



Al-Risala 1990

July

The End of Marxism

In 1958 I had written a book entitled *Marxism: Rejected by History*.^{*} (First published in 1959 entitled *Marxism: Tarikh jise rad kar chuki hai*.) When it was first published, the title had a strange ring to it. Not only socialists but also certain Islamists treated it with derision. To them Marxism was a living reality and, as such, how could the question arise of its being rejected? But today this title is quite in accord with the facts. No one can deny this, not even Soviet Russia. Today, Marxism has become a spentforce, from the ideological as well as the practical point of view.

Every year, *Time* weekly chooses one distinguished person as Man of the Year and publishes special features on him. The very first to be chosen Man of the Year was Charles Lindbergh in 1927. In 1930, it was the turn of Mahatma Gandhi. Now, the 1st January 1990 issue of *Time* makes the quite extraordinary choice of Michael Gorbachov, Soviet premier, as Man of the Decade.

The Soviet ruler has not received this signal honour because of his having cemented the fort of Marxism, but because of his having broken it. All over the world today, articles are being published which bear such titles as:

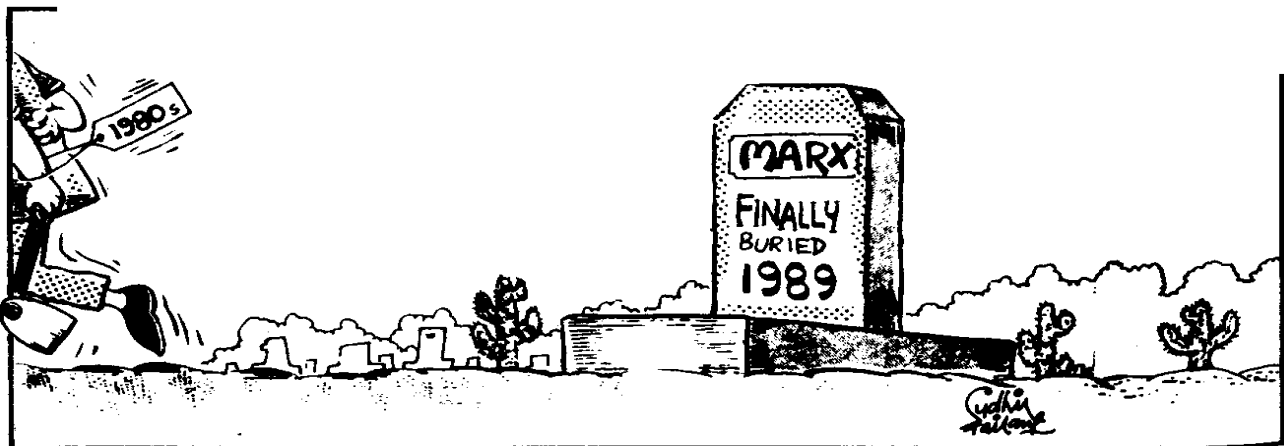
The End of Communist History

Marxism is Over

The Collapse of the Soviet System

Fragmented Empire of the U.S.S.R.

Total Failure of Communism



The Hindustan Times (January 1, 1990) has published a report on the change in the Communist world and the collapse of the Marxist school of thought. This report included a cartoon showing the gravestone of Carl Marx, the founder of Socialism. The inscription reads: 'Marx – finally buried 1989.'

The Qur'an says, "God has power over all His affairs, though most men may not know it."(12:21). It seems that the revolutionary changes in the socialist world can be explained by this law of nature.

Marxist socialism was a negation of God and religion, and rejected the latter as wholly baseless. In the introduction to one of Carl Marx's books, *Criticism of the Hegelian Philosophy of Right*, the author writes, "Religion is the opium of the people."

This ideology of Marx spread throughout many countries. Finally, in 1917, it became the cornerstone of the powerful government set up in Russia after the revolution. In the first world war, socialist Russia was able to greatly extend the boundaries of its empire and, along with this, acquired such tremendous military might that it came to be reckoned as one of the super powers.

It was by exercising the powers of the state, that socialist leaders extirpated religion in the second world. All signs of religion were wiped out by force. During the Stalin era, more than ten million people were killed. The whole of Soviet Russia came under totalitarian rule and it seemed that opportunities for the propagation of religion would now be available only in the first and third worlds and not in the second.

