The background of the cover features a person in a blue jacket and dark pants walking up a wide, stone staircase. The staircase is set within a dark, cavernous environment with jagged rock formations. A bright, ethereal light source is visible at the top of the stairs, creating a dramatic silhouette and highlighting the texture of the stone. The overall mood is one of exploration and discovery.

In Search of Our Origins

**By
Jamshed Akhtar**

**How the Quran Can Help
In Scientific Research**

IN SEARCH OF OUR ORIGINS

How the Quran Can Help
In Scientific Research

Jamshed Akhtar

Scientists and Linguists

Interpreting the verses of Quran literally via epistemological study of the Arabic words, specific pointers are presented here as help in the ongoing scientific research, related to the origin of life and man.

Scientists however are not linguists and linguists are not scientists. Therefore, both the groups of experts, unsure of their knowledge of the other's field, tend to shy away from the assesment of such a research.

To counter this difficulty we requested some linguistic experts first, to check and affirm that the meanings quoted are from standard sources and all word translations have followed the standard Arabic rules of grammar, without being judgmental about the offered scientific correlations.

Dr Amr Mansour El Zawawy's, an expert in Arabic and English languages from Alexandria University of Egypt, responded to our request. Dr Zawawy teaches 'translation and grammar', essay & language drills, historical linguistics, syntax and morphology. His Linguistic Fields are Linguistic theories, Psycholinguistics and translation.

His comments are as follows - Mr. Akhtar's book is veritabily a truthful investigation of the scientific value of the Qur'an as a source of eternal interest. His thorough study of the different meanings of the words investigated and reliance on arguments of a linguistic nature rightly point to the significance of his effort. His ability to trace the denotations and his reference to Arabic resources of notable renown cannot be underrated. On the linguistic level, the book appears to be a legend, one that even Arab scholars, writing in their native language Arabic, need to emulate. This level of analysis opens up vistas of linguistic research that are direly required, especially with the ever-expanding body of scientific knowledge that ushers to the need for re-pondering the interrelations between the linguistic and scientific in the study and understanding of the Glorious Qur'an, the everlasting miracle of Islam.

Dr Mousa A Btoosh, another expert in Arabic and English, from Fahad Bin Sultan University, KSA also responded to our request. His Linguistic fields are Applied Linguistics, Computational Linguistics, General Linguistics, Linguistic Theories, Philosophy of Language, Phonology, Text/Corpus Linguistics, History of Linguistics, Forensic Linguistics etc.

His review of the book (available on the web) is thorough, detailed and deep, and his conclusive comments are - *'In Search of Our Origins ... is well-conceived, planned, and executed. This book is also easy to read and understand. It covers a wide variety of interrelated topics and expands the horizons of this field by focusing on the epistemological study of the relevant Quranic verses. The explanations throughout the book are clear and do not require the reader to have a certain level of religious background or linguistic knowledge.*

What people *believe* is written in the scripture and what exactly is *mentioned* in it -

How is it that hardly any major religion has looked at science and concluded, 'This is better than we thought! The universe is much bigger than our prophets said, grander, more subtle, more elegant'? Instead they say, No, no, no! My god is a little god, and I want him to stay that way'. *A religion old or new, that stressed the magnificence of the Universe as revealed by modern science might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths.*¹

(Dr Carl Sagan in '*Pale Blue Dot*' as quoted by Dr Richard Dawkins in '*The God Delusion*')

Clear misconceptions apparently exist regarding what people *believe* is written in the scripture and what exactly is *mentioned* in it. The quote above is a classic example of this misunderstanding as evident from actual revelations of Quran on this topic:

"Assuredly the creation of the heavens and the earth is greater than the creation of men: Yet most men understand not." [Al-Quran 40: 57]

What! Are ye the more difficult to create or the heaven? [Al-Quran 79:27]

Some points to note regarding these verses:

1. The revelations do not simply praise the sky or heaven in vague words, such as calling them good only. The verses actually *compare* the creation of 'universe' with the creation of 'men' *unambiguously*, telling us all that man's creation had involved *lesser complexity*.
2. In the seventh century, no creation could be considered higher in complexity than the Man himself as man was believed to have been created in the *Image of God, the Creator of Complexity Himself*. Therefore, the assertion was clearly against the popular religious belief and existing knowledge of the time.

1 Richard Dawkins, *The God Delusion*, (Transworld Publishers 2007) p – 33 (The italics in the quote are mine - JA).

TABLE OF CONTENTS

In Search of our Origins

Introduction	7	
The Mystery of revelations	9	
Can Modern Knowledge Help in the Debate?	10	
A Note on Extraterrestrial Communication, Research, and Acknowledgement Due to Others	11	

Part I	Quranic Revelations - Transmission or Inspiration	14
Part II	Birth of life from dust and its journey towards man	27
Part III	How, when and where modern humans were created	75
Part IV	Mystery of <i>Jinn</i> - Difficulties and researches on Energy based Intellects and Quran's Testimony	130
Part V	A Mechanism to verify the revealed information	143

'IN SEARCH OF OUR ORIGINS'

Introduction

Who are we and from where have we come? How did the universe, the earth, life and time itself begin? What came before it, and what lies beyond this universe? From time immemorial, these queries have fascinated scientists, philosophers and theologians alike. For some of us, the answers lie in metaphysical speculation, often based on our religious beliefs, while for others, they are derived from the scientific method involving investigation, observation and conjecture. Whatever the means, this eternal effort to satisfy our curiosity keeps the search for our 'origins' under intense discussion and debate. Astronomers, physicists, microbiologists, biochemists, genetic scientists, palaeontologists, paleoanthropologists, archaeologists and creationists of various hues are involved in this dialogue, but to date, no one seems to have perfect answers that can satisfy the rational majority.

Into this arena of views and counterviews, where diverse disciplines collide and coalesce, a plausible thread of information from an entirely different window is presented. By taking up research issues that have relevance for all, an attempt is hereby made to demonstrate how 'revealed knowledge' can help in these scientific investigations that are occurring globally. In this research work, numerous categories of hints and pointers regarding the origin of life and the birth of humans are presented from the Quran which *reveals* information about events that lie beyond the periphery of scientific vision. These hints are extracted from the original text, and the information presented can be easily checked through the commonly available Arabic dictionaries and encyclopaedias. How far these pointers can help in solving the problems and anomalies related to the scientific search can be assessed only by the relevant experts of various fields.

For the majority of scientists, the credibility of revealed knowledge is often suspect and is based solely on one's faith. These venerable intellectuals do not believe that religious scriptures, either eastern or western, can possibly have such potential. Categorizing the scriptural contents as 'supernatural stories', they simply ignore this *window* of information and do not consider it worthwhile to investigate, assess or evaluate the benefit of their potential. This problem is further aggravated by the presence of a chaos-and-order design in the development of world, where chaos is at present ruling the realms under the sway of the Quran, which incidentally happens to be the *latest* scripture among the monotheistic religions. Western society, which is the primary torchbearer of science in the modern world, naturally accepts only the books of the Bible as the sole source of revealed knowledge, and refuses even to look at other scriptures as being of any value. On the other hand, generally those who have paramount belief in the non-human origin of the revealed knowledge in the Quran do not have the

enormous information base required to comprehend the complexities inherent in such a source of revealed knowledge. After the voluntary freeze in its dynamic interpretation brought about by the Islamic community around a thousand years ago, most of the knowledgeable ones - the *Ulema* of today - restrict the information content of the Quran to bare ritualistic practices and basic guiding principles or instructions for everyday social and economic activities. Any interpretation of the Quran that goes beyond the traditional one thus gets rejected by both the eastern and western worlds alike, amidst allegations of pseudo-science or statements like, 'Scriptures from the heavens do not need certificates from science', etc.

One very positive aspect arising out of the current worldwide confrontation among various faith communities is that apathy towards religion is vanishing. Most of us are baffled and confounded by the global clash among people following different religions. We want to find explanations and reasons, and to know more about the diversity and relevance of 'religion'. Almost everyone is interested in confirming whether God exists or not. The great religions that have primarily given us the concept of God *form* the core of civilizations, and this newly-awakened curiosity due to the clash of civilizations is driving humanity to study this *core* afresh.

Providentially, the present time is undisputedly crucial for giving serious thought to the study of a fresh and alternative source of information. Each decade is witnessing a further quickening of the already dizzying speed of our progress. Men have started tinkering with processes in which the interactions are still not fully known or anticipated. One wrong step, however small, in researches on nascent subjects like genetics, artificial intelligence or manipulation of weather machines, would leave very little margin of error for any rectification in the future. The development in knowledge has also reached a threshold where the boundaries between physics and metaphysics are dissolving. No query is now considered off-limits for scientific investigation. In such a scenario, if we discover an alternative source of information, which can open the cosmos for us and guide us in our endeavours to make this world a better place, it would definitely be a big HELP to humanity, apart from generating peace and amity in the diverse global communities.

The Mystery of Revelations

The revelations among monotheistic religions are traditionally defined as the knowledge revealed by God. The word used for inspiration in the Bible² is *theopneustos*, which means "God-breathed," implying that what was written had its origin in God Himself, though how this breathing was done has never been ascertained clearly. The Bible is a compilation of 66 books, written by more than 40 authors over a period of 1,500 years. How God had inspired the writers down the ages is not known. Was it akin to the inspiration felt by the authors of human literary masterpieces or was this experience similar to the occasional impulses³ of 'inspiration' admitted by several well-known scientists that helped propelled them forward in their researches?

By common consensus among Judeo-Christian scholars, revealed knowledge is assumed not to belong to either category. The biblical text is accepted more as a human record of God's activity in history than as a direct verbal revelation to the prophets. The role of the prophets is mainly understood as one of witnesses and interpreters of God's Will⁴ - "The Word of God in the words of men". These scholars believe that God had utilized the culture and conventions of his penmen's milieu to reveal His Guidance, a milieu that God controls in His sovereign providence.

