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CLASSIFIED THE VERSES OF THE QUR'AN BY  
SCIENTIFIC THEMES**

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**INDSET MONOGRAPH SERIES  
ON  
ISLAM AND QUR'AN**

**No :17**

**SELECTED QUR'ANIC VERSES:  
CLASSIFIED BY  
SCIENTIFIC THEMES**

**(A Multilingual Monograph : English, Arabic and Urdu)**

**Compiled and Edited by  
A Committee of Scientists and  
Experts in Islamic Studies**

**Indian School of Excellence Trust (INDSET)  
Hyderabad - INDIA**

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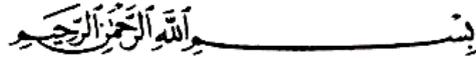
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# **SELECTED QUR'ANIC VERSES : CLASSIFIED BY SCIENTIFIC THEMES**

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## FOREWORD

It is a distressing fact that most of the Muslims lack proper understanding about the universal relevance of the Qur'anic Message which was revealed to Prophet Muhammad (SAWS) for the guidance of all mankind. There is considerable misapprehension too about Islam and the Message of the Qur'an in the minds of Non-Muslims. The **Indian School of Excellence Trust (INDSET)** is making an humble endeavour through a series of monographs on Islam and Qur'an to project the image of Islam in its proper perspective and to explain the significance of the Qur'anic Message in a scientific and systematic way. We hope that these monographs will excite and stimulate the interest of both the Muslim and Non Muslim intellectuals, to read the Qur'an and appreciate its true meaning and significance.

The Monograph entitled **Selected Qur'anic Verses: Classified by Scientific Themes** stresses the fact that the Holy Qur'an which is a book of guidance for all mankind contains some significant revelations on scientific aspects. They are stunningly precise and there is total convergence between Qur'anic revelations and scientific truths. It will be no exaggeration to claim that revelations on scientific aspects in the Holy Qur'an testify eloquently to its divine origin. Is it conceivable that in the early seventh century a prophet could talk of scientific theories and concepts which could be discovered and visualised only in the 19<sup>th</sup> and 20<sup>th</sup> centuries. This monograph is the result of combined effort of a dedicated group of distinguished scientists drawn from different

disciplines and eminent experts in Islamic Studies. We do hope that it will inspire scholars to probe deeply into the scientific truths revealed in the Holy Qur'an.

The text of this monograph is preceded by a brief introduction, which illustrates concisely and cogently the scientific interpretation of some of the verses of the Qur'an. Further, this monograph is multilingual. Besides English it caters to the needs of scholars in Arabic and Urdu as well. This we hope will help the intelligentsia in the Arab world and scholars in Urdu to comprehend fully the scientific significance of the verses of the Qur'an.

We conclude with a prayer to Allah (SWT) to graciously bless our efforts with success (*Aameen*).

وَأَخِرُ دَعْوَاهُمْ أَنِ الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ

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## **SELECTED QUR'ANIC VERSES: CLASSIFIED BY SCIENTIFIC THEMES**

### **INTRODUCTION**

Al-Qur'an, the divinely revealed book from Allah (SWT<sup>1</sup>) to Prophet Muhammad (SAWS<sup>2</sup>), is not a work of science but it inculcates forcefully the spirit of science. It impresses upon man to observe discerningly, analyse critically, weigh meticulously the facts observed, and reflect upon them for a proper understanding of the Supremacy of Allah (SWT), the Creator and Sustainer of the universe, and of the divine character of the Qur'anic revelations. The authenticity of the Qur'anic text is unquestionable. It was ensured by the fact that it was arranged and written during the lifetime of the Prophet (SAWS) and simultaneously committed to memory by hundreds of his companions. It was finally compiled on the lines determined by the Prophet (SAWS) immediately after his death by the first *Khalifah* (Caliph) of Islam, Abu Bakr (RA). It is this Qur'anic text, which the Muslims, the world over, have been using ever since.

Allah (SWT) also proclaimed that the Qur'an contained nothing but the truth:

*"We have sent down the Qur'an in truth and in truth has it descended."* (Al-Isra; 17:105)

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<sup>1</sup> SWT stands for 'Subhanuhu wo Ta'la', meaning 'Pure and Exalted).

<sup>2</sup> SAWS stands for 'Sallallahu 'Alaihi wo Sallam' meaning 'May blessings of Allah and peace be upon him.'

