¹

“Muhammad Sawar: We have spread out the earth, fixed mountains thereupon and caused everything grow to its proper weight.”

”وَجَعَلْنَا فِي الْأَرْضِ رَوَاسِي أَنْ تَمِيدَ بِهِمْ وَجَعَلْنَا فِيهَا فِجَاجًا سُبُلًا لَعَلَّهُمْ يَهْتَدُونَ“¹²

Bewley: “We placed firmly embedded mountains on the Earth so it would not move under them...”

”خَلَقَ السَّمَوَاتِ بِعِزِّ عَمَدٍ تَرَوْنَهَا وَالْفِي فِي الْأَرْضِ رَوَاسِي أَنْ تَمِيدَ بِكُمْ وَبَثَّ فِيهَا مِنْ كُلِّ دَابَّةٍ وَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً فَأَنْبَتْنَا فِيهَا مِنْ كُلِّ زَوْجٍ كَرِيمٍ“¹³

“Muhammad Sarwar: He has created the heavens without pillar as you can see, fixed the mountains on earth so that it may not shake you away, and settled therein all types of living creatures. We have sent down water from the sky and made all kinds of plants grow in gracious pairs.”

”أَمْ مَنْ جَعَلَ الْأَرْضَ قَرَارًا وَجَعَلَ خِلَالَهَا أَنْهَارًا وَجَعَلَ لَهَا رَوَاسِي وَجَعَلَ بَيْنَ الْبَحْرَيْنِ حَاجِزًا ءِ إِنْ سَأَلْتَهُمْ لَنْ يَكْتُمُوا“¹⁴

Sahih International: “Is he [not best] who made the earth stable ground and placed within it rivers and made for it firmly set mountains and placed between the two seas a barrier? Is there a deity with Allah? [No], but most of them do not know”.

The above verses of Quran clearly reveals that the earth is a stable and safe for dwelling. Throughout the solar system the earth is the only habitable Planet and stable ground. Here the Quran is referring the geographical location of the earth in the solar system and doesn't say anything about the rotation or revolution of the earth.

”وَجَعَلَ فِيهَا رَوَاسِي مِنْ فَوقِهَا وَبَرَكَ فِيهَا وَقَدَّرَ فِيهَا أَقْوَاتَهَا فِي أَرْبَعَةِ أَيَّامٍ سَوَاءً لِّلسَّائِلِينَ“¹⁵

“Muhammad Sarwar: In four days He placed the mountains on it, blessed it, and equally measured out sustenance for those who seek sustenance.”

”وَالْأَرْضَ مَدَدْنَاهَا وَأَلْقَيْنَا فِيهَا رَوَاسِي وَأَنْبَتْنَا فِيهَا مِنْ كُلِّ زَوْجٍ مَّيِّجٍ“¹⁶

“Muhammad Sarwar: (Have they not seen) how We have spread out the earth, placed on it firm mountains and have made all kinds of flourishing pairs of plants grow.”

”وَجَعَلْنَا فِيهَا رَوَاسِي شَامِخَاتٍ وَأَسْقَيْنُكُمْ مَاءً فُرَاتًا“¹⁷

“Muhammad Sarwar: place on it high mountains and provide you with fresh water.”

”وَالْجِبَالَ أَرْسَاهَا“¹⁸

“Muhammad Sarwar: then set-up firmly the mountains.”

”وَالَى الْجِبَالِ كَيْفَ نُصِبَتْ“¹⁹

“Muhammad Sarwar:how the mountains are set firm.”

”وَالْجِبَالِ أَوْتَادًا“²⁰

“Muhammad Sarwar:and the mountains as pegs (to anchor the earth).”

The above mentioned verses of Quran repeatedly pointed out toward two important facts firstly it referred the mountains as pegs or anchor, and secondly it emphasized the importance of mountains which stabilize the earth. The mantle behave similar to a highly sticky fluid. When mountains are created by plate tectonics, the sticky material from mantle runs out from below the mountains to counterbalance for the change in the weight of the mountains.