With Islam, the religion of more than 1.6 billion people on the planet, the case is different. Prophet Muhammad is not only accepted as the witness and interpreter of God's Will, he is also acknowledged by Muslim scholars as the final recipient of a *direct verbal revelation* from God. This alleged transmission, the declaration of the Divine Will, is known as the Quran or simply as *Risala* - the Message. Muslims are very careful to keep the Prophet's sayings, his companions' comments, and Islamic history clearly distinct and separate from these alleged '*Words of God*'. In fact, the very word 'prophet' derived from prophecy is not popularly associated with Muhammad (PBUH). Most Muslims call him *Rasool-Allah* - 'Messenger of God' or *Nabi* - 'One who delivers a Tiding'.

It is this absolute belief in direct transmission of revelations that non-Muslim scholars find wholly unacceptable. They claim that transmission of an letter-by-letter 'message' to a 'human' from God is a virtual impossibility. Any idea, however lofty, when presented in a human language, needs to pass through the human lens, thus suffering distortion. At

2 *The Holy Bible*, Timothy 3:16, New International Version (International Bible Society, East Brunswick, New Jersey, USA). Unless indicated otherwise, all quotes of Bible are from this version.

3 Paul Davies, *The Mind of God*, (Penguin Books 1993), p- 145

4 Alan Richardson, *The Rise of Modern Biblical Scholarship and Recent Discussion of the Authority of the Bible*. Ed. S.L.Greenslade, The Cambridge History of the Bible, Vol- 2, Cambridge University Press 1963.

the most, such a set of writings can be called inspired literature, but nothing more.

The debate thus goes on. Muslims believe that the Quran or *Al-Risala* (The Message) is the ultimate source of revealed knowledge for the guidance of man, while non-Muslims collectively believe that it is just an assemblage of addresses by a man of the desert from a bygone era. They also assert that these addresses have now become outdated and unsuitable for a world that has advanced by one-and-a-half millennia of age.

Can modern knowledge help in the debate?

Were the revelations of the Quran a transmission from a non-human agency or simply the inspired words of an individual? Can modern science help us to resolve this issue? As a researcher of the phenomenon, I believe that the development of science in general, and physics in particular, has now reached a threshold where it can tilt this debate strongly towards one of the two, divergent opinions, if a panel of scientists, linguists, and science historians investigated the information presented here, collectively and impartially.

A Note on Extraterrestrial Communication, Research, and Acknowledgement Due to Others

Various scientists believe in the possibility of meeting extraterrestrial civilizations in some distant future and are interested in exploring ways in which a non-human intellect can communicate with humanity.

In 1974, Dr. Carl Sagan presented an interesting discussion on this topic in his book, *‘Communication with Extraterrestrial Intelligence’*⁵. Popularly known by its acronym CETI, this research is now part of the SETI (Search for Extraterrestrial Intelligence) project, and focuses on composing and deciphering messages that could theoretically be understood by another technological civilization.

In the CETI research, four areas are important: mathematical languages, pictorial systems, algorithmic communication systems and computational approaches to detecting and deciphering 'natural' language communication. The 1974 Arecibo message, composed by Frank Drake and Carl Sagan, was a well-known CETI experiment.

In 1985, Dr Sagan described a hypothetical scenario in one of his works of fiction,⁶ *Contact*, where the earth receives an alien transmission containing a message in digital format. The message that began as a series of prime numbers turns out to be, finally, *a book, more than forty thousand pages long*, containing detailed instructions for building a machine.

The alien transmission in the novel contains its own primer to decode the information, and a tutorial for understanding the alien language through pictures, movies, words and numbers. The pictures are used to identify the objects, while the movies explain the use of verbs, the tenses and conditionals.

For many people unfamiliar with these CETI researches, such an idea may seem a total fantasy, but the subject for Dr. Sagan’s novel had a sound scientific basis and was dealt with as rationally as possible.

In fact, the International Academy of Astronautics established (in 2005) a ‘SETI: Post-Detection Science and Technology Taskgroup’ under the chairmanship of Professor Paul Davies for such an eventuality.

The problem, however, of making sense of a future alien signal is real and basic. Any alien transmission received and determined to be SETI in nature will have to be decoded as soon as possible, a requirement which promises unforeseen technical challenges. Scientists believe that a combination of intellectual methods from information theory and cryptanalysis may perhaps decipher the format and the logic behind the symbols and help us build a lexicon of symbols from the transmitted message—*but nothing more*. These tools will not help us understand the actual meaning of the symbols.

5 Carl Sagan, *Communication with Extraterrestrial Intelligence* (MIT Press, 1973).

6 Carl Sagan, *Contact* (Simon & Schuster, First Edition, 1985).

Given this reality, the revelations under discussion in this research work, enjoy a fundamental advantage. Unlike the fictional transmission of Sagan, these have come to us in a language already existing on the planet, circumventing the need to teach the intricacy of an alien language to humanity.

This familiar language covers a large area of the world. It is spoken by hundreds of millions of native speakers, and functions as a liturgical language for about 1.6 billion Muslims throughout the Earth. Moreover, it has been preserved extremely well by early grammarians, and extensive material exists on the planet for a panel of linguists to identify the meanings of each word easily, accurately and objectively.

It is with respect to such efforts towards comprehension of a communication for the future that I want to thank and acknowledge at least twenty translators and commentators on the Quran, whose works have been consulted for this research.

These are Abdullah Yusuf Ali, Maulana Abdul Majid Daryabadi, Syed Abul Ala Maudoodi, Syed Iqbal Zaheer, A. J. Arberry, Muhammad Asad, Dr. Muhammad Taqi-ud-Din Al-Hilali, Dr. Muhammad Muhsin Khan, J.M. Rodwell, Rashad Khalifa, Muhammad Farooq-i-Azam Malik, Maulana Muhammad Ali, Muhammad Marmaduke Pickthal, Professor Hasan Qaribullah, Sheik Muhammad Sarwar, M. H. Shakir, George Sale and Dr Syed Abdul Latif.

Other translations and commentaries studied are that of ‘Free Minds’ from Progressive Muslims; QXP – ‘The Qur’an As It Explains Itself Project’ of Shabbir Ahmed & Liaquat Ali, as well as a translation of Saheeh International, and the literal one by Mohamed Ahmed and Samira.

To trace the meanings of words used in the Quran, I have consulted *Lughat-al Quran*, edited by Maulana Muhammad Abdul Rasheed Nomani, and another *Lughat-al Quran*, by Maulana Syed Abdul Daim Al-Jalali.

These meanings were further correlated with three other general dictionaries – *Al-Mawrid* by Dr. Rohi Baalbaki; *An Arabic-English Lexicon* by Edward William Lane; and *A Learner’s Arabic-English Lexicon* by F. Steingass. The images of the meanings of the words posted alongside the text are from Lane and Steingass.

For grammar, I have consulted a useful website, ‘Arabic Online’ by Hony Deek, apart from a work entitled *Comprehensive Arabic Grammar*, edited by Dr. S. K. Bahmani.

Incidents related to the Prophet’s life are quoted from *Sahi Bukhari* and *Uloomul Quran*, by Maulana Muhammad Taqi Usmani.

I would like to thank the creators of a useful website – ‘Islam Awakened,’⁷ that contains numerous translations of the Quran, listed side by

7 Inside Islam, “Home page,” <www.islamawakened.com/Quran/default.htm> accessed on 16 May 2010.

side. Another website, 'StudyQuran,'⁸ is also very useful. It has made several dictionaries available online. However, the most useful project is the Quranic Arabic Corpus⁹ by the Language Research Group of Leeds University, UK. This project presents the grammar, syntax and morphology of each word of the Quran, and is the brain child of Kais Dukes, an IT consultant in London.

I would like to thank Dr Sami Boudelaa, Associate Professor, Department of Linguistic, Al Ain, University, UAE, for sending his feedback to me on the origin of life part, when he was a senior researcher in the MRC Cognition and Brain Sciences Unit, Cambridge, UK.

Thanks are also due to Dr. Hasanuddin Ahmed, a senior scholar of the Quran and author of many books, for his hospitality and support for my work, and for giving me invaluable suggestions after patiently going through the manuscript.

Mr. Zaheer Siddiqui, president of FSC, Lucknow, and Dr Mohammad Nashat, an Arabic linguist from Lucknow, have also gone through the manuscript. May Allah reward them for their time and suggestions.

I also want to thank Dr. Zaki Kirmani, founder of MAAS (the Muslim Association for Advancement of Science) at Aligarh, for his co-operation.

Apart from the works on scriptures, I would also like to acknowledge the research of Dr. A. G. Cairn, which I have cited while tracing the meanings of the verses on the 'origin of life'.

The editors of BioScience Productions Inc., an organization promoting bioscience literacy, are especially praiseworthy for allowing me to freely cite an article by Donald Johanson, to help present the scientific view on the origin of man.

I also want to thank and acknowledge the work of William A. Dembski on Intelligent Design. I have applied his information theoretic approach in the context of revelations.

Several arguments on the Arabic language have been taken from the works of Brian Bishop and Andrew T. Freeman. My thanks to them.

Lastly, I want to thank Dr. Amr Mansour El Zawawy and Dr Mousa A Btoosh, two well known linguists, who assessed the manuscript critically, thoroughly and selflessly. Dr Mousa A Btoosh provided me an excellent review and Dr. Zawawy pointed out several typographical and other errors, and gave me suggestions on style. I have incorporated all of his suggestions in my manuscript.

Experts usually shy away from non-traditional work, to avoid controversy. That is why, I am especially thankful to all these linguists, who took up the review of my work and responded in a positive way.