But, in accordance with the verse of the Qur'an quoted above, God's power was finally made manifest and, in the Soviet Union itself, such circumstances came into being that the fortress of Socialism began to shake to its very foundations. The American magazine *Newsweek* reported this happening in its issue of October 16, 1989 under the heading, 'A World Transformed.'

Time magazine of March 12, 1990 has published a detailed report on the change in the Russian system. One part of this report concerning Islam and Muslims, says that 55 million Soviet Muslims are benefiting from the new Russian policy on religious tolerance. This report is meaningfully entitled: 'Karl Marx makes room for Muhammad.'

In the Soviet Union, Muslims make up about 70 per cent of the population, and before 1917 there were 76 thousand mosques in Russia. But With Stalin's announcement of the abolition of religion all except a very few were either closed or razed to the ground. At that time thousands of practising Muslims were massacred. As recently as four years ago, even Gorbachev himself called Islam an enemy of progress. But today the circumstances are totally different.

Just a few years ago, the Qur'an was a banned book in the U.S.S.R. Today, when Saudi Arabia wanted to send one million copies of the Qur'an to Russia, the official air line, Aeroflot, was quite ready to transport these copies from Saudi Arabia.

It is God's will that total religious freedom should be the order of the day in this world. The Socialist leaders of the Soviet Union had had the temerity to place curbs on that freedom. Then finally God's power made itself felt, and the fort of Socialism collapsed for all the world like a doll's house which has been carried away by a puff of wind.

4 July 1990

To serve the cause of religion Is not enough to deserve paradise.

The Prophet told of a man who fought with all his might in the Battle of Hunayn. When he was killed, news of his death spread far and wide, People made much of his bravery, and were sure that he must have attained the status of martyrdom. When the Prophet heard what people were saying, he told them that the person concerned was among the people of the Fire. There was puzzlement at the Prophet's words, for the man's intrepid bravery was still fresh in people's memory. The Prophet told them to go and find out the circumstances in which he had died. It turned out that he had been wounded in battle. When night came, unable to bear the pain of his wounds, he committed suicide. (Far from leading one to martyrdom, suicide is an unlawful act which cannot be justified under any circumstances.) The Prophet was told of people's findings. "I bear witness that I am God's servant and prophet," he said. Then he sent Bilal to tell the people that only a real, true Muslim would enter heaven. "And God strengthens this religion through profligates too."

(Bukhari)

A Sunnah

The Positive Side to Silence

When a group of the Tablighi Jamaat set out to spread their message in any given locality only one of them can be the *mutakallim*, that is, their spokesman. The rest have to remain quiet and let their speaker do whatever talking is required.

This self-imposed silence is not just a matter of wordless inaction. It is rather a positive condition which enables them to keep praying silently *in their hearts* for both the speakers and the listener. This, according to the system of Tabligh, is equal in importance to preaching. Turning to God, they say – within themselves – “O God, help the speaker to let fall from his lips the right words, and help the listener to accept these words, in the realization that that is the truth.”

This practice may seem to be nothing out of the ordinary and without much value. But it raises a very important point in reviving a *sunnah* which has almost been forgotten in modern times. With the invention of the printing press and easy access to public forums, people have now begun to feel that writing and speaking are the most important tasks to be accomplished. Now, anyone who has the slightest chance of having his writings published leaves off all other activity in order to work towards this end. Anyone who is given the opportunity to speak in public jumps at the chance, and insists on having loudspeakers. This tendency has been so greatly on the increase that the truth has been lost in the general uproar. Speaking has come to be considered the most important of all activities. Keeping quiet is no longer considered to have any positive value.

The path shown by Islam, and followed meticulously by the companions of the Prophet, leads us to the realization that talking is not the only task worthy of our attention, and that keeping quiet is equally important. Those who are denied the opportunity to speak can occupy themselves fruitfully in praying to God to help those who have undertaken to perform this service. They may also pray to God to help others to follow the straight path as shown by the Prophet.

If this *sunnah* could be revived among Muslims most discord, would die a natural death. Moreover, whatever the work being carried on in the community, it would show better results, because, God's succour would then favour human effort.

Speak only when you have mastered the art of speaking. If you are not effective in this field, you can always undertake another great task, i.e. to pray to God for both the speaker and the listener. This is in no way inferior as an alternative.