This applies with equal force to the Qur'anic revelations on scientific themes as well. This is abundantly substantiated by the recent scientific discoveries in the fields of Astronomy, Biology, Medical and Natural Sciences. The scientists are amazed to discover that the Qur'anic revelations made more than 1400 years ago on certain scientific themes are turning out to be scientifically established truths. The degree of concordance between Qur'anic revelations on science and corresponding scientific discoveries is increasing progressively with increasing advances in scientific knowledge and greater sophistication in scientific techniques. **Dr. Maurice Bucaille**, the author of 'the **Bible, Qur'an and Science**,' who was initially skeptical about Islam, was amazed at the highly accurate nature of certain details relating to the natural phenomena in the Book (Qur'an). He observes; **"It was in totally objective spirit, and without any preconceived ideas that I first examined the Qur'anic Revelation. I was looking for the degree of compatibility between the Qur'anic text and the data of modern science. I knew from translations that the Qur'an often made allusion to all sorts of natural phenomena, but I only had a summary knowledge. It was only when I examined the text very closely in Arabic that I kept a list of them, at the end of which I had to acknowledge the evidence in front of me: the Qur'an did not contain a single statement that was assailable from a modern scientific point of view"** (Dr. Maurice Bucaille (1981); **The Bible, The Qur'an and Science**, pp: 18-19). He reiterates this point in the following words **"...another crucial fact is that the Qur'an, while inviting us to cultivate science, itself contains many observations on**

**the natural phenomena and includes explanatory details which are seen to be in total agreement with modern scientific data. There is no equal to this in Judeo-Christian Revelation.”** (Maurice Bucaille: op.cit. p: 125)

Another distinguished scholar asserts that as regards scientific aspects revealed **“you cannot find a single error in the Qur'an and you have to ask yourself, if a man was the author of the Qur'an, how could he have written facts in the seventh century A.D. that today are shown to be in keeping with modern scientific knowledge?”** [Dr. Mansur Hassab EL Naby (1990): The Glorious Qur'an and Modern Science, p: 12]

One of the principal objects of this monograph is to lift the veil of prejudices from the mind of scholars particularly scientists and invite them to assess coolly, dispassionately and objectively the scientific message of the Qur'an. It is interesting to note that the Qur'an encourages observation, classification, and logical explanation of the observed phenomena correctly and cogently. It is only on the basis of observed facts that the Qur'an invites man to accept and proclaim the Supremacy of Allah (SWT). **We also invite the scholars to scrutinise critically the Qur'anic revelation on scientific themes, verify their correctness and rationality and satisfy themselves about their veracity. This is however not to suggest that the Qur'anic statements on scientific themes are to be treated as correct only when they are corroborated by scientific discoveries. On the contrary, in the event of a conflict between science and Qur'an, the latter would be treated valid because of the limitations**

**of human knowledge and scientific methods. Human knowledge is a continuously evolving process. It never reaches the stage of finality whereas the Qur'an reveals the ultimate truth and has the force of finality:**

*“...no change will thou find in Allah's way of dealing, no turning off will thou find in Allah's way of dealing.” (Faatir; 35:43)*

According to the authors of the **Scientific Indications in the Holy Qur'an (Islamic Foundation, Bangladesh, Dacca, 1990)** nearly “one eighth of the total number of verses in this Book is devoted to science and technology” (p: XI). These verses relate to a wide variety of scientific disciplines covering Astronomical Sciences, Earth Sciences, Biological and Medical Sciences and Natural Resources including horticultural, agricultural, mineral, land and water resources. In this monograph the Qur'anic Verses dealing with scientific aspects have been classified thematically and arranged by major disciplines and sub- disciplines. The four major scientific disciplines identified are Astronomical Sciences (AS), Earth Sciences (ES), Biological and Medical Sciences (BMS) and Natural Resources (NR) covering diverse aspects of natural environment. In addition, Qur'anic verses pertaining to Qiyamah (Annihilation) which, in scientific terms, represent the Collapse of the Universe have been clubbed with Astronomical Sciences.

Care has been taken to select those verses which are definitive, and their meanings are unambiguous and abundantly clear. The selected Qur'anic verses describe a

wide variety of scientific phenomena such as the movement of heavenly bodies, origin of life, human embryology, geomorphic features, weather conditions etc. with a remarkable degree of accuracy which is indeed amazing. In accordance with the criteria cited above over two hundred and fifty Qur'anic verses have been identified and are distributed under each major scientific theme as follows:-

1. Astronomical Sciences including  
*Qiyamah* (Annihilation) or collapse  
of the Universe (AS) : 100 Verses
2. Earth Sciences (ES) : 53 Verses
3. Biological and Medical Sciences : 54 Verses  
(BMS)
4. Natural Resources (NR) : 47 Verses