8 Study Quran, "Home page," <[www.stmy work udyquran.co.uk/](http://www.stmyworkudyquran.co.uk/)>

9 The Quranic Arabic Corpus, "Home page," <<http://corpus.quran.com/>>

PART I

Transmission or Inspiration

A logical possibility	15
How to investigate the possibility?	18
1. Extreme pain in the transmission of revelations	18
2. A low-volume, high-frequency hum	19
3. Evidence of virtual mass during the phenomenon	19
4. How did the human frame support the extra weight?	20
5. Evidence of an operation	21
6. Evidence about a small protuberance	23
7. Absence of electromagnetic noise or interference	24
8. A note about evaluation of the records	24
How the revelations were recorded and preserved	25

Part I

Transmission or Inspiration

A logical possibility

Any possibility of information coming from outside the earth implies the existence of intelligence elsewhere in the universe. The most recent researches on the comparison of characteristics of our sun with other stars¹⁰, the general scientific discussions in this regard, and the popularity of media programs on space and aliens, all seem to suggest an all-round acceptance of the possibility of the existence of life and intelligence outside the earth. Apparently, those who believe in this existence and the possibility of future contact with extraterrestrials seem to outnumber those who believe that we are unique in the entire Cosmos. SETI¹¹ (Search for Extraterrestrial Intelligence) may not have been yet a success, but the general belief is that one day we will be able to encounter a stray radio transmission or some artefact that will announce to earth the presence of alien intelligence in the Cosmos. However, scientists are also convinced at the same time that the enormous distances between stars and the velocity of the light barrier, preclude the possibility of any meaningful two-way communication with other intelligences in the Cosmos. Receiving a signal thousands of years out of sync with our present is expected to have only a psycho-academic value for us.

Against this background, when a source of revealed knowledge is claimed to be an alternative 'window' of information, or an extraterrestrial transmission from the Creator of this universe, meant to guide humanity, the credibility of such an argument becomes logically suspect, especially in the eyes of those who nurse a centuries-old cultural bias against it. Such a transmission not only would require the presence of an Intellect in the Cosmos, but also hints at the existence of alternative paths in its fabric for communication in real time, circumventing the light-speed barrier.

The late Dr. Carl Sagan, the well-known scientist, had clearly argued against the possibility of an alien transmission hidden in one of the scriptures in his book, *Contact*. Moreover, he had also suggested a way to verify such a claim:

... 'But imagine that your kind of God - omnipotent, omniscient, compassionate - really wanted to leave a record for future generations, to make his existence unmistakable to, say, the remote descendants of Moses. It's easy, trivial. Just a few enigmatic phrases, and some fierce commandment that they be passed on unchanged ...'

10 Jose A. Robles and Charles H. Lineweaver, 'Is the Sun a Random Star?', (Proceedings of the 6th Australian Space Science Conference, 2006, Planetary Science Institute, Research School of Astronomy & Astrophysics, Research School of Earth Sciences, The Australian National University, Canberra ACT 0200 Australia).

11 SETI Institute, "Home page," 12 August 2009, <<http://www.seti.org/>>

Joss leaned forward almost imperceptibly. 'Such as..?'

'Such as "The sun is a star." Or "Mars is a rusty place with deserts and volcanoes, like Sinai." Or "A body in motion tends to remain in motion." Or - let's see now' - she quickly scribbled some numbers on a pad - "The Earth weighs a million million million million times as much as a child." Or - I recognize that both of you seem to have some trouble with special relativity, but it's confirmed every day routinely in particle accelerators and cosmic rays - how about "There are no privileged frames of reference"? Anything they couldn't possibly have known three thousand years ago.'...¹²

Unfortunately, while envisaging this scenario, Dr. Sagan did not take into account a crucial factor associated with this suggestion - the problem of the *allegiance factor* in humanity. The ground reality is that we are not ideal, rational beings as he thought. If we ever were to find such statements in an ancient text, our inherited beliefs and prejudices would fully resist a ready and easy acceptance of this information. It does not matter who we are. Jews, Christians, Muslims, Hindus, Buddhists or even atheists, all have different faiths, and behave among themselves in a similar manner, depending on their faith. For an atheist, the theory of evolution is an article of his faith. He would accept all explanations favouring it, irrespective of the presence of difficulties in it, and contemptuously ignore counter-arguments from members of other faiths, usually without investigation or rationale. Similarly, a Muslim would gladly and naively accept any argument that corroborates the authenticity of the Prophet's sayings, but if the arguments favour something which he has been taught to reject, then the barriers would be up. In fact, all faith groups have stringent parameters if the arguments favour someone else's faith, and easy ones for their own faith.

The scientific community should remember a very simple surmise. If a Supra Intellect chooses to reveal advanced information to humanity for its guidance (whatever the mechanism involved), it would not be sent to earth in the form of a tough research paper, addressed to a well-known scientific publication. The disclosures are expected to come logically through a technology-independent bio-receptor – a human channel, and at a suitable time, when it could be recorded. Moreover, the information is also expected to cover a broad range of guidance, outlining ethical and scientific guidance, couched in a language that would appeal *equally* to a nomad of the desert of a bygone era, or to a physicist of the new millennium. The language used in such a communication would have the potential to reveal, with a gradually increasing knowledge base, guidance for men who would be mentally prepared to understand and accept it. When such 'men of knowledge,' working in their own diverse fields, would be able to investigate this

12 Sagan, *CONTACT*, 166-167

information collectively and impartially, reflect on the data with patience, and extract the guidance by interpreting the information correctly, only then the transmission will succeed in fulfilling its mission of Guidance fully. Tragically, however, it is here that the negative perspective enters the scene. A hint pertaining to the Theory of Relativity in an ancient scripture, such as the ‘presence of relative time in universe’ or even a direct quote like ‘there are no privileged frames of reference’ as suggested by Dr Sagan, if found and presented as an advanced information, would in all probability be rejected by critics as being a pseudo-scientific effort or retrofitting of scientific meanings to some vague words in the scripture. Such critics may cite in their support ancient commentaries on the text, say of the eighth century, where commentators without access to Einstein’s revolutionary insight would have interpreted the ‘quote’ as an instruction for equality among humans or in the society. These critical scholars may also ignore the root meaning of words purposely, and select only those in the lexicon that have been added later due to evolution of the language in the intervening centuries, just to show that the text is saying something else. It is this negative perspective which always seems to play the most crucial role in all such exercises.

Anyone thus daring to present this hint as a demonstration for the non-human origin of the ancient text would most likely be mauled viciously by the critics, even though the statement may exist as part of a verse detailing the creation of the universe and its inherent purpose to guide humanity in its endeavours.

Therefore, does it mean that such a transmission, if it exists, is bound to remain forever unrecognized as coming from an extraterrestrial source?

This query is difficult to answer now.

Logically, an ‘Intellect’ that can send this Message should also be capable of producing conditions that would somehow draw it to the centerstage of the world’s attention. In fact, *such a thing is happening now*. It is the clash of civilizations scenario itself which is creating conditions that are making it difficult to ignore the enigma of revealed knowledge.

If humanity could only be provided sufficient reason to accept the possibility of information from outside the earth, the bias coming in the way of its acceptance could be neutralized. It could be countered through an investigation of the arguments and evidences by a panel of unbiased professional scientists, who could then work towards a collective exercise of verification and consensus. *In fact, a mechanism for such a collaborative effort has been proposed at the end of this work.*

How to investigate the possibility?

Logically, the present investigation should begin with an examination of several reports related to the actual phenomenon of *transmission of revelations*. These reports, which exist in ancient manuscripts, throw a unique light on the human lens debate, especially if studied against the backdrop of present knowledge.

1. Extreme pain in the transmission of revelations

Numerous reports exist that relate to the physical changes that invariably occurred in the Prophet's condition during the actual phenomenon of transmission. It is reported that he himself expressed having feelings of extreme distress, intense pain, a heightened sense of perception, and hearing a ringing sound¹³ during the phenomenon. His close companions reported that during these experiences, his head would suddenly droop, his face acquire a pallor, and drops of perspiration would appear, even during winters¹⁴. None of the reports however, mention either a loss of consciousness or a drift from reality.

For Muslim scholars, the 'pain' accompanying this process became an enigma that was hard to explain. The Quran rejects the notion of *unnecessary* suffering as being an essential requirement for spiritual development, although it *encourages* an all-out effort on the right path. No one thus could account for the reason why the Messenger had to suffer during this process. The pain, along with the perspiration and pallor, thus never became an issue of discussion in later years. The ringing sound, on the other hand, did invite some attempts at explanation. Some described it as the sound generated by the flapping of angels' wings, while others suggested that the description was an allegory for the voice of revelations that did not have a particular direction or interruption breaks¹⁵.

My own suggestion as a researcher is that the pain and the ringing sound which are invariably considered by Muslim scholars as independent factors, seem related to each other. The ringing in the ears is known medically as tinnitus. It has several causative factors. According to experts, "any blockage to the vascular system will cause the nerves along the auditory canal to malfunction, giving rise to abnormal sound signals in the ears which are subsequently transmitted to the brain. Uneven blood flow through the arteries is another cause for weird sounds in the ears."¹⁶ The uneven blood flow also results in ischemia, causing pain, discomfort, and other symptoms

13 Muhammad Muhsin Khan, *The Translation of the Meanings of Sahi Al-Bukhari*, vol. 1, *Hadeeth # 2*

14 Maulana Muhammad Taqi Usmani, *Uloomul Quran* (Naimia Book Depot., Deoband, UP, India), 35.

15 Ibid 33, 34.

16 Joey Logan, "Cure For Tinnitus - How Tumors Cause Tinnitus," EzineArticles.com Expert Author <<http://ezinearticles.com/?Cure-For-Tinnitus---How-Tumors-Cause-Tinnitus&id=4204006>> accessed on 3 May 2010.

like pallor, sweating and nausea, etcetera. The blood pressure and pulse could not have been measured in that era, but the rest of the symptoms mentioned - pallor, sweating, nausea and ringing in the ear, collectively suggest that something was causing a change in the blood flow, making the experience extremely distressful to the human channel. The Prophet's own assertion that "this mode of *wahi* (revelations) was very difficult for him" corroborates it. Moreover, these symptoms appeared *only during the phenomenon*, and not at any other time. Therefore, the explanation of tinnitus and all its allied symptoms had to have its origin outside of any physiological problems of the Prophet.