6 July 1990

Towards Destruction

Andre Sakharov, the distinguished Russian scientist (born May 21, 1921), secured for the Soviets strategic parity with the Americans by developing the first Russian hydrogen bomb. It was successfully experimented upon in October 1953 and Sakharov's persistent efforts towards this end were ultimately crowned by his receiving the Nobel prize in 1975. But, in spite of this success, he was made to suffer internal exile for championing human rights.

The present Soviet Prime Minister, Michael Gorbachov, set Andre Sakharov free in December 1986. But free thinker that he was, he opposed Gorbachov for not being able to bring total civic freedom to the USSR. Hardly two and a half year after this release, he died suddenly of heart failure. Just a matter of hours before his death, he told fellow opposition members of the Congress that the Communist party leadership, headed by Mr. Gorbachev, was leading the country to ruin.

All human beings can be likened to Andre Sakharov, for man himself is standing on the verge of the greater catastrophe of death. But he himself takes no note of the great abyss yawning before him. He is too busy informing others of the impending disaster. He himself is going to be brought to book, but he prefers to make speeches about others being judged.

How strangely improvident that man should be so conscious of the fate of others, while totally unaware of the plunge that he himself is about to take.

The Lion will Speak

“Until lions can speak, the only history will be that of the hunters.”

A man kills a lion. Or he puts it into a cage. To justify these acts, the man says, “The lion is a ferocious animal. It is a beast, etc.” All such statements, however, are one-sided. We have yet to hear what the lion has to say, for in spite of all its boldness and grandeur, the lion has not the ability to speak.

Africa being a country of lions, its jungles have the greatest numbers of these animals. It naturally also has the greatest number of sayings connected with the lion. One of them goes like this:

“Until lions can speak, the only history will be that of the hunters.”

The same, in a broader sense, is true in the case of man. In the present world, for a variety of reasons, the real facts remain muted, like the lion. All the important truths remain hidden. Statements with no reality behind them are regularly published by the newspapers. People say one thing, mean another. Facts are written up in books and magazine articles as their writers want to present them, whether true or not. Those who can just be glib enough are the centre stage heroes of conferences and meetings. It is no wonder the truth is lost in the superfluity of words. Reality does not speak.

But this state of affairs cannot last. For, one day, reality *will* speak. It will speak with the roar of the lion to tell people the truth, and to show how human beings have distorted the facts out of all recognition. It will tell of what man is from within, and what he has been posing as. It will proclaim to the world what the true aims of the pretenders are. It will show how false are the images projected upon the world's stage. The veil of deception will surely be torn asunder, and the truth will finally be laid bare for all mankind to see.

Thinking Changes with the Times

A most unexpected news item appeared in the national dailies on December 25 (UNI report with Moscow date line):

“The Soviet Parliament today declared that the decision to send troops to Afghanistan in 1979 should be condemned “morally and politically” because it was unconstitutional.

The decision was taken on the final day of the second session after a parliamentary panel headed by the acting chairman of the Supreme Soviet Committee, Mr. Alexander Dzasokhov, submitted its report on its investigations into the dispatch of troops, report Tass.

The panel had also been asked by the first session to draft proposals on the political assessment of the move.

Mr. Dzaskhov said ‘extreme ideologisation of Soviet foreign policy and strong political confrontation in the world at that time’ influenced the move, but they did not ‘justify the decision to dispatch troops.’

The international affairs committee stated that the decision was violative of the Soviet constitution and was made by a ‘limited number of people’. (*The Times of India*, December 25, 1989)

Just a few years go, no one could have imagined this kind of moral condemnation of a military decision being voiced in the Moscow Parliament. Throughout the whole period of Stalin’s rule, the thinking of the Soviet Union (and indeed of the whole world) was that political and military power was supreme and that those who possessed, this power were bound to succeed in international politics. But during the last few years, the international situation has undergone so many changes in rapid succession that the Soviet Union, albeit one of the super powers, has had to recall its, forces from Afghanistan. What is even more important is that it has acknowledged that its policy was wrong in parliament, the greatest public forum of the country.

This extraordinary event should act as the greatest stimulus to total re-thinking on the subject of solving problems by violent methods.

Talking Tall

Socrates said that if one were so skilled in repartee as to be quite invincible in argument, one could never be sympathetic to the poor.

The meaning of this statement is not immediately clear, for it is difficult to see the connection between skill in repartee and sympathy for the poor. But, on more careful analysis, we find that there is a deep-rooted relationship between the two. What it means is that only such a person can be sympathetic to the poor as knows how to acknowledge the truth, even when that truth pertains to the poor.