In this monograph the scientifically relevant Qur'anic verses, together with their translation in English and Urdu; have been presented with an Introduction explaining briefly the scientific truths revealed in some of the Qur'anic verses. This offers only a synoptic view of the Qur'anic verses with scientific significance and is intended to excite the interest of scholars to investigate further the scientific facts revealed in the Verses quoted in the monograph. We urge the discerning scholars to examine these verses critically, and objectively in order to understand and appreciate their scientific significance, and visualise for themselves the degree of concordance between the Qur'anic revelations and scientific findings. **It may however be pointed out that separate monographs**

have been planned for each of the major themes viz. Astronomical Sciences, Earth Sciences, Biological and Medical Sciences and Natural Resources. These separate monographs pertaining to specific scientific themes deal with the respective themes comprehensively. The relevant Qur'anic verses pertaining to a particular theme have been explained in the background of the latest scientific findings in that particular area.\*

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\* These separate monographs are :

1. Modern Technology, Resource Utilization and Qur'anic Approach -- Monograph No: 19
2. Astronomical Sciences and Qur'anic Revelations -- Monograph No: 20
3. Earth Sciences and Qur'anic Revelations -- Monograph No: 21
4. Biological Sciences and Qur'anic Revelations -- Monograph No: 22
5. Medical Sciences and Qur'anic Revelations -- Monograph No: 23

## ASTRONOMICAL SCIENCES (AS)

There are one hundred (100) Verses of the Qur'an which have been classified under Astronomical Sciences. They include the 19 Qur'anic verses which deal with *Qiyamah* (Annihilation) or Collapse of the universe. These selected Verses refer to the origin of the universe, different stages in the creation of the universe, alternation of nights and days, duration of celestial days, Easts and Wests, functional importance of nights and days, cosmic balance in universe, expanding and contracting universe etc. It is amazing to observe that a number of modern scientific discoveries pertaining to the field of astronomy were anticipated in the Qur'an as early as the early 7<sup>th</sup> century A.D. As for instance, the scientific postulation that the universe evolved out of a gaseous substance was revealed in the Qur'an more than 1400 years ago:

*"Moreover, He comprehended in His design the sky and it had been (as) smoke. He said to it and to the earth: come ye together, willingly or unwillingly." They said "we do come together in willing obedience." (Fussilaat or Ha-Meem; 41:11)*

The Quran also speaks of the cosmic balance (*Ar-Rahmaan*; 55:7-8) which ought not to be disturbed otherwise the universe will collapse. The scientists are now becoming increasingly aware of the cosmic laws and equation, and declare unequivocally that "these numbers have been so finely adjusted to make possible the development of life." (Stephen Hawking: A Brief History of Time p: 132) But for this fine tuning this universe

would have behaved differently and earth would not have been habitable for man.

The references in the Qur'an to the creation of the heavens and the earth in Six Ayyaam (days) (*Al-A'raaf*; 7:54) should be interpreted to imply stages in the evolution of the universe. The Qur'anic Ayyaam cannot be equated with calendar days since the word "*ayyaam*" has been used in the context of the creation of the universe when even the solar system had not evolved. This is also borne out by the fact that the duration of celestial days according to Qur'an may be equal to either 1,000 or 50,000 years. (*As-Sajdah*; 32:4-5 and 70:4)

The rotationary and revolutionary movements of the earth are implied in the Qur'anic references to the alternation of the days and nights, (*Al-e Imran*; 3:27; *Luqmaan*; 31:29 and 33; *Ya Seen*; 36:40; *Az-Zumar*; 39:5) and to Allah (SWT) as the "Lord of two Easts, and Lord of two Wests," (*Ar-Rahmaan*; 55:17) and of many Easts and many Wests, (*Al-Ma'arij*; 70:40). The alternation of nights and days and the concept of the multiplicity of Easts and Wests cannot be visualised without the sphericity of the earth, its rotation on its axis inclined by 23½ degrees, and the orbital movement of the earth round the sun.

The Qur'an categorically and unambiguously reveals that the universe has been created with a definite purpose and design:

*"Men who celebrate the praises of Allah, standing, sitting and lying down on their sides. And*

*contemplate the (wonders of) creation in the heavens and the earth, (with the thought)' Our Lord! Not for naught has Thou created (all) this!"* (Al-e-Imran; 3:191)

It further reveals that the movement of heavenly bodies is subject to certain laws:

*"Allah is He Who raised the heavens without any pillars that ye can see; then He established Himself on the throne (of Authority); He has subjected the sun and the moon (to His law). Each one runs (its course) for a term appointed. He doth regulate all affairs, explaining the signs in detail."* (Ar-Ra'd; 13:2)

Scientists have discovered some of them and admit that if these laws are violated there will be chaos in the universe. One of the most remarkable revelations in the Qur'an concerns the orbital movement of the sun. While astronomer Jan Oort of the Netherlands discovered this fact in 1927, the Qur'an revealed it in the 7<sup>th</sup> century:

*"And the sun runs its course for a period determined for it, that is the decree of (Him) the Exalted in might, the All knowing. And the moon We have measured for it mansion (to traverse) till it returns like the old (and withered) lower part of a date stalk. It is not permitted the sun to catch up the moon, nor can the night outstrip the day. Each (just) swims along (its own) orbit (according to law)."* (Yaaseen; 36:38)

The scientists assume that because of gravitational forces the universe is either expanding or contracting. The big Bang Model of the origin of the universe assumes that

“there must have been a state of infinite density in the past” hence the universe originated with a “Big Bang” (Stephen Hawking p: 183). This Model also assumes a consistently expanding universe which is endorsed by a Qur'anic verse:

*“And it is We Who have built the universe with (our creative) power and verily it is We Who are steadily expanding.”* (Az-Zaryaat; 51:47)

The scientists also postulate that with the passage of time the expansion of the universe may be replaced by contraction “creating another state of infinite density which may lead to the re-collapse of the universe with a bang called the Big Crunch” (Stephen Hawking op.cit. p: 183). This is also clearly stated in the Qur'an. The Verse 104 in *Surah Al-Anbiya* points out that the universe will be squeezed into a scroll, meaning thereby the eventual collapse of the universe through contraction with a firm commitment that Allah (SWT) will recreate the universe after annihilation *“The Day that We roll up the heaven like a scroll, rolled up for book (completed) even as We produced the first creation so shall We produce a new one, a promise We have undertaken. Truly shall We fulfil it.”* (Al-Anbiya; 21:104) Stephen Hawking points out that this will result in the breakdown of the system of the universe "when all the laws would have been broken down". The phenomenon of *Qiyamah* (Annihilation) or Collapse of the Universe suggests precisely this breakdown of the laws of the universe as highlighted in the selected 19 Qur'anic verses revealing the *Qiyamah* scenario vividly:

*"Then when one blast is sounded on the trumpet and the earth is moved, and its mountains and they are crushed to powder at one stroke. On that day shall the (Great) Event come to pass. And the sky will be rent asunder for it will that day be flimsy." (Al-Haaqqah; 69:13-16)*

It may be noted that the Earth will terminate with a 'blast' at the Crunch. The breakdown of the system of the universe is strikingly brought out by the following Qur'anic verse as well:

*"When the sun (with its spacious light) is folded up, when the stars fall losing their lustre; when the mountains vanish (like a mirage); when the she camels ten months with young are left unattended; when the wild beasts are herded together (in human habitations); when the oceans boil over with a swell." (Al-Takweer; 81:1-6)*

Centuries ago Allah (SWT) had unravelled in the Qur'an the mystery of the creation of the universe in *Surah Al-Falaq* (113) verses 1 and 2, but we could not comprehend its significance because of our inadequate knowledge. Allah (SWT) commands in this *Surah* "Say! I seek refuge from the Lord of dawn (*Falaq*), from the evil of all that He has created." (113:1-2) The Arabic word *Falaq* carries diverse meanings but the two most common are "dawn" or "day break" and *Khalaq* creation by splitting or tearing apart. A majority of the translators of the Qur'anic verses, commentators and exegetists of the Qur'an have taken the Arabic word *Falaq* to signify "dawn" or "day break" as indicated above. However

scholars of the eminence of Syed Qutb, Abul Ala Maududi and Amin Ahsan Islahi have interpreted the word *Falaq* denoting both “dawn” and in its wider meaning implying “creation”. Amin Ahsan Islahi stresses further that “it would be more appropriate if this verse is interpreted in its wider meaning.” (Tadabbur Al-Qur'an - Vol. VIII, Commentary on *Surah Al-Falaq*- Also see *Fi Dhilalil Qur'an* by Syed Qutb, Urdu Translation by Syed Hamid Ali (1989), Hindustan Publications, Delhi, pp: 469-472) This view point is strongly supported by Haluk Nurbaki, a distinguished Turkish scholar.

Nurbaki in his book **Verses From The Holy Kur'an And The Facts of Science** (1992-Indus Publishing House, Karachi) forcefully argues that: “Etymologically, the word *Falaq* bears many meanings. The basic meaning of the word however, is ‘a sudden splitting and a violent explosion’. It is derived from the root *Falaq*. According to another definition it bears the sense ‘exploded’.” Hence disagreeing with the majority view Nurbaki concludes that “the fact of the matter is that the word *Falaq* means the result, or entities arising from a sudden and violent explosion. The other senses of the word are secondary meanings assigned by analogy. The reason for these designations has been the insufficiency for 14 centuries of our knowledge of physics and astrophysics.” (pp: 309-310) In the light of this etymological clarification and scientific explanation, the verse will mean “*Say! I seek refuge with the Lord Who created the universe with primordial explosion.*” This meaning harmonises perfectly with the next verse which means that “*seek refuge from the evil of all created things.*” It is only after creation following

primordial explosion that we can seek refuge of Allah (SWT) from evil things created. This intrinsic linkage between verses 1 and 2 of *Surah Al-Falaq* is missed if the word *Falaq* is interpreted as “**day break**” or “**dawn**”. In view of the explanation offered above, the translation of verses these two may be rephrased as follows:

*“Say! I take refuge with the Lord who created the universe with primordial explosion and from the evil of all created things.”* (Al-Falaq; 113:1-2)

Allah (SWT) is the Creator of the Universe and fully controls its operational system. He alone therefore can repair any damage that is caused to the system. Allah (SWT) therefore, in a number of Qur'anic verses challenges Man to rectify the faults and alter the system. No amount of human intelligence, ingenuity, skill and vision can revolve or rotate the earth if it stops doing so. Human endeavour and knowledge cannot generate planetary wind system if it ceases to operate. It is beyond the creative intelligence and innovative skill of man to rectify any defect that sets into the system of the universe. None but Allah (SWT) can repair the damage which is categorically asserted in the Quran:

*“It is Allah who sustains the heavens and the earth, lest they cease (to function): and if they should fail there is none-not one-can sustain them thereafter. Verily He is most forbearing, oft forgiving.”* (Faatir; 35:41)

In an interesting conversation between King Nimrod and Prophet Ibrahim (Abraham) (AS) the former

claimed that he, like God, could also cause people to live and die. Then Ibrahim (AS) challenged him to make the sun rise from the West which under the command of Allah (SWT) rises from the East. Nimrod was totally nonplussed (Al-Baqarah; 2:258).

## **EARTH SCIENCES (ES): GEOLOGY, GEOPHYSICS, GEOGRAPHY AND METEOROLOGY**

One is amazed at the scientific preciseness with which some of the geomorphic features and meteorological phenomena have been described in the Qur'an. There are nearly 53 Verses which refer to a wide variety of natural phenomena including earth as habitat of man, rain, cloud, winds, mountains, rivers, springs, fresh and saline water and many others. These are observable phenomena and can be verified and ascertained. A critical analysis of the Qur'anic revelations and their comparison with the scientific description of these natural features reveal a significant degree of concordance between the two. **A detailed analysis of the Qur'anic verses dealing with the Earth Sciences is presented in Monograph 21.** This brief note presents only a synoptic view, in order to excite the curiosity of the reader to probe deeper into the Qur'anic revelations relating to Earth Sciences.

The meteorological observations and the Qur'anic revelations point out a high degree of correlation between air currents and cloud formation. The Qur'an reveals that air currents assist the formation of clouds. The scientists fully agree with this. The Qur'anic revelations and the scientists further point out that the quality and character of clouds are determined by the nature and character of air currents:

*“Seest thou not that Allah makes the clouds move gently, and then joins them together, then makes them*

*into heap? Then will thou see rain issue forth from their midst and he sends down from the sky mountain masses (of clouds) wherein is hail: He strikes therewith whom He pleases, and He turns it away from whom He pleases. The vivid flash of His lightning well nigh blinds the sight.”* (An-Noor; 24:43)

This air current-cloud relationship is re-stressed:

*“In the change of winds and the clouds which they trail like their slaves between the sky and the earth (here) indeed are signs for a people that are wise.”* (Al-Baqarah; 2:164).

The Qur'an identifies rain bearing clouds as “mountain mass” in structure, the World Meteorological Organisation agrees with this description. The Qur'an proclaims and the meteorologists agree that large sized rain drops fragment into smaller drops before they commence to pour down:

*“It is Allah Who sends the winds and they raise the clouds then does He spread them in the sky as He wills and break them into fragments until Thou seest raindrops issue from the midst thereof. Then when He has made them reach such of His servants as He wills, behold they do rejoice.”* (Al-Rum; 30:48)

Verses in the Qur'an identify a wide variety of winds such as local, seasonal, cyclonic etc. They provide a most vivid account of the disastrous effects of stormy winds such as tornadoes which is in total conformity with modern accounts of the damage caused by the tornadoes in USA or elsewhere.

*"The 'Ad (people) too rejected (truth), then how terrible was my penalty and my warning? For We sent against them a furious wind, on a day of violent disaster, plucking out men as if they were roots of palm-trees torn up (from the ground)." (Al-Qamar; 54:18-20)*

Land and water are absolutely essential for the development of human civilization. The earth has been so well spread out by Allah (SWT), its centrifugal and centripetal forces are so finely balanced that it serves as an excellent habitat for man and for the organisation of all human activities:

*"And We have spread out the (spacious) earth how excellently We do spread out," (Al-Dhaariyaat; 51:48);*

*"It is He who has made the earth manage-able for you so traverse ye through its tracts and enjoy of the sustenance which He furnishes but unto Him is the Resurrection." (Al-Mulk; 67:15)*

The effects of sphericity and of rotation and revolution of Earth are not felt by man and they do not at all hamper human economic activities.