2. A low-volume, high-frequency hum

Another important evidence, which is mostly ignored by Muslim scholars, exists in the ancient manuscripts related to this phenomenon. This evidence is reported on the authority of Umar Bin Khattab, who later became the second Caliph. This highly credible report is about the existence of a "low-volume, high-frequencies hum" that could only be heard very close to the head of the Prophet during the actual phenomenon¹⁷. No one till date has offered any explanation for this sound, which has been described in the ancient records as resembling the "humming of bees." If this sound is considered as an objective tinnitus, its origin or cause will still remain mysterious, as it appeared only during the phenomenon. It should also be remembered that objective tinnitus is extremely rare and is linked with a vascular or neuromuscular condition within the head, neck, or brain. The sound reported in the Prophet's tradition (humming of bees) is also different from the 'whooshing' sound that results in such rare cases due to blockage or restriction in the arteries of the suggested areas.

3. Evidence of virtual mass during the phenomenon

The reports also mention another strange and mysterious factor associated with the revelations: a very obvious, but temporary, increase in the body weight of the human channel (Prophet Muhammad) during the phenomenon. It was so pronounced that it reportedly forced even his camel to sit down under the suddenly unbearable weight¹⁸.

It is obvious that with a reasonable passage of time, a man can acquire or shed mass, depending upon food and his habits, but a sudden substantial gain within a matter of few minutes, and then reversion to the same weight, is not possible, unless of course he leaves the earth and goes beyond the effects of its gravitational strength.

Einstein's Special theory of Relativity [1905]¹⁹ does allow a temporary or virtual increase in mass, if massive energy is involved in a phenomenon,

17 Taqi Usmani, 35

18 Ibid.

but relative movement between observer and the observed is a basic postulate of the theory, which is not present in this case.

So what could be the explanation?

The simple answer is that no one has any explanation for it. Any explanation forwarded at this point of time will only remain in the realm of speculation.

However, if a hint in a verse in the Quran is considered, it does seem to point towards the involvement of very high energy during the transmission of the revelations.

“Had We sent down this Quran on a mountain, Verily thou wouldst have seen it humble itself and cleave asunder for fear of Allah. *Such are the similitude, which We propound to men, that they may reflect*” (Surat Al-Hashr 59:21).²⁰

4. How did the human frame support the pressure of extra weight?

The enigma of the Prophet’s increase in weight during revelations raises some additional queries that Muslim scholars have not dealt with. Several reports tell us that if the Prophet happened to be riding a camel during the onset of the phenomenon, the animal invariably was unable to remain standing, and sat down under the sudden increase in his weight. It is also reported on the authority of Zaid Bin Sabit²¹, a close companion, that once the phenomenon of revelations began while Prophet Muhammad (PBUH) had lain down for a short rest. It so happened that Zaid was supporting the Prophet’s head, propped on his thigh. Zaid says that suddenly he felt such an enormous crushing weight of the head that he thought he would never be able to walk again. Mercifully, for him, the period of the transmission lasted for only a short duration, as it usually did.

From such reports arises the logical query of how the Prophet’s body itself was able to support this sudden crushing pressure when he received revelations while in an upright position? No scholars down the ages have discussed questions such as, where exactly was the pressure concentrated? Was the weight or pressure distributed through his entire body or was his head or rather brain the specific target? In a normal human body, the neck muscles, slender vertebral column and the entire skeletal frame would all be tremendously affected if such a pressure were applied suddenly. So was the Prophet’s frame strengthened and reinforced in some mysterious way? Unfortunately, we cannot know the exact location of the pressure on his

20 All quotations of the verses are from Yusuf Ali’s work on Quran, (1934-37), *The Holy Quran: Translation and Commentary*, (The Islamic Computing Centre, London, UK), and *The Holy Quran, English Translation of the Meanings and Commentary*, (King Fahad Holy Quran Printing Complex, KSA). The commentary published from KSA utilizes Yusuf Ali work, with some modifications.

21 Taqi Usmani, 35

body, but as far as the vertebral support is concerned, there is another piece of evidence that is relevant to this mystery.

5. Evidence of an operation

It is the Quran itself which provides a pointer about this mystery in *Surat Al-Inshirah*. The word *Inshirah* means solace, consolation, and relief. *Yusuf Ali*'s translation of all the nine verses of this *surat* is as follows -

Have We not expanded thee thy breast?[*Al-Inshirah* 94:1]

And removed from thee thy burden? [*Al-Inshirah* 94:2]

The which did gall thy back? [*Al-Inshirah* 94:3]

And raised high the esteem (in which) thou (art held) [*Al-Inshirah* 94:4]

So, verily with every difficulty, there is relief: [*Al-Inshirah* 94:5]

Verily with every difficulty, there is relief. [*Al-Inshirah* 94:6]

Therefore when thou art free, still labor hard [*Al-Inshirah* 94:7]

And to thy Lord turn thy attention. [*Al-Inshirah* 94:8]

In the original Arabic of the first verse, *Alam nashrah laka sadraka*, two words have been used, شرح *sharh* and صدر *sadr*. The word *sharh* has been translated as “expanded” here, but it literally means to “open up.” The word, in fact, is regularly used for surgical operations. The second word, *sadr*, on the other hand, means a central part, popularly understood as the chest. In the second verse - *WawadaAAna AAanka wizraka*, translated as ‘And removed from thee thy burden’ - the word *wada* وضع means - to put down, abate or degrade, and وزر *wizr* means load, pressure or burden [Steingass]. Literally translated, the first two verses seem to point towards an act of surgical opening of the prophet’s chest for the purpose of reducing (not removing completely) a load or pressure on him. The third verse then tells us about the damaging effect of this pressure – “The which did gall thy back,” which in Arabic is *Allathee anqada thahraka*. The verb *naqad* نقض means to quash, abolish, counter; and *thahra* ظهرك represents “rear or backside along the spine” (Al-Mawrid). The combination of the words suggests that the pressure would have squashed the back. The fifth and sixth verses go on to repeat an identical message. The words “with every difficulty, there is relief” seem to suggest that after every episode, the difficulty would lessen progressively. “Repetition” in the Arabic language is used to increase the intensity of the communication. Aptly, the records also inform us that the phenomenon of revelations was extremely painful and difficult for the Prophet during the initial stages, but later on, it gradually became easier for him. A different evidence which corroborates this gradual easing of difficulty is indicated by the size of the revelations during each session. Initially, the revelations started with five verses, but later they went on increasing in size with each passing session. Barring a few exceptions, this was more or less a consistent pattern followed over a period of twenty-two years. All the smaller *Surat* placed at the end of the *Quran* are known to be early revelations, while larger components of *Surat Baqara*, *Al-Imran* and several others were revealed later.

With reference to this verse, some commentators²² on the Quran have suggested that by saying '*removed from thee thy burden,*' God is referring to the load of problems or errors committed by the Prophet before assuming the mantle of prophethood. But these explanations seem inappropriate. Commentators do not cite any historical records about such errors in his pre-prophethood days; and this happens to be an early revelation when instead of being relieved, the problems seemingly had just started.

Interestingly, there are several traditions with slight variations in terms of the Prophet's age and wordings that describe what seems like an operation performed on him during his early childhood by two unknown beings. The oldest exegesis, *Tafsir al Quran al Azim* by Ibn Kathir (d.774 A.H.), contains an interesting narrative, quoted here in full.

Ubayy b. Ka'b says Abu Hurayrah was far more bold in asking questions of the Prophet than anyone else of us. One day he asked the Prophet (saws):

'What is it that you first noticed in your life as a sign of Prophethood?' The Prophet sat up and said, 'You have asked a question, Abu Hurayrah! Well, I was about ten years or so old, in the desert, when I heard someone talking above me. I looked up and saw two men, one saying to the other, 'Is this he?' They alighted in front of me. They were different from anyone I had seen before with clothes on that were entirely new to me. They walked up to me and each placed his hand upon one of my shoulders. I can almost feel the coolness of their touch, even now. One said to the other, 'Lay him down.' They laid me down without any effort. Then one of them said to the other, 'Open up his chest.' That was done without any blood and without any pain. He said, 'Remove deceit and jealousy.' The other removed something like a blood clot and threw it away. Then he said, 'Implant compassion and kindness.' The other brought out something of the same size (as what they had thrown away) but silver-like. Then he held my right toe in his hand and said, 'Return. Be as you were.' In a moment I was all right, running back - compassionate towards the young and kind towards the old"²³.

Two points are interesting in light of this evidence.

1. A mysterious involvement of 'two men in white' is also mentioned in the Book of Acts in association with an extremely important incident in the life of Jesus - his departure from the earth.

After he (Jesus) said this, he was taken up before their very eyes, and a cloud hid him from their sight.

22 Syed Iqbal Zaheer, *Tafsir Ishraq Al_Maani* (Iqra Welfare Trust, Bangalore, India. 1996), 157, juz 30.

23 Ibn Kathir, '*Tafsir al Quran al Azim*', by 'Imad al Din Abul Fida Fida Isma'il ibn Amr ibn Kathir (d. 774 A.H.), quoted by Zaheer, *Tafsir Ishraq Al_Maani*, juz 30, p-157.

They (disciples of Jesus) were looking intently up into the sky as he was going, when suddenly *two men dressed in white* stood beside them.