For a floating solid of density D1 floating in a fluid of density D2, the quantity of the solid below the fluid surface required to hold the stuff floating over the surface can be calculated by following formula:

$$\text{Depth of roots} = \frac{(\text{Density of Solid (D1)} * \text{Height above fluid surface (H)})}{\text{Density of Fluid (D2)} - \text{density of Solid (D1)}}$$

Continental crust density is 2.8 gm³ cm, Mantle 3.3 gm³ cm and core has 12-16 gm³ cm. Now using these densities, a 15,000 feet (4.82 km) mountain can be submerge for at least 27.03km.

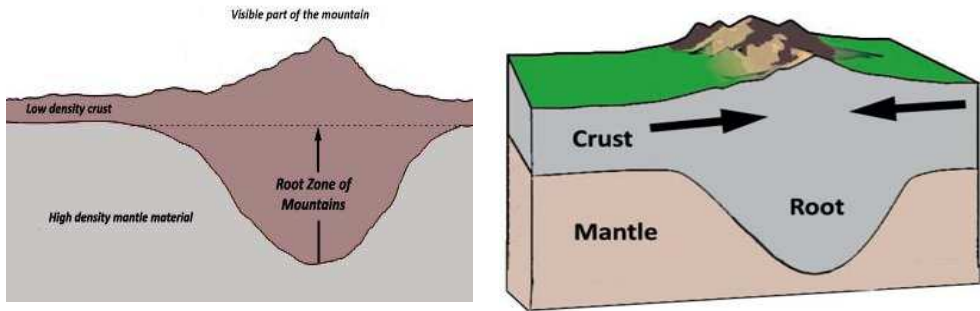
$$\text{Depth of root} = \frac{(2.8 \text{ gm/cc} * 4.82)}{(3.3 - 2.8) \text{ gm/cc}} = \frac{13.51}{0.5} = 27.03 \text{ kilometers}$$

http://geoscience.wisc.edu/~chuck/Classes/Mtn_and_Plates/mtn_roots.html

The mountain building is accompanied by crustal thickening, the buoyancy of the mountains contribute to support it. The continuing erosion over millions of years gradually erode the mountains peaks and shift the sediment. The submerged part of the mountains respond to unloading by decreasing the surface ratio to the crustal thickness. The mountains so called roots are flat away with unloading, but still these crustal roots of many mountains belts exist. The ratio between height of the mountains to the depth of its roots suggests that in active or recently formed mountains such as the Alps of Europe, these ratios are higher than older eroded mountains belts (Musacchio et al. 1998; Marchant & Stampfli, 1997; Chalot et al. 2000; James & Sacks, 1999; Owens & Zandt, 1997 and James, 2002). The above discussion clearly reveals that mountains have so called roots which extended down deep in the crust.

The critics are of the opinion that Quran never referred toward mountains roots, Nevertheless, several Muslim vindicators referred these “roots” of mountains as “pegs” to correspond the term with the Holy Qur’an. According to Andrew Vargo, comparison of roots with term pegs is incorrect as roots are natural and Pegs” are made by humans. The mountain “roots” are the result of collision and subduction, of tectonic plates. It’s worth mentioning that not all mountains have roots. According to the Oxford Advanced Learner’s Dictionary root is a “part of a plant that grows under the ground and absorbs water and minerals that it sends to the rest of the plant” or “the part of a thing attaching it to a greater

or more fundamental whole; the end or base”. While a peg is define as “a small pointed piece of wood or metal that attach to the ropes of a tent and push into the ground in order to hold the tent in place”. Now in case of mountains some part extend downwards, that part can be as large as their visible parts on the Earth, and that submerge part is referred as peg in Quran. Geologist and Geomorphologist conformed that the mountains have extend down in the lithosphere several time deeper than the elevation exposed above the surface. Just like mountains most part of the peg or picket is usually hidden in rock or soil to hold something on the ground therefore the term peg or picket seem to be literally and scientifically more correct description for downward extended part of the mountain than the term root (Amy, 2013; El-Naggar, 1992). The height of Mount Everest is approximately 09 km (8845m or 29,029 feet) above sea level, has a root deeper than 125 km. Keeping in view the above discussion the appropriate word to referred to the mountains roots is the word ‘peg/stake, as most part of a properly set peg/stake is concealed beneath the earth surface. Besides the plate tectonics theory and mountains having deep roots was introduced only in the latter half of the nineteenth century or the beginning of the 20th century (Oreskes, 2003).



