

The Scientific Facts Presented in the Holy Qur'an

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The Holy Qur'an is not intended to be a book of science. However, it contains many references to scientific facts in the context of the divine plan and the working of the universe and to show the all inclusive knowledge of its Creator, the omnipotent God, the Exalted most High.

In the following paragraphs some of the verses from the Qur'an, dealing with various scientific facts, are presented. For the sake of convenience these are grouped under various headings.

For a more detailed study, the reader is referred to the book "The Bible, The Qur'an and Science," by Dr. Maurice Bucaille.

About the creation of the heavens and the earth

"Do not the unbelievers see that the heavens and the earth were joined together, then we clove them asunder and We got every living thing out of the water? Will they not then believe?" (21:30)

The above verse might be a reference to the origin of the universe with an explosion. The modern Big Bang theory of the origin of the universe also postulates an explosion.

"Moreover (God) turned to the heaven when it was smoke and said to it and to the earth: Come willing or unwilling; they said: We come in willing obedience." (41:11)

The word "smoke" here refers to the gaseous material with particles suspended in it. This corresponds to the concept of the "Primary Nebula" put forward by modern science, which consisted of hydrogen and helium.

"Your Lord is God who created the Heavens and the Earth in six days (periods)...In a day whereof the measure is as a thousand years of your reckoning." (32:5)

The creation of the Heavens and the Earth should not be taken in a literal sense. As explained in the Qur'an, what we call a day by our earthly yardstick is not the same as a day by the heavenly yardstick. This is consistent with modern scientific knowledge, which estimates the age of the Earth and sun in millions of years.

"Did you see how God created seven Heavens one above another and made the moon a light therein and made the sun a lamp". (71:15-16)

It is well known to modern science that in the universe there is a plurality of galaxies, with many galaxies and many suns larger than ours.

Astronomy in the Qur'an

"God is the one who created the night, the day, the sun, and the moon. Each one is traveling in an orbit with its own motion." (21:33)

Modern scientific knowledge has shown that our galaxy revolves on its own axis. The sun is located eccentrically and thus revolves in an orbit around the center of the galaxy. This was not known to man 1400 years ago. The concept of motion of the heavenly bodies with an orbit of their own belongs to modern science. Earlier scientists regarded the sun as a stationary object.

"Has thou not seen how God merges the night into the day and merges the day into the night?" (21:29)

"He coils the day upon the night and coils the night upon the day." (39:5)

Astronauts have described the appearance of the Earth from space. The sun lights up half of the earth facing it and the other half is dark. As the earth rotates on its axis, the darker areas come to light, and the light areas merge into darkness. This is easy to understand at the present time. However, 1400 years ago this knowledge did not exist. In those days the earth was mistakenly thought to be flat and at the center of the universe. Modern scientific data are in full agreement with the Qur'anic description.

"God subjected the sun and the moon, each one runs its course to an appointed term." (33:2)

Modern science has estimated the age of the sun and has also estimated when it will run out of hydrogen and will cool off. Modern astronomy has discovered that the solar system is moving towards a point in the constellation of Hercules, named the Solar Apex.

"The heaven, we have built it with power. Verily, we are expanding it." (51:47)

The gradual expansion of the universe is one of the most important discoveries of modern times.

"O Assembly of Jinn (spirits) and men, if you can penetrate regions of the heavens and the earth, then penetrate them! You will not penetrate them save with a power." (55:33)

This refers to man's entry into space and the exploration of the depths of the Earth.

"We sent down water from the sky in measure, and lodged it in the ground. And we certainly are able to withdraw it. Therewith for you, we gave rise to gardens of palm trees and vineyards." (23:18-19)

"Has thou not seen that God sent water down from the sky and let it through sources into

the ground? Then He caused sown fields of different colors to grow." (39:21)

The water cycle as we know it today was described 500 years ago. Before that, many people believed that water from the ocean was thrust into soil which formed springs and underground reservoirs. It was also thought that moisture in soil condensed to form water. The Qur'an gave the correct view in an authoritative way 1400 years ago.

"We have placed in the ground (mountains) standing firm, so that it does not shake with them."
(21:31)

"Have We not made the earth an expanse and the mountains stakes?"
(78:6-7)

According to modern theories, mountains played a key role in the formation and stability of landmass. They also contribute to the stability of the earth's crust, which is relatively very thin. Beneath the crust are molten rocks at very high temperatures. Qur'anic description and modern scientific discoveries are in agreement.