'Men of Galilee,' they said, 'why do you stand here looking into the sky? This same Jesus, who has been taken from you into heaven, will come back in the same way you have seen him go into heaven' [Acts 9, 10 11].²⁴

The dialogue quoted demonstrates that the "two men in white" were *not* ordinary passersby. They had information about Jesus, which even his companions *did not know*. The ancient records also do not mention anything about where they came from or where they went away after the event.

2. The same mystery exists in the Islamic records, also. The ancient records do not tell us anything extra about these beings in white who had an exceptionally cold touch. Nevertheless, the point which seems logical with reference to this operation, ostensibly by non-humans, is that anything introduced into the Prophet's body during his childhood for the reinforcement of his skeletal frame or muscles, and its growth gradually along with the body organs, was expected to have a good chance of acceptance and survival, and less likelihood of its being rejected by the body's defense mechanism.

Such a conjecture also finds corroborative support through a different evidence that appeared in his adult age.

6. Evidence about a small protuberance

There are a number of reports which exist in the tradition, about the appearance of a small swelling on the back of Muhammad during his adult years²⁵. The majority of these traditions cite its size as being like that of a pigeon's egg, located at a mid-point between the shoulders, close to the neck, while a single report compares it with the back of a fist located at the left shoulder blade. It is also reported that when its removal through a surgical operation was suggested to Muhammad (PBUH), he refused to have it done, citing its connection with revelations. In fact, his companions referred this bulge as the 'Seal of Prophethood.'

We can thus cite three significant factors in this regard - the existence of a *swelling* on his back; the Messenger's *refusal* to have it operated upon and removed; and a clear indication from him about a *relationship* between the swelling and the phenomenon of revelation. Since the bulge is reported to be almost at the top of the vertebral column, where the muscle and the fat layer between the skin and the bone are *thinnest*, it *could have been the visible part of some kind of internal reinforcement that may have extended downwards on his skeletal frame and helped support the extra weight*. It is

²⁴ The Holy Bible (Acts 9, 10, 11)

²⁵ Hadeeth # 2136/37/38/39/40/41, volume 2, *Sahi Muslim*, (Hamidia Press, Delhi)

the only explanation that connects the three factors with the childhood operation, and the mystery regarding how the sudden increase of pressure on the spine was absorbed by Muhammad (PBUH) in an upright position.

Incidentally, no accompanying explanations exist in the historical records about the “swelling” on his back or the Messenger’s refusal for its removal, or its link with the revelations. Moreover, *no scholar has speculated about this connection between the operation and the bulge to date.*

7. Absence of electromagnetic noise or interference

Two other factors, although speculative in nature and not part of ancient records, are also important in this context. Unlike in the present times, when our earth is enveloped in a sea of electro-magnetic activity, the Quranic revelations came at a time when it was an electrically silent planet. In the seventh century, the only possible sources of electromagnetic noise were the sun, stars and the bioactivity of the planet’s flora and fauna. Moreover, the revelations descended in a cup-shaped valley within a desert that had sparse life for thousands of miles around. During the night, specifically, even this activity would have reached a miniscule level. Significantly, some verses in the Quran [*Al-Muzzammil* 73:1-6] specifically instruct the Messenger to wake up in the night for a purpose related to the Message.

8. A note about evaluation of the records

Apart from conducting investigations into the age and credibility rating of these records, they should also be evaluated with reference to the logical possibility of their being fabricated. For example, what could be the reason for fabrication of a report associating intense “pain and difficulty” with revelations, complete with all the apparent symptoms, and then suggesting no explanation for it during the subsequent centuries? The report about a “high-frequency hum” emanating from the head of the Messenger, in records that are a thousand years older than the birth of electricity or any concept pertaining to energy transmission, would also be a curious piece of fabrication, if at all it is a fabrication. Likewise, the increase in the Prophet’s weight only during the time of revelations also contradicts the logic of fabrication. In a man’s psyche, the ‘up’ and ‘down’ directions are clearly identified with good and evil, and no follower in his right mind would fabricate a report where the Prophet, in the midst of a spiritual experience, is described as being *pulled downwards*. Logically, a fabricated report would more likely have mentioned him *floating upwards* during this experience, specifically since an angel was also supposed to be involved in the process of revelations. These records, together with mention of the involvement of high energy in the revelations [*Al-Hashr* 59:21] and about the preparation of the human Messenger for this transmission from the beginning [*Surat Al-Inshirah* 1-9], all demonstrate a consistent pattern that has never been discussed before. Moreover, these five sets have not been selected out of

hundreds of reports that fit the criteria; *these are the only reports in the records*, and in all such cases, a logical explanation for fabrication would have to be found relevant to the times, otherwise they should be considered as genuine, albeit unexplainable at the moment.

How the revelations were recorded and preserved

It had been Prophet Muhammad's practice that with the descent of each revelation, he not only directed his scribes to write it down immediately²⁶, but he also instructed them about its exact placement²⁷. He further made them memorize the revelations in that same, specific order. Then, each year in the month of *Ramadhan*, it was the duty of every follower to recite the entire Message which had till then been revealed *in that particular order*. Twenty-three years later, as the last component of the Message²⁸ was revealed, and the Messenger directed it to be put *inside the fourth verse of the fifth chapter*, the order also got completed, then and there.

From that last day till today, without a break, tens of millions of Muslims across the globe have recited the entire Message in that particular order, during the month of *Ramadhan*. This practice was later regularized in the form of the *Tarawih* prayer.

Six months after the Messenger's death, during the war of *Yamamah*, *Umar*, a close companion of the Messenger noted that the enemy was isolating and attacking only those men who were known reciters of the Message. This observation prompted *Umar* to counsel *Abu Bakr*, the Caliph at that time, to assemble the Message in written form so that any part of it would not get lost to the world. After an initial hesitation, *Abu Bakr* asked *Ali*, the Messenger's cousin, and his son-in-law, *Zayed*, who was his freed slave and close companion, to collect the Message. Both of them also hesitated initially but completed the task ultimately. Since the Messenger had not assembled the Message in book form during his own lifetime, they were not sure of the propriety of their action. But, as the entire Message was already complete and available in the memory of thousands of followers in a particular order, *Umar's* logic regarding its transcription prevailed.

To transcribe the Message from memory, a general call was given first to bring all individually transcribed pieces of revelation. Later, at the time of collection, every written revelation, whether on paper, leather, bones, stone tablets or palm stems shorn of leaves, was accepted only after two independent witnesses vouched for the genuineness of these articles. To include it in the Book, every single written revelation was again double-checked against the memorized version of the verses with the companions. These companions were the ones who had heard the verses directly from the

26 Taqi Usmani, 177-180

27 Ibid., 69

28 Ahmad Von Denffer, *Ulum Al-Quran – An Introduction to the Sciences of the Quran* (The Islamic Foundation, Leicester, UK) 1996. Ahmad has pointed out a controversy in the acceptance of this verse as the last verse, p 28.

Messenger and most of them had committed the entire Message to heart. The number of such persons had already reached several hundreds during the very lifetime of the Messenger.

Thus, the 'Book' was collected and compiled under the first Caliph, but official copies from this manuscript were made by the third Caliph. By this time, the influence of the Message had spread up to Syria, and it was feared that distortions in pronunciation, which had started cropping up in far-off lands, might result in changes to the original text. After the production of several copies of the Message, the third Caliph destroyed all unofficial copies and sent official copies to all-important religious centers, together with batches of reciters who could teach the correct way of reciting the Message. There were several reasons for the destruction of the unofficial copies. The verses had been revealed in segments. The community members circulated these written segments among themselves. Several men had made their own copies from these partial documents, making elementary spelling mistakes. The scribes, too, in some cases had noted their own comments on the margins of their personal copies. These mistakes and comments could have resulted in confusion in later years. The Message had been revealed in the language of the *Quraish tribe*. At that time, the whole tribe was there. It knew the nuances of the language. Several companions of the Messenger were also alive who had heard and learnt the Message directly from him. But nobody could have guaranteed a future free from controversy, if such notes and writings had been left among the community by the Caliph of the time.

The *Quran* is well known to be the most passionately and zealously protected, recited, and memorized text in the world. At present, two of the original copies of Caliph Uthman's are believed to be still present in the Museums of the world, along with several ancient copies²⁹ and millions of reciters.

From this fourteen-hundred-year-old text of the Quran, specific pointers are presented here. These pointers reveal a complex web of interlinked information, most of which was unknown in the seventh century. The information given pertains to the origin of life and man, and provides answers for various queries related to - how life arose on the planet, its link with man, and when, where and how the first man appeared on the earth. The possible presence and co-existence of a non-organic "intelligence" with man on this planet has also been discussed rationally. The research answers several queries in this regard that are troubling scientists. Most important of all, the information presented is verifiable, i.e. it can be verified against a probability scale.