The following is an incident which very well illustrates the truth of this saying. A landowner sold his mango orchard to a gardener. When the trees began to bear fruit, they were buffeted by strong winds, which resulted in a heavy loss of fruit. Fearing that he would not get any return on his investment, because he would no doubt incur a loss of the sale of the fruits, the gardener took the fallen mangoes in a basket to the landlord and requested him to make some reduction in the price of the orchard in terms of the loss he anticipated.

At this the landlord became incensed, and asked him if he hadn't known quite well beforehand that there was no high wall around the orchard to protect it from strong winds. The poor gardener, disheartened by these words, went quietly away.

A friend of the landlord, who was with him at the time, heard the entire conversation, and when the gardener had left, he said to the landlord. "How hard-hearted of you. You showed the poor man no mercy." The landlord replied. "You educated people probably think that one man is responsible for another, but, in actual fact, it is God alone who is the provider of sustenance. He does provide it to all regardless of the circumstances."

One hesitates to speak when confronted by the powerful. But in the presence of the weak there is no such feeling of constraint. What often happens is that one is so carried away by one's own loquacity that one fails to give due consideration to the actual matter in hand. One is less likely then to admit the truth of the matter, or to do justice.

The Conquest Made by Dawah

“Although certain orientalists and other enemies of Islam are doing all they can to distort its image, Islam is nevertheless spreading throughout the world as a salve to human wounds. The crusaders could not damage its greatness and neither the writings of the orientalists nor books like The Satanic Verses have been able to prevent people from flocking to enter into the religion of God.”

A well-known artist, formerly known as Bernardju has accepted Islam in France, his present name being Abdul Aziz. In search of local colour for his work, he used to travel to many countries, one of which was Egypt where he stayed for a few days in Cairo and Alexandria.

One day, as he told an interviewer from an Arabic weekly, while he was walking along a street in Cairo, he caught the tones of an attractive voice. It was the voice of *adhan* coming from a mosque. “This was the first time I had heard such a voice. My curiosity was aroused. When I found out that it was the call to prayer, I set out for the mosque and watched people praying in rows. The voice of *adhan* and the scene of prayer made such an extraordinary impression on me that when I came back to France I took up the study of Islam. I listened to cassettes of recitations from the Qur’an, and although I did not understand the Arabic of these cassettes, I liked to hear the recitation and kept on listening.

“Then on my next visit to Cairo, I accepted Islam before the ulema (religious scholars) of Al-Azhar University. Now I feel that there is a great difference between the former Bernardju and the present Abdul Aziz. I feel such peace within me as I have never known before. Islam is permeating my body and soul like the very blood in my veins.” (*Al-Dawah*, Riyadh, November 30, 1989, p.6.)

This is not a solitary instance. In France, as well as in other western countries, a great number of people are accepting Islam. Many well-known people, like Raujia Garudy, Michael Shudkeshnaz, and Maurice Bijar, have accepted Islam in France, proving that this is an ongoing process. Enumerating such instances of conversion, the weekly comments:

“Although certain orientalists and other enemies of Islam are doing all they can to distort its image, Islam is nevertheless spreading throughout the world as a salve to human wounds. The crusaders could not damage its greatness and neither the writings of the orientalists nor books like The Satanic Verses have been able to prevent people from flocking to enter into the religion of God.”

It is clear from these events that there is no need to become agitated over the inimical behaviour of Islam’s opponents. Muslims can always rely on Islam’s own ability to conquer and can safely ignore the antagonistic activities of others.

History has repeatedly proved that Islam is a force in itself. Its might cannot be nullified through mere plotting, nor even diminished in any way with the termination of political power. Islam spreads in all conditions on its own intellectual and ideological momentum. It cannot be stopped in its course even by the Muslims' own moral decline or by other failures at the community level.

Events show that in the period of Muslim decadence (at both political and national level) Islam has rapidly conquered the hearts of the people. Islam has continued to push onwards even when Muslims were on the decline at all levels, why give way to frustration or indulge in lamentation?

11 July 1990

The best provision is that which has been earned.

“Man has not partaken of any provision more blessed than that for which he has worked with his own hands. That is what the Prophet David used to do. He lived on what he had earned.”

