

## 4.4. Scientific Revelations in the Qur'an

The scientific truths revealed in the Qur'an more than 1400 years before their actual discovery testify eloquently to the divinity of the Qur'an and its authenticity as the revealed word of God. These revelations on scientific themes cover all major branches of science: Astronomy, Biology, Medical, Earth and Environmental sciences. Some of the verses are quoted below. The readers themselves can assess their remarkable precision in describing the scientific truth.

### **Astronomical Sciences:**

The universe originally was made up of gaseous substances, it is revealed in two verses of the Qur'an:

"The heavens were like a smoke in the beginning." (Fussilat – 41:11)

"The earth and heavens were joined together (as one unit of creation) before We clove them asunder." (Al-Anbiya – 21:30)

The concept of expanding universe is clearly contained in the following: "And it is We Who have built the universe with (our creative) power; and verily it is We Who are steadily expanding it" (Surah Az-Zariyat – 51:47)

While the orbital movement of the sun was discovered by the Netherland's astronomer Jan Oort in 1927, the Qur'an revealed it as far back as the early 7<sup>th</sup> century: "And the sun runs its course for a period determined for it" (Ya'sin – 36:38).

### **Biological Sciences:**

Some of the verses describing biological sciences are as follows:

"And We have created from water every living being." (Surah Al-Anbiya 21: 30)

"He began the creation of man with clay and made his progeny from the quintessence of the nature of a fluid despised." (Surah – As-Sajdah 32:7-8).

The Qur'an proclaims the origin of the entire mankind from a single pair of man and woman (Adam and Eve). It does not subscribe to the Darwin's theory of man's evolution from primates. "From this single person (Adam) We created of like nature his mate and from these two scattered like (seeds) countless men and women." (Surah An-Nisa 4:1)

### **Medical Sciences:**

The Qur'an revealed almost a precise account of human embryology from the beginning of fertilization to the development of a fully formed baby in the mother's womb. Further it corrected the Aristotelian misconception that only female ovum was responsible for fertilization. Contradicting it, the Qur'an declares that both male and female cells combine to fertilize. "We created man from a drop of mingled sperm (mixed male and female discharge of semen) of germinal drop." (Ad-Dahr 76:2)

The Qur'an made another startling revelation that the child is lodged in three veils in the mother's womb: "He makes you in womb of your mother in stages one after another in three veils of darkness, such is your Lord and Cherisher" (Az-Zumar – 39:6). Modern embryology has identified these walls as (i) Abdominal wall; (ii) the uterine (womb) wall and, (iii) the sacs surrounding the fetus. This is confirmed by no less an authority that Dr. Keithmore of the University of Toronto, Canada who in his book: "Before We Are Born – Basic Embryology (1989)," writes as follows: "Growth of Science was slow during the Middle Ages and no embryological investigations are known to us but it is cited in the Koran, the Holy Book of the Muslims..... Space does not permit the discussion of several other interesting references to human pre-natal development that appears in the Koran." (P.9) Dr. Keithmore testifies to the accuracy of the Qur'anic description of various stages of embryological development of the child in the mother's womb.

**Earth Sciences:**

There are varied Qur'anic revelations in the field of earth sciences relating to winds, rain and cloud formation, soil erosion, surface and ground water including spring water, but the most significant revelation pertains to the role of mountains on earth.

The Qur'an, like the geologists, stresses the stabilizing role of the mountains and calls them pegs (An – Naba 78:7) which, according to eminent Arab geologist Naggar, holds "The earth's lithosphere down as a means of fixation firm and habitable for human activity." As for instance the Qur'an reveals "And the Earth We have spread out like a carpet, set there on stabilizer in the form of mountains and produced their in all kinds of things in due balance" (Al-Hijr 15:19). This stabilizing role of mountain is further stressed in the following Qur'anic verse: "has set upon the earth mountains standing firm, lest it should shake with you" (An-Nahl 16:15) This balancing role of the mountains is reiterated in Surah Al-Anbiya 21:31, and in Surah Luqman – 31::10. The Qur'anic revelations regarding balancing role of mountains literally predicted the concept of 'Isostasy' propounded by Dutton in 1889 and introduced earlier by Airy (1855) and Prat (1859).

**Physical and Chemical Sciences:**

The Qur'an refers to the creation of fire (energy resources) from green plants: "The same who produces for you fire out of the green tree when behold! You kindle therewith your own fire" (Ya'sin – 36:80). This obviously refers to the chemical process generated by solar cells on trees. "Where photosynthesis in leaves turns sunlight into chemical energy that powers almost every natural ecosystem."

**Every object created in Pairs:** The following verse takes us to an exciting scientific domain: “Glory to Allah Who created in pairs all things that the earth produces, as well as their own human kind and (other) of which they have no knowledge” (Ya’sin – 36:36). It clearly implies that all animate and inanimate objects are created in pairs. This obviously leads us to think of Paul Dirac’s theory of electron which conceptualizes that “every matter should have an anti-matter”. When the Qur’an refers to substances produced in the earth are created in pairs including those of which we have no knowledge, this must raise considerable human curiosity followed by determined effort to discover them. Inspired by these Qur’anic revelations on scientific themes and having acquired the knowledge of the Greek and Indian scientific discoveries, the Arabs produced a galaxy of scientists in almost every field:

**Ibn Sina- Medicine and Philosophy, Al-Biruni – Geology, Mineralogy, Astronomy etc. Al- Khawarizani – Algebra, Ibn Al Haitham(Al-Hazen): Astronomy, Al- Razi(Razes): Chemistry, Ibn Rushd (Averroes) – Medicine, Philosophy and Islamic Jurisprudence; Ibn Al- Baitar – Botany and Pharmacology.**

The Arab scientists dominated the fields of Science and Technology from the 9<sup>th</sup> to the 14<sup>th</sup> centuries when Europe was passing through a dark age. Europe inherited the Arab legacy in these fields mainly through Spain and Latin translations of works by Arab scientists. European scientists advanced further the frontiers of knowledge deriving their inspiration from the achievements of Arab scientists.

**Note: For a detailed study of scientific revelations in the Qur’an see MEDNET Monographs Numbers 17 to 23.**