29 Islamic Awareness.org, "Home Page," <<http://www.islamic-awareness.org/>> (24th February 2010)

Part II

Birth of Life from dust and its journey towards Man

Introduction	29
Difficulties in the combination of two sources	31
1. Information on a single topic does not lie in one place	31
2. Man's beginning from dust	31
3. The existence of patterns	31
4. Usage of peculiar words and enigmatic compositions	31
5. Popularity of the derived meanings	32
6. Foreign connotations	32
9. The Quran's solution	33
10. Traditional interpretation v. literal interpretation	33
11. "Respect" for elders v. "uncritical acceptance" of their ideas and beliefs	34
Revelations from the Quran on our origins	35
1. Man has a terrestrial origin	35
2. Link of plants with man's birth	35
3. Branches of life	35
4. Creation was not an instantaneous act	36
5. Man's creation was in stages or phases	36
6. Creation first and shape afterwards	36
7. Involvement of a large period in the creation of man	37
8. A thing without description	38
9. Man's creation is different from the image of God	39
10. Man has been created to stand upright in the best possible way	39
The scientific view	40
Problems with the scientific view	41
Surat At-Tin's statement [95: 4]	42
11. Process of creation started from clay	42
Brief outline of Cairns-Smith's clay crystal theory	43
Pointers from the Quran continue -	44
12. Creation from clay - extracting one thing out of another	44
13. Importance of 'a small quantity of water' in the creation process	45
14. The small quantity of water was a mixture	46
15. Something which clings – another peculiar term in the creation	47
16. Evidence of pre-biotic chemistry in the creation process	48
17. The awful smell of half finished organic molecules in the liquid	49
18. A "site" for the liquid used in the creation process	49
Bubbling clay pools on earth	51
19. Period involved in the creation	51

20. Appearance of partially and fully formed life molecules	52
21. Emergence of clear defined shape in the progress of life	53
22. Appearance of bones and muscles	54
23. Creation of acoustics in the biological process	55
24. Human body was crafted like pottery for control over acoustic ability	56
25. Water as most desirable element in the creation of life	57
26. Different roles of water in the progress of life	59
27. Creation of sex in the progress of life	60
28. Progeny before the birth of Adam	61
29. Eyes, Ears and Brain as gifts from the Creator	62
30. Dividing Line: A Pointer	63
31. Life from non-life: another pointer	65
A direct query on the origin of life and its answer in Quran	66
32. Guidance about perspective in research:	67
33. The use of allegory	67
34. Does this verse contain an allegory or is it a simple instruction?	68
35. Significance of the Figure 'Four'	69
36. Allegory of birds in the progress of life	69
37. Evidence of a bias in the process of life	70
38. Evidence of Different Energy Levels	71
39. Evidence of teleology	71
40. Additional Information from the Verse	72
Conclusion	73

Part II

Birth of life and its journey towards man'

Introduction

Scientific understanding of the birth of life and man is very different from the traditional revealed model of Abrahamic religions that describes the creation of man. Modern scientific consensus in this regard is that the births of life and man are connected and life arose on the planet only once and in the form of a single cell, popularly called LUCA or the “last universal common ancestor.” The LUCA evolved to produce three branches of life – archaea, bacteria and eukaryota.

From eukaryotes, fungi, plants, and animals emerged. The plants then evolved further to diversify and support the life, while the animals ultimately produced the species with the highest intelligence that could think, plan, investigate, and utilize the resources of the planet, according to his needs.

In this straightforward picture, complications existed from the very beginning. We do not know how the living matter emerged from the non-living. Highly complex, “modern-looking” fossilized life cells have been found in the oldest rocks of earth.³⁰ Given a living organism, it is possible to imagine ways in which it can multiply, but from where did the *first organism itself*, the LUCA, come from, and what happened before the solidification of rocks? Did the cells originate on earth or in outer space? If life originated on earth, then what was the mechanism involved? To explain the occurrence of this phenomenon through natural means, scientists have proposed various models such as Oparin’s primordial soup³¹, Dyson’s metabolism-first scenario³², Arrhenius’ spores theory,³³ Wickramasinghe’s comet origin³⁴, Orgel’s RNA world³⁵, Cairn-Smith’s clay-templates, and a host of others.

These models not only differ in the extraterrestrial and terrestrial origins they assign to life, but also on the basic question as to what could have come first, the genes or the metabolic pathways. Every group believes in the efficacy of its own model with equal intensity, but the differences are many, and unanswered questions abound. The first cells have been found in the oldest rocks of the earth, therefore the events leading to the creation of these

30 Nature, vol. 409, p. 144, January 2001 – ‘Latest estimates have put life at 3.85 Ga, earliest surviving continental crust at 4.0 Ga, and end of intense meteorite bombardment at 3.9 Ga’

31 D. W. Dreamer, and Gail R. Fleischaker, *Origins of Life: The Central Concepts* (Boston: Jones and Bartlett Publishers, 1994). A. I. Oparin, *The origin of life on Earth*. (Macmillan 1938), J.B.S. Haldane, *The origin of life: (eds.) On being the right size and other essays*, pp. Oxford University Press, Oxford, England (1985).

32 Freeman J. Dyson, *Origins of Life* (New York: Cambridge University Press 1985)

33 Christopher Wills, & Jeffrey Bada, *The Spark of Life – Darwin and the Primeval Soup* (New York: Oxford University Press 2000)

34 F. Hoyle and C. Wickramasinghe, ‘Lifecloud’ (Harper and Row 1978).

35 L E Orgel, ‘The Origin of Life on the Earth’ *Scientific American* 271 (1994):77-83

cells must have occurred *before* the formation of even these rocks or prior to the very ability of the earth to form evidences.

Likewise, the birth of modern man is also a big mystery that intensely interests all of us. We do not know when and where the first man appeared on the earth and what exactly was the mechanism involved. Did he evolve through accidental mutation and natural selection, or is there some other answer to this mystery? Has he evolved in different regions from different species of man-apes over time, or was there a single occurrence in Africa and then this man spread and replaced others? The scientific opinion favours a single origin in Africa, but several questions still remain unanswered. Why is there such a huge gap of 84,000 years between the beginning of the Y chromosomal line of males representing the birth of the first genetic father of man and the mitochondrial line of females, the birth of the first woman – the so called genetic Eve of humanity? Why do archaeological records show a sudden change in the behaviour of the human race at about 50,000 years ago? What really happened at that time? Unfortunately, for the date of man's arrival on the scene, we depend only upon circumstantial evidence. The key to the mystery lies in our brains, literally and figuratively. It is this organ that makes us different from others, but brains do not fossilize. *Thus, the perfect evidence that could have solved the problem seems to lie just beyond our grasp.*

We can thus see that whether it is the emergence of life from non-life or the birth of the first man, the events seem to lie on the periphery of scientific vision. *Many scientists say in jest that short of a knowledge revealed to us, none can answer such queries with certainty.*

To demonstrate that revealed knowledge *can* provide the answers *in reality*, pointers from the Quran on the birth of life and man are presented. The objective of this attempt is to show a method of symbiosis between “revealed” and “rational” knowledge, and how the combination of the two sources can benefit us. However, such an exercise has its own problems.

Difficulties in the combination of two sources

When a researcher tries to combine the revealed knowledge of the Quran with scientific information, he encounters several difficulties. Some of these are listed as under:

1. Information on a single topic does not lie in one place

The Quran usually does not reveal information *in one place* in the form of a clear narrative on a particular subject. The statements on different natural phenomena lie scattered *all over the body* of its text. To extract information about a topic, it is the usual practice of Muslim scholars to bring all verses on a particular subject together and then study them as a whole.

2. Man's beginning from dust

When all the verses on the origin of life and man are collected, we encounter our second problem. The Quran rarely seems to talk about the birth of life directly. Most of the verses detail the steps involved in the creation of man in stages *beginning from dust*.

Such information compels us to find answers for three main queries.

a. Does the Quran faithfully repeat the Biblical view of the birth of the first man from dust, or are the revelations hinting about an *alternative* process in this regard?

b. Is man's creation *unconnected* with all life on earth, or was the creation of life from non-life (dust) the *first step* of this process?

c. Does an epistemological basis exist in the text of the Quran for such a fundamental departure from the traditional interpretation?

3. The existence of patterns

The third difficulty in this regard is the presence of 'patterns' in nature that look *superficially similar* to one another at a basic level.

Two such comparable patterns are the development of a child within the womb and the evolution of life on the earth. A zygote in the uterus of a human female undergoes several stages of evolution, involving the formation of organic tissues, bones, and different shapes in between, to become a human child. In the scientific view of the evolution of life, also, a single cell is said to have evolved into a multi-cellular organism, like man, in various stages involving the formation of organic tissues, bones, and different species in between.

The resemblance between the two processes poses a difficulty in the understanding of information from the Quran. In the absence of any alternative line of explanation, any similarity, even such a superficial one between the two processes, is likely to influence the commentators to interpret the information *with reference to the only pattern* available to them till recently – *the process of childbirth*.

4. Usage of peculiar words and enigmatic compositions

The fourth problem relates to another subtle similarity between the two windows of knowledge, the scientific and the revealed.

Scientists are known to have realized that the universe is *not only*

comprehensible; it is also intelligible in parts and stages with the increasing cognitive ability of the human mind. This fact has been amply demonstrated in the continuous progress of science and in the step-by-step decoding of the “laws of nature” with ever-increasing depth and sophistication.

The revelations, akin to the laws of nature, also have an inherent progressive complexity to them. This successive complexity is built into the content of the Quran through the usage of “peculiar words and enigmatic compositions” in combination with “repeated instructions to reflect on the verses.”

For the information to remain acceptable to a person of average intellect, the subtlety of composition is such that *the information seemingly does not diverge much from the existing knowledge of the time.* It is only on *closer examination of the words* used, and against the background of *fresh information*, that the verses seem to reveal a different depth of meaning.

The additional beauty of such verses is that with the increase in knowledge, *the meanings seem to gravitate ever closer towards the original usage of the word* by the Bedouins of the area, preserved in the sources of the earliest era.

However, resemblance to the existing knowledge of the time invariably biases the commentators towards the childbirth line of explanation.

The only solution thus for finding out exactly what the verses are saying about the creation of man is to probe deeply into the meanings of the specific terms used in all such verses. But, such an attempt creates additional problems of its own.

5. Popularity of the derived meanings

Down the ages, scholars have always tried to interpret the enigmatic statements to the best of their ability and intentions. These interpreters of the Quran often had to strike a compromise between knowledge of the time and the literal meaning of words. Their efforts at compromise have often resulted in the derived meanings becoming more popular than their root meanings.