(Hadith)

Islam: The Creator of Modern Age

The American astronaut, Neil Armstrong, was the first man to set foot on the moon after a four-day space voyage on July 20, 1969. On reaching his destination he uttered these words which are now a part of history: "That's one small step for a man, one giant leap for mankind."¹

Armstrong along with his colleagues Edwin Aldrin and Michael Collins, undertook this journey in a special rocket called Apollo II. In the final stage they boarded a lunar vehicle called Eagle in order to land on the surface of the moon.

These vehicles, Apollo and Eagle, were not – as the more fanciful among us might imagine – two magic flying chariots. They were scientifically designed machines, made in accordance with our observance of the unchanging laws of nature. Their being able to traverse such immense distances in space is entirely due to man's correct application of his knowledge of the laws of nature. These laws have existed throughout the universe since time immemorial. But man took centuries to discover these laws, the application of which would enable him to reach the moon.

Given the possibilities of nature, why did so many thousands of years pass in the course of man's development before he felt ready to launch himself into space? The cause was polytheism, a creed which looked upon things and creatures as deities and encouraged their worship. In ancient times polytheism dominated the entire world. Man considered the moon a deity, just as he held all kinds of other inanimate objects to be gods. The moon, with its brilliant silvery light, inspired man to bow before it rather than try to conquer it. Holding the moon to be sacred was a major obstacle to even thinking of conquering it.

For the first time, in the 7th century, the supremacy of polytheism was brought to an end by the Islamic revolution, which replaced it with monotheism, making it the dominant creed of the times. This revolution was initially brought about in Arabia. Later, it continued its onward journey through Asia and Africa to Europe. Then it crossed the Atlantic to gain a foothold in America.

In the Muslim world this revolution was brought about through the influence of religion. The western world, with its own particular circumstances, began to develop this revolution along different lines, separating secular science from religion. Gradually, it was brought to its present culmination. Just as nationalization is an economic part of the philosophic system evolved by Marx, similarly modern science is a part which has been separated from its whole.

The moon journey is mentioned here as an obvious example. The same is true of all the sciences which are now called natural sciences. The fields of these sciences had become forbidden territory because of the polytheistic view of the sanctity of all of nature's phenomena. The revolution of monotheism opened the doors of research and investigation by displacing nature from its sacred pedestal.

1. *Encyclopaedia Britannica*, 1984, vol. 1, p. 530.

Thus began a new era of freedom to investigate nature. The slow, thousand-year process of maturation finally culminated (towards the end at an ever-accelerating pace) in modern science and technology. Modern science is wholly the gift of the Islamic revolution – directly in its initial stages and indirectly in its later stages.

This truth has been generally acknowledged in one way or another. A number of books which have come out in modern times, the titles like *The Scientific Achievement of the Arabs* or *The Muslim Contribution to Civilization* testify to its general acceptance.

Scholars are in agreement that modern industrial progress owes its existence to Arabo-Muslim influences. A Humboldt writes: "It is the Arabs who should be regarded as the real founders of physics."²

Philip Hitti writes in his-book, *History of the Arabs*, (1970) "No people in the Middle Ages contributed to human progress so much as did the Arabians and the Arabic-speaking peoples."³

Historians have generally accepted that it was the science which reached Europe through the Arabs (who were, of course, Muslims) which finally brought about the Renaissance (or the first awakening, to be more precise). Professor Hitti writes that Arabic translations of books available in different languages, as well as original works prepared by the Arabs in Arabic after the establishment of Bait al-Hikmah in Baghdad in 832, were translated into Latin. "This stream was re-diverted into Europe by the Arabs in Spain and Sicily whence it helped create the Renaissance of Europe."⁴

The question remains to be answered, however, as to what brought about this mentality in the Arabs in the first place, considering that they themselves had been submerged in the same backwardness which prevailed throughout the entire world of that time. There can be only one answer: The creed of monotheism was the cause of this mental and practical revolution. Other nations had polytheism, while the Arabs, after the advent of Islam, had come to be imbued with the spirit of monotheism. It was this difference which caused the divergence in their histories, one being shaped by the course of events, the other shaping history itself.

The aim of this book is to place a major historical event in its correct perspective, i.e. to attribute it to Islam itself rather than give all the credit for it to a Muslim nation, which was formerly the practice. This is thus the explanation of a known event rather than the presentation of facts which were hitherto unknown.