The role of mountains in maintaining the equilibrium of the earth is pronounced both in the Qur'anic revelations and scientific discoveries:

*"And the earth We have spread out set thereon stabilizers (in the form of mountains) firm and immovable. And produced therein all kinds of things in due balance." (Al-Hijr; 15:19); or*

*“Who has made the earth a stable abode, made rivers in its midst, set thereon (stabilizer) mountains and made a separating bar (barrier) between the two bodies of flowing water? (Can there be another) god besides Allah? Nay most of them know not.” (An-Naml; 27:61)*

The mountains have been called “Pegs” in the Qur’an, which according to experts in geology is scientifically more expressive of the stabilizing role of mountains than the word “root” which is used by scientists. The principle of isostasy was discovered by the geologists in the early 20th century, centuries after its revelation in the Qur'an.

The differences in salinity, density, temperature and gravity prevent large scale intermixing of saline sea water with the fresh and sweet river water. This process is also assisted by the constant upwelling of the seawater from the bottom to replace its cold and sinking surface water. This maintains a stable sea level, which is disturbed only during tides and cyclonic weather conditions. These factors lead to the formation of a well defined zone of transition at the mouth of the river adjoining the coastline. This transition zone which separates the sweet from the saline water and hence constitutes a natural barrier between the two. They thus manage to retain their identity and distinguishing characteristics as revealed in the Qur'an:

*“And He it is Who has given freedom of movement to the two great bodies of water-the one sweet and thirst allaying and the other salty and bitter and yet has*

*wrought between them a barrier and a forbidding  
ban."* (Al-Furqan; 25:53)

## **BIOLOGICAL AND MEDICAL SCIENCES (BMS)**

Fifty-four definitive Qur'anic verses have been identified under Biological and Medical Sciences. They cover such diverse themes as creation of all living beings, creation of man, creation of animate and inanimate objects in pairs and varied aspects of human embryology. The Qur'anic revelations in this field, as in Astronomical and Earth Sciences, have invariably anticipated scientific discoveries.

The scientists find stunningly correct the Qur'anic revelation that all terrestrial living beings have been created from water "*made from water every living thing*" (Al-Anbiya; 21:03). The Qur'an endorses the scientific view that man has been created from clay, a highly refined or "quintessence" of clay:

*"Man We did create from a quintessence (of clay)."* (Al-Mominun; 23:12)

The Qur'an does not support the hypothesis of the evolution of man, nor the simultaneous evolution of man in different geographical areas. It stresses on the unity of mankind since the multitude of mankind has been created from a single pair:

*"O mankind! reverence your guardian Lord, Who created you from a single person, created, of like nature, his mate, and from them twain scattered (like seeds) countless men and women."* (An-Nisa; 4:1)

**The theory of Evolution of Man vis a vis the Qur'anic revelations has been discussed in depth in Monograph 22 - Biological Sciences and Qur'anic revelation.**

What distinguishes man from the rest of living beings is that he is imbued with the spirit of Allah (SWT) gifted with the faculties of hearing, sight, feeling and understanding:

*“But He fashioned him in due proportion, and breathed into him something of His spirit. And He gave you (the faculties of) hearing and sight and feeling (and understanding): little thanks do ye give!”*  
(Al-Sajdah; 32:9)

The Quran however does not reject the concept of evolution *per se*. It does point out that human beings evolve through stages of development. We must pass through the cycle of life from weakness-strength-weakness (*Al-Inshiqaaq*; 84:19 and *Al-Lail*; 92:4).

In the early 7<sup>th</sup> century the Qur'an revealed sex differentiation in plants, the scientists discovered it only in the 19<sup>th</sup> century. However the most revolutionary and startling scientific revelation in the field of biological and physical sciences was that both animate and inanimate objects in nature have been created in pairs i.e. every particle has an antiparticle:

*“Glory to Allah, Who created in pairs all things that the earth produces as well as their own (human) kind*

*and (other) things of which they have no knowledge."*  
(Yaaseen; 36:36)

This has now been well established by the Dirac theory of electron which conceptualised that every matter should have an anti-matter.