6. Foreign connotations

A sixth problem is the introduction of “foreign connotations” of Arabic words. After the advent of the Quran, the Islamic realm experienced a quick and massive expansion. Within a few, short decades, over half of the world had come under its sway. This sudden expansion resulted in a tremendous amount of interaction with new people and situations. This situation in turn resulted in the emergence of several connotations of words that were not present in the original. Assimilating all these meanings into their collection, the lexicons of Arabic, Persian and Urdu later gave these new connotations a stamp of credibility, which they did not deserve. The literal meanings of the specific words used thus became obscure, affecting the potential for dynamic interpretation of statements through an increasing knowledge base.

The one thousand years of scientific inactivity of Islamic followers, and

the strict bar on new researches on the Quran, both seem to have contributed negatively and to have resulted in the traditional Islamic view on our origins becoming gradually frozen in the Judeo-Christian mold.

9. The Quran's solution

To steer out of this maze, the Quran itself has guided its interpreters. It has pointed out that its medium of communication is chaste Arabic - *Aarabiyyun mubeen* [*An-Nahl* 16: 103], straight in its meaning *Qaiyim*, and without any ambiguity or inconsistency *iwaj* [*Al-Kahf* 18: 1, 2].

Significantly, such an emphasis on the straight and clear meanings of words goes against the possibility of *multiple connotations of a word*, which is a popular belief among Arabic scholars, arising out of their attempt to understand the enigmatic compositions. Multiple connotations introduce obvious uncertainties into the choice of meanings and clearly go against the claims of the Quran.

For a communication to reveal an unambiguous message, the words are expected to have a *single definite connotation* implying a clear meaning. The present research aims to show that such a meaning *exists* for many of the terms used.

Such a meaning can be *isolated and selected for understanding the message correctly* by investigating the usage of all words from the same root in the Quran and then *correlating these terms with other words from the same family of Arabic roots*.

Ironically, the biggest barrier expected in such an exercise is the reverence which an average Muslim has for the works of past commentators.

10. Traditional interpretation v. literal interpretation

Mainstream Muslim scholars believe that in order of priority, the Quran should first be understood through the Quran itself, then via the sayings of the Prophet, followed by those of the *Sahaba* (companions of the Prophet), and then of the *Tab'een* (followers of the companions of the Prophet). This approved form of commentary on the Quran is known as *tafsir bi al ma'thur* (interpretation based on traditions or reports). The logic behind it is obvious. Prophet Muhammad was the channel through whom the Quran was revealed. Therefore, he was the only true authority on the revealed words. After Prophet Muhammad, the sayings of the companions were considered most credible as, being closer to the Prophet, they had the best opportunity to understand the spirit of the Quran. Later, the *Tabeen*, being closer in time to the companions, were the obvious fourth category of resource for understanding the Quran.

The fifth and last source for understanding the Quran in order of priority is the analysis of language. According to Syed Iqbal Zaheer, "If a *Mufasssir* (commentator) uses his intelligence, knowledge, intuition, inspiration to bring out a point in language, history, law, and so forth, then such a form of

commentary is called *tafsir bi al Ra'yi*.³⁶

The permission for this kind of interpretation is based on the prayer words (*dua*) of the Prophet for *Ibn Abbas*. The Prophet is reported to have said: "O, Allah, grant him the knowledge of this religion and teach him the interpretation (*ta'wil*)."

However, the acceptability of this interpretation depends ironically upon *how much it is in accord with the existing explanations*. If it is in contradiction to either the traditions or the companions' sayings or those of later followers, or if it is in opposition to the opinion of majority in letter or spirit, then the new interpretation *will not be acceptable*. Unfortunately, such criteria about acceptability or non-acceptability virtually seal the fate of several fresh insights and new researches on the verses of the Quran.

Would it mean that a Message, believed to contain guidance for all humanity (2:185) and information that a man knew not (96:5), would always be understood as our elders of the first three centuries had interpreted it against the backdrop of their own knowledge?

11. "Respect" for elders v. "uncritical acceptance" of their ideas and beliefs

The Quran, surprisingly, has not left this problem unresolved. It has noticeably warned about this tendency and makes a clear distinction between "respect" for elders and "uncritical acceptance" of their ideas and beliefs. The former has been encouraged³⁷, while the latter has been frowned upon in the strongest possible terms. In fact, the Quran has described the "uncritical acceptance of elders' beliefs and ideas" as being the biggest stumbling block³⁸ that all prophets of God had faced during their missions.

*Fortunately or by Design, the original text lies unchanged in millions of homes, and early grammarians had preserved how the words were understood by natives of the time.*³⁹ *From such a study of the Arabic roots, several pointers emerge on the birth of life and man. These hints help us differentiate and understand correctly the pronouncements of Quran on the childbirth, on the creation and evolution of life, and about its linkage with modern man.*

36 Zaheer, *Tafsir Ishraq Al-Maani*, juz 30, pg vi.

37 Al-Quran [*Al-Isra* 17: 23, 24; *Luqman* 31: 14, 15]

38 Al-Quran [*Baqara* 2:170; *Maeda* 5:104; *Yunus* 10:78; *Hud* 11:109; *Ibrahim* 14:10; *An-Nahl* 16:35; *Ash-suara* 26:74; *Luqman* 31:21]

39 Andrew T. Freeman, *Terms defined - The Nature of Old Arabic and its Change into Middle and then Modern Arabic*,

<http://www.personal.umich.edu/~andyf/hist_arab.html>

Revelations from the Quran on our origins

Concerning the collected verses of the Quran on the creation of man, an analysis of their words reveals several strange pointers –

1. Man has a terrestrial origin

The first hint is from Surat Nuh, where the Quran unambiguously informs us that man has a terrestrial origin.

And Allah has produced you *from the earth*, growing (gradually) [Nuh 71: 17]

This statement goes against the traditional belief that the first human pair was created in the heaven. It also categorically rejects all extra-terrestrial models for the birth of life, such as Arrhenius' spores theory or Hoyle and Wickramasinghe's comet origin hypothesis.

The revelation directs us to limit our search for the origin of life to *terrestrial* explanations only. Moreover, three additional hints from the original Arabic words – “*Wallahu Ambatakum-minal arzi nabaataa*” – are significant.

2. Link of plants with man's birth

The two words “*Anbata*” أَنْبَت and “*nabaata*” نَبَاتًا in this verse derive from a common root (*nbt* - نبت) implying plant or vegetation.

نبت means to produce plants, bring forth vegetation, to germinate, cause to sprout, to make (something) grow, to grow, raise, plant, cultivate. [Image from Lane part 8/p-7]. The translation of *min-al arzi* is “from the earth,” and the word “*nabaata*” means plants, vegetables, vegetation.

1. نَبَتَ, (S, M, K,) aor. ٢, inf. n. نَبْتُ and نَبَاتٌ ; [which two ns. see mentioned as subst. ;] and نَبَتٌ ; (M ;) and نَبَتٌ ; (Fr, S, K ;) [respecting which last see below ;] *It* (a thing, M, or a leguminous [or other] plant, S, K,) *grew ; grew forth ; sprouted ; vegetated ; or germinated.* (S, M, K.) Aṣ disallows نَبَتٌ in

The usage of both the words together thus shows a *definite link of plants with man's birth from earth*.

3. Branches of life

A third point to note here is that the statement “*Wallahu Ambatakum-minal arzi*” by itself was sufficient to suggest that “Allah has produced you like plants from the earth”, but the verse contains an additional word “*nabaata*.” Commentators have interpreted the usage of this additional word, meaning “plant or vegetation” as an emphasis for the gradual growth of man, but it is an interpretation, and not an exact translation.

Literally translated, the word ‘plant’ becomes a baggage of primary information. It seems to refer to the growth of *a different branch of life, along with man, from the earth* – the “man” addressed by “you” in the verse, and *nabata* - the plants.

4. Creation was not an instantaneous act

The fourth point here is that the traditional scriptural view of man's creation is represented by the following words of *Genesis* [2: 7] "the Lord God formed the man from the dust of the ground and breathed into his nostrils the breath of life, and the Man became a living being." This statement primarily describes the actual creation process of man in the Bible, apart from calling him a "son of mud" in some other places. The point to note here is that in associating a plant-like growth with this process of creation, and referring to another branch of life alongside it, the verse in the Quran reveals information that does not tally with an instantaneous act of clay modeling and animation of this model into Adam, the First Man. The description seems *more apt for a slow and gradual process that resulted in life with branches.*

5. Man's creation was in stages or phases

The existence of a process involved in the creation of man is reinforced through an important hint about its stages or phases in a verse also from *Surat Nuh*.

[God] fashioned you in stages [or phases] [*Nuh* 71: 14]

Here the words used are *khalafa* خلق and *aTwar* أطوارا. The word *aTwar* is the plural of *Tawr* طور, implying action in stages, phases or time after time [image from Lane Part 5/p-175]. The word *khalafa*, on the other hand,

طُورٌ A time; one time; like the French "fois;"
syn. تَارَةً : (Ş, A, O, Mşb, K̄:) pl. أَطْوَارٌ. (Ş, K̄,
A.) You say, أَتَيْتَهُ طُورًا بَعْدَ طُورٍ I came to him
time after time. (A.) فَعَلَ ذَلِكَ طُورًا بَعْدَ طُورٍ
He did that time after time. (Mşb.) And جِئْتُهُ
أَطْوَارًا I came to him several times. (A.) — And

involves the idea of creation with measuring, and fitting into a scheme of other things. Its root *khlq* refers to creativity. The usage of the root *Twr* with *khalafa* thus implies a "repeated act of creation with measuring, and

fitting into a scheme of other things." Such a usage obviously goes against the traditional picture of Prophet Adam's creation, and it is for this reason that most of the commentators have understood the usage of *aTwar* as referring to the stages of man's development in the uterus, but *no reference to "rahim" or "batan," meaning uterus, exists anywhere in the entire chapter and context of the chapter clubs aTwar, or phases, with man's plant-like growth from the earth, mentioned two verses later (Nuh 71: 17).*

6. Creation first and shape afterwards

A sixth hint in this regard is that in the traditional Judeo-Christian and Islamic models, the common understanding is that the clay was given the *shape* of a human body *first* and *then* the man was *created* by giving life to this shape.