2. Quoted by Haider Bammate in *Muslim Contribution to Civilization*, Maryland, U.S.A., The Crescent Publications, 1962, p. 25.
3. Philip K Hitti, *History of the Arabs*, London, Macmillan, 1970, P.4.
4. *Ibid*; p. 307.

This point can be illustrated by the manner in which India won its freedom in 1947. It may be said that India was able to liberate itself because of Gandhi and Nehru, but if we go into the matter in greater depth, we find it more proper to say that it was modern national and democratic ideas that helped India to win its freedom. The advent of a universal intellectual revolution based on the principles of democracy and national freedom in modern times actually paved the way for the rise of a Gandhi, or a Nehru, who was then in a position to launch a successful freedom movement. Had such a revolution in thinking not already taken place, the movements launched by our leaders would have had little chance of success.

The same is true of the subject under discussion. There is no doubt about it that the modern scientific revolution was set in motion by Arab Muslims. But the initial stimulus came from the new way of thinking which had been made possible by Islam. In this way the history of science can no longer extol the achievements of just one nation, but must now show science in its true light – as a gift of the religion which was sent by the Almighty for the guidance of all mankind for all eternity.

Henri Pirenne has acknowledged this as a historical fact in these words: "Islam changed the face of the globe. The traditional order of history was overthrown."⁵

This book is a brief introduction to this aspect of the Islamic revolution. It was my intention to present an exhaustive study of the subject, but the work of collecting information was progressing too slowly. Finally, I felt that the pressure of my engagements would not permit me to prepare such a comprehensive work as originally intended. I decided, therefore, to publish in book form whatever material was ready without delay.

If time and circumstances permit, more research will be done and more material added, Insha Allah. But if that does not materialize, I hope this first impression will be helpful to anyone else who wishes at some future date to embark on the preparation of the second impression.

5. Henri Pirenne, *History of Western Europe*.

15 July 1990

The greatest in intelligence is the least attached to the world.

“If one were to leave a will for his property to be given to the most intelligent of men, it should be handed over to the one who is least attached to worldly things.”

(Saying of Imam Shafii)

Nature and Science Speak about God

3

The first proposed solution asserts that there is no problem to solve except the metaphysical one of human consciousness, which has occasionally itself been considered an illusion! The hypothesis of illusion has been lately revived in physical science by Sir James Jeans who states that from the concepts of modern physics 'the universe cannot admit of material representation, and the reason, I think, is that it has become a mere mental concept.' (*The Mysterious Universe*, p. 169.) Accordingly, one may say that illusory trains apparently filled with imaginary passengers cross unreal rivers on immaterial bridges formed of mental concepts.

The second concept, that the world of matter and energy arose of itself out of nothing, is likewise too absurd a supposition for any consideration.

The third concept, that the universe existed eternally, has one element in common with the concept of creation; either inanimate matter with its incorporated energy, or a Personal Creator, is eternal. No greater intellectual difficulty exists in the one concept than in the other. But the laws of thermodynamics (heat) indicate that the universe is running down to a condition when all bodies will be at the same extremely low temperature and no energy will be available. Life would then be impossible. In infinite time this state of entropy would already have happened. The hot sun and stars, the earth with its wealth of life, are complete evidence that the origin of the universe has occurred in time, at a fixed point of time, and therefore the universe must have been created. A great First Cause, an eternal, all knowing and all powerful Creator must exist, and the universe is His handiwork.

The adjustments of the earth to life are far too numerous to be accounted for by chance. Firstly the earth is a sphere freely poised in space in daily rotation on its polar axis, giving the alternation of day and night, and in yearly revolution around the sun. 'These motions give stability to its orientation in space, and, the 23.5 degree axial of orbit, or ecliptic, about the sun results in long winter nights and long summer days alternating between both polar regions and causing seasonal variations in climate'.¹

The habitable area of the earth is thus doubled and our Earth sustains a greater diversity of plant life than would be possible on a stationary globe.

Secondly, the atmosphere of life-supporting gases is sufficiently high (about 500 miles) and dense to blanket the earth against the deadly impact of twenty million meteors that daily enter it at speeds of about thirty miles per second. Among many other functions the atmosphere also maintains the temperature within safe limits for life; and carries the vital supply of fresh water-vapor far inland from the oceans to irrigate the earth, without which it would become a lifeless desert. Thus the oceans, with the atmosphere, are the balance-wheel of Nature.