One of the most startling revelations in the Qur'an in the field of medical sciences pertains to human embryology. When embryology was steeped in the Aristotelian concept of pre-formation of human embryo from the menstrual blood and when the scientists believed that male semen had no active role to play in its development the Qur'anic verses made the startling but scientifically correct revelation that both male spermatozoa and female ovum were necessary for fertilization. Initially medical profession paid no attention to this revolutionary idea. The Qur'anic truth has ultimately prevailed. Based on scientific observations it was finally established by 1859 that both sperms and ova are essential for fertilization. The Qur'an used the words *Nutfah Amshaj* or "*a drop of mingled sperms.*" (Al-Dahr; 76:2) to explain this fact.

The Qur'an very clearly describes the various stages in the development of the human embryo viz. implantation of the blastocyst (*Alaq*) in the uterus, somite formation (*Modgha*), and the fetus stage when the child cultivates the faculties of hearing, sight, feeling and understanding. Based on the Qur'anic revelations three distinct stages in the development of human embryo have

been identified by Dr. Keith Moore and Dr. Abdul Majeed Az-Zindani:

**1. Drop Stage:** *Surah Al-Insan* or *Al Dahr*: 76:2

*"Verily We created man from a drop of mingled sperms in order to try him. So We gave him the gifts of hearing and sight".*

**2. Shaping Stage:** *Surah Al-Mominun*: 23:12-14

*"Man We did create from a quintessence of mud, thereafter We placed him as a drop of liquid sperm in a firm lodging (Nutfah) into something that clings (Alaq) which We fashioned into chewed like lump (Modgha). The chewed like lump is fashioned into bones which are then covered with flesh".*

(Translation of Qur'anic Verses as quoted in Albar: Human Development p: 71-73).

**3. Growth Stage:** *Surah Al-Mominun*: 23: 14

*"Then We cause him to grow and come into being and attain definitive (human) form."*

(see: Moore, Keith & Az-Zindani Abdul Majeed (1982): The developing Human with Islamic Additions, pp: 446f-446g).

Another astounding revelation on human embryology was that the child in the mother's womb is lodged in three veils:

*"He makes you in the womb of your mother in stages one after another in three veils of darkness, such is your Lord and Cherisher." (Zumar; 39:6)*

In medical terms these have been identified as (1) the maternal anterior abdominal wall, (2) the uterine wall, and (3) the amino-chronic membrane.

### **Natural Resources:**

The Qur'an very clearly asks man "to study every aspect of the material resources of the universe and unveil and disclose all its secrets and mysteries and to exploit and use them in their service": [Afzalur Rahman (1981): Qur'anic Sciences, p: 15] This is distinctly borne out by the forty seven definitive Qur'anic verses which describe with scientific precision a wide variety of resources such as land, water, food crops, fruits, mineral, forest, animal and oceanic resources. These resources have been gifted to human beings to enable them to lead a good life. While all resources are of great significance the Qur'an stresses specially, land and water. According to the Qur'an the earth is not only a resting place or habitat of man but it produces sources of sustenance for human civilization "in due balance" i.e. adequate quantity (*Al-Hijr*; 15:19) and of very good quality (*Ghafir*; 40:64). Water is one of the most vital resources essential for the growth of food and commercial crops, fruits, pastures and forests.

The Qur'an proclaims man to be the inheritor of the earth and of its resources:

*"It is He Who hath made you (His) agents, inheritors of the earth. He hath raised in ranks, some above others: that He may try you in the gifts He hath given you."* (Al-An'am; 6:165)

The resources of the land, oceans and space are the bounties of Allah (SWT) for the benefit of mankind. They should be fully exploited for the comfort and convenience of man. These natural resources, concealed and exposed, are placed under the total control of man so that he can derive maximum benefit:

*“Do you not see that Allah has subjected to your (use) all things in the heavens and on earth, and has made his bounties flow to you in exceeding measure (both seen and unseen?”* (Luqmaan; 31:20)

They are meant to benefit all mankind:

*“Of the bounties of thy Lord We bestow freely on all these as well as those. The bounties of thy Lord are not closed (to anyone). See how We have bestowed more on some than others; but verily the hereafter is more in rank and gradation and more in excellence.”* (Al-Isra; 17:20-21)

These resources are of excellent quality, and in sufficient quantity to meet human needs in perpetuity provided they are utilised judiciously and frugally. They ought not to be over exploited and used wastefully for Allah (SWT) dislikes wasteful use of resources:

*“But waste not by excess: for Allah loveth not the wasters.”* (Al An'aam; 6:141)

Each of the resources which Allah (SWT) has gifted to mankind is endowed with multiple benefits (An-Nahl; 16:80-81; Ya-Seen; 36:71-73) which may however be

concealed. As for instance some of the animals are used to transport men and their goods, some are used for milk and meat, and from the skins of animals lot of useful things can be made for the comfort and convenience of human beings (Al Nahl; 16:80-81). A fascinating revelation in the Qur'an is that mankind will be gifted with new modes of transport in future of which it will have no Knowledge:

*"And (He has created) horses, mules and donkeys for you, to ride and use for show; and he has created (other) things (modes of transport) of which you have no knowledge."* (Al Nahl; 16:8)

The Holy Qur'an highlights the medicinal potential of honey and its various other benefits (*Surah Al Nahl*; 16:68-69). This has been proved beyond doubt. The Russian soldiers used honey as anti-septic during the Second World War.