Figures 2. Illustrating the roots of the mountains. The Quran refer these roots as pegs.

Adopted and modified from “Building Planet Earth: Five Billion Years of Earth History” by Peter Cattermole, Cambridge University Press, 2000

The second important fact stated in Chapter (31) surat luqman, verse 10 is role of mountains as stabilizer. Quran state “He has created the heavens without pillar as you can see, fixed the mountains on earth so that it may not shake you away” Chapter 31, verse 10.

According to Ma et al. (2007) San Gabriel Mountains of California, America partly protect Los Angeles from shaking during Earthquake. These mountains disperses the surface waves generated during an earthquakes generated by San Andreas Fault. The effect of the mountains dilutes the effects of earthquakes for some regions in the basin by as much as 50% in the frequency band up to 0.5 Hz. Similar results have been reported by Shiann et al. (2009). They study the relationship and influence of source location, depth and the rupture process on topographic effects in Taipei basin and the central mountain range (CMR) of Northern Taiwan. The study reveals that central mountain range substantially disperses the surface waves and, therefore, reduces ground shaking in the Taipei basin. These studies reveals that the topography can protect the inter mountain basins from ground shaking.

5. Verses which emphasize that mountains are not stationary but they move with the earth. (e.g. 27: 88).

”وَتَرَى الْجِبَالَ تَحْسَبُهَا جَامِدَةً وَهِيَ تَمُرُّ مَرَّ السَّحَابِ صُنِعَ اللَّهُ الَّذِي لَاتَقْنُ كُلَّ شَيْءٍ إِنَّهُ حَبِيرٌ
بِمَا تَفْعَلُونَ“²¹

“Sahih International: And you see the mountains, thinking them rigid, while they will pass as the passing of clouds. [It is] the work of Allah, who perfected all things. Indeed, He is acquainted with that which you do”

The above verse of holy Quran categorically state that mountains are not stationary bodies rather they are in the state of constant motion. It was 1912 that a German botanist Alfred Wegener first contended the Continental Drift theory. According to this theory the continents of the Earth were initially connected together, referred as “Pangia” (meaning, "all lands"). Hundreds of millions of years ago they start drifting in different directions. Wegener was unable to find solid evidence to support his theory. However the theory of Plate Tectonics conformed the drifting of continents after his death. It is believed that the Indian sub-continent has drifted 4,400 kilometers northwards since the end of the Mesozoic era, 140 million years ago. Figure 3 illustrate the concept of continental drifting.

In 1929 Arthur Holmes elaborated the idea that the mantle experiences thermal convection cause plates to move. Until 960's this idea didn't receive any attention. However, discoveries of ocean floor spreading, geomagnetic anomalies, and the formation of island arcs and oceanic trenches near the continental margins, suggested that thermal convection might be at work. Arthur Holmes, influenced Harry Hess' thinking about seafloor spreading. Harry Hess (1962) and Deitz (1961) publish alike theories based on mantle convection currents, now known as "sea floor spreading".

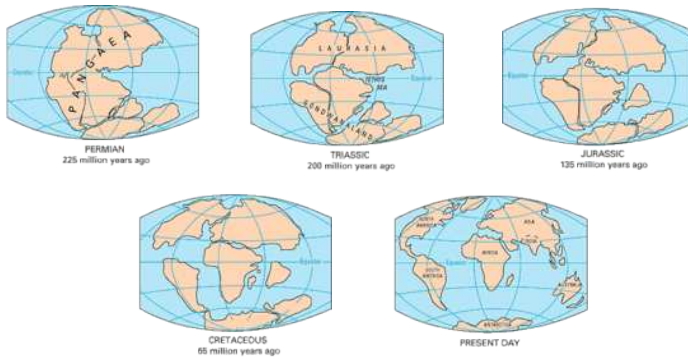


Figure 3. Illustrating the concept of continental drift theory. Adapted from “This Dynamic Earth, The Story of Plate Tectonics” by Kious and Tilling, 1996.