"Those who God wills to guide, He opens their breasts to Islam. Those who He wills lose their way, He makes their breasts narrow and constricted, as if they were climbing the sky." (6:125)

This refers to breathlessness or "air hunger" due to the decreased quantity of oxygen available at high altitude. This is an accurate yet surprising statement, because high mountain climbing, air travel, etc. were not available at that time.

"God created every animal from water." (24:45)

"And We got every living thing out of water. Will they then not believe?"
(21:30)

Modern scientific data indicate that life is of aquatic origin and water is the major component of the living cell. Mankind did not know this in Muhammad's time.

About the Vegetable kingdom.

About the balance in the vegetable kingdom:

"The earth...We caused all kinds of things to grow therein in due balance." (15:19)

Reproduction in the vegetable kingdom...

"God is the One who sent water down from the sky and thereby, We brought forth pairs

of plants each separate from the other." (20:53)

"Glory be to Him who created components of couples of every kind: of what the ground caused to grow, of themselves (human beings) and of what you do not know". (26:36)

The last two verses above clearly indicate the two sexes, not only in the vegetable kingdom but in other creatures not known to man at the time of Muhammad, but discovered later on.

About Animal Kingdom

"God fashioned the two of a pair, the male and a female, from a small quantity of liquid, when it is poured out." (53:45-46)

In the above verses the reproduction of the animal kingdom is stated in a general but precise way. The word used in Arabic signifies sperm.

"There is no animal on earth, no bird, which flies on wings that (does not belong to) communities like you. We have not neglected anything in the Book (of decrees.) Then to their Lord they shall be gathered." (6:38)

The existence of true communities amongst animals, insects, etc., has been established only in the last few decades.

"Verily in your cattle, there is a lesson for you! We give you a pure milk to drink, excellent for its drinkers; (it comes) from what, inside their bodies, is between digested food and blood." (16:66)

The above verse describes in general but accurate terms the formation of milk from the product of digested food, which mixes with blood and is carried to the mammary glands that secrete it. Man did not know this at the time of prophet Muhammad. In fact, the discovery of the circulation of blood was made some ten centuries after the verse was revealed.

Human Reproduction.

Qur'an has made many references to various facts about human reproduction in precise and accurate terms. Professor Keith Moore, who has written a well-known book on embryology (study of human reproduction), has verified the accuracy of the Qur'anic statements. Scientific knowledge about human reproduction was incomplete until recent times. Use of the microscope was indispensable for the study of development of a fetus in the mother's womb. The sperm and the ovum (egg) are so small; they are invisible to the naked eye. The microscope was invented in the 17th century AD

"He makes you in the womb of your mother in stages, one after another, in three veils of darkness." (39:8)

The three veils of darkness or layers have been identified by biologists as (1) Abdominal wall, (2) Uterine wall, and (3) Amniochorionic membrane (a sac filled with fluid in which the fetus floats).

"Man We did create from a quintessence of clay, and then We placed as a drop of sperm, in a place of rest, firmly fixed. Then We made the sperm into a clot of congealed blood; then of that clot We made a leech-like lump. Then we made out of that lump bones and clothed the bones with flesh; then We developed out of it another creature. So blessed be God, the best to create." (40:13-14)

"Then out of a morsel (chewed up) of flesh, partly formed and partly unformed." (22:5)

According to Professor Keith Moore, the above is a surprisingly accurate description of human development in the uterus. The word "chewed up flesh" and "leech-like clot," precisely describe the appearance and characteristics of the developing embryo and of conception.

"And He made his progeny from a quintessence of the nature of a fluid despised." (32:8)

"Verily We created man from a drop of mingled sperm in order to try him, So, We give him (the gifts of) hearing and sight." (76:2)

The word 'despised' refers to the fact that semen comes out through the same route as does the urine. "Mingled fluid" refers to the various secretions that semen is made up of. Also, semen mixes with fluids in the female genital tract.

"That He did create in pairs, male and female, from a seed when lodged in its place." (53:45)

The above verse refers to the fact that sex is determined at the time of fertilization. This discovery was made only sixty years ago, when sex chromosomes were discovered.

Thus it is clear that the information in the Qur'an about human reproduction is of divine origin, and was beyond the knowledge of a human being at the time it was revealed.

The above is only a partial listing of verses of the Qura'an dealing with science.

The End

References: The Bible, the Qur'an and Science by Dr. Maurice Bucaille. American Trust Publications.