One of the most striking revelations in the Qur'an is the creation of fire (energy resource) in the green plants:

*"The same Who produces for you fire out of the green tree when behold! you kindle therewith your own fires!"* (Yaaseen; 36:80)

This obviously refers to the process of photosynthesis which uses up water and carbon dioxide and generates oxygen. This supports combustion and fire (**Oxford English Reference Dictionary-New-1995, Oxford University Press, Oxford p: 1093**). The same phenomenon has been explained in an article published recently in an Indian daily newspaper, in the following words: "Solar cells simply grow on trees where photosynthesis in leaves

turns sunlight into chemical energy that powers almost every natural eco-system" (**Sun Traps by Philip Ball, New Scientist: Reproduced in the Hindu-Science and Technology Supplement, 11-2-1999**). There must be many more such subtle hints in the Qur'an on other scientific aspects as well which we are not able to decipher presently because of our inadequate and limited knowledge.

The Holy Qur'an persistently exhorts man to look out for the hidden benefits of the resources gifted to mankind by Allah (SWT). Hence we should thoroughly investigate into the vast potentials of the existing resources on land, out in the sea, and up in the air or in space. The Qur'an points out categorically that land, sea and space resources are fully subjected to the control and use of human beings. In the light of this Qur'anic revelation man should endeavour ceaselessly to advance his knowledge and skill and invent new technology in order to utilize the full potentials of the abundant resources endowed by nature. The Qur'an however insists that knowledge and technology ought to be applied to optimise resource utilization and not waste them.

Man is, however, greedy by nature, tends to over exploit the natural resources in order to maximise his material profits. This has led to disastrous consequences. Man has been warned a number of times in the Holy Qur'an by Allah (SWT) to avoid wasteful utilization of resources. Despite this warning man persists with his wasteful utilization of resources and practically exhausts them. However, according to the Holy Qur'an, the resources of the universe are inexhaustible. Because of the

exploitative tendency of man this knowledge has been deliberately withheld from human beings. Allah (SWT) alone is knowledgeable of these inexhaustible resources and makes them progressively known to human beings in phases and stages, according to their need:

*“And there is not a thing but its (sources and treasures (inexhaustible) are with Us; but We only send down thereof in due and ascertainable measures.”*  
(Al-Hijr; 15:21) This strategy has been divinely designed to ensure the survival of human civilization till the Doomsday.

## CONCLUSION

This brief introduction attempts to demonstrate in brief the significant degree of positive correlation of some select Qur'anic verses with corresponding scientific facts. This is only illustrative of the scientific miracles concealed in the Qur'an. The two hundred and fifty four definitive Qur'anic verses included in this monograph do represent a wide range of scientific themes covered in the Qur'an. They are however not exhaustive. We do hope that some inspired and discerning scholars will not only examine the scientific significance of the Verses included in this monograph but will also identify many more definitive Verses of the Qur'an of great scientific significance. They will probe deeper to enlighten us about the scientific miracles in the Qur'an and will thus present a complete and comprehensive picture of the scientifically significant Qur'anic verses, in the background of the latest scientific researches and discoveries. We also hope that scholars will study this monograph objectively and will *Insha-Allah* support the observation of Maurice Bucaille that "the Qur'an while inviting us to cultivate science itself contains many observations on the natural phenomena and includes explanatory details which are seen to be in total agreement with modern scientific data."

## NOTE

**English Translations of the verses from the Holy Qur'an are mainly from:**

1. Asad, Muhammad (1980) : The Message of the Qur'an, Dar al-Andulus Limited, Gibraltar.
2. Yusuf Ali, Abdullah (1989) : The Holy Qur'an; Text, Translation and Commentary, (New Revised Edition) Amana Corporation, Brentwood Maryland, USA.

**Pertaining to certain specific themes English Translations as given in the following books have been used:**

### Themes

### Books

1. Human Embryology : Human Development As Revealed in the Holy Qur'an and Hadith by Dr. Ali Albar (Bibliography No:3)  
: The Developing Human with Islamic Additions by Dr. Keith

Moore and Mr. Majeed Az-  
zindani (Bibliography No: 9)

2. Mountain Building : The Geological Concept of  
Mountains In the Qur'an by El-  
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