It is important to mention that in the above verse Quran use the word "tamurru" (drifting) to depict the movement of the mountains. It is interesting to note that the modern term used by geologist for the movement of mountains and plate is “continental drift”. Which simply mean that the Quranic description of movement of mountain and the modern idea of continental drifting are align. Besides the wording used by Quran are also very interesting to analyze as the Quran state:

“And you see the mountains, thinking them rigid, while they will pass as the passing of clouds. [It is] the work of Allah, who perfected all things. Indeed, He is acquainted with that which you do.”²²

Quran stated beforehand how people would evaluate this issue. However, He explained a fact after that and stated that mountains were drifted just like clouds were drifted. That is, he attracted attention to the movement of mountains and the fact that the continents moved along with mountains.

6. Quranic verses that depict the ultimate future of mountains on doomsday, (e.g. 18:47; 20:105; 52:10; 56:5; 69:14; 70:9; 73:14; 77:10; 78:20; 81:3 and 101:5)

Another important fact regarding ultimate fate of the mountains is discussed in Quran in almost 11 verses. Sura, 81 of Quran Sura-l-takwir (The Overthrowing) verse 3, reports the ultimate future of mountains as follows:

”وَإِذَا الْجِبَالُ سُيِّرَتْ“²³

”Sahih International: And when the mountains are removed.“

”وَتَكُونُ الْجِبَالُ كَالْعِهْنِ الْمَنْفُوشِ“²⁴

”Muhammad Sarwar: And mountains will be like carded wool.“

At another occasion the Quran state:

”وَإِذَا الْجِبَالُ نُسِفَتْ“²⁵

”Muhammad Sarwar: The Mountains will be blown away as dust.“

In all of the above verses the Quran depict the gravity and reversal of time. This reversal gravity will convert it into a repulsive force and will induce the earth to blowup. The mountains will collapse and molten lava will be thrown out illuminating the sky. Quran describe this as:

”وَوَحَمَلَتِ الْأَرْضُ وَالْجِبَالُ فَدُكَّتَا دَكَّةً وَاحِدَةً“²⁶

Mohsin Khan: “And the earth and the mountains shall be removed from their places, and crushed with a single crushing”

Similarly describing the explosion of the earth is clearly described in the following verses of Quran:

”وَإِذَا الْأَرْضُ مُدَّتْ ۖ وَأَلْقَتْ مَا فِيهَا وَتَخَلَّتْ“²⁷

”Muhammad Sarwar: when the earth is stretched out, and throws out of itself all that it contains.“

”إِذَا زُلْزِلَتِ الْأَرْضُ زِلْزَالَهَا ۖ وَأَخْرَجَتِ الْأَرْضُ أَثْقَالَهَا“²⁸

”Sahih International: When the earth is shaken with its [final] earthquake, and the earth discharges its burdens.“

”وَيَسْأَلُونَكَ عَنِ الْجِبَالِ فَقُلْ يَنْسِفُهَا رَبِّي نَسْفًا فَيَذَرُهَا قَاعًا صَفْصَفًا ۖ لَا تَرَى فِيهَا عِوَجًا وَلَا أَمْتًا“²⁹

Muhammad Sarwar: “ (Muhammad), they will ask you about the mountains. Tell them, “My Lord will grind them to powder and leave them so smoothly levelled. That you will see no depression or elevation in it”.