1. *Encyclopaedia Britannica*, Vol. I, p. 954.

Four remarkable properties of water, – its power of absorbing vast quantities of oxygen at low temperatures, its maximum density at 4 degrees C. above freezing whereby lakes and rivers remain liquid, the lesser density of ice than water so that it remains on the surface, and the power of releasing great quantities of heat as it freezes, – preserve life in oceans, lakes and rivers throughout the long winters.

The dry land is a stable platform for much terrestrial life. The soil provides the minerals which plant life assimilates and transforms into needful foods for animals. The presence of metals near the surface renders the arts of civilization possible. Surely Isaiah is right (45: 18 R.S.V.) in saying of God: 'He did not make it a chaos: He formed it to be inhabited.

The diminutive size of the earth compared with the immensity of space is sometimes disparagingly referred to. If the earth were as small as the moon, i.e. one-fourth of its present diameter, the force of gravity (one sixth that of the earth) would fail to hold both atmosphere and water, and temperatures would be fatally extreme. If double its present diameter, the enlarged earth would have four times its present surface and twice its force of gravity, the atmosphere would be dangerously reduced in height, and its pressure would be increased from 15 to 30 pounds per square inch, with serious repercussions upon life. The winter areas would be greatly increased and the regions of habitability would be seriously diminished. Communities of people would be isolated, travel and communication rendered difficult or almost impossible.

If our earth were of the size of the sun, but retaining its density, gravity would be 150 times as great, the atmosphere diminished to about four miles in height, evaporation of water rendered impossible and pressure increased to over a ton per square inch. A one-pound animal would weigh 150 pounds, and human beings would be reduced in size to that of, say, a squirrel. Intellectual life would be impossible to such creatures.

If the earth were removed to double its present distance from the sun, the heat received would be reduced to one-fourth its present amount, the orbital velocity would be only one-half, the winter season would be doubled in length and life would be frozen out. If its solar distance were halved, the heat received would be four times as great, the orbital velocity would be doubled, seasons would be halved in length, if changes could even be effected, and the planet would be too parched to sustain life. In size and distance from the sun, and in orbital velocity, the earth is able to sustain life, so that mankind can enjoy physical, intellectual and spiritual life as it now prevails.

If in the origin of life there was no design, then living matter must have arisen by chance. Now chance, or probability, as it is termed, is a highly developed mathematical theory which applies to that vast range of objects of knowledge that are beyond absolute certainty. This theory puts us in possession of the soundest principles on which to discriminate truth from error, and to calculate the likelihood of the occurrence of any particular form of an event (pp. 19-23).

A tendency to take human existence too much for granted is easily corrected by considering for a moment the proposition that since the earth is moving continuously at a velocity of one thousand miles per hour (and although our feet are in contact with the ground, we are all of us hanging with our heads

down in space.) we ought to be cast off centrifugally into outer space, just like so many grains of sand flying off a rotating bicycle wheel. An alarming idea, isn't it! But, of course, nothing of the sort happens, because, fortunately for us, the gravitational force of the earth and the atmospheric pressure together hold our bodies safely in position on the earth's surface. This bilateral action keeps us clinging to the earth's surface no matter in which hemisphere we happen to be. The pressure which the atmosphere exerts upon the human body is the rather surprising figure of 15½ lbs (about 8 kilograms) per square inch. But we do not feel the effects of such intense pressure, because the blood in our bodies exerts an equal pressure in the opposite direction.

On the basis of his own observation and studies, Newton came to the conclusion that all bodies exert a mutual attraction. But he had no answer to the question, 'Why do bodies attract one another'? He himself confessed to having failed to offer any explanation for this. On this point, A.N. Whitehead, the noted American mathematician and philosopher, says:

By admitting this fact, Newton has expressed a great philosophical truth, that is, if nature is inanimate, it can give no explanation to us, just as a dead man cannot narrate any incident. All rational and logical explanations are ultimately the expression of a purpose, whereas no ontology can be ascribed to a dead universe.¹