The information from *Surat Al-Araf* [7:11], however, reveals something

different:

It is We Who *created you; then gave you shape; then* We bade the angels prostrate to Adam, so they prostrated; not so Iblis; He refused to be of those who prostrate. [Al-Araf 7:11]

In the original *ثم صوّرناكم ونفد خلقناكم* *Walaqad khalaqnakum thumma sawwarnakum*, the preposition *thumma* (ثم), meaning “then or thereafter,” has been used. This usage clarifies that *first*, the creation took place - *khalafa* (خلق), and *then* the “shape was given to you” - *sawwarnakum* (صوّرناكم), in contradiction with the popular belief of *shape first, and creation of man later*. Second, by repeating the usage of *thumma* (then) prior to God’s instruction to the angels to prostrate before Adam, the Quran *further* clarifies that God is talking about the creation of *First Man* and not about the “*creation and shaping of all humans in the uterus.*”

Combining this sequence with the plant-like growth from the earth [Nuh 71: 17] and the existence of stages [Nuh 71: 14] in the growth of man, the inference becomes progressively clearer. *The creation is a process and continuity exists between the origin of life and the birth of man on earth. The end-product of this process seems to be man, who is the object of instruction to the angels in the second component of this verse.*

7. Involvement of a large period in the creation of man

Another hint from *Surat Al-Insan* points towards the passage of a long period over or during the stages of man’s creation.

Has there not been over man a long period of time, when he was nothing mentioned (describable)? [Al-Insan 76: 1]

The original words of this verse - *Hal ata AAala al-insani heenun mina*

دَهْرٌ . q. حِينٌ [Time; or a time; or a space, or period, of time; &c.]: (ك:) or, accord. to Esh-Sháfi’ee, *time, from the beginning of the world to its end; as also دَهْرٌ: (Az voce دَهْرٌ) or a time, (Az, S, Mgh, Mṣb, K,) in a vague sense, (Mgh, K,) applicable to any time, (Az, K,) little or much, (Mgh, Mṣb,) long or short, that may*

hiin حِين and *Dahr* دَهْر, apart from the preposition *min* مِنْ which means “from.” The word *hiin* means “an unspecified particular period,” [Lane part

addhari lam yakun shay-an mathkooan, reveal three curious pieces of information.

a. The Arabic expression for “a long period of time” - *heiinun-minad-dahri* - contains two words of time” - “passage of time, from the beginning of the world to its end” [Lane part 3/p-89].

b. In the seventh century, no one had any idea when time had begun or when it would ultimately end. The modern physicists

دَهْرٌ (T, S, M, K, &c.) and *دَهْرٌ* (M, K,) the latter either a dial. var., agreeably with the opinion of the Baṣrees in cases of this kind, and therefore such cases are limited by the authority of hearsay, or it is so written and pronounced because of the guttural letter, and so is accordant to a universal rule, agreeably with the opinion of the Koofoos, (ISd,) *Time, from the beginning of the world to its end; (Esh-Sháfi’ec, Az, Mṣb, Er-*

too, do not know *when time will end*, but they believe that they can offer a reasonable estimate of the *beginning* of time at least. The *Dahr*, for us, seemingly began more than thirteen billion years ago.

The point to note here is that when “an unspecified particular period” (*hiin*) is mentioned to be from a “vast thirteen billion years expanse of time” (*Dahr*), it logically implies a large period by itself.

c. And this large period has been stated to have passed “over man” (*ala'al insaani* – على الإنسان), implying a time during the formative stages of man.

8. A thing without description

Another interesting piece of information from this verse is that during this period, man has been described through the words *lam* (not) *yakun* (he was) *shay-an* (a thing) *madhkuran* (mentioned or described), i.e. *he was not a thing to be mentioned*.

Commentators have interpreted the above verse also with reference to man's time in the uterus, but the nine-months period is neither so large as to be associated with *Dahr*, nor the developing fetus is so insignificant that it can be termed as “not worth describing.”

However, if a continuity exists in the birth of life and man, then the reference in this verse may be assumed to describe a particularly long period during the gradual growth and creation phases of (life and) man on earth, mentioned in *Surat Nuh* [71: 14,17]. However, this fact alone cannot explain why the words – “a thing that does not have a description” has been used to describe an early stage in life's progress during this long period.

Surprisingly, the mystery finds an echo in the scientific quest for our origin also.

All researches for tracing the common ancestor genes of different families of proteins from a wide variety of animals, plants, bacteria and Achaea, have found that the molecular trail for each family *ends abruptly at 2-2.5 billion years ago*. This finding has surprised everyone, as life cells have already been discovered in rocks about 3.9 billion years old. The combination of the two findings suggests that for more than 1.5 billion years, life seemed to have remained in the unicellular state, almost as the verse says “not worth a description”.

To explain these anomalous findings, Dr. Russell Doolittle,⁴⁰ who published the original research in 1996, had suggested that about 2-2.5 billion years ago a massive catastrophe, a ‘Doolittle Event,’ had occurred that had destroyed almost all life on the earth. The only survivors were a few bacteria, which started life afresh. This explanation seemed plausible, but fossil records and geological studies do not corroborate such a massive event at that time. It is for this reason that Dr Doolittle's molecular findings have

40 Wills & Bada, 190-208,

been accepted, but not his explanation.

The verse in the Quran seems to corroborate that life during a long period did remain in an insignificant state (unicellular stage). It thus rejects Dr. Doolittle's catastrophic event scenario, representing a regeneration of life's progress afresh.

Why life remained unicellular for such a large period on earth and what really happened during this time still remain a mystery for scientists. However, the revelations give us a hint, discussed later, that has the potential to explain this mystery and also the reason why multicellular organisms appeared so late in the planet's history.

9. Man's creation is different from the image of God

The ninth point is that the Quran clearly differs from the most popular Biblical concept related to man's creation. *It does not corroborate the Judeo-Christian belief that man has been created in the image of God.* These words have *not* been mentioned *anywhere* in the Quran, directly or indirectly.

The Quran says clearly about God that "there is nothing *like* unto Him" [Surat Ash-Shura 42: 11], *laysa kamithlihi shay*, and there is also "nothing that could be *compared* with Him" *Walam yakun lahu kufuwan ahadun* [Surat Al-Ikhlās 112: 4].

A thought provoking verse from *Surat An-Noor* [24: 35] has been discussed in the book – *Origin and Fate of the Universe* (second volume of this series). It explains the Creator concept through a complex allegory. This verse, popularly known as "light verse," seems to reveal the image of God that encompasses universe after universe, and layers over layers of complexity. There are absolutely no points of similarity with the image of a man.

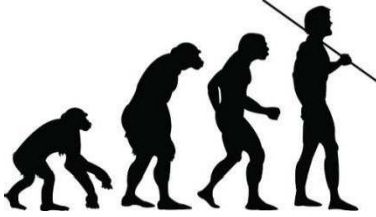
10. Man has been created to stand upright in the best possible way

The tenth point is that the Quran states clearly in *Surat At-Tin* that man has been created to stand upright in the best way. This verse is popularly translated as:

We fashioned man according to the best way. [At-Tin 95: 4]

However, the original words of the verse - *Laqad khalaqna al-insana fee ahsani taqwem* - use the word *Khalaqa* (explained earlier) with two other terms, *ahsani taqwim* أحسن تقويم. The word *ahsan* means the "best" and the root of *taqwim* is قوم *qwm*. It has two meanings: *qawm* – a group of people; and *qawwama* – to stand up. *Taqwim* is a deverbal noun from the verb, *qawwama*, – which means to erect, to straighten, to make stand upright, to put into order [Steingass p-864].

An interesting observation here is that ‘making a man stand upright in the best way’ acquires a different connotation, if the words are referring to



the creation process of man, linked to the rest of life on the planet. [Image belongs to Bryan Wright]⁴¹. However, if man’s creation is not linked to the planet, the words would seem to refer to his development from child to man in the best way. Whatever the truth, the full statement

containing the words *ahsani taqweem* [to erect or straighten something in the best possible way], and *khalafa* [creation with measuring and fitting into a scheme of other things], apparently implies that the *creation of man, a biped, was not only part of a process which helped him to arise in the best possible way, but also to fit into the schemes of other things.*

What would such a statement imply regarding man’s creation? Does it corroborate or contradict the scientific point of view? And most important of all, what exactly is the scientific view?

The scientific view

For the growth and divergence of life, scientists have identified *four patterns* in nature, and have suggested some processes to explain these patterns.

The first pattern is the presence of *tremendous genetic diversity* within almost all living species, including humans. No two individuals seem to have the same DNA sequence (barring identical twins or clones).

Second, living organisms have morphological, biochemical, and behavioral features that seem to make them *well adapted for life* in the environments in which they are usually found.

Third, all living species share the same basic mechanism of heredity, using DNA (or RNA in some viruses) to encode genes that are passed from parent to offspring. With the help of these DNA sequences, biologists have quantified the genetic similarities and differences among species, in order to determine which species are more closely related to one another and which are more distantly related. The pattern of genetic relatedness among all species indicates a branching tree that implies *divergence from a common ancestor.*

Fourth, the presence of *mineralized remnants or impressions of once-living organisms* (fossils) in different strata of the earth shows a definite but *patchy* pattern, which in conjunction with genetic information, helps to correlate the time and other factors in the growth and divergence of life on this planet.

41 Image by Bryan Wright (bryanwright5@gmail.com), used under the CC License. Image link -<http://www.flickr.com/photos/spidermandragon5/2922128673/>