The above verses clearly reveals that ultimately the mountains will be thrown away as the earth explodes and throws out all the molten lava to the surface, converting it into shiny smooth lava plain as the lava cool down. There will be no ups and down on earth surface, and it will be completely level down. According to Big Rip theory the universe is driven by dark energy or repulsive gravity and is expanding so fast that it could tear/pull apart all the objects bounded by gravity (Caldwell et al. 2009). In 1929, Hubble proclaimed a striking discovery which entirely change the paradigm in the field of astronomy. He observed that the light coming from far off galaxies is shifted toward the red end of the visible spectrum. This fact is commonly known as “Red Shift” this was a very strong evidence of accelerating/expanding universe. This red shift further prove that galaxies are further moving away from us with a speed which is directly proportional to its distance, this is known as Hubble’s law (Hubble, 1929).. The furthest galaxies are moving ever further from us and the rate of expansion is accelerating. According to Caldwell (Caldwell & Kamionkowski (2009) the universe expansion is so fast that it could tear/pull apart all the objects bounded by gravity.

Conclusion:

Man is always fascinates by his surroundings. For as long as the human has lived on earth, he has showed a curiosity about the nature of his surroundings. He attempted to discover more about the landscapes upon which he live and processes by which those landscapes formed and evolve. Mountains have always looked upon as conspicuous features. The nature of understanding of mountains in Geography has changed over time. Keeping in view the importance of mountains, the holy Quran also describe it in varying details. The human knowledge about mountains i.e. “reduced deflection in plumb bob near mountains” (Airy, 1865) “concept of isostasy” (Dutton, 1889), plate tectonic and continental drifting (Wegner, 1912) etc. begin to accumulate in the middle of 19th century (almost thirteen centuries after the revelation of Quran). Although many aspects of plate tectonics still continue to confound and challenge scientists the general idea of plate tectonics is now widely accepted.

The Quran consistently describe mountains as stabilizer for earth and as pegs or pickets. In short the Quran not only describe the outward extension of the mountains but also emphasizes its downward extensions within the earth. The role of mountains as stabilizers can be justified by the fact the movement of tectonic plates only stopped or slow down when one plate collide with another producing collisional mountains.

EndNotes:

¹ Chapter 11, Surat hud (Hud), Verse 43

² Chapter (17) Surat I-Isra (The Night Journey) Verse 37.

³ Chapter (33) Surat I-ahzab (The Combined Forces) Verse 72.

⁴ Chapter (59) Surat I-hashr (The Gathering) Verse 21.

⁵ Chapter (24) Surat I-Nur (The Light) Verse 43.

⁶ Chapter (7) Surat I-Araf (The Heights), verse 74.

⁷ Chapter (15) surat I-hijr (The Rocky Tract), verse 82.

⁸ Chapter (26) surat I-shuara (The Poets), verse 149.

⁹ Chapter (34) surat Saba (Sheba) Verse 10.

- ¹⁰ Chapter (38) surat ṣad, verse 18.
¹¹ Chapter (15) surat l-ḥijr (The Rocky Tract), Verse 19.
¹² Chapter (21) surat l-anbiyaa (The Prophets), Verse 31.
¹³ Chapter (31) surat luqman, verse 10.
¹⁴ Chapter (27) surat l-naml (The Ants), verse 61.
¹⁵ Chapter (41) surat fuṣṣilat (Explained in Detail), verse 10.
¹⁶ Chapter (50) surat qaf, verse 7.
¹⁷ Chapter (77) surat l-mursalat (Those sent forth), Verse 27.
¹⁸ Chapter (79) surat l-naziat (Those who Pull Out), verse 32.
¹⁹ Chapter (88) surat l-ghashiyah (The Overwhelming), verse 19.
²⁰ Chapter (78) Surat l-Naba (The Great News), verse 7.
²¹ Chapter (27) surat l-naml (The Ants), Verse 88.
²² Chapter (27) surat l-naml (The Ants), Verse 88.
²³ Chapter (81) Sura-l-takwir (The Overthrowing) Verse: 3
²⁴ Chapter (101) surat-l-qariah (The Striking Hour) Verse: 5.
²⁵ Chapter (77) Sura-l-mursalat (Those sent forth)Verse: 10.
²⁶ Chapter (69) Sura-l-haqah (The Inevitable),Verse:14
²⁷ Chapter (84) Sura l-inshiqāq (The Splitting Asunder) Verse:3-4.
²⁸ Chapter (99) Sura l-zalzalah (The Earthquake) Verse 1-2
²⁹ Chapter (20) Sura Taha, Verses 105-107.

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