To the words of Whitehead, we might well add the Qur'an that if the universe is not under the supervision of any intelligent mind, how is it then invested with such profound meaningfulness? The earth completes one rotation on its axis in twenty-four hours. In other words, it is rotating on its axis at a speed of one thousand miles per hour. Suppose its speed were reduced to two hundred miles per hour – which is quite possible, our days and nights would then be prolonged to ten times their present duration. The heat of the summer would become scorching and would reduce the entire vegetation of the planet to ashes during the day time, and whatever survived the heat would be shriveled up by the severe cold during the excessively long nights. Just one change in one set of conditions would bring total devastation in its wake. Other changes could do the same: The sun, which is now our source of life, could become the most terrible scourge if, for example, the distance between the earth and the sun – approximately 9 crore 30 lakh miles – were reduced by half, then its 12 thousand degrees Fahrenheit surface temperature would cause this paper to burst into flames. Conversely, if the distance were doubled, the earth's surface would become too cold to allow any life to survive. A star ten thousand times bigger than the sun would keep the entire earth roasting hot, like an oven. The earth's inclination in space at an angle of 23 degrees is one of the greatest of marvels to man, because that is what causes our seasons, making the greater part of the earth habitable and providing a greater diversity of plant life. Had the earth's axis been perpendicular, there would have been perpetual darkness at the North and South Poles, the oceanic vapours would have travelled northwards and the earth's surface would have been covered – in either glaciers or deserts – to describe but a few of the adverse effects. This would have rendered the survival of life on earth impossible. One can go on endlessly imagining different sets of physical circumstances which could have precluded or destroyed human existence. It is unthinkable then that the perfect conditions for man to come into existence on earth were simply self-generating and had no origin in divine inspiration.

1. *The Age of Analysis*. p.85.

If we think of what conditions were like at the time of the formation of the earth, it seems all the more miraculous that life could come into being at all. Isaac Asimov has painted a fearsome picture of the beginning of things. Correcting the earlier hypothesis in favour at the beginning of this century, he writes:

Currently, scientists are convinced the earth and the other planets did not form from the sun, but were formed of particles coming together at the same time that the sun itself was being formed. The earth was never at sun temperature, but it did grow quite warm through the energies of collision of all the particles that formed it. It grew warm enough so that its relatively small mass could not hold an atmosphere or water vapor to begin with.

The solid body of the newly formed earth had, in other words, neither atmosphere nor ocean. Where, then, did they come from?

There existed water (and gases) in loose combination with the rocky substances making up the solid portion of the globe. As that solid portion packed together more and more tightly under the pull of gravity, its interior grew hotter and hotter. Water vapor and gas were forced out of combination with the rock and came fizzing from its substance.

The gaseous bubbles, forming and collecting, racked the baby earth with enormous quakes; escaping heat produced violent volcanic eruptions. For unnumbered years, liquid water did not fall from the sky; rather, water vapor whistled out of the crust and then condensed. The oceans formed from below, not from above.

What geologists mainly dispute now is the rate at which the oceans formed. Did the water vapor all fizzle out within a billion years or less, so that the ocean has been its present size ever since life began? Or has the process been so slow that the ocean has been growing all through geologic time and is still growing?

Those who maintain the ocean formed early in the game and has been steady in size for a long time point out that the continents seem to be a permanent feature of the earth. They do not appear to have been much larger in the past, when the ocean was, supposedly, much smaller.

On the other hand, those who maintain the ocean has been growing steadily point out that volcanic eruptions even today pour quantities of water vapour into the air; water vapor derived from deep-lying rocks, not from the ocean. Also, there are sea mounts under the Pacific with flat tops that may have once been at ocean level but are now hundreds of feet below.¹

Be that as it may, if the oceans had been deeper by just a few feet more, they would have absorbed all available carbon dioxide and oxygen, and no vegetation of any kind could have survived upon the earth's surface. If the air in the atmosphere had been less dense than it is at present, the twenty million meteors that daily enter it at speeds of about thirty miles per second, would be crashing down all over the earth, burning up all combustible matter and perforating the whole of the earth's surface. The heat alone of a

meteor travelling 90 times faster than a bullet would be enough to annihilate so vulnerable a creature as man. It is thanks to this atmospheric layer being of an appropriate density that mankind is safeguarded against these fiery showers of celestial debris. This density is also exactly right for solar actinic rays to reach the earth in such proportions as will promote the growth of vegetation, destroy harmful bacteria, and make vitamins available which may be absorbed directly from the sunlight through the skin, or indirectly from edible matter through the digestive tract. How wonderful it is to have all these benefits in exact proportion to our requirements.

1. *Please Explain*, pp. 64-65.

To be continued